



MINISTRY OF HEALTH  
MALAYSIA

# ANNUAL REPORT 2018

MINISTRY OF HEALTH MALAYSIA



Ministry of Health Malaysia



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ANNUAL REPORT **2018**  
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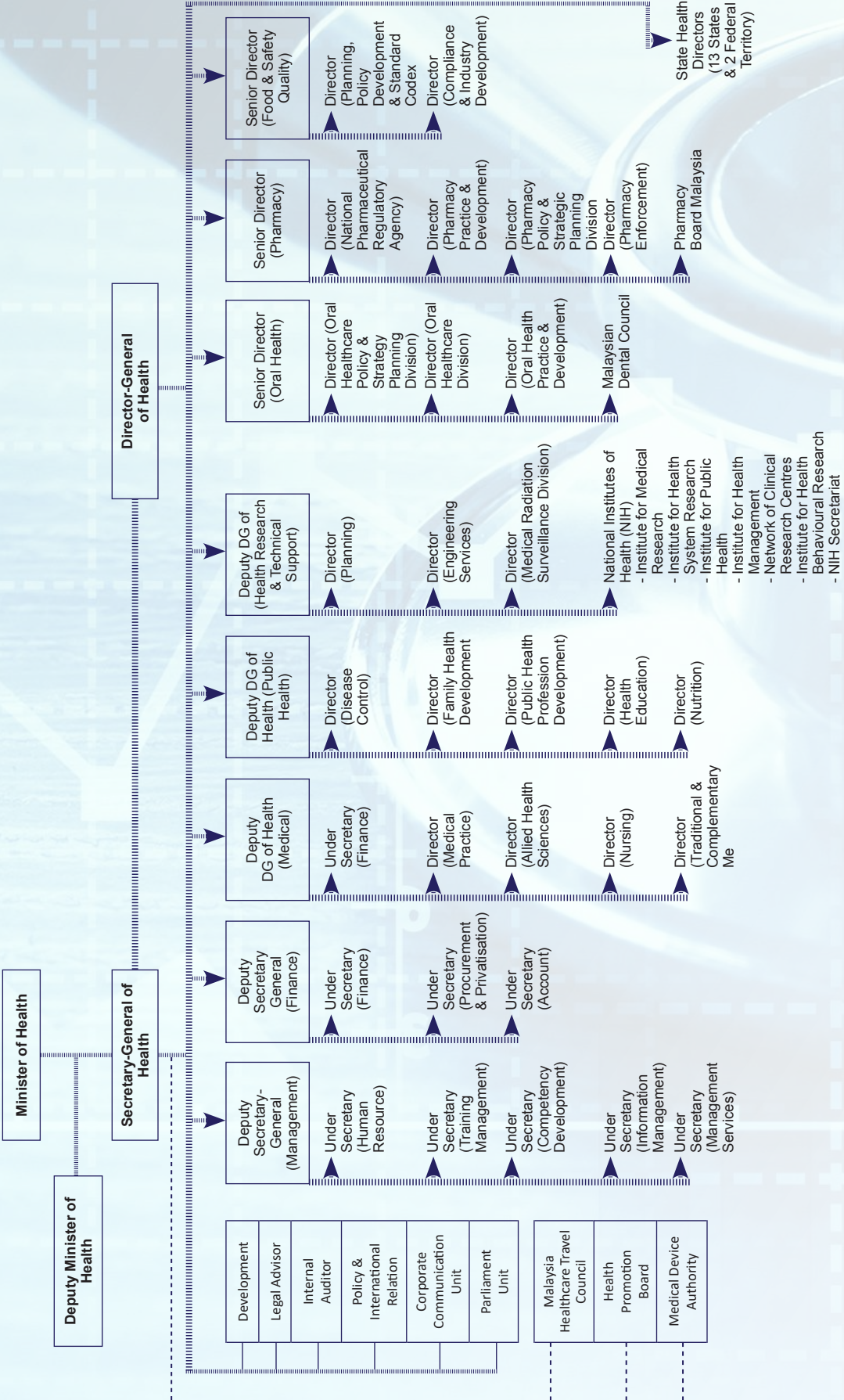
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# ORGANISATION CHART MINISTRY OF HEALTH, MALAYSIA



# VISION

A nation working together for better health.

# MISSION

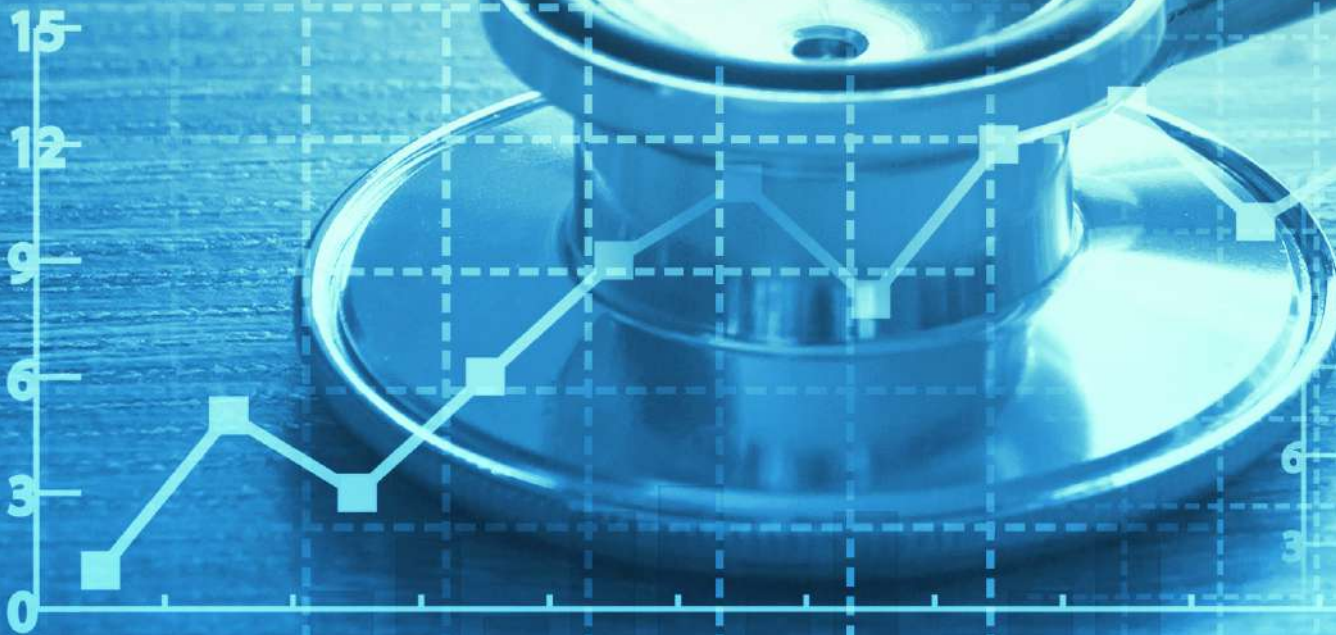
The mission of the Ministry of Health is to lead and work in partnership:

- ▶ to facilitate and support the people to:
  - fully attain their potential in health
  - appreciate health as a valuable asset
  - take individual responsibility and positive action for their health
  
- ▶ to ensure a high quality health system that is:
  - customer centre
  - equitable
  - affordable
  - efficient
  - technologically appropriate
  - environmentally adaptable
  - innovative
  
- ▶ with emphasis on:
  - professionalism, caring and teamwork value
  - respect for human dignity
  - community participation



# 1

## Health Status



## INTRODUCTION

Malaysia is a vibrant and dynamic country enjoying continued economic growth and political stability since its independence 62 years ago. Malaysians today are generally healthier, live longer, and are better disposed to be more productive. The overall level of health attained is one of the key measures of the success of our country. Good health enables Malaysians to lead productive and fulfilling lives. In addition, a high level of health contributes to increased prosperity and overall social stability.

## POPULATION STRUCTURE

The population of Malaysia in 2018 was 32.39 million with an annual population growth rate 2017 to 2018 of 1.13 per cent. The total population in 2018 increased by 0.37 million as compared to 32.02 million recorded in 2017. The geographical distribution of population showed that Selangor had the highest population of 6.47 million, while Wilayah Persekutuan Putrajaya recorded the lowest population of 0.09 million. However, Wilayah Persekutuan Putrajaya recorded the highest annual population growth rate of 3.31 per cent, while Wilayah Persekutuan Kuala Lumpur recorded the lowest annual growth rate of 0.11 per cent (**Table 1.1**).

**Table 1.1**  
**Population and Annual Population Growth Rate by State, Malaysia 2017 and 2018**

No	State	Population ('000)		Annual Population Growth Rate 2017/2018 (%)
		2017	2018 <sup>e</sup>	
1.	Johor	3,697.0	3,742.2	1.22
2.	Kedah	2,143.9	2,163.7	0.92
3.	Kelantan	1,829.0	1,856.8	1.52
4.	Melaka	913.1	922.2	1.00
5.	Negeri Sembilan	1,114.0	1,130.1	1.45
6.	Pahang	1,647.0	1,665.7	1.14
7.	Pulau Pinang	1,744.1	1,766.8	1.30
8.	Perak	2,493.2	2,504.9	0.47
9.	Perlis	252.0	253.8	0.71
10.	Selangor	6,380.7	6,472.4	1.44
11.	Terengganu	1,208.0	1,230.4	1.85
12.	Sabah	3,855.9	3,899.3	1.13
13.	Sarawak	2,766.3	2,792.0	0.93
14.	W.P. Kuala Lumpur	1,793.2	1,795.2	0.11
15.	W.P. Labuan	97.6	99.2	1.64
16.	W.P. Putrajaya	87.5	90.4	3.31
	<b>MALAYSIA</b>	<b>32,022.6</b>	<b>32,385.0</b>	<b>1.13</b>

Notes:

1. Current population estimates 2017 and 2018
2. The added total may differ due to rounding.
3. <sup>e</sup> - Estimated

Source: Department of Statistics, Malaysia ([www.dosm.gov.my/Population Quick Info](http://www.dosm.gov.my/Population%20Quick%20Info))

Overall, Malaysia is predominantly urban, with 75.6 per cent of the total population living in urban areas, and 24.4 per cent of the population living in the rural areas (**Table 1.2**). In 2018, the economically-active (working age) population which consists of population aged 15 to 64 years was 22.6 million or 69.7 per cent of the total population. Meanwhile, young age and old age population were 7.7 million (23.8 per cent) and 2.1 million (6.5 per cent) respectively.

**Table 1.2**  
**Statistics Related to Population, 2018<sup>e</sup>**

No	Population	Number ('000)	% of Total Population
1.	Male	16,721.6	51.6
2.	Female	15,663.4	48.4
3.	Urban	24,496.7	75.6
4.	Rural	7,888.3	24.4
5.	Economically-active (age 15-64 years)	22,581.0	69.7
6.	Dependent Population:		
	· Young age (below 15 years)	7,705.0	23.8
	· Old age (above 64 years)	2,098.9	6.5

*Notes:*

1. Current population estimates 2018.
2. The added total may differ due to rounding.
3. <sup>e</sup> - Estimated

Source: Department of Statistics, Malaysia ([www.dosm.gov.my/Population Quick Info](http://www.dosm.gov.my/Population%20Quick%20Info))

The dependency ratio is the ratio of dependents to the 100 persons in the working age (15-64 years) population. This ratio can be disaggregated into the total dependency ratio, young age dependency ratio and the old age dependency ratio. The total dependency ratio shows a decreasing trend from 43.6 in 2017 to 43.4 in 2018. The decline in this ratio was due to a decrease in the young dependency ratio. This was attributed to the reduction in the total fertility rates and crude birth rates in Malaysia. The young dependency ratio shows a decreasing trend from 34.7 in 2017 to 34.1 in 2018. However, the old age dependency ratio shows an increasing trend from 9.0 in 2017 to 9.3 in 2018.

## HEALTH STATUS

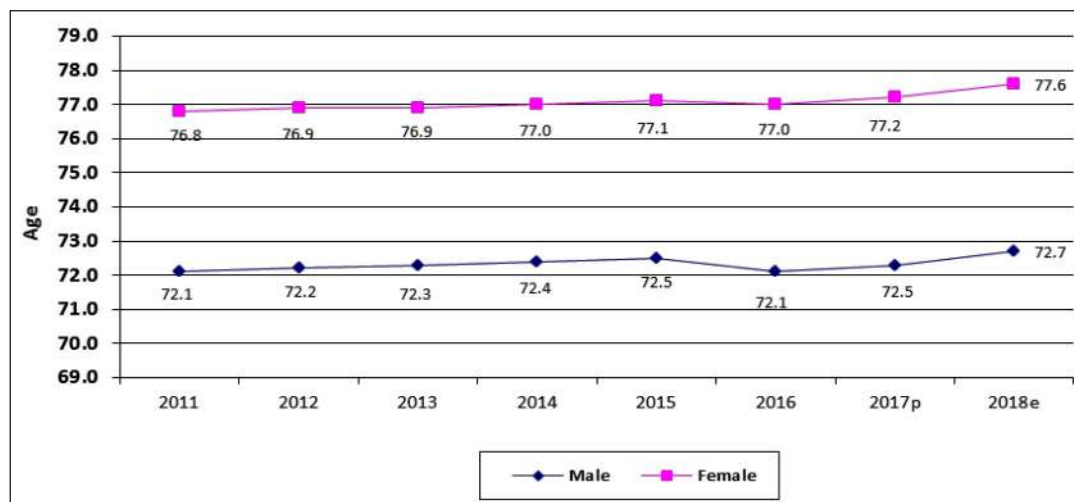
Health status is measured by the health condition of the individual and the population as a whole. It can be measured through some health status indicators such as life expectancy at birth, mortality and morbidity.

### i. Life Expectancy at Birth

Life expectancy is the average remaining age (years) for a person is expected to live at the beginning of the certain age. Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth are to stay the same throughout its life. With the improvement in the nutritional and socio-economic status of the population, Malaysians can expect to live much longer than in the past. The estimated

life expectancy at birth based on the 2018 data has increased to 72.7 years for male and 77.6 years for female respectively, as compared to 72.1 years for male and 76.8 years for female recorded in 2011 (**Figure 1.1**). This means that the babies born in 2018 are expected to live up to 75.0 years compared to 74.3 years in 2011.

**Figure 1.1**  
**Life Expectancy at Birth (in Years) by Sex, Malaysia, 2011 to 2018**



Notes:

1. p = Preliminary figures
2. e = Estimated figures

Source: Department of Statistics, Malaysia

## ii. Mortality

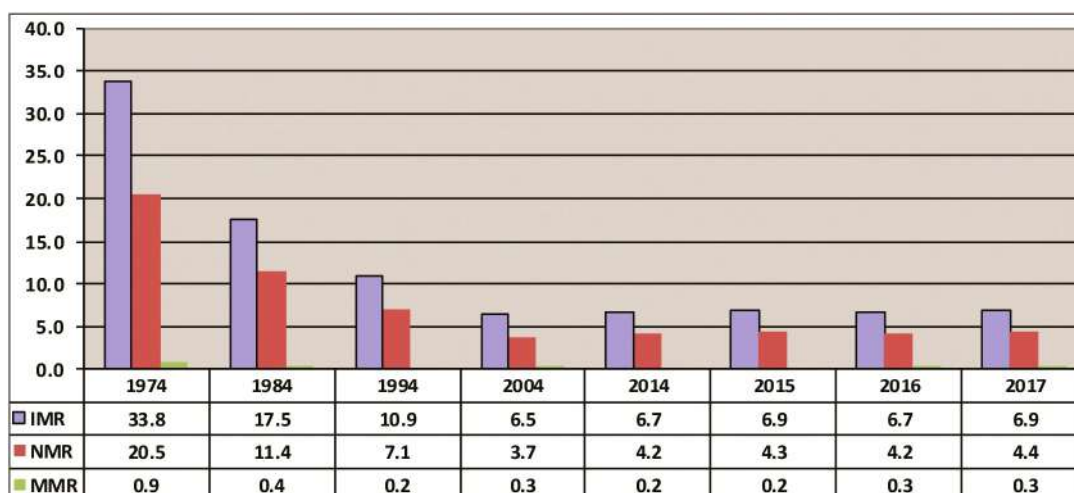
Mortality data provides a useful endpoint for measuring health. These data provide a comprehensive picture of the health of the community, for each individual.

For the past 43 years (1974-2017), the mortality rates in Malaysia had been decreasing. The trend of maternal mortality rate (MMR), infant mortality rate (IMR) and neonatal mortality rate (NMR) in Malaysia are shown in **Figure 1.2**

The MMR, which refers to the ratio of deaths occurring in women during pregnancy, childbirth or within 42 days after childbirth, due to causes directly or indirectly related to the pregnancy or childbirth, showed an apparent decreasing trend from 0.9 per 1,000 live births in 1974 to 0.3 in 2017. Even though there was a slight increase in the MMR in 2004, the rate has stabilized for the past 20 years, i.e. from 1994 to 2013. This may be due to the improved reporting system introduced in 1990, with the establishment of the Confidential Enquiry into Maternal Deaths (CEMD) by the Ministry of Health Malaysia (MOH).

IMR per 1,000 live births had improved from 33.8 in 1974 to 6.9 in 2017. Besides that, the trending of neonatal mortality rate per 1,000 live births for the same period shows an overall decreasing trend to 4.4 in 2017 when compared to 20.5 in 1974.

**Figure 1.2**  
IMR, NMR and MMR, Malaysia, 1974 to 2017



Source: Vital Statistics, Malaysia, 2018, Department of Statistics, Malaysia

The trend for the other mortality rates remains relatively the same from 2010 to 2017 (**Table 1.3**). Intensive immunization efforts and other related programmed were carried out by both the public and private sectors could improve this rates. These data can also be attributed to the nutritional status improvement of the children, improvement of immunity, and improving environmental conditions.

**Table 1.3**  
Mortality Rates in Malaysia, 2010 to 2017

No	Indicator	2010	2011	2012	2013	2014	2015	2016	2017
1.	Crude death rate (per 1,000 population)	4.6	4.7	4.7	4.7	4.9	5.0	5.1	5.3
2.	Maternal mortality ratio (per 100,000 live births)	26.1	26.2	23.2	21.4	22.3	23.8	29.1	25.0
3.	Infant mortality rate (per 1,000 live births)	6.7	6.5	6.2	6.3	6.7	6.9	6.7	6.9
4.	Neonatal mortality rate (per 1,000 live births)	4.3	4.2	4.0	4.0	4.2	4.3	4.2	4.4
5.	Under-5 mortality rate (per 1,000 live births)	8.4	8.0	7.6	7.9	8.3	8.4	8.1	8.4
6.	Toddler mortality rate (per 1,000 population aged 1-4 years)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
7.	Stillbirth rate (per 1,000 births)	4.5	4.5	4.3	4.3	4.3	4.4	5.2	5.4
8.	Perinatal mortality rate (per 1,000 births)	7.7	7.6	7.3	7.3	7.4	7.7	8.3	8.7

Source: Vital Statistics, Malaysia, 2018, Department of Statistics, Malaysia



### iii. Morbidity

The health status of a community is usually measured in terms of morbidity, which focuses on the incidence or prevalence of disease, and mortality, which describes the proportion of death in a population.

Hospitalisation indicates the severity of disease that needs further treatment, stabilisation of patients or the need of isolation in order to prevent the spreading of the diseases to others. The number of admissions in MOH Hospitals in 2018 increased 10.1 per cent to 2,629,826 from that of 2,387,558 in 2017. The 10 principal causes of hospitalization in the MOH Hospitals for 2018 are shown in **Table 1.4**. The diseases were regrouped to groupings based on the International Statistical Classification of Disease 10<sup>th</sup> Revision (ICD10). In 2018 “Pregnancy, childbirth and the puerperium” (22.19 per cent) was the top cause of admissions in MOH hospitals followed by “Diseases of the respiratory system” (13.86 per cent).

**Table 1.4**  
**10 Principal Causes of Hospitalisation in MOH Hospitals, 2018<sup>P</sup>**

No	Principal Causes	ICD-10 Code	Percentage to total discharges (%)
1.	Chapter XV: Pregnancy, childbirth and the puerperium	O00-O99	22.19
2.	Chapter X: Diseases of the respiratory system	J00-J99	13.86
3.	Chapter XVI: Certain conditions originating in the perinatal period	P00-P96	9.29
4.	Chapter IX: Diseases of the circulatory system	I00-I99	8.01
5.	Chapter I: Certain infectious and parasitic diseases	A00-B99	7.45
6.	Chapter XIX: Injury, poisoning and certain other consequences of external causes	S00-T98	6.98
7.	Chapter II: Neoplasms	C00-D48	4.62
8.	Chapter XI: Diseases of the digestive system	K00-K93	4.60
9.	Chapter XIV: Diseases of the genitourinary system	N00-N99	4.13
10.	Chapter IV: Endocrine, nutritional and metabolic diseases	E00-E90	3.07

Note: Based on ICD10 3-digit code grouping

P - Preliminary

Source: MyHDW Fixed Format Report, MOH Hospitals, 2018. Health Informatics Centre, MOH (as of 27 June 2019)

The number of deaths (for all causes) in MOH Hospitals increased 12.1 per cent from 55,513 in 2017 to 62,205 in 2018. Starting in 2014, tabulations for causes of death in MOH Hospitals are based on the underlying cause of death, as per recommended by the

World Health Organisation (WHO). “Diseases of the circulatory system” was the top cause of death in MOH hospitals recorded in 2018 (21.65 per cent), followed by “Diseases of the respiratory system” (21.06 per cent) and “Certain infectious and parasitic diseases” (12.80 per cent). The 10 principal causes of deaths in the MOH Hospitals for 2018 are as shown in **Table 1.5**.

**Table 1.5**  
**10 Principal Causes of Death\* in MOH Hospitals, 2018<sup>P</sup>**

No	Principal Causes	ICD-10 Code	Percentage to total deaths (%)
1.	Chapter IX: Diseases of the circulatory system	I00-I99	21.65
2.	Chapter X: Diseases of the respiratory system	J00-J99	21.06
3.	Chapter I: Certain infectious and parasitic diseases	A00-B99	12.80
4.	Chapter II: Neoplasms	C00-D48	11.82
5.	Chapter XIV: Diseases of the genitourinary system	N00-N99	5.61
6.	Chapter IV: Endocrine, nutritional and metabolic	E00-E90	5.12
7.	Chapter XI: Diseases of the digestive system	K00-K93	4.70
8.	Chapter XX: External causes of morbidity and mortality	V01-Y98	4.36
9.	Chapter XVI: Certain conditions originating in the perinatal period	P00-P96	2.31
10.	Chapter VI: Diseases of the nervous system	(G00-G99)	1.90

*Note: \*based on underlying causes of death*

*Based on ICD10 3-digit code grouping*

*P - Preliminary*

*Source: MyHDW Adhoc Query, MOH Hospitals, 2018. Health Informatics Centre, MOH (as of 31 May 2019)*

## HEALTH FACILITIES AND FACILITY UTILISATION

In 2018, there were 1,000 Health Clinics, 1,791 Community Clinics and 90 Maternal and Child Health Clinics. In 2010, 1Malaysia Clinic was launched in selected urban areas, to provide basic medical services for illnesses and injuries such as fever, cough, colds, wounds and cuts, diabetes, and hypertension. As of 31 December 2018, there were 343 1Malaysia Clinics that provide immediate healthcare to population.

As for hospitals, there were 135 government MOH hospitals and 9 Special Medical Institutions with total beds of 37,592 and 4,832 beds respectively. Overall Bed Occupancy Rate (BOR) for MOH hospitals and Institutions in 2018 was 68.36 per cent (**Table 1.6**).

**Table 1.6**  
**Health Facilities by Type, Total Bed Complements and BOR**  
**in Ministry of Health, 2013 to 2018**

No	Facility	2013	2014	2015	2016	2017	2018
1.	Number of Hospital	132	133	134	135	135	135
2.	Number of Special Medical Institution	9	9	9	9	9	9
3.	Total Beds (Official) <sup>1</sup>	39,728	40,260	41,389	41,995	42,302 <sup>R</sup>	42,424
4.	Bed Occupancy Rate (%) <sup>1</sup>	71.02	71.79	71.06	70.13	60.75 <sup>R</sup>	68.36
5.	Number of Health Clinics	934	956	958	969	994	1,000
6.	Number of Community Clinics	1,821	1,810	1,808	1,803	1,798	1,791
7.	Number of Maternal and Child Health Clinics	105	105	103	91	91	90
8.	Number of 1Malaysia Clinics	254	307	334	357	342	343

*Note: 1 refers to beds complement and BOR in MOH Hospitals and Special Medical Institutions*

*R - Revised*

*Source: Health Informatics Centre, MOH*

# 2

# Management



## INTRODUCTION

The Management Program consists of eight (8) divisions/units answerable directly to the Secretary General, five (5) divisions under Deputy Secretary General (Management) and three (3) divisions under Deputy Secretary General (Finance). The main objectives of this program is to facilitate and support the achievement of the MOH and objectives by supporting the other programmes through an efficient and effective service system, human resource management, information technology management, competency & training development and financial management.

The divisions under the Deputy Secretary General (Management) are as listed below:

- i. Human Resource Division (HRD);
- ii. Training Management Division (TMD);
- iii. Competency Development Division (CDD);
- iv. Management Services Division (MSD); and
- v. Information Management Division (IMD).

## ACTIVITIES AND ACHIEVEMENTS

### HUMAN RESOURCE DIVISION (HRD)

Human resource management is an essential element to enhance the effectiveness of the implementation on health development programme. The Human Resource Division (HRD) plays an important role to ensure ideal organizational structure of the Ministry of Health Malaysia (MOH) in delivering healthcare services to the public in line with current Government policies.

HRD is responsible to plan, develop and manage human resource in terms of professionalism, integrity and technology. In addition, this division develops strategies, policies and regulations pertaining to human resource, conduct studies on human resource related areas, monitor the implementation of Human Resource Management Information System (HRMIS), and also implements optimum human resource management through the establishment of posts and service matters for 97 service schemes.

The Lean Civil Service Policy which was introduced 2015 and to be implemented up to 2020. The policy suggested a reformed organizational structure and establishments to be implemented as one of the initiatives to capitalize services and deliverable under stretched resources. Hence, establishment of posts to meet current needs were conducted using redeployment and trade off approaches.

#### **Establishment of Posts and Personnel**

As of 31 December 2018, 250,133 posts (93.5 per cent) of 267,579 posts in MOH had been filled. **Table 2.1** below indicates the breakdown of the posts and personnel according to the service group:

**Table 2.1**  
**Status of Posts in MOH as of 31 December 2018**

No	Service Group	Post	Filled	Vacant	(%) Filled
1.	Management & Professional	59,108	52,614	6,639	89.0
2.	Paramedic & Auxiliary	139,314	134,601	6,045	96.6
3.	Executing Group	69,157	62,918	7,439	91.0
<b>Total</b>		<b>267,579</b>	<b>250,133</b>	<b>20,123</b>	<b>93.5</b>

Source: Human Resource Division, MOH

Generally, there were 32,565 registered doctors with MOH comprised of 5,323 Medical Specialists, 26,242 Medical Officers (MO) and 1,000 House Officers (HO). The total number of personnel for five (5) main service schemes in MOH are as tabulated in **Table 2.2**:

**Table 2.2**  
**Total Personnel for 5 Main Service Schemes in Ministry of Health (2018)**

Service Scheme	Total
Doctors	32,565
Dentist	3,618
Pharmacist	7,593
Nurses	65,153
Assistant Medical Officers	14,353

Source: Human Resource Division, MOH

#### **Appointment of Doctors, Dentist and Pharmacist on Contract Basis in MOH**

MOH had changed the method of appointment from permanent to contract basis to enable the officers to undergo housemanship program and/or compulsory service from December 2016 without being subjected to permanent post vacancies.

As of 31 December 2018, there are 17,075 doctors, dentist and pharmacist (contract) in MOH. The details of contract appointment in MOH from 2016 to 2018 as tabulated in **Table 2.3**:

**Table 2.3**  
**Appointment of Doctors, Dentist and Pharmacist on Contract Basis in MOH**

Service Scheme	2016	2017	2018
Doctor Grade UD 41	1,217	4,903	4,924
Dentist Grade UG 41	-	1,329	1,125
Pharmacist Grade UF 41	512	1,146	1,919
<b>Total</b>	<b>1,729</b>	<b>7,378</b>	<b>7,968</b>

Source: Human Resource Division, MOH

## Management of Promotion

Promotion is an essential aspect of Human Resource Management in producing outstanding and highly motivated officers. It is a medium of recognition for employees' contributions and provides better career pathway and benefits. Details of promotion exercises conducted in 2018 are as follows in **Table 2.4**:

**Table 2.4**  
**Number of Officers in Promotion Exercises**

Exercises	Super scale Grade/ Special Grade	Management & Professional Group	Paramedic And Auxiliary & Executing Group	Total
Promotion	208	12,255	17,170	29,633

Source: Human Resource Division, MOH

## Human Resource Management Information System (HRMIS)

HRMIS plays a vital role to ensure the integrity and accuracy of human resource management data. This system consists of the management of personnel data, service profile, personal records and Annual Performance Evaluation Report (LNPT). One of the KPI for the Secretary-General is the achievement of HRMIS implementation in MOH. In 2018, 6 criteria were identified as HRMIS's KPI for the Secretary-General, in which MOH had successfully achieved 99.18 per cent. Details of achievement by specified criteria were as follows in **Table 2.5**:

**Table 2.5**  
**Achievement Report of HRMIS MOH 2018**

Target 2018	Achievement 2018
HRMIS Dan <i>MyPost</i> Establishment Update - 20 per cent	19.97/20 (Per Module 99.85 per cent)
Service Profile - 20 per cent	19.99/20 (Per Module 99.94 per cent)
<i>Sasaran Kerja Tahunan</i> (SKT) - 15 per cent	14.83/15 (Per Module 98.89 per cent)
Annual Performance Evaluation Report (LNPT) 2017 - 20 per cent	19.41/20 (Per Module 97.00 per cent)
Asset Declaration - 15 per cent	14.99/15 (Per Module 99.90 per cent)
Service Termination-10 per cent	9.99/10 (Per Module 99.97 per cent)
<b>MOH HRMIS ACHIEVEMENT 2017</b>	<b>99.18 per cent</b>

Source: Human Resource Division, MOH

## ACHIEVEMENTS

Throughout 2018, significant achievements by HRD were as follows:

- i. Appointment of Medical Officers Grade UD41, Dental Officers Grade UG41 and Pharmacists Grade UF41 on contract basis to solve the oversupply of graduates and limited establishment of post due to Lean Civil Service Policy;
- ii. Enhancement of current work process using office automation:
  - a. Implementation of emplacement for 3 main service schemes via online system namely e-Housemen, e-Dentist and e-Pharmacist.
  - b. Implementation of promotion exercise (career pathway) for 3 main service schemes (Grade 44-54) via in-house e-Naik Pangkat system (10,000 application/year) which is more practical, productive, cost effective and accessible anywhere at any time; and
- iii. Improvement of allowances and benefits/remunerations in order to retain healthcare personnel in public service.

## WAY FORWARD

MOH is determined to improve the quality of health services and the management of human resource for health. This is to increase the effectiveness and efficiency of health services and public sectors as a whole. Therefore, the strategic planning and human resources activities are in line with Eleventh Malaysia Plan pillars. This is significance with MOH's initiatives to overcome the issues and challenges in human resource for health.

## TRAINING MANAGEMENT DIVISION (TMD)

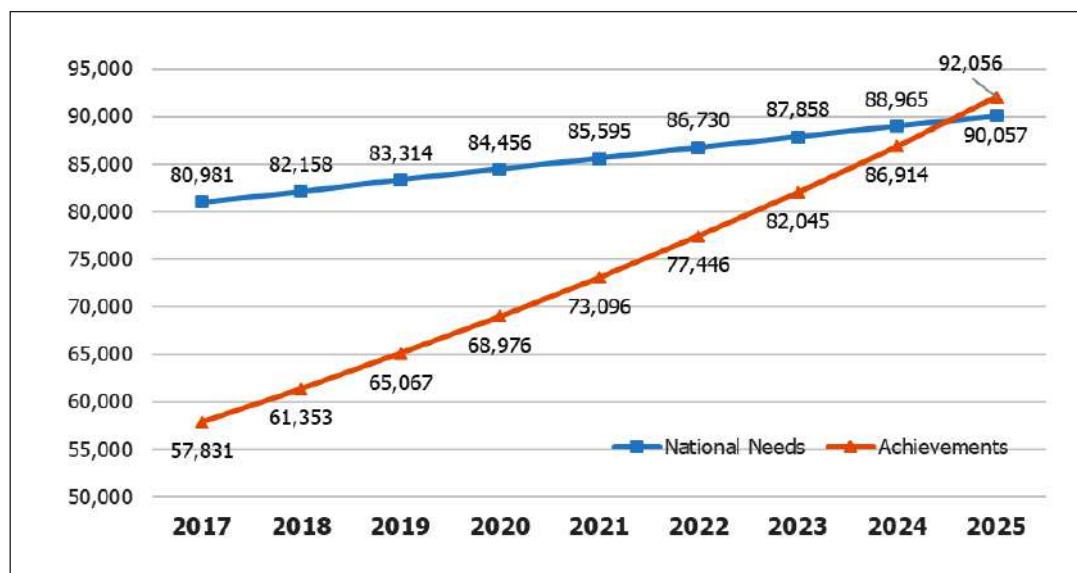
Committed to fulfill the public expectation in receiving the first class healthcare services, many activities were implemented through training program, to produce number of knowledgeable, competent, disciplined and supported by strong work ethics, values and commitment staffs. Training Management Division play the role to ensure the quality of training opportunities and learning process with the objective of increasing the competencies of human capital in Ministry of Health.

### Manpower Planning

In accordance to demand and supply forecast of Medical Officers, Dentists and Pharmacists, for any increased numbers of Medical Officers, Dentists and Pharmacists in the reference year, there still a shortage to fulfill the national's needs (norms). Nevertheless, the gap of demand and supply of these professions is reducing when Public University and Private Higher Education Institution enlarge their training capacity. **Figure 2.1, Figure 2.2 and Figure 2.3** show the current needs and the projection of Medical Officers, Dentist and Pharmacist with the Pharmacist updates through Business Licensing Electronic Support System (BLESS).

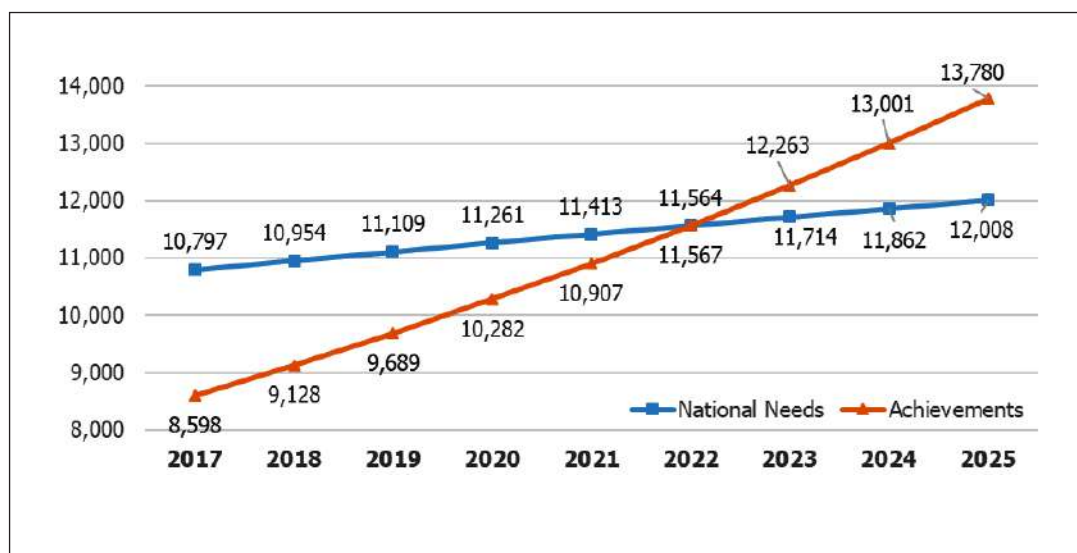


**Figure 2.1**  
**Current Demands and Supply of Medical Officer with Projection Using Ratio of 1:400 to Populations**



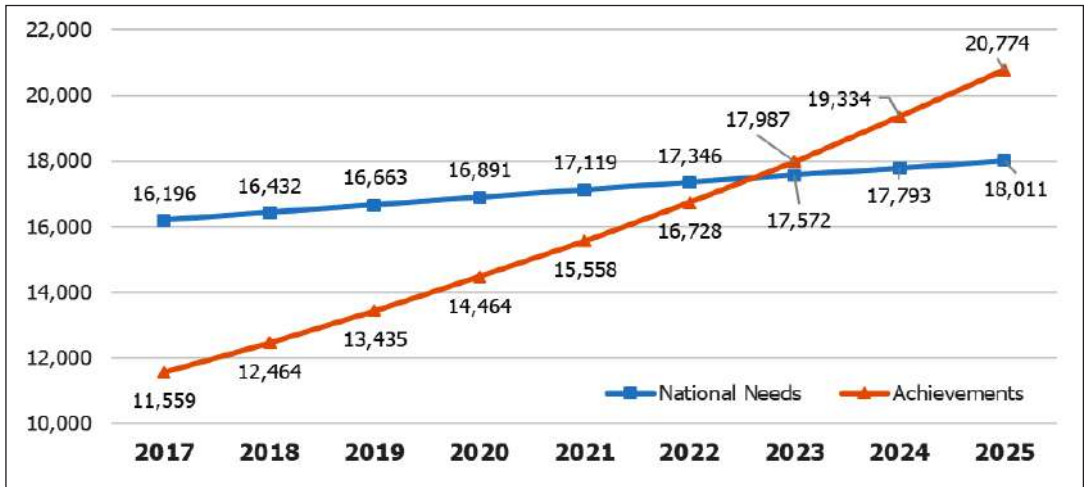
Source: Health Informatic Centre, MOH

**Figure 2.2**  
**Current Demands and Supply of Dentist with Projection Using Ratio of 1:3,000 to Populations**



Source: Health Informatic Centre, MOH

**Figure 2.3**  
**Current Demands and Supply of Pharmacist with Projection Using Ratio of 1:2,000 to Populations**

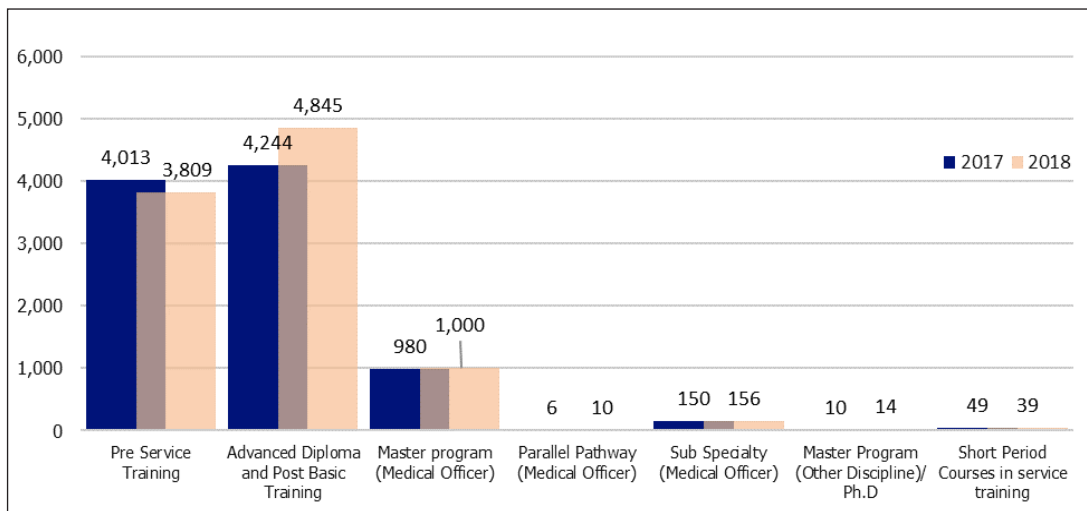


Source: Health Informatic Centre, MOH

### Training Program

Training is a part of investment in producing skilled and efficient human resources in healthcare. In ensuring the human resources of MOH are updated with latest skills and knowledges required, **Training Management Division** offers various type of training throughout the year which consist of Pre-Service Training, Advanced Diploma and Post Basic Training, Master's Program for Medical Officers and other Programs, Sub Specialty and Parallel Pathway for Medical Officers, Doctors of Philosophy (Ph.D.) and Short Period Courses (in service) training.

**Figure 2.4**  
**Intake by Type of Training, 2017 to 2018**



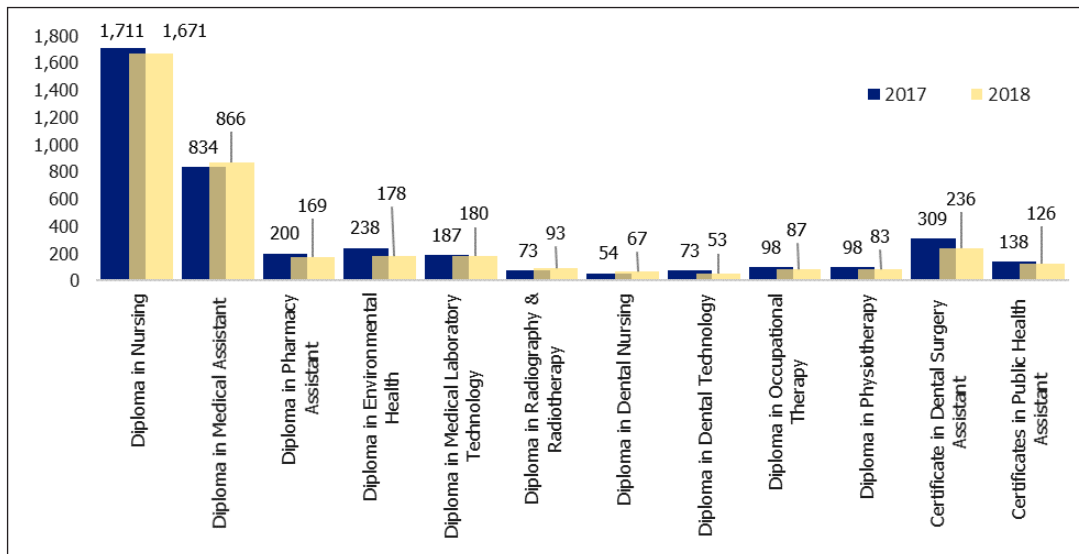
Source: Training Management Division, MOH

The numbers of intake for training/courses offered are increasing for Advanced Diploma and Post Basic Program, Master’s Program for Medical Officers and Master’s Program (Other Discipline)/Philosophy Doctors. The numbers of intake by category as shown in **Figure 2.4**.

### Pre-Service Training

In the year 2018, 3,809 trainees have registered to undergo the Pre Service Training in Ministry of Health (MOH) Training Institutes. The number of trainees in MOH Training Institutes in 2018 reduced by 5.0 per cent compared to 4,013 trainees in 2017. A breakdown of trainees for Pre Services Training conducted by MOH’s Training Institutes for the year 2018 is shown in **Figure 2.5**.

**Figure 2.5**  
Intake of Pre-Service Training, 2017 to 2018



Note: Number of intake for Nursing Program includes one (1) Year KPSL Program (773 Trainees)

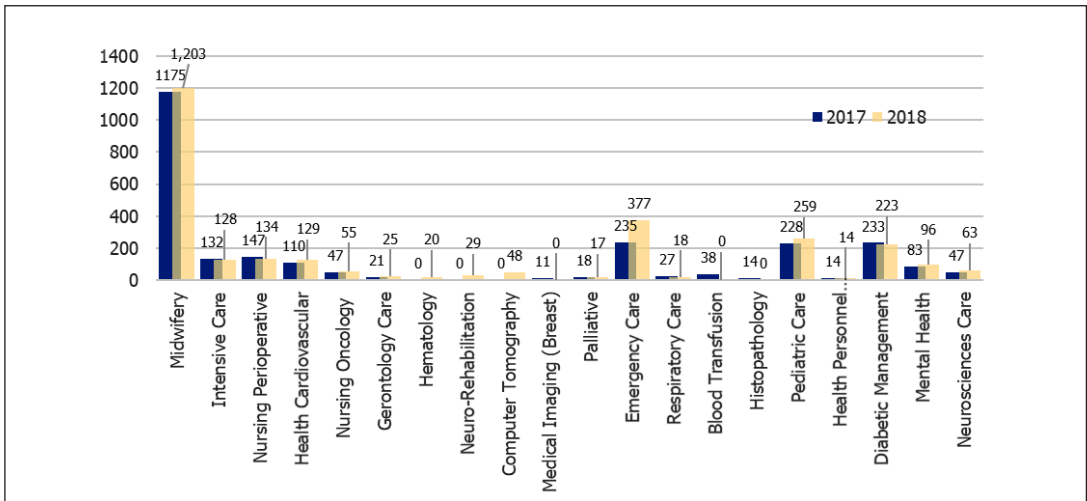
Source: Training Management Division, MOH

### Advanced Diploma and Specialization Course

In year 2018, 3,949 members of Allied Health Sciences from Ministry of Health and other government agencies, 110 from Statutory Bodies and 786 health personnel from Private Health Institutions have registered in the Advanced Diploma Program and Specialization Course.

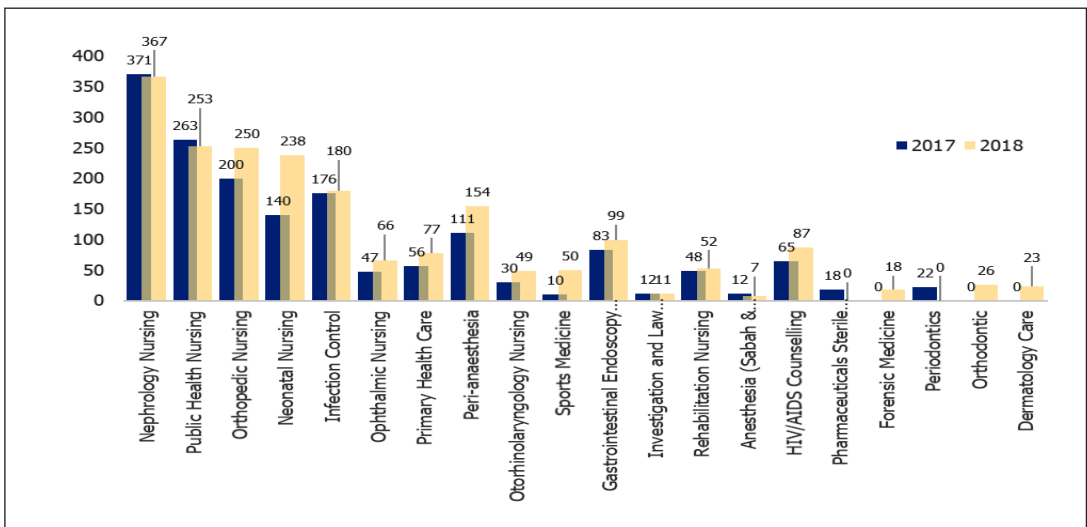
This program/course offering 35 areas of specialization offered by various MOH Training Institutes as shown in **Figure 2.6** and **Figure 2.7** with the total of 4,845 participants in 2018. The total of participants increased by 14.2 per cent compared to 4244 participants in previous year. Advanced Diploma in Midwifery (1,203 participants) and Renal Care Specialization Courses (367 participants) stated the two highest intake among all other programs/courses.

**Figure 2.6**  
Intake of Advanced Diploma, 2017 to 2018



Source: Training Management Division, MOH

**Figure 2.7**  
Intake of Specialization Courses (Post Basic), 2017 to 2018



Source: Training Management Division, MOH

### Master Program for Medical Officer and Sub Specialization

In 2009, Public Service Department (JPA) had delegated the authority to MOH for approval of paid study leave for a long-term course. In return, MOH had shortened the processing time and improved the efficiency in managing the grant of study leave to the staff. A number of 1,000 medical officer granted a scholarship by the Federal Government to pursue a Master's in medical programs specializing in various fields for the year 2018, as shown in **Table 2.6**. The number of Medical Officers granted with scholarship increased by 2.04 per cent in 2018 compared to 2017.

**Table 2.6**  
**Intake of Medical Officers for Master Program, 2017 to 2018**

No.	The discipline	2017	2018
1.	Anesthesiology	120	121
2.	Public Health/Community	70	69
3.	Clinical Oncology	17	12
4.	Neurosurgery	15	12
5.	Obstetrics & Gynecology	50	60
6.	Ophthalmology	57	51
7.	Orthopedics	67	72
8.	Otorhinolaryngology	46	45
9.	Pathology	69	66
10.	Pediatrics	44	46
11.	Internal Medicine	68	79
12.	Emergency Medicine	68	71
13.	Family Medicine	66	74
14.	Nuclear Medicine	4	6
15.	Rehabilitation	9	9
16.	Sports Medicine	4	4
17.	Transfusion Medicine	8	8
18.	Plastic Surgery	6	5
19.	Psychiatry	54	55
20.	Radiology	68	66
21.	General Surgery	57	55
22.	Pediatric Surgery	8	8
23.	Forensic	5	6
<b>TOTAL</b>		<b>980</b>	<b>1,000</b>

Source: Training Management Division, MOH

In 2018, 156 Medical Specialist have received the Federal Government Scholarship for Sub-Specialty Program in various medical fields, as shown in **Table 2.7**

**Table 2.7**  
**Intake of Sub Specialty Training for Medical Specialists, 2017 to 2018**

No.	The discipline	2017	2018
1.	Medical	46	68
2.	Surgery	17	14
3.	Pediatric	15	22
4.	Obstetrics & Gynecology	10	5
5.	Psychiatry	4	5
6.	Anesthesiology	12	8
7.	Orthopedic	15	7
8.	Otorhinolaryngology	5	1
9.	Ophthalmology	10	1
10.	Radiology	6	9
11.	Forensic	1	0
12.	Pathology	3	2
13.	Emergency Medicine	4	11
14.	Rehabilitation Medicine	1	0
15.	Nuclear Medicine	1	0
16.	Family Medicine	n. a	0
17.	Public Health	n. a	3
<b>TOTAL</b>		<b>150</b>	<b>156</b>

Source: Training Management Division, MOH

### **Master's and Doctorate**

In year 2018, 141 MOH's officers from various health service scheme have been offered the scholarship for Master's program and a total of 10 officers in Ph. D level in areas related to the health sector. The number of scholarships offered in 2018 were slightly increased by 36.9 per cent compared to 2017. The scholarships were offered to 42 Dental Officers, 28 Pharmacist while the rest are offered to other health profession in MOH.

### **Short-term (in Services) Courses**

In 2018, 39 MOH's officers had attended short-term (in service) courses abroad as compared to 49 in 2017. A reduction of 20.41 per cent is in accordance with the enforcement suspension of 7 days compulsory training for Civil Servant effective on 29 February 2016 as a results of reprioritizing MOH's training plan.

### **Curriculum Development**

Training Management Division has offered two new programs namely, Post Basic Certificate in Dermatology Care and Advanced Diploma in Neuro-Rehabilitation in year of 2018. Four (4) Certificate Programs have been upgraded to Advanced Diploma level which are Diabetes Care, Pediatric Nursing, CT Imaging and Simulation, and Neuroscience Care. Both Post Basic Certificate in Rehabilitation Nursing and Nephrology Nursing curriculum have been revised using the Outcome Based Education (OBE) approach.

## COMPETENCY DEVELOPMENT DIVISION (CDD)

Employees of the MOH who are also members of the civil service are required to be equipped with appropriate attitudes, skills and knowledge, through a planned human resource development program based on competency and continuous learning development. The competency and potential development programs are implemented in line with the roles and needs of MOH, as the development of competent human resource is essential to ensure the provision quality health of care services.

### ACTIVITIES AND ACHIEVEMENTS

Report on The Mid-Term Review of the Eleventh Malaysia Plan, on the first pillar which is to reform governance towards greater transparency and enhance efficiency of public services states, “Reforming Governance towards Enhancing Transparency and Public Service Efficiency” has emphasized the need for improving governance as well as promoting accountability and transparency in Government administration. Accordingly, CDD has implemented generic as well as governance programs and courses for MOH in 2018 based on the Key Performance Indicator (KPI) of CDD in line with Mid-Term Review of the Eleventh Malaysia Plan.

In 2018, CDD has successfully conducted 180 courses. Of these, 176 courses were based on generic competencies and governance. In addition, CDD also conducted courses for the purpose of confirmation of promotion of *Gred Khas C* officers in MOH. CDD has also held the Management Meeting of TKSU (P) and TKSU (K) to discuss and address issues pertaining to policies, regulation and operation in State Health Department (*Jabatan Kesihatan Negeri*, JKN) and hospitals. The event was held from 1 to 3 March 2018 at Eastin Hotel, Petaling Jaya, Selangor. The meeting was attended by all Division Under-secretaries, Heads of Unit and also participated by JKN Deputy Directors (Management), Hospital Deputy Directors (Management) and Hospital Management Representatives.

#### ***Peperiksaan Subjek Jabatan Year 2018***

Throughout the year 2018, two (2) series of examinations were held. The first series of *Peperiksaan Subjek Jabatan* was held from 11 to 17 April 2018 with a total of 116 candidates from five (5) service schemes. A total of two (2) examination centres were opened at INTAN Wilayah Tengah (INTENGAH), Kuala Lumpur and Training Institute MOH (ILKMM), Kota Kinabalu, Sabah. Meanwhile, the second series of *Peperiksaan Subjek Jabatan* was held on 20 September 2018 with a total of 104 participants comprising five (5) service schemes. A total of two (2) examination centers were opened at the Teacher Training Institute, Kuala Lumpur and Hotel Limetree, Kuching, Sarawak.

#### **CDD New Activity and Program Year 2018**

New activities and programs in 2018 focused on the development of a competency framework which is a model of a successful organisation. This framework highlights all behaviours, skills and critical knowledge that contribute to success of an organization or individual in executing their tasks or work. CDD also implemented the First Cohort Talent Development Program (TDP) for federal open service and cadres officers at the MOH. The objective of this program is for 18 services schemes from management and professional groups (including federal open

service and cadre officers Grade 41 to 48 in MOH) to develop individual generic potential and competencies while serving in MOH. A total of two (2) PPB series were held in 2018, and three (3) more series will be held in 2019.

### **MOH Hospital Management Conference 2018**

The Conference was held from 5 to 7 July 2018 at Crystal Crown Hotel, Petaling Jaya. The conference was attended by 116 participants comprising of Division Under-secretaries and Heads of Unit, JKN Deputy Director (Management) and Deputy Director (Management) Hospital or representative. This conference also involves selected Deputy Director (Management) of institutions and ILKMM were also in attendance (**Image 2.1**).

Among the issues highlighted in the conference include the best way to address issues such as Managing Illegal foreigners Patient, Account Receivable (ABT), Delegation of Authorisation of Power in Managing Services, Contract Management, and Hospital Support Service Payment Delay (PSH).

### **WAY FORWARD**

CDD is committed in developing the competency of MOH personnel in line with the following functions:

- i. Establish the basis for assessment and development of competence and potential in MOH;
- ii. Develop competency and potential assessment methods for MOH personnel;
- iii. Implement and monitor the implementation of competence and potential assessments;
- iv. Plan and conduct assessment and development of competence and potential programs in MOH;
- v. Monitor and conduct audits on the implementation of assessment and development of competencies and potentials in MOH, as well as to make improvement, suggestion and take relevant steps of improvement; and
- vi. Planning and conduct department subject examinations for the close service schemes in MOH.

CDD will implement generic and governance (functional) programs and courses for the MOH in 2019 based on the Key Performance Indicator (KPI) of CDD which is in line with the Mid-Term Review of the Eleventh Malaysia Plan. Among the programs and activities to be implemented by CDD in 2019 are as follows:

- i. Development of the MOH competency framework;
- ii. Second Cohort Talent Development Program (PPB) for federal open service and cadres officers at the MOH;
- iii. Strengthening the implementation of myPortfolio and Job Description (JD) for all posts in MOH;
- iv. Propose implementation of evaluation element for promotion of *Gred Khas C* courses in MOH; and
- v. Development of competency profile system with Information Management Division (BPM)



Image 2.1  
MOH Hospital Management Conference 2018



Source: Competency Development Division, MOH

## MANAGEMENT SERVICES DIVISION (MSD)

The main objective of the Management Services Division (MSD) is to provide efficient and effective support and advisory services in management to ensure all activities within the Ministry of Health (MOH) Headquarters are implemented professionally towards enhancing the healthcare service delivery system. MSD comprises of three (3) main branches that consist of several units:

- A. General Management Branch**
  - i. Human Resource Management Unit
  - ii. Innovation Unit
  - iii. Protocol Unit

- iv. Psychology Counselling Services Unit
- v. Administration Unit
- vi. Record Management Unit

**B. Finance and Asset Management Branch**

- i. Finance Unit
  - Overseas Travel Application Sub-Unit
- ii. Asset Management Unit
- iii. Security Unit

**C. Information Resource Branch**

- i. Library and Information Services
- ii. System Management and Digitization Services
- iii. Development and Advisory Services

## **HUMAN RESOURCE MANAGEMENT UNIT**

Human Resource Management Unit is responsible in managing all services related matters for staff within the Ministry Headquarters, which consist of various categories of positions. The core function of this unit is to provide effective and efficient personnel management services. Among the services provided are preparation of Kew-8 documentations, appointment and service confirmation, processing pension applications, record keeping for personnel's government service book and others.

This unit also has been appointed as the Human Resource Development Panel which convenes periodically to discuss various issues pertaining to service matters such as annual salary increments and conferment of the Excellent Service Awards.

In line with the Government's vision to modernize its administration and to create a paperless working environment, the Public Service Department has introduced the Human Resources Management Information System (HRMIS). The system offers numerous information related to human resource management and MOH was selected as one of the pioneer agencies to use this system. Thus, this unit is responsible to ensure that HRMIS is implemented effectively in the Ministry's HQ.

## **INNOVATION UNIT**

The Innovation Unit serves as the ministry's focal point regarding innovation and Star Rating System (SSR) evaluation.

## **PROTOCOL UNIT**

The Protocol Unit's function is to coordinate major events held in the Ministry such as MOH's Annual Dinner and to provide consultations related to protocol matters to Divisions, State Departments of Health and Institutions under MOH. The summary for protocol management achievements is as listed in **Table 2.8**

**Table 2.8**  
**Summary of Protocol Management Activities and Achievements**

No.	Activity	Achievements
1.	Selection of Medical Representatives for the Hajj Season	265 Medical Representatives were selected.
2.	Event Management	Consulted on/Coordinated 72 events such as: Launching Ceremony When Active Living Kicks (WALK) and Dengue Day Launching Ceremony

Source: Management Services Division, MOH

## PSYCHOLOGY COUNSELLING SERVICES UNIT

The Psychology Counselling Services Unit plans, provides direction, develops and coordinates counselling activities for the Ministry's HQ. Counselling cases were managed in collaboration with the Human Resource Division. A summary of counselling activities conducted in year of 2018 as listed in **Table 2.9**

**Table 2.9**  
**Psychology Counseling Programs/Activities in 2018**

No.	Program	Number of Series	Number of Participants
1.	Mentoring Program	4 sessions	68
2.	Retreat Program for AKRAB: - Post AKRAB Training	1 program	27
3.	AKRAB's Credential Convention 2018	1	300
4.	Intervention program for the staffs with moderate appraisal achievement - MOH Psycho-switch Program	1	10
5.	Intervention program for Exit Policy	0	No candidates
6.	Financial Education Programs	12	327
7.	Peace Financial Program with Credit Counseling and Debit Management (AKPK)	2	62
8.	Financial Profiling Screening	3	133
9.	Money Cure Programs	3	95
10.	Continues Professional Development (CPD) program for MOH's Psychology Officers - See You in Court	1	60
11.	Continues Professional Development (CPD) program for MOH's Psychology Officers - Behavior Coach Modification Certificate Program	1	60
12.	Financial TOT Program to the MOH's Psychology Officers - Advance Refreshing Training (ART) collaboration with Central Bank of Malaysia	1	30

No.	Program	Number of Series	Number of Participants
13.	Emotional Management Training	3	301
14.	Parenting program for the staffs	1	65
15.	Continues Education Program for Staffs (collaboration with Pharmacy Division) - Know Your Medicine Program	1	50
16.	Blood Donation Program collaboration with National Blood Center	1	145
17.	Meeting on MOH's Psychology Officer Action Plans for the year 2018	2	57
18.	Meeting on Exit Policy Psychology Intervention Panel (PIPs) for MOH's Exit Policy Cases	4	97

Source: Management Services Division, MOH

## ADMINISTRATION UNIT

The Administration Unit is in responsible for administration matters in the Ministry's HQ. These include Joint Departmental Council (MBJ), appointments of Hospital Visiting Committees & Psychiatric, IPKKM & Pay Car Park management, complaints management, Audit Committee of EKSA BKP, general administration, vehicles management, consolidated HQ's punch card reports, Monthly Assembly, National Day Celebration coordination, Nurseries Management as well as Block E7 Cafeteria Management. The activities and achievements pertaining to this unit for the year 2018 are as in **Table 2.10**.

**Table 2.10**  
**Summary of Administration Unit's Activities and Achievements**

No.	Activity	Achievement
1.	Joint Departmental Council (MBJ)	4 meetings were held in 2018 More than 50 per cent of issues are resolved
2.	Appointments of Hospital Visiting Committees & Psychiatric	2,035 ALPH has been appointed for the 2017 to 2019 session 88 ALPH (P) has been appointed for the 2018 to 2020 session
3.	IPKKM & Pay Car Park management	Implemented throughout the year 1 coordination meeting were held
4.	Complaints Management	4 complaints and 14 non complaints (inquiries) have taken action
5.	Audit Committee of EKSA BKP	2 internal audits were held
6.	Consolidated HQ's Punch Card Reports	12 Reports compiled yearly

No.	Activity	Achievement
7.	SPANCO car rentals	55 official cars for JUSA/Special Grade; and 217 replacements of leased official vehicles, which lease had expired
8.	Conduct Monthly Assembly	6 Assemblies were held
9	Officiate and Coordinate National Day Celebration	7 activities/events were held
10.	Nurseries Management	2 meetings were held 3 inspections were done
11.	E7 Cafeteria Management	2 meetings were held 12 cleanliness inspections were done

Source: Management Services Division, MOH

## RECORD MANAGEMENT UNIT

The Record Management Unit is responsible in managing records at the Ministry of Health including managing records management programme, managing the correspondences and registry, monitoring the implementation of Digital Document Management System (DDMS) and managing personnel files.

## FINANCE UNIT

The Finance Unit manages all finance related matters for employees in the HQ including payment of salaries, allowances, rewards and bonuses; processing of bills and claims payment in less than 14 days as well as official and personal applications for overseas travel. This Unit is also responsible for the HQ's Management Programme whereby a total of RM1.6 billion has been allocated under operating budget. The performance-based expenditure for the financial year ending 31 December 2018 (including Accounts Payable Period) is 102.12 per cent (Table 2.11).

**Table 2.11**  
**Total Allocations and Expenditures by Activity under Management Programme for the Financial Year Ending 31 December 2018**

Activity	Allocation (RM)	Expenditure (RM)
Headquarters Management	463,852,313.50	523,468,920.05
Human Resources	17,328,693.17	13,286,984.21
Finance	517,847,139.00	513,531,791.97
Training	455,546,295.60	438,361,803.39
Information Technology	38,754,282.90	37,441,510.52
Competency Development	4,486,200.00	3,482,132.53
<b>TOTAL</b>	<b>1,497,814,924.00</b>	<b>1,529,573,143.00</b>

Source: Management Services Division, MOH

As a Responsibility Centre which is categorised as tier 1 (PTJ1), MSD has the role in receiving and distributing the allocation warrants for all other PTJs under its jurisdiction. In the year 2018, a total of 311 warrants were received and 684 sub-warrants were distributed.

The MSD is the secretariat to the Ministry Headquarters Finance and Accounts Management Committee (JPKA). The Committee had convened four quarterly meeting as per schedule to monitor the financial and accounts performances of 19 PTJ2 and 34 PTJ3 under its jurisdiction. In addition, MSD's responsibilities also include collecting and accounting the revenues for the HQ. In the year 2018, a total of RM29.7 million of revenue and non-revenue receipts were collected and accounted. Besides that, MSD had conducted periodical courses for finance staffs to equip them with the necessary skills and knowledge for them to carry out their daily tasks efficiently and effectively with adherence to the rules and regulations.

## ASSET MANAGEMENT UNIT

The Asset Management Unit is responsible for managing matters related to assets, rental of premises, maintenance and procurement. The performance for each activity for the year 2018 is as in **Table 2.12**.

**Table 2.12**  
**Summary of Asset Management Activities and Achievements**

No.	Activity	Achievement
1.	a. Building Maintenance of Putrajaya Office Complex  b. Cleaning and pest Control for Allied Health Science Division office in Diplomatic Precinct, Food Safety & Quality Division office in Precinct 2 and Cenderasari Building	2018 - 3 Maintenance Meetings were held 2018 - 5,794 Complaints and defects were fixed  Maintenance Company appointed; and Security Company appointed
2.	Premises and Space Rental	2018 - 129 office space rental applications were processed 2018 - 6 residential rental applications were processed
3.	Asset Registration	2018 - Capital Asset : 76 units Low Value Asset : 186 units
4.	Government Moveable Assets Management Committee (JKPAK)	Convened 4 meetings

Source: Management Services Division, MOH

## SECURITY UNIT

The Security Unit is responsible for planning, designing, managing, coordinating and implementing the Protective Security System in the Ministry of Health (MOH) in a holistic manner. The Security Unit gives advice, monitors and enforces laws, regulations and directives

pertaining to safety protection to agencies and departments under the jurisdiction of the Ministry of Health. This unit also functions as a reference point under the Official Secrets Act 1972 on classified documents and technical advice.

## **INFORMATION RESOURCES BRANCH**

The Information Resource Branch provides library services such as book loans and reference materials to all employees of the Ministry of Health Headquarters Malaysia (IPKKM), as well as access to online databases and journals through the Virtual Library Portal which has been developed to all KKM employees nationwide. The branch is also responsible for coordinating the management and development of medical libraries under KKM.

## **INFORMATION MANAGEMENT DIVISION (BPM)**

Information and Communication Technology (ICT) is widely used to improve the quality of delivery of health services. In line with the MOH ICT Vision as Business Drivers in an Integrated and Quality Health Services and MOH ICT Mission towards optimising comprehensive ICT services for more efficient and effective health service delivery, the Information Management Division (BPM) has devised strategies to strengthen the readiness and integration of ICT through the following initiatives:

### **EXPANSION OF ICT INFRASTRUCTURE**

#### **Provision of MyGov\*NET Services**

MyGov\*Net is the Government Integrated Telecommunication Network to support the Online Government Service Delivery System. In 2018 2,906 facilities were connected to MyGov\*Net.

### **ENHANCING SYSTEMS, APPLICATIONS AND DATABASES**

#### **HIS@KKM Enhancement**

This project includes the development of the Clinical Documentation (CD) Module, Operating Theater Management System (OTMS), Laboratory Information System (LIS), Central Sterile Supply Services Information System (CenSSIS), Radiology Information System (RIS) and Picture Archiving and Communication System (PACS). A total of three (3) modules namely the CD, RIS and PACS Modules are in the process of testing while LIS, CenSIS and OTMS Modules are in the programming stage.

#### **Teleprimary Care and Oral Health Clinical Information System (TPC - OHCIS)**

The TPC-OHCIS system has gone live since 1 June 2017 in six (6) health clinics (KK), namely, KK Seremban, KK Senawang, KK Seremban2, KK Sikamat, KK Ampangan, KK Mantin and seven (7) dental clinics (KP), namely, Pusat Pakar Pergigian Seremban, KP Senawang, KP Seremban2, KP Sikamat, KP Ampangan and KP Mantin.

In 2018, in collaboration with MIMOS this system was successfully extended to KP Rantau, KP Sendayan and KP KLIA District Quarters, Negeri Sembilan. Based on the planning for 2019, the legacy TPC system in 89 KK is expected to be replaced with TPC-OHCIS.

### **Pharmacy Information System (PHIS) and Clinic Pharmacy System (CPS)**

As of December 2018, PHIS and CPS projects have Go-Live at 1,197 facilities. The total number includes 144 hospitals and health institutions, eight (8) Medical Store (MUS)/ Office of Pharmacy Affairs, 107 Health Department/District Health Office and 938 health clinics.

### **In-House System Development for KKM**

In empowering government services to the people, BPM has spearheaded the in-house development of applications to meet the requirement of various divisions in MOH as well as the general public.

In 2018, three (3) in-house applications were developed and implemented as follows:

- i. The Registration Module for the Medical Practice Control System (MedPCS) was completed in October 2018. This module provides facilities for applying and processing registration approvals for the establishment, maintenance and operation of private health facilities or services (KPJKS) for Private Medical Clinic or Private Dental Clinic.
- ii. Personnel Management Information System 2.0 (MySMPP) involving the development of Personnel Module was completed in December 2018 for the purpose of providing integrated human resource database in MOH. This module has been implemented in January 2019. The development of MySMPP will be extended to the Filling Module to provide information on vacancies at MOH's facilities.
- iii. The Public Health Enforcement Information System (PHEIS) was completed in October 2018. The application has two (2) categories of users, namely MOH staff and the public. MOH staff has the access to that function of verification of planning and generating reports of enforcement activities. While the Public can use this application to access information notice, compound and closing order from the MOH.

Throughout the year 2018, 10 other existing applications have been improved, namely OPTIMS, DPIMS, SPKN, VIPSS, PPKZM, Coach Placement, ePIS, EPP, QAP and Clearing House for Nutrition Research (CHNR).

## **IMPLEMENTING CHANGE MANAGEMENT AND ICT CULTIVATION AMONG MOH EMPLOYEES**

### **MOH ICT Steering Committee**

In 2018, the MOH ICT Steering Committee co-chaired by the Secretary-General and Director-General of Health had convened five (5) meetings on 10 January 2018, 22 January 2018, 20 March 2018, 7 June 2018 and 6 September 2018.

The MOH ICT Technical Committee Meetings (JTI) were held for nine (9) times on 8 January 2018, 1 March 2018, 29 March 2018, 19 April 2018, 25 May 2018, 10 July 2018, 13 August 2018, 12 October 2018 dan 5 December 2018. A total of 59 ICT projects have been evaluated for technical approval.



### **KKM ICT Officer Meeting**

The 2018 MOH ICT Officer Meeting was held on 13 March 2018 and was attended by 120 participants comprising officers Grade F41 and above from MOH headquarter, state health departments, hospitals, institutions and colleges. This meeting provides discussion platform to all KKM ICT officers throughout the country. The programme includes meeting, sharing sessions on current ICT development and dialogue with the Deputy Secretary General (Management) and the Under-Secretary of BPM.

### **WAY FORWARD**

BPM will continue to play an important role in realising the achievement of the defined vision, mission and the ICT Strategic Plan of MOH.

### **CONCLUSION**

In conclusion, the main objective of the Management Programme is to enable the achievement of MOH's vision and mission by providing supportive services such as human resource development, general administration, financial management, information system management, and ICT infrastructure development. In the future, continuous improvement and innovations will be implemented in order to enhance the effectiveness and efficiency of the service delivery system in MOH.

# 3

## Finance



## INTRODUCTION

The finance sector of MOH comprises of three (3) divisions namely the Finance Division, the Account Division and the Procurement and Privatisation Division. It is headed by the Deputy Secretary General (Finance) of MOH. This sector is responsible for managing financial matters such as budget, revenue policies of the MOH, accounts management, payments, procurement of assets and services, and privatisation. The principle of efficiency, effectiveness and integrity forms the core of the Finance Sector.

## FINANCE DIVISION

Financial management in MOH is handled by the Finance Division. The Division is made of three (3) units namely the Financial Policy Unit, the Revenue Management Unit and the Budget Unit.

## BUDGET MANAGEMENT

In 2018, MOH was allocated a total of RM26.58 billion comprising RM24.74 billion for Operating Budget (B42) while another RM1.84 billion for Development Budget (P42).

### Operating Budget Performance for 2018

Under the Operating Budget, MOH spent a total of RM26.215 billion (105.97 percent) of the total allocated in the year 2018. The largest Operating Budget was allocated to the Medical Programme with a sum of RM13.82 billion (54.19 percent) and followed by allocation for the Public Health Programme with a total of RM5.47 billion (20.92 percent). **Table 3.1** below shows the budget and expenditure for the programmes under MOH:

**Table 3.1**  
**2018 Operating Budget Allocation and Expenditure by Programme**

Programme	Budget (RM)	Expenditure (RM)	Expenditure (Percentage)
Medical	13,405,324,834	13,823,167,755	103.12
Public Health	5,175,440,818	5,467,593,466	105.64
Oral Health	910,125,885	963,316,097	105.84
Pharmaceutical Services	192,222,060	200,307,592	104.21
Research & Technical Support	292,700,601	280,969,775	95.99
Food Safety & Quality Management	92,289,997	87,976,489	95.33
Specific Programme	1,606,250,101	1,841,935,385	114.67
New Policy	2,665,685,441	3,156,570,726	118.41
One Off	364,343,963	360,296,028	98.89
One Off	32,500,000	32,500,000	100.00
<b>TOTAL</b>	<b>24,736,883,700</b>	<b>26,214,633,313</b>	<b>105.97</b>

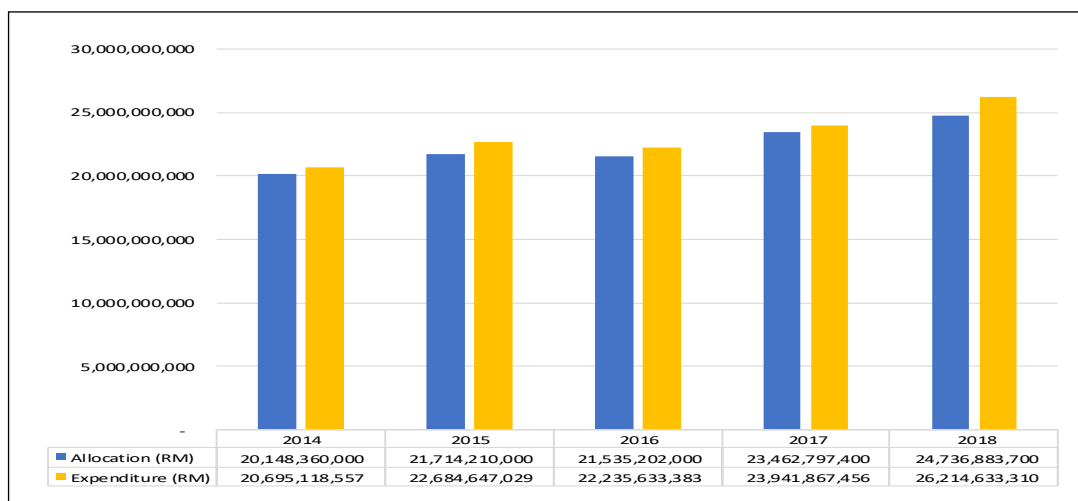
Source: Finance Division, MOH

Note: Expenditure was more than 100 per cent due to additional requirements to pay emolument. Thus over expenditure will be adjusted in 2019.

## Performance of Operating Budget from year 2014 until 2018

In the past five (5) years (2014 to 2018), the total allocation for the MOH Operating Budget showed an increased from RM20.15 billion in 2014 to RM24.74 billion in 2018. Overall performance of the Operating Budget of MOH's from year 2014 to 2018 is shown in **Figure 3.1**.

**Figure 3.1**  
Performance of Operating Budget 2014 to 2018



Source: Finance Division, MOH

## REVENUE MANAGEMENT

### MOH Revenue Collection and Account Receivable

The total MOH revenue for the year 2018 was RM745,759,581.42. This includes RM398,597,683.80 from medical fees ( 53.45 per cent). The Total Account Receivable for 2018 was RM70,969,734.72, while Account Receivable (Rental) was RM5,480,459.29. Revenue according to classification for the year 2018 is shown in **Table 3.2** and total revenue collected from 2015 to 2018 is as in **Figure 3.2**.

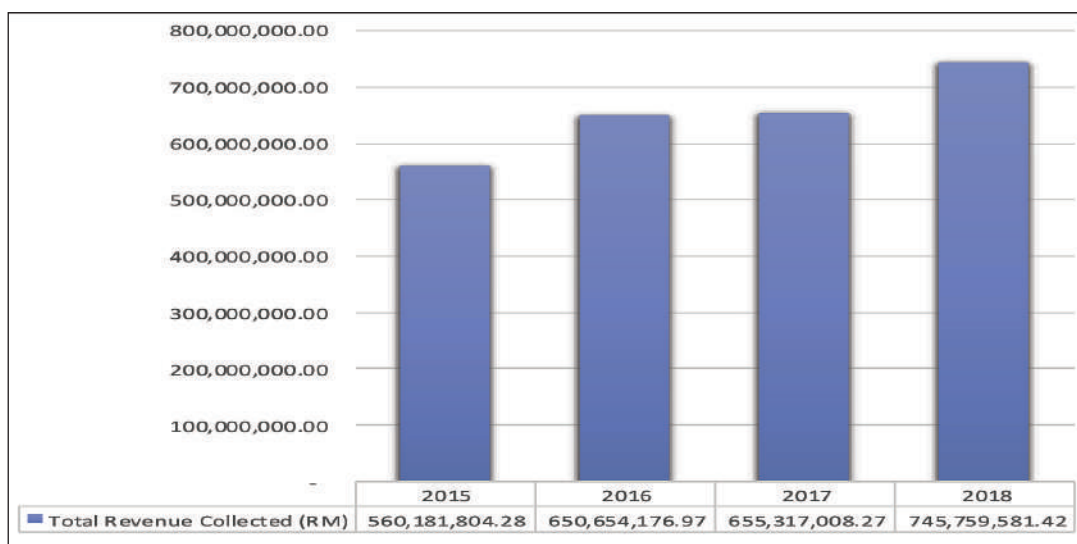
**Table 3.2**  
Revenue according to Classification for the year 2018

Code	Code Classification	Revenue (RM)
71000	License, Registration Fees & Permits	<b>20,184,479.79</b>
72000	(i) Charges Collection	398,597,683.80
	(ii) Others	53,014,819.40
		<b>451,612,503.20</b>
73000	Sales of Goods	<b>3,260,478.53</b>
74000	Rentals	<b>29,823,578.21</b>
75000	Investment & Return of Investments	<b>337,371.49</b>

Code	Code Classification	Revenue (RM)
76000	Fines & Penalties	65,567,251.99
77000	Contribution & Compensation from Overseas & Local Contribution	8,882,750.98
80000	Non-Revenue Receipts	166,043,091.53
90000	Revenues from Federal Territories	8,075.70
<b>Total Revenue</b>		<b>745,719,581.42</b>

Source: Finance Division, MOH

**Figure 3.2**  
**MOH Total Revenue Collection, 2015 to 2018**



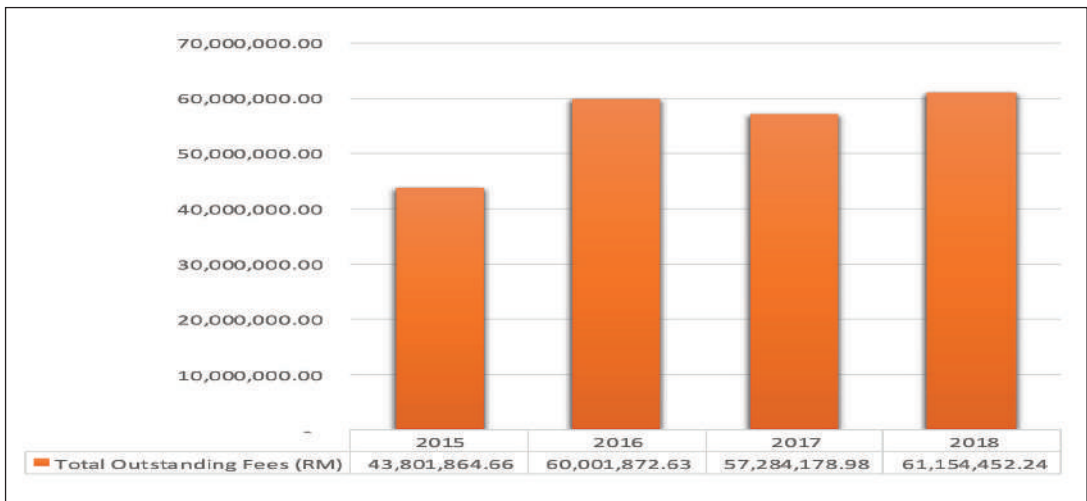
Source: Finance Division, MOH

The Finance Division encourages shared governance for managing finances based on the principle of partnership, equity and accountability among MOH personnel and administrators as well as patients. Through this principle, companies, voluntary organisations and patients who can afford and willing to share the cost of healthcare with the government accounted through specific codes i.e. for companies (77401), for voluntary organisations (77402) and for individuals (77403). RM3,472,464.22 was collected under these three codes in 2018.

**Revenue Collection and Outstanding Fees for Health Services Under Fees (Medical) Order 1982, Fees (Medical) (Amendment) Order 2017, Fees (Medical) (Cost of Services) Order 2014 and Fees (Medical) (Full Paying Patients) Order 2007**

Year 2018 showed a collection of RM398,597,683.80 from health services provided by the MOH facilities under Fees (Medical) Order. It recorded a decrease of 2.74 percent as compared to the revenue collected in 2017 which was RM409,820,042.52. Meanwhile, Outstanding Fees in 2018 increase by 6.76 per cent to RM61,154,452.24 as compared to RM57,284,178.98 in 2017. The MOH outstanding fees under Fees (Medical) Order from 2015 to 2018 is shown in **Figure 3.3**.

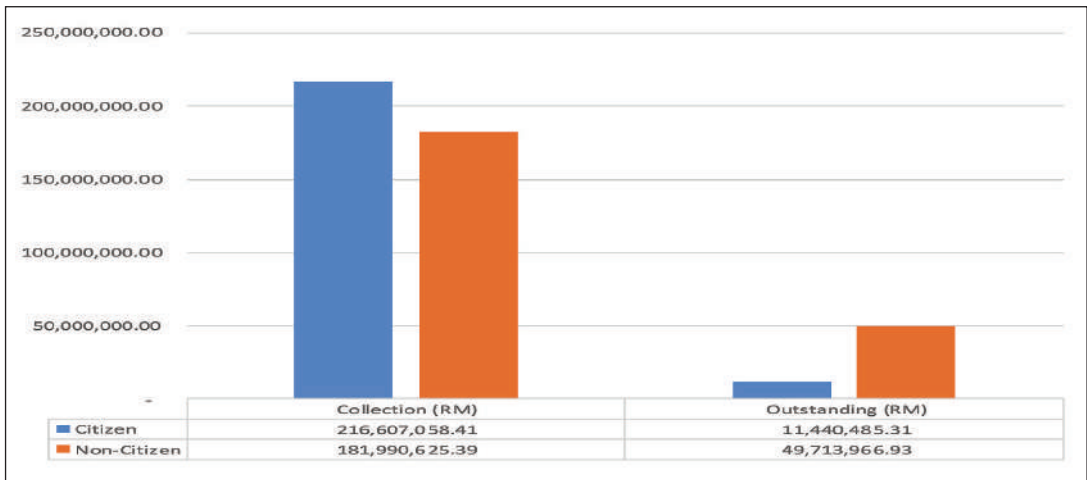
**Figure 3.3**  
**MOH Outstanding Fees, 2015 to 2018**



Source: Finance Division, MOH

Revenue Collection under Fees (Medical) Order for citizens was RM216,607,058.41 as compared to the collection for non-citizens which was RM181,990,625.39. The outstanding fees for citizens is RM11,440,485.31 while RM49,713,966.93 was recorded for non-citizens (Figure 3.4).

**Figure 3.4**  
**Revenue Collection and Outstanding Fees under Fees (Medical) Order by Citizenship**



Source: Finance Division, MOH

\* Data for outstanding revenues are inclusive of in-patient only.

MOH is very committed to reduce outstanding receivables by taking concerted efforts as follow:

- i. Review and updates of related procedures through internal circulars such as:
  - a. Guidelines of Medical Check-up for Disability Verification for the Disabled;
  - b. Guidelines of Revenue Management for Non-Citizens Who Receive Treatments in the Government Hospitals Without Paying Deposits;
  - c. Updates of the Malaysia's Poverty Line Income Guide; and
  - d. Extension of the 50 per cent Discount to UNHCR Card Holder to UNHCR Identification Letter Holder.
- ii. Allowing only patients from registered private companies (with MOH) to use Guarantee Letter (GL) to receive treatments without deposits;
- iii. Reinforcing the Health Insurance Scheme for Foreign Workers (SPIKPA);
- iv. Equip hospital staffs particularly from the Revenue Unit with knowledge of the implementation of Fees (Medical) Order through workshops and training; and
- v. Expanding billing options from the traditional cash payment to the use of credit cards and internet banking. The launching of the Online Payment Initiative (E-payment) in health clinics was held on 2 May 2018 at the Kuala Lumpur Health Clinic as a pilot project. This initiative will be further expand to 55 other clinics in the Federal Territories and Selangor in 2019.

## FINANCIAL AIDS AND SUBSIDIES

The provision of financial assistance by the Government for treatment has contributed to the well-being of the people this group especially those in the B40 category. In 2018, the Finance Division, MOH continued to provide financial assistance and subsidies to this group through the Medical Assistance Fund; subsidies and grants to haemodialysis centres operated by Non-Governmental Organisations (NGOs) and the private sector; financial assistance for NGOs to carry out health related activities; and subsidies to patients receiving treatment at the National Heart Institute of Malaysia.

### Medical Assistance Fund

Through the Medical Aid Fund (TBP), the MOH assists the poor and underprivileged patients to either partially or fully cover the cost of their treatment. Since 2016, a cost-sharing mechanism was introduced where the cost of treatment was either partially or fully financed based on the applicant's socio-economic status. Using this mechanism, the fund was able to extend its coverage to a larger number of patients that needed financial assistance. Total expenditure under the fund in 2018 was RM50.27 million.

### One-Off Grant (Financial Aids) to Private/NGOs Haemodialysis Centres

The Minister of Finance in his 2017 Budget Speech had announced that, to encourage the establishment of more private haemodialysis centres, the government would provide a one-off grant worth RM200,000 for purchase of equipment, involving a total allocation of RM40 million. This one-off grant limited to a maximum of RM200,000 per centre and has aimed at:

- i. The establishment of new haemodialysis centres with a capacity of having at least four (4) dialysis machines, especially at locations with high demand for kidney dialysis; or
- ii. Upgrading of existing haemodialysis centres; or/ and
- iii. Replacement of haemodialysis machine(s), reverse osmosis water purifying system(s) and dialyser reprocessor(s) that has reached seven (7) years or more.

As of December 2018, 194 dialysis centres, consisting of 56 NGOs-owned and 138 private centres have been given the one-off grant approval involving a total allocation of RM35.31 million.

### Haemodialysis Treatment Cost Subsidy

MOH provides subsidies to poor and underprivileged patients who undergo haemodialysis treatment at NGOs' haemodialysis centres of RM100 per session and Erythropoietin Injection (EPO) of RM18.50 per patient. To date, 122 NGO dialysis centres have registered and are eligible to obtain subsidy assistance for their patients. A total amount of RM35.31 million was spent for 2,749 eligible patients in 2018.

### Financial Assistance to NGOs

MOH provides financial assistance for NGOs to implement health related programmes or activities like counselling, awareness campaign, treatment and other activities for patients and communities. Among NGOs which received this financial assistance are the Malaysian Hospice Council for Palliative Homecare for Cancer Patients, Malaysia Foundation for the Prevention of Tuberculosis (MAPTB) and the National Diabetic Institute (NADI). In 2018, MOH has allocated RM3 million to NGOs for this purpose and a total of RM2.41 million or 80.33 per cent was disbursed to 62 NGOs.

### Payment for treatment at the National Heart Institute of Malaysia

MOH also provides subsidy for qualified Malaysian citizens who are poor, civil servants and civil service retirees at the National Heart Institute of Malaysia. In 2018, MOH has disbursed a total amount of RM469.80 million to finance 54,288 eligible patients at the Institute as at

**Table 3.3:**

**Table 3.3**  
**Total Amount of Financial Assistance/Subsidy by the Government and Organisations/Patients Benefited, 2013 to 2018**

Types of Subsidy / Programme	Expenditure & Total Number of Patients Benefited /Organisations					
	2013	2014	2015	2016	2017	2018
Medical Assistance Fund	RM30.13 million (5,182 patients)	RM48.07 million (6,245 patients)	RM41.43 million (5,338 patients)	RM43.92 million (5,518 patients)	RM47.25 million (5,656 patients)	RM50.27 million (5,683 patients)
Haemodialysis Subsidy & Erthropoietin Injection	RM31.61 million (3,160 patients)	RM23.96 million (2,854 patients)	RM22.79 million (2,944 patients)	RM22.74 million (2,942 patients)	RM23.96 million (2,415 patients)	RM35.31 million (2,759 patients)
Financial Assistance for NGOs	RM0.71 million (16 NGOs)	RM3.29 million (22 NGOs)	RM3.66 million (40 NGOs)	RM2.50 million (45 NGOs)	RM3.25 million (65 NGOs)	RM2.41 million (62 NGOs)
Payment to National Heart Institute Sdn. Bhd.	RM361.79 million (46,835 patients)	RM381.34 million (49,681 patients)	RM418.45 million (51,901 patients)	RM435.65 million (53,890 patients)	RM465.08 million (54,691 patients)	RM469.80 million (54,288 patients)

Source: Finance Division, MOH



## Financial Auditing Management for Accountability Index (AI)

Financial Audit Management for Accountability Index is held annually by the National Audit Department to evaluate the extent to which the Ministry complies with the financial rules that have been set. Eight (8) of the elements that was audited are as follows:

- i. Management Control;
- ii. Budget Control;
- iii. Receipts Control;
- iv. Expenditure Control;
- v. Procurement Management;
- vi. Trust Account Management /Fund /Deposit;
- vii. Asset and store management; and
- viii. Management of Government Vehicles.

For the year 2017, auditing for work process and documentation was done from 10 to 28 January 2018 and MOH obtained a five-star rating with a percentage score of 91.29 per cent. Under the category of Self Accounting Departments (SAD), MOH was ranked number one (1), leading other 11 SAD's. For overall performance, MOH was ranked number five (5) among the 25 Ministries.

## TRAINING AND COURSES

### Engagement with Stakeholders

Throughout 2018, the Finance Division had conducted a series of engagement sessions with its stakeholders at various MOH facilities to enhance expenditure performance and financial management (**Image 3.1**). Through this engagement, MOH has succeeded in reducing outstanding bills and payment under Treasury Order (AP) AP 58(a). **Figure 3.5** below shows the performance of payment under AP 58(a) for 2017 and 2018:

**Image 3.1**  
**Stakeholder Engagement for year 2018**



Sabah Zone



North Zone



Lawas Hospital



Long Sukang Health Clinic



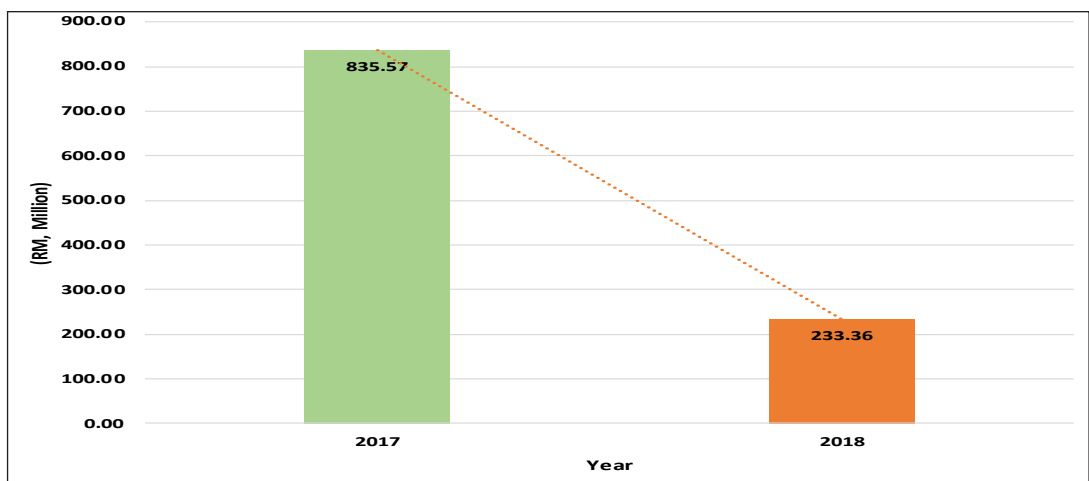
Long Semadoh Health Clinic



Ba'Kelalan Health Clinic

Source: Finance Division, MOH

**Figure 3.5**  
**Performance of Payment under AP 58(a), 2012 and 2018**



Source: Finance Division, MOH

### Revenue Collection System Workshop

A Revenue Collection System Workshop was conducted from the 26 to 28 March 2018 with 36 participants from the Medical Development Division, Information Management Division and hospital revenue units (**Image 3.2**). The workshop was aimed at identifying issues and weaknesses of existing billing system such as HIS, SPP, e-Billing and SPPD. The discussion focused on the weaknesses of the existing billing system and suggestions that can be implemented to correct them.

**Image 3.2**  
Revenue Collection System Workshop, 26 to 28 March 2018



Source: Finance Division, MOH

### Revenue Management Course of Health District Office

From 12 to 14 November 2018, 34 officers from various Health District Office (PKD) all over Malaysia has attended a revenue management course conducted by the Finance Division (**Image 3.3**). The objective of the course was to provide a platform for officers involved in revenue collections at the PKD level to share their knowledges and views regarding issues pertaining to revenue at this level. Participants were also given detailed explanation on Fees (Medical) Order 1982, Fees (Medical) (Amendment) Order 2017, Fees (Medical) (Cost of Services) Order 2014 and Fees (Medical) (Full Paying Patients) Order 2007.

**Image 3.3**  
Revenue Management Course of Health District Office, 12 to 14 November 2018



Source: Finance Division, MOH

## CONCLUSION

As a division that have been given the responsibilities pertaining to financial management in the Ministry, the Finance Division always attempts to introduce effective and efficient financial management to optimising financial resources and best practice in revenue collection. Through such measures, the Financial Division aspires to ensure that the best financial management practices are practiced in MOH

## PROCUREMENT AND PRIVATIZATION DIVISION

The Procurement and Privatization Division has been tasked in management of procurement, privatization program, asset and store at Ministry of Health (MOH). The Division needs to ensure that all procurement processes of equipment and services is the best, transparent, fair, economical and profitable to the Government. In addition, the Division is also responsible in managing privatization programs involving drug and store laboratories, procurement and maintenance of medical equipment at MOH Clinics, Hospital Support Services as well as Foreign Worker Health Supervision and Inspection Services. Implementation of these privatization programs should adhere National Privatization Policy. Thus, the programs have been closely monitored and constantly improved in terms of standards, effectiveness and quality of service provided to the public. The Division also regulates management of stores, inventories and MOH assets to ensure all applicable rules are adhered at all times.

## MINISTRY'S PROCUREMENT PERFORMANCE

Procurement through tender implemented at MOH level covers the acquisition of pharmaceuticals, medical equipment, services, ICT, vehicles and Approved Products Purchase List (APPL). In line with the resource optimization policy adopted by the Government, the ministry has implemented savings in the government's procurement expenditure to ensure allocation received is sufficient to cover core services and patient care needs to ensure health care is not affected. The savings obtained are based on the comparison between the department's estimation prices with the contract price offered as well as the price negotiation with the company, which will be held after special approval by the Ministry of Finance Malaysia (MOF) has been received. **Table 3.4** shows the achievement of MOH Procurement in 2018 by categories.

**Table 3.4**  
**Achievement of MOH Procurement by Categories, 2018**

No.	Procurement Category	Number of LOA	Procurement Value (RM)	Saving (RM)
1.	Pharmaceutical	151	651,097,189.42	223,024,749.65
2.	Medical Equipment	28	50,433,925.00	28,707,170.00
3.	Services	120	490,314,380.63	21,714,588.70

No.	Procurement Category	Number of LOA	Procurement Value (RM)	Saving (RM)
4.	ICT	37	209,289,415.72	15,444,859.66
5.	Toner	7	4,802,837.00	2,705,756.14
6.	APPL	-	1,227,664,913.48	-
<b>Total</b>		<b>343</b>	<b>2,633,602,661.25</b>	<b>291,597,124.15</b>
<b>KPI</b>				<b>10 per cent</b>
<b>KPI ACHIEVEMENT</b>				<b>11 per cent</b>

Source: Procurement and Privatisation Division, MOH

## MANAGEMENT OF MOH'S MOVEABLE ASSET

As of 31 December 2018, MOH has total of 2,577,706 units of moveable assets with the value of RM11,174,688,298.84. Every Payment Centre or PTJ has to conduct inspections on all Government Assets at least once a year. This is to ensure the assets used are safe and functions with optimum performance. **Table 3.5** shows the total number of MOH's moveable assets in 2018.

**Table 3.5**  
**Total Movable Asset, 2018**

No.	Category	Value (RM)	Quantity
1.	Capital Asset	10,374,500,673.44	732,344
2.	Low Value Movable Asset	1,1,800,167,616.40	1,845,362
<b>Total</b>		<b>11,174,668,289.84</b>	<b>2,577,706</b>

Source: Procurement and Privatization Division, MOH

## UNCONDITIONAL GIFTS TO THE GOVERNMENT

Approval from Secretary General/Controlling Officer need to be obtained for approval of unconditional gifts with a value of RM10,000.00 per unit and above received at the Ministry/Institution/Health Laboratory/College. Based on the applications received, most of the gifts are office equipment's, medical equipment, furniture's (table, chair, wheelchair, air conditioner, television, and fan) and other equipment's beneficial to patients and the Ministry. **Table 3.6** shows the total number of unconditional gifts applications received for the year 2018.

**Table 3.6**  
**Total Number of Unconditional Gifts Applications Received, 2018**

Number of Application	Quantity	Value (RM)
138	1,100	11,259,293.99

Source: Procurement and Privatization Division, MOH

## IMPLEMENTATION OF e-PROCUREMENT (eP) SYSTEM

In the year 2000, the eP system was developed to serve as a platform that enable Government agencies procure supplies and services through online with Government-registered vendors. The system is one of the largest Government-to-Business (G2B) virtual market in ASEAN with two (2) million online catalogues. Starting from January 2018, Ministry of Finance has introduced new eP system. Based on the records, MOH is the largest eP system user compared to other ministries. **Table 3.7** shows the Ministry's achievement in the use of the eP System for the year 2018.

**Table 3.7**  
**MOH Achievements in the Use of the eP System, 2018**

Year	Total Transaction	Transaction Value (RM)	Allocation (RM)	Achievement (per cent)
2018*	456,219	3,639,326,925.08	3,870,227,438.60	94

Source: Procurement and Privatization Division, MOH

\*Note: MOH has a special exemption from the use of the eP system by MOF due to the instability of the new eP system through letter dated February 15, 2018 for period until June 30, 2018 and letter dated September 12, 2019 for period until 31 December 2018.

Throughout 2018, four (4) series of hands-on training sessions and briefing were held to all Responsible Centres (PTJ) and vendors involving 1,600 participants to enhance the understanding and functional skills of the eP system. The trainings are as follows:

- i. Training Session for Direct Purchase Module in eP System on 8 to 25 January 2018;
- ii. Training Session for Quotation Module in eP System on 5 to 15 March 2018;
- iii. Briefing on 1Pekeliling Perbendaharaan (1PP) / Government Procurement (PK) 5.1 and New eP System Walk-Through for all PTJ and suppliers in MOH on 16 to 19 April 2018 (**Image 3.4**); and
- iv. Training on New eP System- Contract Management Module and Fulfilment Module on 15 to 25 October 2018.

**Image 3.4**  
**Briefing on (1PP)/(PK) 5.1 dan New eP System Walk-Through, 16 to 19 April 2018**



Source: Procurement and Privatization Division, MOH

## PROCUREMENT OF IMPORTED PRODUCT

MoF through a letter dated 26 September 2014 informed that Controlling Officer is fully responsible in checking the status of local/imported products before any procurement process is to be implemented. The approval of Controlling Officer needs to be obtained before any procurement made for items that are known/identified unavailable in the country that are worth more than RM50,000. The Controlling Officer is given the authority to consider and approve the applications at the Ministry level.

In 2018, *Jawatankuasa Penilaian Perolehan Barangan Import* (JKPBI), which was chaired by MOH Deputy Secretary-General (Finance), has received and evaluated 4,027 applications from all PTJs whereby only 3,940 applications were approved while another 87 applications were rejected. **Table 3.8** shows the summary of application is as below:

**Table 3.8**  
**Application of Imported Products, 2018**

Description	Number Of Application	Approval	
		Approved	Not Approved / KIV
Medical & Non-Medical Devices	423	415	8
Medicine	1622	1576	46
Reagent / Consumables	1727	1697	30
Others	255	252	3
<b>Total Number of Application</b>	<b>4027</b>	<b>3940</b>	<b>87</b>

Source: Procurement and Privatization Division, MOH

MOH adheres to Government's Policy by prioritizing local products. Therefore, all product data recorded by JKPBI are channelled to Ministry of Entrepreneur Development (MED) so that interested local companies are able to produce local products and marketed locally and abroad.

## OFF-TAKE AGREEMENT PROGRAM

Off-Take Agreement Program (OAP) is a program designed to help the local healthcare sector to develop and compete internationally. This will contribute to the country's Gross National Income (GNI) through investments and providing job opportunities to the public. The objective of the program is to encourage local medicine manufacturers and medical devices with the Entry Point Project (EPP) status to penetrate international market. OAP serves as a platform to help local manufacturers to be able to compete internationally and provides job opportunities for Malaysians as well as the transfer of new technologies in related fields. To date, there are three (3) companies involved in the program namely Kotra Pharma Sdn. Bhd., Biocon Sdn. Bhd. and Vigilenz Medical Devices Sdn. Bhd. Through these contracts, the investment value generated was RM1.215 billion with the creation of 600 jobs opportunities for public. The achievement details are as in **Table 3.9** below.

**Table 3.9**  
**Achievement of Off-Take Agreement Programme**

Detail	Estimation	Actual	Difference (per cent)
Overall Investment Value (RM Million)	560	1,215	+116
Employment Opportunity Created	556	600	+7.91

Source: Procurement and Privatization Division, MOH

### **BIOCON SDN. BHD. INVESTMENT IN MALAYSIA**

Biocon Sdn. Bhd. has invested RM1.2 billion investments at Iskandar, Johor making it the largest investment in the biopharmaceutical industry in Malaysia and Asia. The project provides job opportunities for 520 Malaysians and other positive impact as well. The project at Iskandar, Johor involve development of integrated facility for manufacturing insulin products which spread over 40 acres with over 800,000 sq. ft. of manufacturing facility, quality laboratories, research and development (R&D) centres and other functional support areas. The facility is the first European Union current Good Manufacturing Practice (EU cGMP) certified facility in Malaysia for sterile, injectable Biologics, putting Malaysia firmly on the Global Biotech Manufacturing space. The biologicals manufactured at Iskandar, Johor have already received approvals from Malaysia, Australia, Brazil, Mexico and EU-member countries.

### **MEDICAL EQUIPMENT ENHANCEMENT TENURE (MEET) CONCESSION AGREEMENT**

MEET Concession Agreement was signed on 17 April 2014 between the MOH and Quantum Medical Solutions Sdn. Bhd. Tenure of the concession agreement is for 13 years from the Effective Date on 17 December 2014. The implementation of the project involves health and dental clinics in Penang, Perak, Selangor, Negeri Sembilan, Melaka, Johor, Federal Territory of Kuala Lumpur and Putrajaya and Labuan as well as 421 health and dental clinics in Sabah and another 382 clinics in Sarawak. The overall number of health and dental clinics involved in the MEET as per Concession Agreement is 2,857 units.

Performance of QMS is monitored and evaluated through four (4) *Key Performance Indicators* (KPI), namely Response Time, Repair Time, Schedule Maintenance and Uptime Guarantee. Each KPI has its own performance target or benchmark point. For year 2018, the overall performance of QMS based on four (4) KPIs was 92 per cent compared to the performance in 2017 of 81 per cent. Despite overall improvement, the Ministry has instructed QMS to improve their performances to enable the objectives of this project can be achieved.

### **FOREIGN WORKERS MEDICAL EXAMINATION COORDINATION & SURVEILLANCE SYSTEM IN MALAYSIA (FOMEMA)**

FOMEMA Agreement was signed on December 16, 2016 between three (3) parties - MOH, Ministry of Home Affairs and FOMEMA Sdn. Bhd. Tenure of the agreement is seven (7) years from the signing date. The agreement only covers Peninsular Malaysia and the Federal Territory of Labuan. Medical examination of foreign workers for Sarawak and Sabah will be



implemented by the company appointed by the respective state government. The purpose of medical examination of foreign workers is to prevent the spread of infectious diseases to local people and ensure only healthy foreign workers work in Malaysia. The medical examinations charges for foreign male and female workers are set at respective price of RM180 and RM190.

### **PRIVATISATION OF MAKMAL UBAT & STOR CONCESSION AGREEMENT**

Privatisation of *Makmal Ubat & Stor* Concession Agreement (APPL) with Pharmaniaga Logistics Sdn. Bhd. (PLSB) takes effect from on 1 December 2009 to 30 November 2019. PLSB is responsible in carrying out four (4) functions, which are turnover, inventory, warehousing and distribution. Under Clause 14 of this agreement, PLSB may request to review of the Agreed Unit Price for each Approved Products Purchase List (APPL) at the interval of every three (3) years. Under APPL price revision 2017 to 2019, MOF had appointed 27 Bumiputera companies to supply products under two (2) schemes, *Skim Anak Angkat* (SAA) and *Skim Panel Pembuat Bumiputera* (SPPB).

The schemes are developed by MOF to assist Bumiputera pharmaceutical and medical equipment manufacturing companies to penetrate international market compete in global level in line with Government's policy that emphasis on local manufactured goods. Among the conditions to be considered to supply products under SPPB/SAA are the company needs to have Bumiputera status, owns a plant/factory in Malaysia and are registered with National Pharmaceutical Regulatory Agency (NPRA) or Malaysian Devices Authority (MDA).

### **HOSPITAL SUPPORT SERVICE CONCESSION AGREEMENT (HSS)**

Hospital Support Services (HSS) Concession Agreement was signed on 11 March 2015 with five (5) concession companies with a 10-years concession period effective from 1 April 2015 to 31 March 2025. **Table 3.10** below shows the details of the concession companies according to the hospitals and zones.

**Table 3.10**  
**Concession Companies by Hospitals and Zones**

Company	Number of Hospital/ Institution	Zone / State
Radicare (M) Sdn Bhd	46	Lembah Klang dan Pantai Timur (Selangor, Wilayah Persekutuan Kuala Lumpur dan Putrajaya, Pahang, Kelantan dan Terengganu)
Medinvest Sdn Bhd	22	Selatan (Melaka, Negeri Sembilan dan Johor)
Edgenta Mediserve Sdn Bhd	32	Utara (Perlis, Kedah, Pulau Pinang dan Perak)
Sedafiat Sdn Bhd	26	Sabah dan Wilayah Persekutuan Labuan
One Medicare Sdn Bhd	22	Sarawak

Source: Procurement and Privatization Division, MOH

The HSS Concession Agreement covers six (6) services; i.e. Facilities Management Services, Biomedical Engineering Management Services, Cleaning Services, Sealing & Linen Services, Health Waste Management Services and Facility Management Services. The HSS Concession Agreement has also required the companies to implement Sustainability Programme which covers three (3) areas, which are Energy Management, 3R and Indoor Air Quality. Contactor's Performance Assessment (CPA) is a mechanism established to evaluate level of services provided by the concession companies. CPA is implemented quarterly whereby Engineering Services Division using several indicators will measure the performance of concession companies. Then, the result of CPA will be reported to Project Monitoring Committee (PMC) chaired by Director General of Health.

## **DRUG TENDER – MONOPOLY ISSUE AND EXPENSIVE PRICE**

MOH noted on the statement of the Free Malaysia Today (FMT) website dated 19 October 2018 on the monopoly of drug procurement in the Ministry titled Whistle Blower Rues Silence Over Report Of Graft In Medicine Supplies.

MOH has reviewed and investigated this matter and found that the drug procurement in MOH is held by the government procurement principles, which are public accountability, transparency, value for money, open and fair competition, and fair dealing. The procurement methods include the open tendering, request for tendering and others.

All drug companies/agents intending to participate in local tenders must be registered with the MOF, eP and integrated Government Financial & Management System (iGFMAS) systems enable for the business transactions. There is no specific rule that limits the number of tenders joined by the drug companies/agents. The international drug companies in pharmaceutical industries are known as principals. They have the absolute power in choosing the local companies/agents representing them in the drug tender.

MOH board members consist of representative of MoF, representative of the Director General of Health and representative of the Director General of Public Works. The board members will refer to the technical and price evaluation committee reports before they make the decision. The technical aspects such as the registration of the product with NPRA and pass the bioequivalence test must be take into account as the drug procurement affects social implications and the patient treatment.

In conclusion, the complaints expressed by FMT are baseless as all procurement procedures were implemented correctly according to the MOF's rules and regulation. KKM has lodged a report to Malaysian Anti-Corruption Commission (MACC) and the Malaysian Competition Commission (MyCC) regarding the statement of appointment of agents, involvement of politicians or former senior government officials in the procurement and monopoly issues of MOH.

## **WAY FORWARD**

Procurement and Privatization Divisions has taken various initiatives to optimize spending by ensuring the budget are sufficient to cover MOH core services and patient treatment. This is to ensure health care is not affected.

## ENHANCING THE SKILLS AND KNOWLEDGE OF PROCUREMENT AND ASSET ' OFFICERS IN MOH

The Government Procurement Management Training of Trainers (TOT) and Government Asset Management Training has been made an annual program by the Ministry. The participants involved are the procurement officers from State Health Department, Hospital, Institutions and Headquarters. They will be trained as a resource person and consultants in their respective departments. Two (2) courses were held during 2018 as follows:

- i. The Government Procurement Management TOT was held from 14 to 16 Mac 2018 and attended by 40 officers from various department in MOH (**Image 3.5**); and
- ii. Asset and Store Management based on the new Treasury Circular was held from 27 to 28 Jun 2018 and attended by 600 officers from various department in MOH.

**Image 3.5**  
**Government Procurement Management TOT, 14 to 16 Mac 2018**



*Source: Procurement and Privatization Division, MOH*

## TRANSFORMATION OF PROCUREMENT METHOD

Efforts has been taken by MOH to improve optimization initiatives in the procurement arrangement among others as follows:

### **Centralized Procurement for Reagents**

Based on the current procurement process, the tendering process for reagents is only at the hospital and state level. The cost offered to each contracts are different and the offering prices will be higher due to low volumes of the quantity. The centralized procurement at the national level pathology services has started its implementation in 2018 for different test such as Haemoglobin A1C (HbA1C), Tissue Processor, Immunohistochemistry (IHC), CD4 / CD8 and Blood Culture Bottle. This centralized procurement will help the Government to save costs and improve the economy of scale.

### **Procurement For Security Services**

Among the initiatives to optimize the procurement of security control are as follows:

- i. merging of procurement for security services between Putrajaya Hospital and National Cancer Institute has resulted to a reduced number of security guards by 28, Cash In Transit (CIT) service by 521 trips and security guards for patrolling and clocking;

- ii. coordination and upgrades of security services for hospitals in Sabah through use of latest technology and enhancement of physical security such as closed-circuit television (CCTV) system will help to reduce number of security guards and Government's expenses; and
- iii. specification of security services must consider all needs by identifying crucial posts, strategic and high risk area as well as posts that can reduce number of security guards to avoid wastage of resources.

### **Procurement of Food Supply**

Some of the efforts that have been done to optimize procurement of food supply and outsourced food service in MOH are as follows:

- i. optimization for procurement of food supply by restricting to not more than seven (7) types of fish and controlling dry ration supply;
- ii. contract of food supply is planned by calculating food quantity requirement for hospitals in MOH based on bed occupancy rate (BOR), number of patients, eligible staff and comparing with hospitals that have approximate number of beds; and
- iii. specification of outsourced food service in MOH is revised to reduce food wastages by scaling down food portion, omitting soup and appetizer from normal menu for lunch and dinner, reducing types of vegetables from two (2) types to one (1) type and discontinuing of morning tea and supper for Diabetic patients.

### **The Merging of Flying Doctor Services (FDS) and Medical Evacuation Service (MEDEVAC)**

The merging of two (2) helicopters service contracts namely Flying Doctor Services (FDS) and Medical Evacuation Service (MEDEVAC) in 2017 have reduced the overall cost through economy of scale. The FDS service is to implement public health programs for the rural residents in Perak and Gua Musang, Kelantan. While the MEDEVAC service is to transfer emergency cases patient from Langkawi Hospitals to any hospitals in the mainland using the helicopter. Both contracts will be expired in 31 December 2019.

### **Leasing Method for Equipment Procurement**

MOH has planned transition from conventional procurement methods to a more innovative procurement methods for high-value and high-tech medical equipment. Among the methods identified for this transition is leasing. Procurement using leasing method is more economical as compared to the conventional procurement methods. Leasing cost for a period of five (5) years is relatively cheaper compared to the conventional method, which MOH have to pay for purchase of the equipment and its maintenance costs for a specific period. This will leverage MOH's financial commitment as government hospitals can operate at a lower initial cost.

### **JOINT PROCUREMENT FOR MEDICINES**

Now, all ministries involved in health services purchase the medicine separately even to obtain the same product/item for medicinal purposes. In order to optimize the expenditure and savings to the Government's money, as well as do more with less, MOH has proposed to the MOF to do joint procurement (pool procurement) for medicine with other ministries such as the Ministry of Education (MOE) and the Ministry of Defense (MINDEF). These ministries are involved in providing healthcare to public. This initiative should be implemented as it will have significant impact on Government's finance in long term and improve effectiveness on Government's procurement. For a start, MOH has listed 85 types of medicine (innovator drugs) that can be jointly acquired after the approval from MOF.

## CONCLUSION

The Procurement and Privatization Division has always assisted other Divisions and Programs in carrying out efficient procurement with integrity towards achieving Ministry of Health's objectives in providing quality health service.

## ACCOUNT DIVISION

The Account Division (BA) as the Accounting Office of MOH holds the responsibility in providing comprehensive accounting and financial government services to enhance the accountability of public sector. BA is responsible in ensuring that all transactions for MOH are properly and accurately accounted for, in accordance with the stipulated laws, guidelines, procedures, processes and within the stipulated time. The primary duties of BA includes managing and accounting for receipts and payments including salaries, trust account management, implementation of the Government's accounting system, monitoring through audit as well as planning and implementing training programmes that aim to improve the competency of government officers. In addition, BA will recommend effective resources usage and procedures as well as providing strategic recommendations which will lead to good governance and value for money.

## FINANCIAL MANAGEMENT

### Expenditures

In overall, the MOH Account Division have approved payment of 306,952 bills that amounting to RM3,856,096,845 for all 49 Responsibilities Centres (PTJ) under the MOH Headquarters (IPKKM) during the financial year 2018. 306,249 number of bills which represents 99.77 per cent of the aggregated bills was processed by the MOH Accounts Division within three (3) days, which shows an increase of performance by 0.05 per cent as compared to the performance recorded in 2017.

### Emolument Management

The total amount of emolument payment processed in 2018 is RM1,969,488,759.42 and that involves on average of 30,180 which comprise of civil servants and trainees serving at MOH. Emolument expenditure increased by 4.79 per cent in 2018 as compared to RM1.88 billion in 2017. During the year 2018, the highest emolument paid was in the month of December with a total of RM181,519,964.86 involving 30,485 civil servants (including trainees). Emolument payments processed by BA as the accounting office are for 49 PTJs. Meanwhile, emoluments paid by Accountant General's Department (States) for MOH PTJ amounted to RM12,910,231,470.95 making the total MOH emolument for 2018 is RM14,879,720,320.37.

### Trust Account Management

The Ministry of Health Malaysia has 23 Trust Accounts comprising one (1) Trust Account under Section 10 and 22 Trust Accounts under Section 9 of the Financial Procedure Act 1957.

- **Trust Account Under Section 10, Financial Procedure Act 1957**

*Kumpulan Wang Amanah Tabung Bantuan Perubatan (KWATBP)* was established to assist in financing medical treatment costs for the disadvantaged. As at 31 December 2018, the closing balance for this trust fund is RM66,314,607.65 (**Table 3.11**).

**Table 3.11**  
**Closing Balance of *Kumpulan Wang Amanah Tabung Bantuan Perubatan* as at 31 December 2018**

Description	Total (RM)
<b>Opening Balance</b>	<b>60,822,361.22</b>
+ Allocation	40,000,000.00
+ Received	348,000.68
- Expenditure	34,855,754.25
<b>Closing Balance</b>	<b>66,314,607.65</b>

Source: Accounts Division, MOH

- **Trust Accounts Under Section 9, Financial Procedure Act 1957**

There are 22 Trust Accounts under Section 9 maintained by BA including the newly formed *Akaun Amanah Pusat Kemahiran Makmal Simulasi*, Hospital Kuala Lumpur, a new trust account that has just started its operation on 31 December 2018. Meanwhile, the closing balance for this trust fund as at 31 December 2018 is amounted to RM20,828,164.64 (**Table 3.12**).

In line with the shared government approach, funds for Section 9 Trust Account were also contribute by private agencies. This trust account is used to carry out operations, training and research related to the improvement of health level. Apart from the corporate social responsibility aspect, this fund contribution can also help to reduce the Government's burden.

**Table 3.12**  
**Closing Balance of Trust Accounts under Section 9 as at 31 December 2018**

Description	Total (RM)
<b>Opening Balance</b>	<b>24,426,049.28</b>
+ Received	48,956,864.60
- Expenditure	52,554,749.24
<b>Closing Balance</b>	<b>20,828,164.64</b>

Source: Accounts Division, MOH

Among the 22 trust accounts under Section 9 manage by BA, the three (3) most active are *Akaun Amanah Perubatan Dan Perkhidmatan Rawatan Perubatan Di Bawah Skim Perkhidmatan Pesakit Bayar Penuh Di Hospital Kerajaan (L1212734)*, *dan Akaun Amanah Penilaian, Pengiktirafan Akreditasi Dan Pemeriksaan Amalan Perkilangan Baik (L1212735)* *dan Akaun Amanah Pembelian Alat Kelengkapan, Kemudahan Dan Perkhidmatan Di Hospital Kerajaan (L1212723)*. Balance for the three (3) trust accounts are as follows in **Table 3.13**:

**Table 3.13**  
**Balance of Trust Accounts for L1212734, L1212735 and L1212723 under Section 9 as at**  
**31 December 2018**

Description	Trust Account According To Code		
	L1212734	L1212735	L1212723
<b>Opening Balance (RM)</b>	14,302,825.25	3,689,299.80	224,987.97
+ Received (RM)	29,656,725.18	3,988,941.69	3,406,726.90
- Expenditure (RM)	35,269,021.03	3,463,608.66	1,766,071.00
<b>Closing Balance (RM)</b>	<b>8,690,529.40</b>	<b>4,214,632.83</b>	<b>1,865,643.87</b>

Source: Accounts Division, MOH

### Deposit Account Management

MOH holds 15 Deposit Accounts with closing balance as at 31 December 2018 amounted to RM108,850,672.51 (**Table 3.14**). Out of the 14 accounts, five (5) of the Deposit Accounts are includes of security deposits for hospital admission and patient equipment that amounted to RM53,488,748.54. Meanwhile, the rest of the Deposit Account comprises of *Deposit Wang Jaminan Pelaksanaan* (WJP), Quarters Deposit, General Deposit and other management-related deposits.

**Table 3.14**  
**Summary of Deposit Account Balance as at 31 December 2018**

Description	Total (RM)
Opening Balance	68,077,477.82
+ Received	140,733,903.45
- Expenditure	99,981,056.76
<b>Closing Balance</b>	<b>108,830,324.51</b>

Source: Accounts Division, MOH

## PERFORMANCE MANAGEMENT

MOH is comprised of 479 Responsibilities Centres (PTJ) throughout Malaysia and it is one of the Ministries that records the highest number of bill payments. The performance of the bill payments within 14 days for MOH for the year 2018 is 99.12 percent. In 2018, 128 PTJs out of 479 PTJs have successfully paid their bills within 14 days upon receiving the bills.

In total, 1,341,675 bill payments amounting to RM5,434,202,508.38 have been paid by the Ministry throughout the year 2018. The performance of a successful bill payment within 14 days also recorded an increment of 0.16 per cent to 99.12 per cent in 2018 compared to 2017 of 98.96 per cent.

## GOVERNANCE AND RISK MANAGEMENT

In order to improve compliance with accounting policies and financial procedures, Account Division has issued seven (7) letters and operating guidelines involving asset accounting,

inventory, payment, receipts, trusts and deposits for PTJ under the Ministry. These circulars explain the methods and procedures as reference for all PTJ's, to ensure that all transactions are properly and accurately accounted for.

### Risk Management

The set-up of Inspectorate Unit is in line with the role of the Accountant General of Malaysia under the AP 138 aimed at controlled and orderly surveillance of the accounts, to avoid loss due to fraud or negligence in Government financial management.

The risk management and internal control aspects emphasized to strengthen the accountability in the Department's governance as well as financial management. The Inspectorate Unit (Unit Naziran) is divided into two (2) functions, namely, Payables and Receivables, while the review of the receipts is thoroughly carried out by the *Unit Auditan Akaun Terimaan Kira-kira Wang Tunai* (KKWT) on all MOH's *Pejabat Pemungut Utama* throughout Malaysia.

### Inspectorate on Payments

Inspectorate on payments is carried out to review and evaluate the management on direct purchase (supply, services and works) which includes control of provisions, procurement approvals, procurement procedures, payment and contract management. It is to ensure that governance at PTJ level is organized as well as to mitigate the risks that can lead to losses borne by the government. A total of 129 PTJs have been visited including 48 PTJs in IPKKM and 81 PTJs outside the IPKKM (Image 3.6). The objective of Inspectorate on Procurement is as follows:

- i. to ensure PTJ complies with all applicable financial regulations;
- ii. to provide assistance and advisory to PTJ; and
- iii. to report to the Head of PTJ, Controlling Officer or Treasury Secretary General (KSP) on any material findings (AP 138 (b)(iii)).

**Image 3.6**  
**Follow-up Audit for year 2018**



Follow-up Audit at Hospital Semporna on  
12 to 13 November 2018



Follow up Audit at Hospital Kunak on  
14 to 15 November 2018

Source: Accounts Division, MOH



Evaluation is carried out using Risk Based Auditing Method to identify the level of internal controls and compliance of direct purchase (supply and services)/direct appointment (works) implemented at department level. An analysis of the overall level of internal control achievement according to PTJ is shown in **Table 3.15**.

**Table 3.15**  
**Analysis of Internal Controls and Compliance of Direct Purchase Procedure**  
**(Supply, Services and Works)**

Range (%)	Achievement	Number of PTJ	Percentage
91 - 100 %	Excellent	104	81.0
81 - 90%	Good	16	12.0
65 - 80%	Satisfactory	8	6.2
64% And Below	Poor	1	0.8
<b>Total Number of PTJ</b>		<b>129</b>	<b>100</b>

Source: Accounts Division, MOH

### Inspectorate on Revenue Collection

Throughout the year 2018, Unit Naziran Terimaan has conducted audit inspection on the 14 *Pejabat Pemungut Utama* and 28 *Pejabat Pemungut Kecil*. The aim of this inspectorate is to increase the efficiency and effectiveness of the collection management and accounting of revenue collection in MOH to avoid the loss of public money. Meanwhile, objectives of the audit are also to assess and identify the level of internal controls and to evaluate the compliance towards procedures.

The scope of audit on the management of public money involves the review on the process of collections, bank-in procedures, accounting, physical checks on storage and use of receipts, use of safes and spot checks. One of the identified risks based on issues and the findings at the PTJ is that the task implemented is inconsistent with the limit of authorization given. Apart from that, weak internal controls has opened up space for revenue loss, the procedure of managing revenue was not followed accordingly and receivable record was not recorded incorrectly and not updated accordingly.

### *Auditan Kira-Kira Wang Tunai*

Unit Naziran Terimaan undertakes the supervision and revision of the *Auditan Kira-kira Wang Tunai* documents on 414 *Pejabat Pemungut Utama* throughout Malaysia in 2018 to ensure that the existing procedures are in compliance with the laws and regulations. It is also to avoid loss of public money due to fraud or negligence.

Findings among others are revenue received are not credited or deposited into the bank accounts accordingly, high quantity of cancelled receipts with no subsequent replacement and late submission of accounting documents by *Pejabat Pemungut Utama* to the Account Division for review.

In conclusion, the strengthening of internal controls at PTJ and all *Pejabat Pemungut* is of paramount importance and needs continuous improvement. Other than that, ongoing training for officers is also necessary to enhanced and increased their competency level and skills. The Head of Department shall also take appropriate actions against officers who have been determined to carry out serious suspicious acts resulting in losses to the Government and adversely affect the Government's image.

## **INNOVATION AND STRATEGY**

### **Accrual Accounting**

The process of fundamental policy transformation and accounting principles from the Cash Accounting to Accrual Accounting basis has commenced its implementation on 1 January 2018 and has brought a new perspective on National Financial Management landscape. The focus on these basic accounting changes enhances the efficiency of financial management and accounting of the Federal and State Governments, which is in line with the Public Sector Transformation Policy and the New Economic Model.

As an Accounting Office, BA performs all the action plans set by the Accountant General Department of Malaysia Headquarters including:

- preparation of accounts opening balance;
- detailed preparation of subsidiary accounts;
- iGFMAS system test;
- manual work procedures; and
- intensive training for users from 49 PTJs.

To ensure the smooth implementation of iGFMAS, a risk mitigation plan is implemented through the service desk (SOLMAN), war room, iCare PTJ Lift, Tech Squad and iGFMAS Contingency Room.

### **Assets and Inventories**

In line with the change of accounting policy, all assets and inventories need to be reported accurately in the Ministry's Financial Statements as compared to the previous policy that accounts for assets and inventories as expenses only. For this purpose, Account Division in collaboration with the Development Division, Internal Audit Division, Ministry of Works and the Valuation and Property Services Department have gathered the entire MOH asset data to be the initial balance for the Ministry's Financial Report. Asset information collected is as follows in **Table 3.16**.

**Table 3.16**  
**Asset Information Collected for Initial Balance as at 31 December 2018**

Description	Amount (RM)
Current Assets (AA)	8,177,259,996
Non-Current Assets (ATA)	28,135,101,787
Assets Under Construction (AUC)	1,688,754,238
Inventory	136,573,783
<b>Total</b>	<b>38,137,689,804</b>

Source: Accounts Division, MOH

MOH has also been identified as the Ministry with the largest inventory management. A total of 84 PTJs have been classified as PTJ with inventories turnover of at least RM1 million for three (3) consecutive years. For reporting purposes in the Financial Statements, the opening and closing balances of inventory should be reported and verified by the Pharmaceutical Division.

### Trainings and Courses

In strengthening the talent and skills of financial officers in PTJ, a series of trainings, courses and programs were held throughout 2018 (**Image 3.7**). The list of programmes held is as follows:

- i. iGFMAS Sharing Knowledge Course and Basics Course for Business Warehouse Business Intelligence (BWBI) - 6 series
- ii. MPSAS Courses (Malaysia Public Sector Accounting Standard) - 3 Series
- iii. MS ISO 9001: 2015 - 3 Series

**Image 3.7**  
**Engagement Session for year 2018**



Engagement Session with YBhg. Dato' Mohd Shafiq Bin Abdullah, Deputy Secretary General (Finance)) and Accounting Operations Briefing on 7 to 8 November 2018 at Hotel Primiera, Kuala Lumpur



Meeting with MOH (Headquarters) Financial Officers & Accountants on  
13 August 2018 at the Auditorium, Prime Minister's Department

*Source: Accounts Division, MOH*

## **WAY FORWARD**

In the midst of a challenging and constant changing economic environment, organisational effectiveness is vital to ensure that Finance Sector's ability to fulfill its responsibilities with distinction at the highest level. We will continue to strive to achieve the highest level of excellence in fulfilling our responsibilities and to deliver the trust that has been entrusted to us.



# 4

## Public Health



## INTRODUCTION

The Public Health Programme is responsible to help individuals and community to achieve and maintain an optimum level of health by providing basic health care. To achieve that mission, the Programme provided services such as disease prevention and control, curative and rehabilitative care through integration in all levels of health service and to promote health so that it becomes a practice among all individuals and the people.

### OFFICE OF DEPUTY DIRECTOR GENERAL OF HEALTH (PUBLIC HEALTH)

#### PUBLIC HEALTH DEVELOPMENT DIVISION

##### PUBLIC HEALTH POLICY & SERVICE SECTION

One of the core activities of the Public Health Development Division is to provide direction and policy requirements related to the formulation of policy development activities of the Public Health Service. This is to ensure this policy compatible with the current situation and in line with the direction and goals of Ministry of Health in general.

Current platform used for the above purpose is through Public Health Program Exco & Policy Meeting chaired by Deputy Director General of Health (Public Health). Besides that, there also public health policy formation which has been decided by “top down” of stakeholders (from top management or “political masters” for national interest and in particular have a direct impact on society).

In year 2018, a total of three (3) Public Health Program Policy Executive Committee Meeting has been successfully carried out in which a total of 9 papers were presented. General analysis found that 3 policy papers were presented and approved. The breakdown of Policy Paper presentation in year 2018 is shown in **Table 4.1** below :

**Table 4.1**  
**Number of Policy Paper and Notification Paper Year 2018**

No	Division	No of Policy Paper	No of Notification Paper	Total
1.	Disease Control Division	0	2	2
2.	Nutrition Division	1	1	2
3.	Public Health Development Division	2	0	2
4.	Health Education Division	1	0	1
5.	Family Health Development Division	3	0	3
6.	Pahang State Health Department	1	0	1
7.	Sarawak State Health Department	1	0	1
<b>Total</b>		<b>9</b>	<b>3</b>	<b>12</b>

Source: Public Health Development Division, MOH

**Table 4.2**  
**Summary of Approved Public Health Policy Papers Year 2018**

No	Title	Division	Date of Approval
1.	<b><i>Kertas Dasar 2/2018</i></b>  <i>Cadangan Penubuhan 4 Pejabat Kesihatan Daerah (PKD) baru di Sarawak.</i>  By: Dr Hj Nordin Bin Hj Salleh Sarawak State Health Department	Sarawak State Health Department	Meeting No 1/2018 @ 10 April 2018
2.	<b><i>Kertas Dasar 4/2018</i></b>  <i>Cadangan Penggunaan Indikator Institute of Medicine (IOM) 2009 bagi Memantau Kenaikan Berat Badan Ibu hamil</i>  By : Puan Zaiton bt Haji Daud Nutrition Division	Nutrition Division	Meeting No 1/2018 @ 10 April 2018
3.	<b><i>Kertas Dasar 5/2018</i></b>  Transformation Of Cervical Cancer Prevention And Control Program Integrating HPV Test/HPV DNA Test/As a Screening Tool in Primary Care ( <i>Perinician Kos</i> )  By: Dr Zakiah Mohd Said, Family Health Development Division	Family Health Development Division	Meeting No 3/2018 @28 November 2018

Source: Public Health Development Division, MOH

Other than that, the Public Health Programme Technical Meeting is an annual agenda held in two (2) levels which are at state level with all State Health Deputy Directors (Public Health) and at district level with all District Health Officers. The objective of this meeting in general is to identify policy implementation and Public Health services running effectively and to discuss issues raised. This is to disseminate the programme's way forward and to share the best practices among states and districts in providing health services. Through dialogue sessions with the Deputy Director General of Health (Public Health), various issues and problems at the state and district levels were discussed in order to obtain results and solutions.

In 2018, two (2) Public Health Programme Technical Meetings with State Health Deputy Directors (Public Health) were successfully carried out. Papers/technical updates presented during these two (2) meetings are in **Table 4.3**.



**Table 4.3**  
**Papers Presented during The Public Health Programme Technical Meetings with State Health Deputy Directors (Public Health), 2018**

Meeting	Title of Presentations	Presenter
No. 1/2018 (7 to 9 Mac 2018), IPKKM, Putrajaya	1. KOSPEN@ACTIV	Dr. Feisul Idwan Mustapha, Disease Control Division
	2. <i>Promosi Pelaksanaan Aktiviti Fizikal</i>	Puan Suraiya Syed Mohamed, Health Education Division
	3. Update on TGP For Technical Healthcare Professionals	Dr Nor Izzah Hj. Ahmad Shauki, Health Management Institute
	4. <i>Kenaikan Pangkat Pakar Perubatan Kesihatan Awam</i>	Dr. Zulhizzam, Public Health Development Division
	5. <i>Sistem Verifikasi Data Kematian Yang Tidak Disahkan Secara Perubatan di Malaysia</i>	Dr. Nor Saleha Ibrahim Taimin, Disease Control Division
	6. <i>Pencapaian KPI Program Kesihatan Awam</i>	Dr. Nor Filzatun Borhan, Public Health Development Division
	7. <i>Line of Command Bagi Sektor Inspektorat dan Perundangan</i>	Dr. Zulhizzam, Public Health Development Division
	8. <i>Garis Panduan Kawalan dan Penguatkuasaan Wabak Keracunan Makanan</i>	Tn. Hj. Samad b. Mohd Dom, Perak State Health Department
	9. <i>Laporan Semakan Pencapaian KPI 2017</i>	Dr. Nor Filzatun Borhan, Public Health Development Division
	10. <i>Key Highlight Aktiviti Pemakanan 2018</i>	Puan Zalma Abdul Razak, Nutrition Division
	11. <i>Community Empowerment: Community Ovitrap</i>	Pn. Zunaida Zakaria, COMBI Seremban
No. 2/2018 (22 to 23 Oktober 2018), IPKKM, Putrajaya	1. <i>Kajian Semakan Kesesuaian Petunjuk Prestasi Utama (KPI) Bagi Pegawai Kesihatan Daerah (PKD) dan Cadangan Penghasilan "PKD Report Card"</i>	Public Health Development Division

Meeting	Title of Presentations	Presenter
No. 2/2018 (22 to 23 Oktober 2018), IPKKM, Putrajaya	2. Current Measles Situation and Strategies Towards Elimination	Disease Control Division
	3. Sharing The Success of Smoking Cessation Service in Buntong Health Clinic, Perak	Family Medicine Specialist, KK Buntong, Perak
	4. KOSPEN: <i>Inisiatif Kolaborasi Inter-Agensi di PKD Pontian</i>	Pontian District Health Office, Johor
	5. <i>Pencapaian Petunjuk Prestasi Utama (KPI) dan Pencapaian QA-NIA Program Kesihatan Awam Bagi Kitaran Pertama (Jan-Jun 2018)</i>	Public Health Development Division
	6. Maternal Mortality in Malaysia: Updates and Issues	Public Health Development Division

Source: Public Health Development Division, MOH

As for the Public Health Programme Technical Meeting with the District Health Officers, in 2018 only one (1) session was successfully held in Shah Alam, Selangor. Papers presented in the session are as in **Table 4.4**

**Table 4.4**  
**Working Paper presented at the Technical Meeting with Public Health Program Officer of Health 2018**

Date	Working Paper
17 to 19 Oktober 2018 (Shah Alam, Selangor)	1. <b>Kempen Walk : When Active Living Kicks 2018 - 2020</b> Health Education Division, MOH
	2. <b>National Strategic Plan for Active Living (NASPAL)</b> Health Education Division, MOH
	3. <b>Taklimat Keselamatan Perlindungan dan Garis Panduan Fire Safety Audit (FSA)</b> Family Health Development Division, MOH
17 to 19 Oktober 2018 (Shah Alam, Selangor)	4. <b>Mortaliti Meeting in Malaysia : Updates and Issues</b> Family Health Development Division, MOH
	5. <b>Penggunaan Indikator IOM Bagi Memantau Kenaikan Berat Badan Ibu Hamil di Klinik Kesihatan</b> Nutrition Division, MOH
	6. <b>Program Pengurusan Berat Badan Bagi Menangani Masalah Obesiti di Tempat Kerja</b> Nutrition Division, MOH

Date	Working Paper
17 to 19 Oktober 2018 (Shah Alam, Selangor)	7. <b>Laporan Pencapaian KPI YBhg. Dato' TKPK KA Jan - Jun 2018</b> Public Health Development Division, MOH
	8. <b>Overview of NCDs - Focus and Prioritisation for 2019</b> Disease Control Division, MOH
	9. <b>Overview of Occupational and Environmental Health-Focus for 2019</b> Disease Control Division, MOH
	10. <b>Case Report : Methanol Poisoning Outbreak 2018 - Lessons Learnt</b> Disease Control Division, MOH
	11. <b>Current Measles Situation and Strategies Towards Elimination</b> Disease Control Division, MOH

Source: Public Health Development Division, MOH

## QUALITY

Continuous Quality Initiative is another important programme in Public Health Policy & Service Section. Main activities pertaining quality in Public Healthcare were monitored, such as National Indicator Approach (NIA) and Key Performance Indicator (KPI) for Deputy Director General of Health (Public Health) and KPI for District Health Officer MOH.

Table 4.5 and 4.6 below are the indicators for NIA, KPI for Deputy Director General of Health (Public Health) and the achievements for 2018.

**Table 4.5**  
**NIAs Achievement for Year 2018**

No	Indicator	Standard	Achievement
1.	Rejection Rate of X-ray Film (per cent)	< 2.5	0.74%
2.	Lab Turn Around Time (LTAT)	> 95%	99.52%
3.	Percentage of asthmatic patients received appropriate management of asthma at health clinics	<i>Beating own standards</i>	73.8%
4.	Percentage of clients perceived the service provided as Client Friendly	<i>Beating own standards</i>	98%
5.	Sputum conversion rate	90%	90.2%
6.	Dengue outbreak control index (per cent)	100%	84.8%
7.	Dengue notification time Index (per cent)	100	97.3%
8.	Malarial Death	0 death	12
9.	HbA1C level - Proportion of T2DM patients with HbA1C level <6.5 per cent	<sup>3</sup> 30%	25.9%
10.	Incidence rate of needle stick injury per 1000 health care workers within MOH.	0	7.76

No	Indicator	Standard	Achievement
11.	Incidence rate of severe Neonatal jaundice (NNJ) per 10000 estimated life birth.	< 50	32.62
12.	Percentage of anaemic pregnant mother (hemoglobin less than 11gm per cent at 36 weeks gestation).	10%	6.5%

Source: Public Health Development Division, MOH

**Table 4.6**  
**Deputy Director General of Health (Public Health) KPIs achievement for year 2018**

No	Indicator	Standard	Achievement
1.	TB Treatment Success Rate for Malaysian	≥ 85%	89.0%
2.	TB Treatment Success Rate for Non-Malaysian	≥ 60%	73.0%
3.	Notification rate for new HIV cases per 100,000 population	≤ 10 .5	10
4.	Number of new work place setting implementing KOSPEN Plus	≥ 180	223
5.	Percentage of workers under KOSPEN Plus at work place screened for NCD Risk Factor	≥ 60%	82.6%
6.	Percentage of health clinics Dormicilliary Health Care (DHC) Team. (190 KK)	≥ 90%	73.0%
7.	Percentage of Underweight Children in Rehabilitation Programme For Undernourished Chidren with Increased Body Weight Using WHO 2006 Growth Standard	≥ 55%	60.5
8.	<i>Meningkatkan kadar berhenti merokok di Klinik Kesihatan</i>	> 30%	48.9%
9.	<i>Peratus murid Tingkatan 4 menjalani saringan Thalassaemia</i>	≥ 60%	73.59%
10.	<i>Peratus pesakit Diabetes Jenis 2 yang mencapai paras HbA1C kurang atau sama dengan 6.5 % (≤6.5%)</i>	> 30%	28.2%
11.	<i>Peratus Anemia (Hb&lt;11g/dl) di kalangan ibu hamil pada 36 minggu kehamilan.</i>	< 7.2%	6.5%
12.	<b><i>Pembudayaan Inovasi: - Replikasi/Pengalaman Inovasi Klinik Kesihatan - semua Klinik Kesihatan mereplikasi/ mengamal Inovasi</i></b> <i>Nota: Inovasi merujuk kepada pereplikasian Inovasi dan pengamalan Inovasi yang dibangunkan dalam tempoh 2 (dua) tahun.</i>	≥ 90%	86.5%
13.	<i>Peratus aduan dalam kategori mudah dan sederhana yang diterima melalui Sistem Pengurusan Aduan Awam (SiSPAA) yang diselesaikan dalam tempoh yang ditetapkan.</i>	≥ 80%	95.7%
14.	<i>Peratus hospital yang mengekalkan Hospital Rakan Bayi</i>	90%	97.0%

Source: Public Health Development Division, MOH

## SPECIAL PROGRAMS SECTOR

The main function of the Special Program Sector is to review and monitor the implementation of existing health policies and to formulate new policies for *Orang Asli* Health Services in Peninsular Malaysia and Health Services in Institutions (Prison Health). Since September 2018, Health Services at Institutions (Prison Health) is taken over by the Family Health Development Division.

### i. *Orang Asli* Health Services

Ensuring accessibility of health services for *Orang Asli* communities in the rural and remote localities continues in 2018. This is in line with the 2<sup>nd</sup> Strategic Thrust under the 11<sup>th</sup> Malaysia Plan: Improving People's Wellness with its Key Performance Indicator (KPI) measuring the frequency of Health Service visits to the *Orang Asli* in remote areas. The KPI sets is every four weekly visit to the localities with a target of 80 per cent. The overall achievement of KPI for 2018 is 70 per cent. Among the causes which contribute to inability to achieve the target are logistical issues such as damaged road conditions, weather conditions that do not permit travelling and damage to vehicles that transport the *Orang Asli* Mobile Clinic.

For the year 2018, the Kinta Health Office-based Flying Doctor Services (FDS) has been implemented. It provides health services to 15 (88 per cent) out of 17 landing sites in remote areas. These villages are difficult to reach either by road or waterway. A total of two (2) landing sites cannot be accessed following report from the *Orang Asli* Development Department (JAKOA) on unsuitable landing sites at the localities. The KPI's achievement of the PDU's visits for 2018 is 72.5 per cent from 167 planned flight. Weather conditions that do not permit flying and airspace closure are among the major causes that contributes to the below target achievement.

In 2018, a total of 616,786 visits involving *Orang Asli* were reported. These patients seek various MOH health services offered under Health Care Primer (**Table 4.7**)

**Table 4.7**  
**Number of Health Visits by *Orang Asli* Using MOH's Primary Health Services, 2018**

No	Population
Out patient	266,192
Antenatal	48,938
Postnatal	5,755
Family Planning	94,789
Child Health	122,659
Home Visit	78,453
Total	616,786

Source: Public Health Development Division, MOH

In 2018, a course that aims for human capital development among health professionals delivering *Orang Asli* health services was held on 9 to 11 October 2018. The Enhancement Course For Nutrition Health Services Among *Orang Asli* Mother and Children in the Remote Areas involved participants from among Family Medicine Specialists, District Nutrition Science Officers and Health Personnels from The *Orang Asli* Health Service Mobile Team and selected District and State Medical Officers.

The course aims to provide exposure on the nutrition health management among maternal and child according to the existing MOH policy, to increase knowledge and skills on Nutrition Health Services, especially among *Orang Asli* Mothers and Children in Remote Areas and to identify the challenges in the delivery of nutritional health services and steps to overcome them.

The Technical Meeting of Orang Asli Health Services with District Health Officers from all over Malaysia were held on 17 October 2019. A total of 65 officers from the District Health Office, State Health Department, District and State Nutrition Officers and Technical Officers from the Public Health Program were present.

#### ii. **Institutional Health Services (Prison Health)**

A total of four (4) prisons have been visited as part of monitoring on the implementation of health services delivers by Ministry of Health personnel posted in the Prison Clinics. It is also aimed to identify improvements that can be made to ensure comprehensive and optimal health services provided in Prison Clinics. Field Monitoring with Family Health Development Division Officer were conducted at Pengkalanchepa Prison, Kelantan (03/04/2018), Sarawak Borneo Puncak Prison (25/04/2018), Sungai Buloh Prison (22/5/2018) and to Kluang Prison (10/7/ 2018). Monitoring report was shared with relevant stakeholders to enable measures to strengthen service activities health in prison to be acted upon.

On 1 to 4 July 2018, a Workshop for Updating Health Services Guidelines at Prison Clinics was held at the Malaysian Correctional Academy. It was jointly organized by the Special Program Sector and Prisoners Management Division, Prison Department of Malaysia. It involved Health Personnel from selected Prison Clinics, Officers from the Prisoners Management Division and selected Prison Officers and Technical Officers from the Public Health Program.

In 2018, a formal List of Liason Officers from each District Health Office and District Prison Institution were prepared and distributed to all stakeholders. This approach aims to enhance two (2) ways communication between the District Health Office and Prison Institute in the district.

From September 1, 2018, monitoring and policy developments for Health Services at Institutions (Prisons Health) was taken over by the Family Health Development Division of the Ministry of Health Malaysia.

## SECTION OF PUBLIC HEALTH PROFESSION DEVELOPMENT

The Section of Public Health Profession Development is responsible for the development of policy in the Public Health Programme, so that all health servants in the Public Health Program met the standard of competency in the delivery of services to citizens. The activities include:

- i. Public Health Specialty Services Development
- ii. Development of Public Health Professions
- iii. Training and Continuous Professional Development (CPD)
- iv. Usage Monitoring of Public Health Training Facilities

By December 2018, the number of Public Health Medicine Specialist (PHMS) filling up the PHMS post in MOH were 431, compared to 447 PHMS post available in MOH. Since 2008, MPH 4 year program has been replaced by MPH+DrPH Training Programme. Currently, there are seven (7) universities that offer the program namely University of Malaya (UM), University of Science Malaysia (USM), University Kebangsaan Malaysia (UKM), University Malaysia Sarawak (UNIMAS), University Putra Malaysia (UPM), Universiti Teknologi MARA (UiTM) and Universiti Malaysia Sabah (UMS). In 2018, a total of 35 Medical Officers have been gazetted as a Public Health Medicine Specialist.

This section is also responsible for developing the policy on the competency and direction of various professions in the Public Health Programme. Any proposal paper for profession development by any of the Profession Head, will be reviewed.

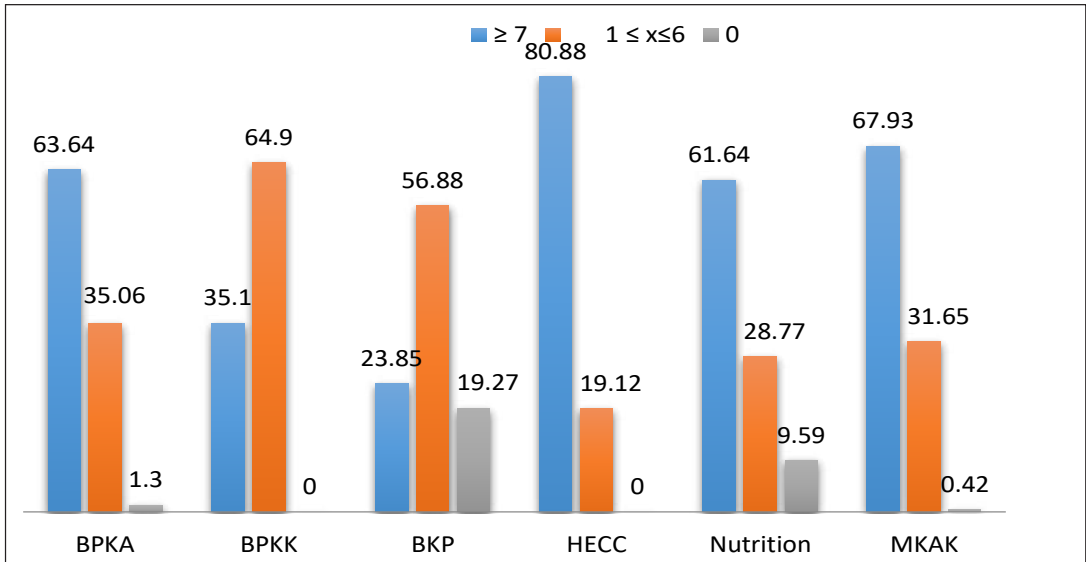
With regard to human resource training, in 2018, a total of 4101 courses were conducted throughout the country (value of RM5,016,700.00) compared to 3882 courses (value of RM7,425,056.30) in 2017. In 2018 a total of two (2) staffs were sent abroad to attend short-term training courses. Overall achievement for in-service training program carried out in year 2017 and 2018 as shown in **Table 4.8**. Meanwhile, the performance of health staff attended training, for at least 7 days a year, in 2018, as shown in **Figure 4.1** and **4. 2**.

**Table 4.8**  
**Public Health Program: In-service Training Achievement, for 2017 and 2018**

	Achievement			
	Year 2017		Year 2018	
	No. of Course Attended	Expenditure (RM)	No. of Course Attended	Expenditure (RM)
Oversea	7	132,000.00 (77.65%)	2	39,376.10 (93.75%)
Local	3882	7,425,056.30 (99.23%)	4101	5,016,700.00 (99.37%)

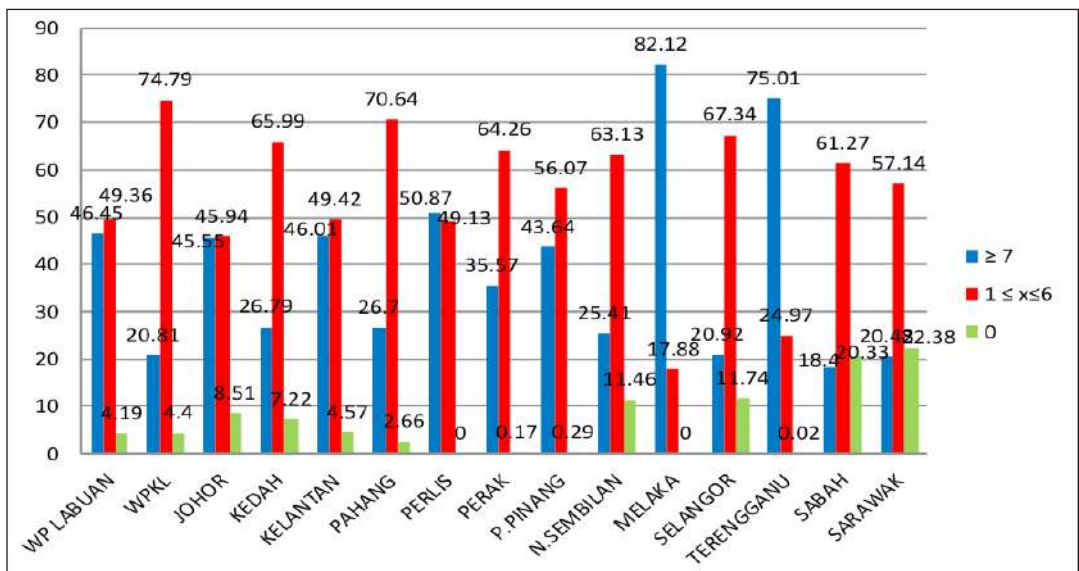
Source: Public Health Development Division, MOH

**Figure 4.1**  
**Performance of Health Staff Attended Training, for at Least 7 Days a Year in 2018 among Health Staff, Public Health Programme, Ministry of Health, Headquarters (HQ) Putrajaya**



Source: Public Health Development Division, MOH

**Figure 4.2**  
**Performance of Health Staff Attended Training, for at Least 7 Days a Year in 2018 among Health Staff, Public Health Programme, Ministry of Health, by State.**



Source: Public Health Development Division, MOH



This section is also responsible for monitoring and processing all health facilities training application. Health facilities used for training, includes District Health Office, Health Clinics and Public Health Laboratory. In 2018, a total of 22 applications were approved either new use or renewal of MOA application involving 8 for Medical Program, 7 Program for Allied Health Sciences and 7 Program for Nursing.

## GLOBAL HEALTH SECTION

The Global Health Section of the Public Health Development Division, Ministry of Health Malaysia as an active advocate of health had successfully conducted several programmes and activities in the arena of global health diplomacy. Here are some of the achievements accomplished during the year of 2018 :

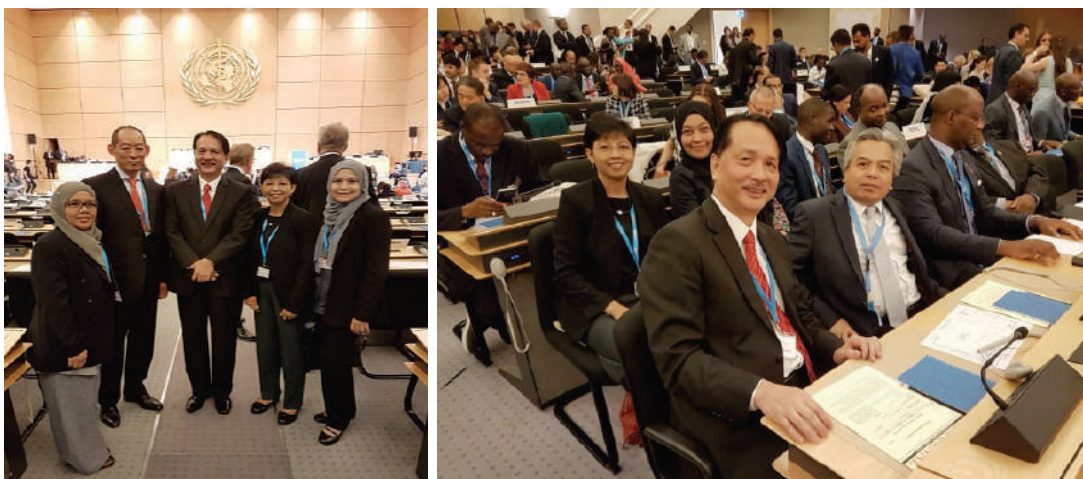
### 1. Monitoring of WHO Programme Budget 2018 to 2019

The Global Programme Budget 2018 to 2019 was endorsed at the 70<sup>th</sup> World Health Assembly held in May 2017. A total of 33 projects was tabled during that event. The Global Health team worked concurrently with the World Health Organisation (WHO) Country Office team, based in Cyberjaya in monitoring the implementation of the activities for the biennium of 2018 to 2019.

### 2. 71<sup>st</sup> World Health Assembly (WHA) - Geneva

The 71<sup>st</sup> World Health Assembly was held from 21 to 27 May 2018 in Palais de Nations, Geneva, Switzerland. The delegation from Malaysia was spearheaded by the Honorable Director General of Health accompanied by three (3) senior officers from the Ministry of Health Malaysia. This being the first assembly under the new leadership of Dr Tedros Adhanom Genreyesus also celebrated WHO's 70<sup>th</sup> Anniversary together with Alma-Atta's 40<sup>th</sup> Anniversary with the theme "Health for All; Commit to Universal Health Coverage" (Image 4.1).

Image 4.1  
71<sup>st</sup> World Health Assembly (WHA) - Geneva



Source: Public Health Development Division, MOH

During the course of the assembly, Global Health Section obtained outstanding achievement when put to task as a technical coordinator, delegation and as a leader in lobbying at global platform.

A total of 31 items encompassing technical and management related issues were discussed during the assembly. At the end of the assembly, a total of 15 resolutions were concluded requiring active participation from Malaysia (**Table 4.9**).

**Table 4.9**  
**Health Issues/Resolutions of 71<sup>st</sup> World Health Assembly (WHA) - Geneva**

No	Health Issues/Resolutions
1.	Public Health Preparedness and Response
2.	Health, environment and climate change
3.	Addressing the global shortage of, and access to, medicines and vaccines
4.	Global strategy and POA on public health, innovation and intellectual property
5.	High-level Meeting of the GA on the prevention & control of NCD
6.	High-level meeting of the GA on ending TB
7.	Global snakebite burden
8.	Physical activity for health
9.	Global Strategy for Women's, Children's and Adolescents Health (2016-2030)
10.	mHealth
11.	Improving access to assistive technology
12.	Maternal, Infant and Young Child Nutrition
13.	PIP Framework for The Sharing of Influenza Viruses and Access to Vaccines and Other Benefits
14.	Rheumatic Fever and Rheumatic Heart Disease
15.	Eradication of Poliomyelitis

Source: Public Health Development Division, MOH

### **3. Dr Lee Jong Wook Memorial Prize for Public Health Award Recognition**

It was a proud moment for Malaysia upon receiving the Memorial Prize Dr Lee Jong Wook Award for Public Health at a special event during the 71<sup>st</sup> World Health Assembly. The award was given to Dr Nazni Wasi Ahmad from Institute Medical Research for his achievement in contribution to the Maggot Debridement Therapy (**Image 4.2**).

**Image 4.2**

**Dr Lee Jong Wook Memorial Prize for Public Health Award Recognition**



*Source: Public Health Development Division, MOH*

**4. Official Attachment of MOH Officers at WHO Headquarter - Geneva**

The Global Health Section had sent two (2) senior officers from the Ministry of Health Malaysia to attend this attachment programme, which is an official training programme between MOH with the WHO Headquarter , via the Training Division of MOH. This training had consisted of officers from the Pharmaceutical Services Division and the Nutrition Division. The two (2) corresponding technical units of WHO where they were based in includes Access to Vaccines and Medicines, Maternal, Infant and Young Child Nutrition which has provided positive feedback for more attachment programme like manner to be conducted in future (**Image 4.3**).

**Image 4.3**

**Official Attachment of MOH Officers at WHO Headquarters – Geneva**



*Source: Public Health Development Division, MOH*

## 5. 69<sup>th</sup> of WHO Regional Committee Meeting for Western Pacific Regional Office

The Western Pacific Regional Committee Meeting is an annual event held in the month of October. For the year 2018, this meeting was held in Manila, Philippines from 8 to 12 October. This meeting was attended by 34 member countries and the delegation from Malaysia was led by the Honorable Minister of Health, accompanied by the Honorable Director General of Health and followed by two (2) technical officers from Ministry of Health Malaysia. Malaysia's main focus in this agenda was: (i) Viral Hepatitis; (ii) Universal Health Coverage; (iii) Tuberculosis; (iv) Violence and Injury Prevention; dan (v) Urban Health. The progress reports on technical programmes covered the following: (i) Food safety: regional strategy beyond 2015; (ii) APSED (2010) and the IHR (2005); (iii) Neglected tropical disease and leprosy; (iv) Ageing and Health; (v) Noncommunicable disease prevention and control; and (vi) Regulatory system strengthening (**Image 4.4**).

Image 4.4

### 69<sup>th</sup> of WHO Regional Committee Meeting for Western Pacific Regional Office



Source: Public Health Development Division, MOH

## 6. 13<sup>th</sup> ASEAN Senior Officials Meeting on Health Development (SOMHD) Meeting, Siam Reap, Cambodia (24 to 26 April 2018)

The ASEAN SOMHD, an annual event was attended by the delegation from Malaysia led by Dr Juliana Sharmini Paul, and accompanied by Dr. Azuana Ramli (Pharmaceutical Services Division), and Mrs. Laila Raabah (Food Safety and Quality Division). In accordance with the theme Accelerating Health for all in ASEAN, the meeting discussed on the concept paper plan for Asean Health Cluster 1, 2, 3 and 4. Being the recent Chair for ASEAN Health CLUSTER 2: Responding To All Hazards And Emerging Threats, center of attention was on the work programme for year 2016-2020 and all the accomplishments (**Image 4.5**).

**Image 4.5**  
**13<sup>th</sup> ASEAN Senior Officials Meeting on Health Development (SOMHD) Meeting,**  
**Siam Reap, Cambodia**



Source: Public Health Development Division, MOH

#### **7. ASEAN Health Cluster 3 : Strengthening Health Systems 7 Access to Care**

The 3<sup>rd</sup> Meeting of ASEAN Health Cluster 3 held from 11 to 13 July 2018 in Singapore. This meeting was attended by Dr Juliana Sharmini Paul (Head of Delegates), Dr. Goh Cheng Soon (Director of Division of Traditional and Complementary Medicine), Dr. Samsiah Awang (Institute of Health Research Systems), and Mrs. Nur Ain Shuhaila (Pharmaceutical Services Division). Being the Lead Country for projects namely, ASEAN Recommendations in Quality in Primary Care, ASEAN Vaccine, Drug Security and Self Reliance, all the latest development on projects was presented during the meeting (**Image 4.6**).

**Image 4.6**  
**ASEAN Health Cluster 3 : Strengthening Health Systems 7 Access to Care**



Source: Public Health Development Division, MOH

## 8. Implementation Research Workshop (24 to 27 September 2018)

Every year, Global Health Section will organize a workshop/course. For the year 2018, it was a conjoint event hosted together with the Institute for Health Systems Research (IHSR) with the United Nations University - International Institute of Global Health (UNU-IIGH) and World Health Organization (WHO). A total of 60 participants from various government and private agencies along with international participants (Ministry of Health India) attended this workshop (Image 4.7).

**Image 4.7**  
**Implementation Research Workshop**



*Source: Public Health Development Division, MOH*

## SECTOR OF INSPECTORATE AND LEGAL

The Sectors of Inspectorate and Legal are responsible for the enforcement of public health legislation. Enforcement in the field of Public Health consists of several separate laws that empower the officers involved to protect the public from the threat of health problems. Enforcement activities conducted from time to time are intended to create awareness among the public in order to comply with national laws in addition to sharing responsibilities in disease control. Indirectly, this enforcement activity will promote healthy lifestyle practices in society. Laws relating to Public Health such as Disease Bearing Insect Destruction Act 1975 (Act 154), Infectious Disease Prevention and Control Act 1988 (Act 342), the Hydrogen Cyanide Act 1953 (Act 260), the Food Act 1983 (Act 281) The 2004 Tobacco Product Control Regulations are among the currently enforced laws.

Enforcement activities are carried out at the district health office level by Officers and Assistant Environmental Health Officers and Public Health Assistants (in particular laws only). District Health Officer is also an authorized officer and is a local reference source in the clinical aspect of disease epidemiology.

### Authority Card Issuing

All authorized officers are issued with a authority card during the enforcement task. The Food Act provides for an authorized officer to be appointed by the Minister of Health while

in other laws, the office of an authorized officer is provided in the law with the definition of inspector and health inspector as well as delegated officer. Here are the performance of authority card processing for authorized officers as in **Table 4.10**.

**Table 4.10**  
**Authority Card Issuing from 2015 to 2018**

Type Of Authority Card	2015	2016	2017	2018
Appointment of Authorized Officers of the Food Act	391	434	385	348
Representative Power of compounding the Food Act	484	608	398	269
Identification Card for Enforcement Officer	331	366	355	268
Power of Closure of Food Premises	128	231	110	111
Power of Compounding under Prevention and Control of Infectious Diseases Act	5	36	67	47
Appointment of Authorized Officers to Prevention and Control of Infectious Diseases	1642	1911	528	293
<b>Total</b>	<b>2981</b>	<b>3586</b>	<b>1843</b>	<b>1336</b>

Source: Public Health Development Division, MOH

The application for the appointment of an authorized officer and Identification Card for Enforcement Officer is in accordance on the appointment of the Assistant Environmental Health Officer (PPKP) from training institutions to public service schemes including the Local Authority.

The needs of food inspection and closure of food premises has been increasing in recent years and this power is not only given to enforcement members in the Food Safety and Quality Division but the District Health Officers and PPKP of the Public Health Program are actively involved.

#### **Issuance of fumigation licenses**

The production of fumigation licenses is in accordance with the requirements of the Hydrogen Cyanide Act (Fumigation) which provides for fumigation operators to obtain prior licenses before fumigation works are executed. In enforcing this Hydrogen Cyanide Act, fumigation operators are obliged to attend fumigation courses and licenses are only issued when the operator passes the examination which is co-ordinated by the MOH.

The related fumigation activities are as follows:

##### **a. Fumigation Examination Year 2018**

A fumigation examination was held at the Institute for Rural Development (INFRA), Bangi, Selangor. The Fumigation examination summary as in **Table 4.1**

**Table 4.11.**  
**Fumigation Examination Year 2018**

No.	Item	Note
1	Examination Date	3 to 5 July 2018
2	Fumigation Test 2018	
	Number of candidates	100 candidates
	Number of candidates attended	53 candidates
	Passed Numbers	20 candidates
	Number of Failed	27 candidates
	Conditional Passes Number *	6 candidates

\* Conditional Passes means the candidate will only take Paper II test in the next exam.

Source: Public Health Development Division, MOH

**b. Basic Fumigation Course for Environmental Health Officer/Assistant Environmental Health Officer (PKP/PPKP)**

The Basic Fumigation Course for PKP/PPKP was held from 2 to 4 October 2018 at Nilai Hotel, Nilai, Negeri Sembilan. This course aims to provide knowledge and skills in fumigation works using Methyl Bromide and Hydrogen Cyanide gas among PKP/PPKP with regard to procedures that comply with existing legislation and standards.

The Inspectorate and Legal Sector (SIP) has set the candidates attending this course among the PKP/PPKP who work at all International Seaport entrance area as most fumigation works are done in this area. The number of candidates attending was 24 person. Candidates present at this Basic Course will be recalled in the Fumigation Enhancement Skill Course to assess their competence to conduct monitoring or audit in the field later.

**c. Application for Fumigation License (New)**

There are 16 new applications for fumigation licenses in 2018 which are applications for those who pass the fumigation examination in 2017.

**d. Application for Renewal of Fumigation License**

Throughout 2018, a total of 223 Licensed Licensors have applied for renewal of their respective fumigation licenses for 2018.

**Enforcement of the Disease Bearing Destruction Act 1975 (APSP)**

Integrated enforcement operations planned in the Public Health Program involve the operation of the 'Serial Aedes Gempur' operation. Activities carried out include planning of operations, providing operational guidelines, field enforcement monitoring, promotion of activities through media statements and evaluating enforcement activities

A total of 13 series of operations were conducted throughout 2018 including a week-long intensive operation of August 2018. The prosecution action for offenses under the APSP was increased in 2018 compared to the previous 2017 as in **Table 4.12** below:



**Table 4.12**  
**Enforcement of Disease Bearing Destruction Act 1975**

Year	No. Checked Premises	No. Positive Breeding Premises	No. Compound Issuance	No. Premises Closed	No. Court List Case	Court penalties (RM)
2014	5,419,476	79,863	25,095	243	2,414	318,242
2015	6,167,767	98,565	18,298	416	1,585	902,700
2016	5,502,748	116,862	18,017	314	1,885	1,293,140
2017	4,623,927	122,927	24,450	196	1,867	1,800,560
2018	4,688,302	119,418	21,370	120	2,599	3,130,300

Source: Public Health Development Division, MOH

The number of inspected premises showed an increase in 2018 while the number of positive reproductive premises showed a slight decrease.

The increase in case registration in court is in line with the provisions of the Public Health Policy so that repeat offenses on the site of the building are specifically no longer offered for compound and are otherwise prosecuted in court. The number of cases registered in the highest court in 2018 is 2599 cases. The amount of fines earned so far was recorded in 2019 amounting to RM 3,130,300.

In addition to planning the enforcement activities of APSP, a series of field audits were conducted to enable members to carry out activities in accordance with Standard Operating Procedures (SOPs) and some engagement sessions with enforcement were also held on enforcement activities.

#### **Enforcement of Infectious Disease Prevention and Control Act 1988 (APPPB)**

Law enforcement under the Infectious Diseases and Control Act 1988 (Act 342) shows an increase in number of premises closing activities carried out from 2011 to 2018. The number of premises issued by the closing order has increased to 1,201 premises in 2018 compared to 461 premises in the year 2017. The notice of closure issued to premises owners is intended to secure their commitment in the prevention and control activities. At this stage, the steps to stop or break the spread chain of infectious diseases is very important. The number of premises inspections has increased to 5,573 in 2018 as compared to only 1,919 premises inspected in 2017 as in **Table 4.13**.

**Table 4.13**  
**Enforcement of Infectious Disease Prevention and Control Act 1988**

Year	No. premises examined under Section 18 (1)	No. premises closed under Section 18 (1)	No. Compound Issuance	Total amount of compound paid (RM)
2014	5,055	368	24	4,850
2015	8,695	263	4	1,400
2016	7,672	555	23	7,450

Year	No. premises examined under Section 18 (1)	No. premises closed under Section 18 (1)	No. Compound Issuance	Total amount of compound paid (RM)
2017	1,919	461	26	9,600
2018	5,573	1,201	35	19,950

Source: Public Health Development Division, MOH

Compounds issued under this act are against medical practitioners who fail to notify an infectious diseases and have increased in 2018 with 35 compounds.

### Enforcement of Tobacco Product Control Regulations 2004 (PPKHT)

The Control of Tobacco Products Regulations 2004 is a subsidiary law under the Food Act 1983 (Act 281). Under these rules, frequent offenses include smoking in prohibited places, the sale of cigarettes to minors, the sale of cigarettes in loose packages, the sale of cigarettes without posing health warning and smoking among underage adolescents and the sale of tobacco products online (online). The court sentenced a fine to RM6,000.00 or 6 months imprisonment against the accused at the Petaling Court for selling off tobacco products through a facebook account.

The number of offenses under this rule has increased from 35,757 notices issued in 2014 to 57,268 notices in 2018 as in **Table 4.14**. For 2018 alone, 25, 834 compounds were issued with accumulated compound value of RM 3.215 million.

**Table 4.14**  
**Enforcement of Tobacco Products Control Regulations 2004**

Year	Notice of section 32B is issued	No. Compound Issuance	Total amount of compound paid (RM)
2014	35,757	17,451	RM1,892,555
2015	35,350	22,542	RM2,067,501
2016	40,965	19,393	RM2,139,661
2017	45,799	23,571	RM2,511,621
2018	57,268	25,834	RM3,215,366

Source: Public Health Development Division, MOH

Enforcement action under PPKHT is intended for people who smoke to comply with the law and avoid polluting air shared with non-smokers. The number of enforcers is a barrier to run full-time activities. The approach taken by the Public Health Program is to set the priority of the offense. In order to increase enforcement activities in non smoking areas, a total of 70 Sunway Group Auxiliary Police were trained and given a deligation of power under the Food Act 1983 to enforce the enforcement of the Tobacco Product Control Regulations 2004 within the premises of Bandar Sunway.

### Investigation

Investigation of cases in violation of public health law is carried out by PPKP in their respective districts. The number of investigative papers opened in 2018 was the highest at 92,376 cases

compared to previous years as in **Table 4.15**. However, there has been a huge number of files were late in obtained compound and prosecute permission in the state of Selangor, in particular.

**Table 4.15**  
**Case Studies Under the Public Health Law**

Year	Investigation Paper Opened	No. Permit License	No. NFA
2014	50,220	15,014	601
2015	55,054	14,189	165
2016	65,178	14,348	296
2017	83,847	15,506	424
2018	92,376	18,538	575

Source: Public Health Development Division, MOH

In order to strengthen the quality of the case investigation, a series of training in services such as the Integrity Course and the Investigating Officer was held by the SIP.

### Prosecution

The criminal prosecution activities in court are conducted by the CPP/PPKP in each health office. Case in favor of prosecution (PKD) has increased in previous years but showed a slight decrease in 2018 of 2,057 cases compared to 4,086 cases in 2017 as in **Table 4.16**.

**Table 4.16**  
**Prosecution of the Case under the Public Health Law**

Tahun	No. Case Registered	No. Successful Case	DNAA	A&D
2014	12,930	2,009	7,184	53
2015	12,439	1,839	7,735	49
2016	12,487	2,852	8,599	39
2017	11,889	4,086	7,533	20
2018	14,926	2,057	8,482	85

Source: Public Health Development Division, MOH

In order to improve the prosecutor's prosecution skills, prosecution training has been conducted including the Investigation and Prosecution Basics Courses and the Core Prosecution Team activated at the national and state level. Several field monitoring and training activities were conducted by SIP.

## DISEASE CONTROL DIVISION

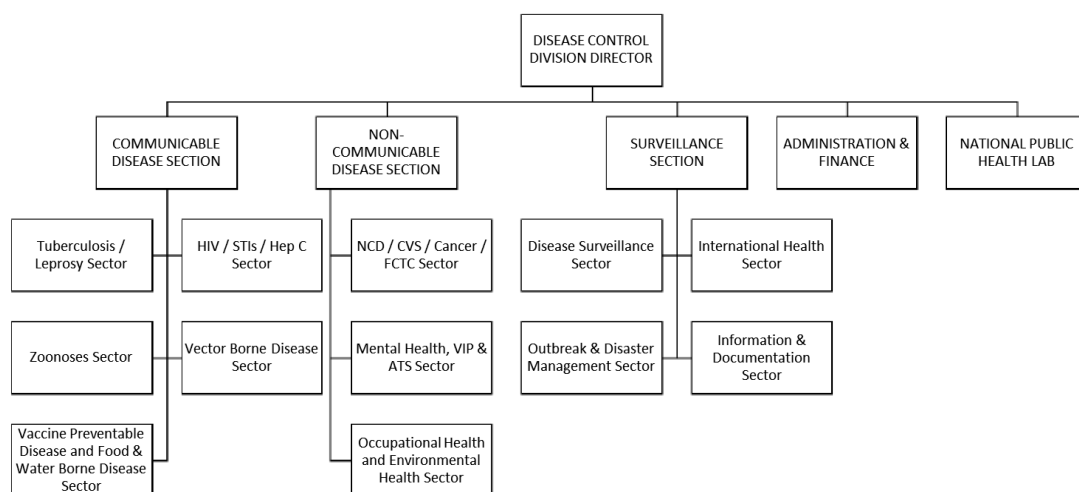
Malaysia has achieved considerable success in reducing prevalence of infectious diseases over time some of which has been completely eradicated or eliminated. A shift in preponderance of

diseases from communicable to non-communicable disease tends to occur as we progresses towards being a developed nation.

Diseases control activities in Malaysia was initially conducted through disease-focused programmes such as the National TB Control Programme (1961), Malaria Eradication Programme (1967) and the National Leprosy Control Programme (1969). Subsequently, an Epidemiology Unit was established in 1971 under the Health Services Department. This unit focused on controlling spread of communicable diseases through effective preventive and control measures that were formulated based on epidemiological pattern of the diseases. A restructuring exercise in 1985 then saw the Malaria Control Programme and the Vector Borne Diseases Programme absorbed into a unified Vector Borne Diseases Control Programme.

As part of the restructuring process, the existing Epidemiology Unit was reorganized in 1991 and continued to expand in concert with the escalating public health demands until the eventual establishment of the Disease Control Disease Division (**Figure 4.3**).

**Figure 4.3**  
**Disease Control Division Organization Chart**



Source: Disease Control Division, MOH

## CARDIOVASCULAR DISEASES/DIABETES/CANCER SECTOR

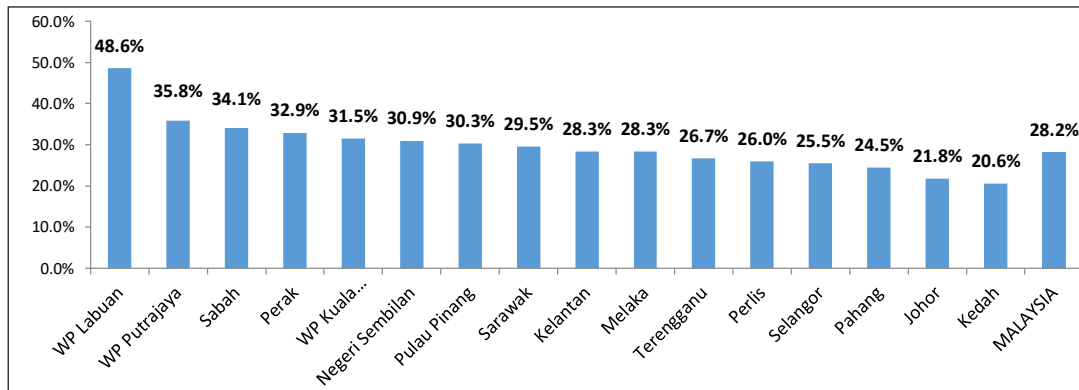
### Cabinet Committee for a Health Promoting Environment

The Cabinet Committee for Health Promoting Environment (JKPHS) was formed in 2011 and is the only Cabinet committee that serves as a platform to identify and discuss multi-sectoral interventions in the prevention of NCDs. The main terms of reference of this Cabinet committee is to create an environment that supports behavioural changes related to healthy eating and active lifestyles. In November 2018, the Cabinet committee endorsed 15 policies which include the sugar-sweetened beverages tax, implementation of which was expected to be in 2019 and the policy to strengthen the control and enforcement of illicit cigarettes following the WHO Framework Convention on Tobacco Control.

### Quality of Care of Diabetes at Primary Health Centres, Malaysia

The National Diabetes Registry (NDR) was established to monitor clinical outcomes of patients with diabetes managed at MOH health clinics. In 2018, 1.4 million diabetes patients were registered in NDR and 860,000 were on active follow-up. Seven (7) states had achieved the target of having at least 30 per cent of their registered diabetes population HbA1C of  $\leq 6.5$  per cent in 2018. Those states were WP Labuan, WP Putrajaya, Sabah, Perak, WP Kuala Lumpur, Negeri Sembilan and P.Pinang (Figure 4.4).

Figure 4.4  
Trend of Achievement HbA1C of  $\leq 6.5$ , All States, 2018



Source: Disease Control Division, MOH

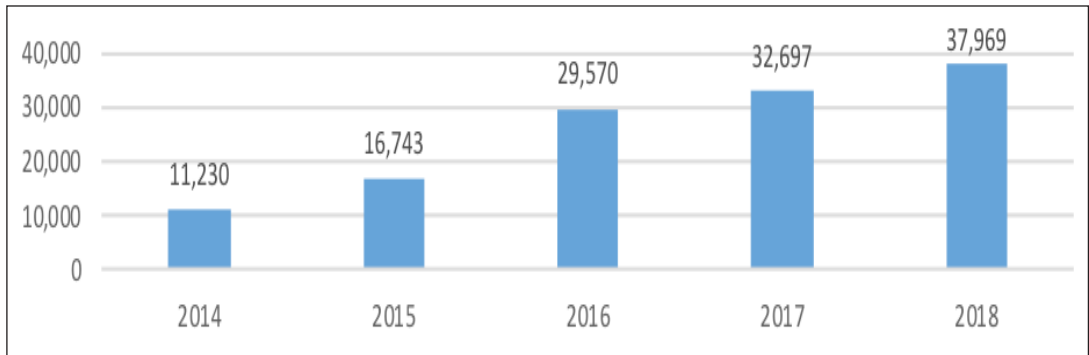
### Salt Reduction Strategy to Prevent & Control NCD for Malaysia 2015 to 2020

The Salt Reduction Strategy To Prevent and Control NCD initiative for Malaysia for the period of 2015 through 2020 was implemented via the MAP strategies; Monitoring, Awareness and Product. An important milestone for this initiative was the first ever nationwide population-based salt intake study called “My Community Salt Study” (MyCoSS), which was conducted in 2017 to 2018. It was a collaborative effort between the Institute of Public Health MOH, University Queen Of Mary London, UK & Disease Control Division, MOH. The study had two (2) other objectives; Spot Urine Equation Validation and Prevalence of Chronic Kidney Disease Survey. This study found that salt intake (using the 24-hour urinary analysis) for Malaysians was 7.9g or 3,167mg sodium/day.

### The National Colorectal Cancer Screening Programme

The National Colorectal Cancer Screening Programme was initiated by MOH in 2014 in selected health clinics nationwide. In 2014, only 24.7 per cent of all health clinics offered the opportunistic colorectal cancer screening services, however the figure increased to 57.3 per cent in 2018. In 2018, there were 571 clinics offering these services and the number of screenings increased to 37,969 clients as compared to 11,230 in 2014 (Figure 4.5). Of those screened in 2018, 8.91 per cent were found to have positive iFOBT. A total of 88.4 per cent who were found to have positive iFOBT tests were referred for colonoscopy. However, 11.64 per cent refused referrals and only 62.42 per cent of those referred had colonoscopy done. Among those who underwent colonoscopy, 15.71 per cent were found to have colonic polyps (pre-cancerous lesions) and 3.91 per cent had colorectal cancer.

**Figure 4.5**  
**Number of Clients Screened for Colorectal Cancer, 2014 to 2018**



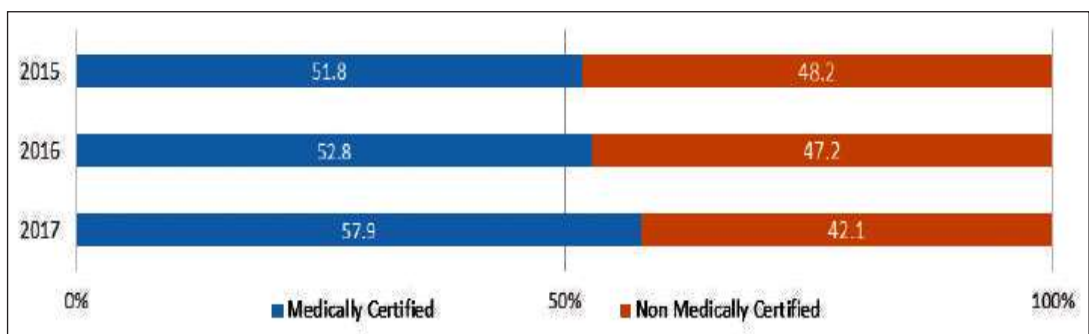
Source: Disease Control Division, MOH

One of the focuses of the National Strategic Plan for Cancer Control Programme 2016 to 2020 is to strengthen screening programmes. The immediate future plan of this programme is to increase screening rates among eligible Malaysians gradually, which requires strengthening of both primary and secondary level services. We aim to improve screening coverage to at least 5 per cent of the population at risk by year 2020.

#### **Verification of Non-Medically Certified Death Data (Verbal Autopsy)**

A system called the Verification of Non-Medically Certified Death Data (Verbal Autopsy - VA) was implemented on the 1 of October 2017 to reduce the percentage of Non-Medically Certified Deaths (NMCD) in Malaysia and to improve the cause of death listings for Malaysians. VA that was conducted for five months in 2017 (August-December) had increased the percentage of medically-certified deaths from 52.8 per cent in 2016 to 57.9 per cent in 2017 (**Figure 4.6**). An immediate future plan was to develop an IT system to improve the work processes of VA. This system was expected to be completed in 2019.

**Figure 4.6**  
**Percentage of Medically Certified Deaths, Malaysia, 2015 to 2017**



Source: Disease Control Division, MOH

## TOBACCO CONTROL SECTOR AND FCTC SECRETARIAT

The activities of Tobacco Control Sector were implemented via the **MPOWER** strategy:

### Monitor Tobacco Use and Prevention Strategies

Prevalence of current smokers among adolescent aged 13-17 years old from Adolescent Health Survey (AHS) in 2017 was 15.9 per cent (male: 25.3 per cent and female: 6.7 per cent).

### Protect People from Tobacco Smoke

The smoke-free community initiatives were established through KOSPEN. There were 6,018 KOSPEN localities in 2018. In these localities, there were 2,324 smoke free homes (RBAR). Other than RBARs, there were also other 151 smoke free premises (KBAR). The gazettelement of smoke free cities was made under Regulation 22, Control of Tobacco Product Regulation (CTPR 2004). The cities gazetted under this law are showed in **Table 4.17**.

**Table 4.17**  
Gazettelement of Smoke Free Cities According to Year

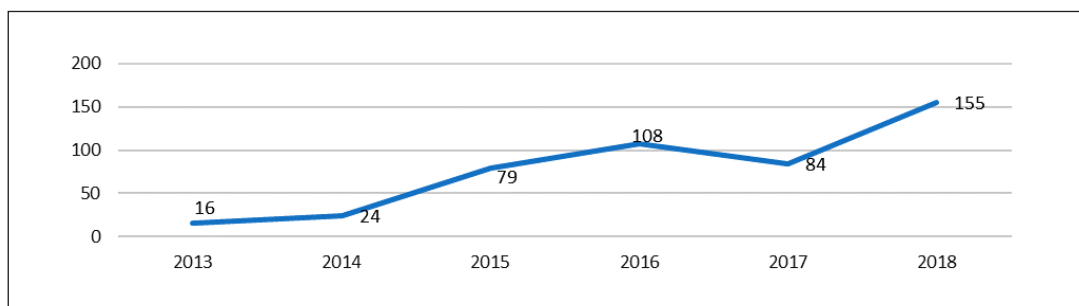
Year	2011	2012	2017	2018
State	Malacca	Penang, Johor	WP KL, Kelantan, Terengganu	N.Sembilan

Source: Disease Control Division, MOH

Until 2018, 23 public places has been gazetted as smoke-free under Regulation 11, CTPR. Non air-conditioned eateries was gazetted as smoke free on 24 December 2018. This regulation will be enforced on 1 January 2019.

The Blue Ribbon campaign was initiated to acknowledge those who have contributed to the initiative to create smoke-free environments. The number of premises that received blue ribbon certification are illustrated in *Figure 4.7*

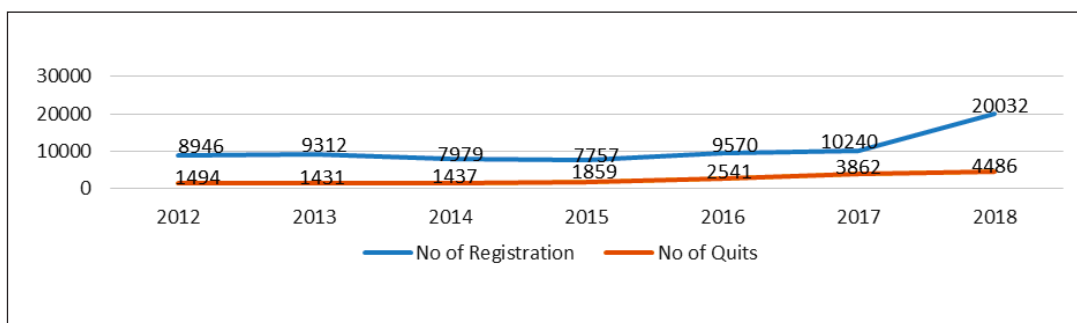
**Figure 4.7**  
Number of Premises that Received Blue Ribbon Certification, 2013 to 2018



Source: Disease Control Division, MOH

The number of registrations for quit smoking services and total number of quits are illustrated in **Figure 4.8**

**Figure 4.8**  
**Number of Registration of Quit Smoking Services and Number of Quits 2012 to 2018**



Source: Disease Control Division, MOH

### Warn About The Danger Of Tobacco

Education and advocacy through mass media such as television, radio and social media.

### Enforce Ban On Tobacco Advertising, Promotion And Sponsorship

Monitoring of all form of advertising, promotion and sponsorship for any tobacco products.

### Raise Taxes On Tobacco

Excise tax for tobacco products was not increased in 2018. However, the tax system was changed from GST (6 per cent) to SST (10 per cent) and thus led to an increase of retail cigarette price by 4 per cent.

## NCD INTERVENTION SECTOR

### **Komuniti Sihat Pembina Negara (KOSPEN)**

*Komuniti Sihat Pembina Negara (KOSPEN)* was a community-based intervention programme to prevent and control NCDs. The basis of KOSPEN was to empower communities and individuals towards a healthy lifestyle, through health volunteers who acted as an agent of change. The main scopes of KOSPEN were healthy diet, active lifestyle, body weight management, quit smoking and screening for NCD risk factors. KOSPEN had been implemented nationwide through multi-agency collaborations with the Ministry of Rural Development, Department of National Unity and Integration, Malaysian Communications and Multimedia Commission (MCMC) and Ministry of Defence.

In 2018, there were 5,954 KOSPEN localities compared to a much higher number of 6,044 in 2017 due to reprioritisation exercises that were done this year. There were 36,210 remaining active volunteers by December 2018. The total number of adults (18 years and above) who had been screened for NCD risk factors increased to 821,675, much higher in number compared to 725,625 in 2017. A total of 528 weight management programs were conducted. Of 7,181 participants who successfully completed the six-month weight management program, 71 per cent showed a decrease in body weight with an average weight loss of four per cent from the initial weight. In addition, 70 per cent of KOSPEN localities achieved the requirements for Healthy Menu Policy and 62 per cent achieved the targets for Smoke-Free House Program. Details of these achievements are illustrated in **Table 4.18**.



**Table 4.18**  
**Achievements of Healthy Environments in KOSPEN Localities**

Item	Localities achieving targets (%)
50 per cent of official functions served sugar separate from hot drinks	63
50 per cent of official functions served plain water in every menu	76
50 per cent of official functions served fruits in every menu	72
50 per cent of official functions served vegetables in main menu	69
Each locality must have at least one 10,000 walking track	85
All no smoking gazetted areas (PPKHT 2004) have "No Smoking" signage	83

*Source: Disease Control Division, MOH*

## **MENTAL HEALTH, SUBSTANCE ABUSE AND VIOLENCE INJURY PREVENTION (MESVIPP) SECTOR**

- MENTAL HEALTH PROGRAMME**

### **Community Mental Health Programme: Mental Health Promotion Advisory Council and Mental Health Promotion**

The Mental Health Promotion Advisory Council, chaired by the Minister of Health included key stakeholders from the health professionals and NGOs, and they provided input to the MOH on mental health related issues, where the Mental Health Unit acts as its Secretariat.

In conjunction with World Alzheimer's Month every September, MOH through collaborative efforts with the Alzheimer's Foundation Malaysia and Alzheimer's Disease International celebrated the elderly with Dementia on 8 September 2018. Among the activities conducted were the Memory Walk, Eye checks and Health Screening, Counselling and Mental Health Promotional Activities specially catered for the elderly.

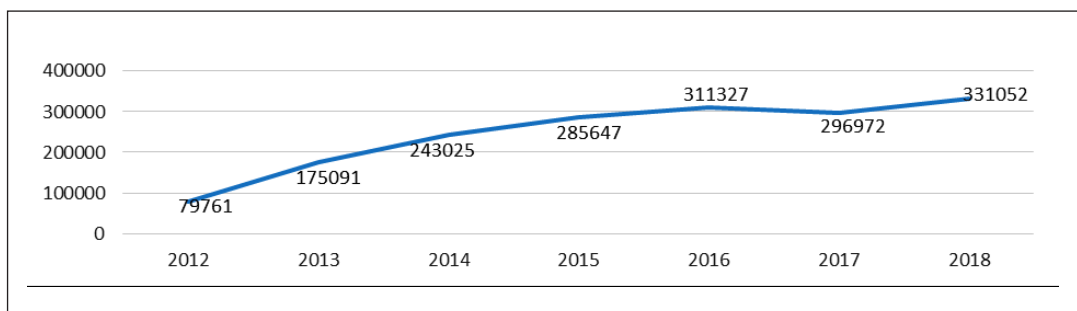
World Mental Health Day is observed on 10 October every year, to raise awareness of mental health issues around the world and mobilising efforts in support of mental health. The theme for 2018 WMHD celebrations was "Young people and Mental Health in a Changing World". The MOH in collaboration with the Ministry of Youth and Sports during its National Sports day celebrations organised the WMHD promotional activities for the adolescents.

### **Mental Health Services at The Primary Health Care: Mental Health Screening and Intervention and Follow-up of Stable Mentally Ill**

Mental Health Screening was available in 958 Health Clinics throughout Malaysia. Depression Anxiety and Stress Scale-21 (DASS-21) was used to assess the mental health status of clients. Patients with moderate to severe levels of depression, anxiety or stress were provided with appropriate interventions or referred to specialists for further management.

In 2018, 331,052 clients were screened (**Figure 4.9**) and 7,014 (2.1 per cent) cases were detected to have mental health problems and referred to the Family Medicine Specialist (FMS) or Medical Officer. Of these, 663 (9.4 per cent) were diagnosed with fulminant mental illness. There was a 5.4 per cent increase in number of screening in 2018 compared to that of 2017.

**Figure 4.9**  
**Total Cases Screened using DASS-21 at Primary Health Care, 2012 to 2018**



Source: Disease Control Division, MOH

Till December 2018, a total of 2,135 new cases of mental and behavioural disorders were detected at health clinics. Currently, there are a total of 23,063 cases on follow up treatment at the health clinics.

### **Mental Health Psychosocial Services In Disaster (MHPSS)**

The MOH was responsible for psychosocial support services for victims and rescue workers during disasters. A guideline was developed to facilitate a planned and coordinated mechanism of action in the management of Mental Health and Psychosocial Support (MHPSS) before, during and after disasters. In 2018, MOH collaborated with an NGO to conduct a training session on MHPSS for volunteers and frontliners which included Health Care Workers (HCWs).

- **ALCOHOL AND SUBSTANCE ABUSE PROGRAMME**

#### **Prevention and Minimising the Harmful Effect of Alcohol Programme**

Training of trainers for prevention and minimising the harmful effect of alcohol in primary care clinics and community was conducted for HCW. In 2018, 254 health clinics provided screening and brief intervention on alcohol, with follow-up interventions conducted in 108 community localities. In September 2018, there was an incident of methanol poisoning involving 97 cases with 48 fatalities. Majority (76 per cent) were foreigners. The poisoning was associated with consumption of illicit alcohol that contained methanol.

#### **Substance Abuse**

A pilot project on One Stop Center for Addiction (OSCA) has been initiated in six (6) zones; KK Butterworth (Penang), KK Batu 9 Cheras (Selangor), KK Masjid Tanah (Melaka), KK Kuala Besut (Terengganu), KK Tudan (Sarawak) and KK Menggatal (Sabah). OSCA was a comprehensive, holistic and integrated services in primary care for management and intervention of drug abuse and dependence.

- **VIOLENCE INJURY PREVENTION PROGRAMME**

### **Training Module for Awareness and Prevention of Sexual Child Abuse for Healthcare Providers**

Training of trainers (ToT) sessions had been conducted to strengthen and empower the healthcare staffs specifically in primary care for awareness and prevention of sexual child abuse. The ToT sessions were conducted at five (5) zones; Kelantan, Kuala Lumpur, Sabah, Kedah and Sarawak, and 95 HCW had been trained.

### **Violence and Injury Prevention Surveillance Systems (VIPSS)**

A system called VIPSS was being developed together with the Information Management Division of the MOH. It was on field trial in four (4) hospitals namely Hospital Putrajaya, Hospital Klang, Hospital Serdang and Hospital Kuala Lumpur. This web-based computerised system will provide better quality data related to child mal-treatment and used by all SCAN Teams in MOH Hospitals. The plan was to expand use of this system to OSCC and other violence and injury related cases.

## **OCCUPATIONAL AND ENVIRONMENTAL HEALTH SECTOR**

- **OCCUPATIONAL HEALTH PROGRAMMES**

### **Sharps Injury Surveillance (SIS) Among Healthcare Workers (HCWs)**

A total of 1,652 cases of sharps injuries were notified to the Occupational Health Unit, Ministry of Health Malaysia. The number of cases reported this year showed a decrease of 0.03 per cent compared with 1,655 cases in 2017.

### **Surveillance Of Notification Of Accident, Dangerous Occurrence, Occupational Poisoning And Occupational Disease (NADOPOD) Among HCWs**

There were 1,385 cases of accidents and injuries (not including sharp injuries), reported among healthcare workers in 2018, a decrease of 4.9 per cent compared to 2017 which recorded 1,453 cases. In 2018, there were 107 poisoning cases notified as compared to 111 cases in 2017, a decrease of 3.7 per cent. Meanwhile, there were 167 cases of occupational lung diseases notified in 2018 compared to 143 in 2017. In the year 2018, 107 cases of occupational skin diseases were notified compared to 88 in the previous year. There were 48 cases of Occupational Noise Induced Hearing Loss (NIHL) reported compared to 61 cases in 2017. A total of 2,402 (74.8 per cent) cases of accidents and occupational diseases were investigated from a total of 3,210 cases notified in 2018 compared 2,591 cases investigated in year 2017.

### **Screening of Tuberculosis Among High-Risk Health Care Workers**

In the year 2018, a total of 180,602 HCW were categorised as in the high-risk groups of which 38,857 (21.5 per cent) have been screened across the country through this program.

### **Hepatitis B Immunisation of Health Care Workers**

In 2018, a total of 8,992 HCW have signed up for Group 1 and 3,137 (34.9 per cent) HCW were found to have completed 3 doses of vaccination. A total of 1,634 (52.1 per cent) HCW were screened for anti-HBs and 1,429 (87.5 per cent) were anti-HBs reactive. Meanwhile, the total registered HCW for Group 2 in 2018 was 21,165 with about 15,736 (74.3 per cent) HCWs were screened for anti-HBs. Of that total, 12,829 (81.5 per cent) were anti-HBs reactive.

### **KOSPEN Plus**

In the year of 2018, KOSPEN Plus program has achieved its target for Minister's Performance Indicator (MPI). A total of 223 new public and private settings implemented KOSPEN Plus program surpassing the initial target of 180 new workplaces (settings) per year. Meanwhile, a total of 15,743 out of 19,057 workers which amounted to 82.6 per cent were screened for NCD risk factors. This exceeded the target of 60 per cent of workers under KOSPEN Plus program in the current year screened for NCD risk factors.

- **ENVIRONMENTAL HEALTH PROGRAMMES**

#### **Monitoring in Immigration Detention Depot, Prison and Day Care Centre**

The main function of Environmental Health Unit (EHU) is conducting environmental health assessments on various settings and institution, providing technical input to non-health sectors for addressing the environmental determinants of health and advocate for sustainable development.

Based on environmental requirement monitoring in 2018, 11 per cent of depots and 50 per cent of prisons failed to comply with the environmental requirements. A total of 987 assessments were conducted in day care centres (elderly, disabled, orphanage, rehabilitation centre).

#### **Trainings and Awareness Programmes**

Programmes that were conducted included; (i) Health Impact Assessment training for health professionals in health and non-health sector in Sarawak; (ii) Awareness programme for health professionals on climate change and health was conducted in five (5) states; (iii) Healthy setting training for health staff in Selangor and Pahang; (iv) First National Training of Trainers On Health Effects Of Heavy Metal Exposure; and (v) Radiological Emergency lectures at Radiological Emergency Seminar in Melaka and Malaysian Emergency Medicine Radiation Training.

#### **Disasters: Haze, Heatwave and Floods**

The EHU also monitored the trends of environmental-related diseases due to natural disaster, air pollution and heatwave. The Guideline for Health Management during Haze was reviewed. Risk communication and public awareness related to hot weather was conducted on mass media (TV and Radio). A total of 66 heat-related illnesses were reported in 2018. A total of four (4) flood episodes occurred with 21,551 evacuees and two (2) deaths.

## Technical inputs to other governmental agencies and organisations

Providing technical input at various platforms such as workshops, meeting and reviewing documents on various environmental health related issues which includes (i) Development of Standard Operating Procedure (SOP) Haze (NADMA); (ii) National Haze Action Plan (DOE); (iii) SOP Open Burning (DOE); (iv) Ambient Standard for toxic air pollutants (BTEX) (DOE); (v) Minamata Initial National Assessment (MIA), Minamata Convention (MESTECC); (vi) Third National Communication (NC3) And Second Biennial Update Report (BUR2) on Climate Change (MESTECC); (vii) Country profile on air quality (WHO); (viii) National Action Plan for Rotterdam Convention; (ix) Health impact assessment of development projects; and (x) Thematic Working Group (climate change, air quality, and HIA).

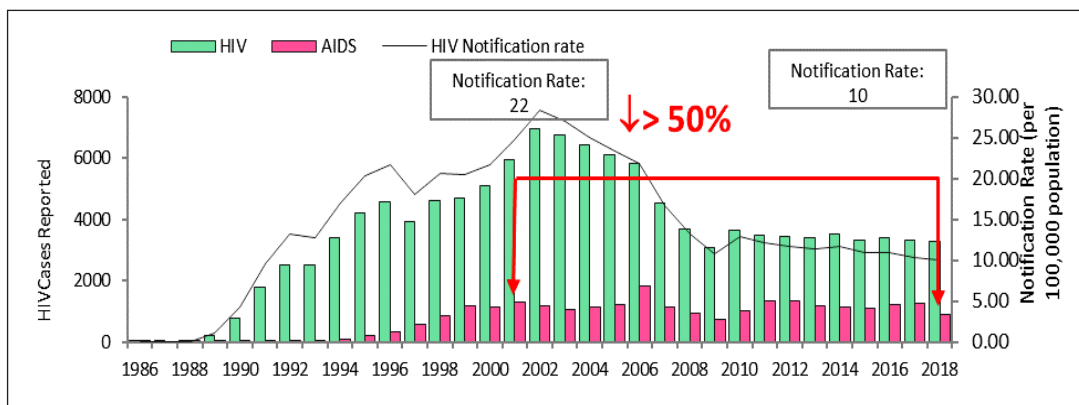
## HIV/STI/HEPATITIS C SECTOR

### The HIV Epidemic

Malaysia had recorded many successes in the quest to halt and reverse the HIV epidemic. Backed by strong political support, workable policy, participation and perseverance (4P), the country moved closer towards realizing this goal.

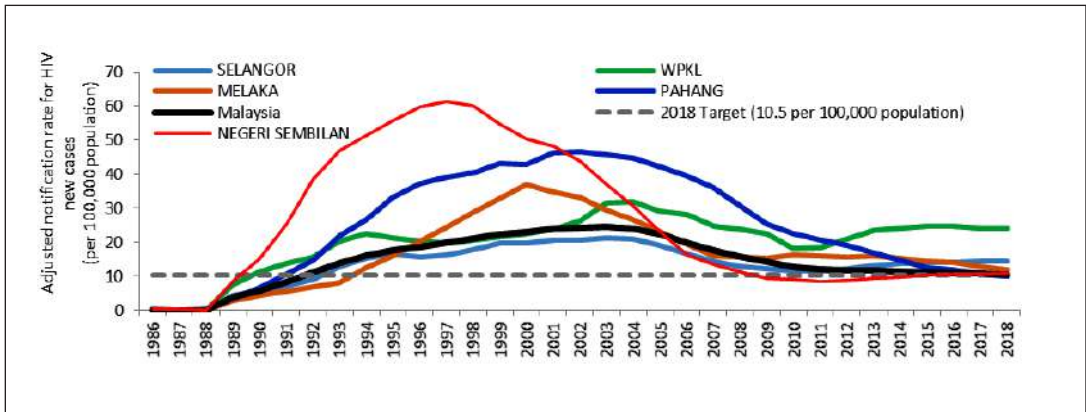
By the end of 2018, new cases of HIV in Malaysia had reduced by 55 per cent (from 22.0 cases notified per 100,000 population to 10.0 cases notified per 100,000 population) (**Figure 4.10**), while the number of HIV/AIDS related deaths stabilized during the same period. Five (5) states with the highest notification rate (adjusted) for new HIV cases included Federal Territory of Kuala Lumpur, Selangor, Melaka, Negeri Sembilan and Pahang (**Figure 4.11**). Key populations such as people with injecting drug use (PWID), female sex workers (FSW), transgender people (TG) and men who have sex with men (MSM) represent the most affected sub-population with infection rates exceeding 5 per cent.

**Figure 4.10**  
Reported HIV, AIDS and HIV notification rate, Malaysia 1986 to 2018



Source : Disease Control Division, MOH

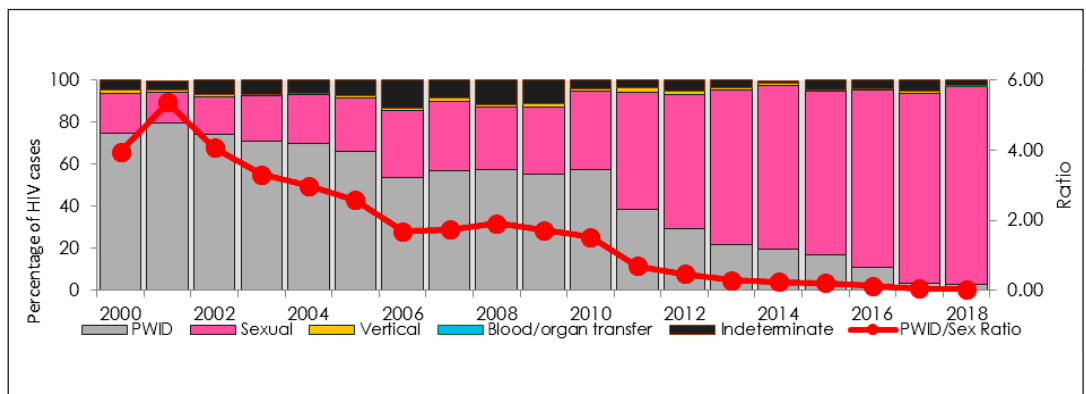
**Figure 4.11**  
**Five States with Highest Notification Rate for HIV New Cases: Malaysia 1986 to 2018**



Source : Disease Control Division, MOH

Transmission of HIV was largely among PWID but a shift in pattern was seen as the PWID/sexual transmission ratio was declining from 4 to 0.03 between 2000 and 2018 (Figure 4.12). The decline was the result of Harm Reduction programme incepted in 2006, while the lack of safe-sex practices among other sub-populations had contributed to an increase in new cases. Currently, sexual transmission contributed to 94 per cent of the new HIV cases.

**Figure 4.12**  
**Reported HIV Cases by Mode of Transmission and PWID/Sex ratio, Malaysia 2000 to 2018**



Source : Disease Control Division, MOH

### “ENDING AIDS”: WHAT HAVE WE ACHIEVED?

Malaysia’s NSPEA (2016-2030) adopted “Ending AIDS” as its vision, in line with requirements as per the Sustainable Development Goals. It also adopted the UNAIDS strategic guidance on Fast Tracking to reach 90-90-90 by 2020 and Ending AIDS by 2030. “Ending AIDS” aimed for 90 per cent of people living with HIV knowing their HIV status, 90 per cent of people who know their status receiving treatment and 90 per cent of people on HIV treatment having a suppressed viral load by 2020. By the end of 2018, it was estimated that 86 per cent (75,040) of

all PLHIVs in Malaysia knew their HIV status, of whom 55 per cent (41,430) were on life-saving antiretroviral therapy (ART). Majority PLHIV receiving treatment were on first line therapy in 2018. Data from major treatment centres had shown 97 per cent PLHIV on treatment were virally suppressed (viral load count <1000 copies/ml).

In 2018, another notable national achievement was being the first country in the Western Pacific Region, and the 12<sup>th</sup> country globally to be certified as having eliminated mother-to-child transmission of HIV and syphilis (eMTCT). The certification of eMTCT denotes that HIV transmission from mother to child no longer constituted a public health problem in Malaysia.

## KEY CHALLENGES AND WAY FORWARD

If intervention remains as before, with no new investment in the response, 'Ending AIDS by 2030' target will not be met. The key to significantly reducing new HIV infections was to scale up the prevention and to accelerate treatment through:

- i. Enhancing HIV screening services beyond the static health facilities to include community-based testing and self-testing.
- ii. Accelerating treatment to all, as it is effective in reducing sexual transmission.
- iii. Mitigate sexual transmission of HIV among key populations. Promoting persistent condom use and at the same time addressing substance and alcohol use among key population can make a big impact in reducing HIV through sexual transmission.

## ZOONOSIS SECTOR

### Leptospirosis

In 2018, 5,056 cases including 36 deaths of leptospirosis were registered in the CDCIS e-Notification system (case fatality rate of 0.7 per cent), giving an incidence rate of 15.39 per 100,000 population (**Figure 4.13**). Males made up 70 per cent of all cases and 46 per cent were in the age group of 25 to 55 years. There were 30 reported leptospirosis outbreaks for 2018 and 41 per cent occurred in household.

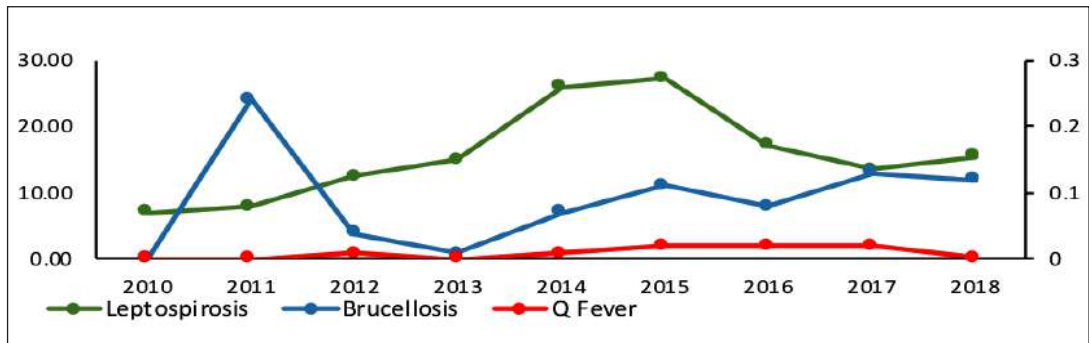
### Brucellosis

Brucellosis was made to be notifiable by administrative order on the 6 September 2012. This was precipitated by an outbreak in 2011 reported amongst people who consumed unpasteurised goat milk from a farm in Pulau Pinang. In 2018, there were 40 lab-confirmed brucellosis cases reported by the Bacteriology Unit of Institute for Medical Research, which included three (3) cases from an outbreak in Selangor and five (5) cases from an outbreak in Terengganu. The incidence is shown in **Figure 4.13**

### Q Fever

Positive Q Fever cases are notified by the Institute for Medical Research (IMR) to Disease Control Division. In 2018, one (1) case was reported in Kelantan with a history of contact with livestock. The incidence is shown in **Figure 4.13**.

**Figure 4.13**  
**Incidence Rate for brucellosis, Q fever and leptospirosis 2010 to 2018**  
*per 100,000 population, in Malaysia, 2010 until 2018*



Source :Disease Control Division, MOH

### Rabies

For 2018, there were 10 cases of human rabies reported in Sarawak; all succumbed to the disease. Since July 2017, the total number of rabies recorded in Malaysia was 16 cases including 15 deaths. One child survived but with severe neurological complication.

### Avian Influenza, Nipah, Ebola dan Plague

There was no case of Avian Influenza, Ebola, Nipah and Plague reported in 2018.

### Melioidosis

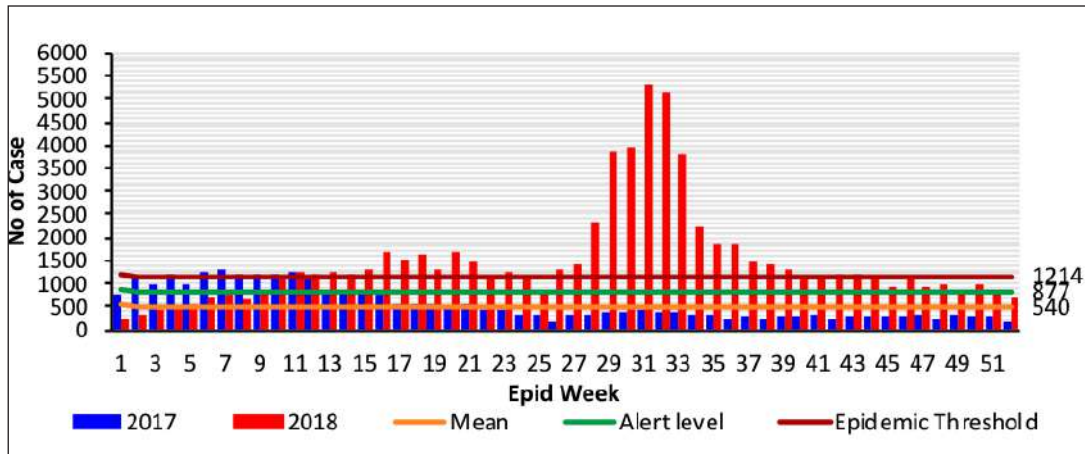
Melioidosis was made administratively notifiable on 9 January 2015 after the outbreaks involving rescue personnel in Lubuk Yu, Maran, Pahang in 2010 and floods in northern Peninsular Malaysia during the end of 2014 to early 2015. There were 377 cases reported to Disease Control Division including 80 deaths in 2018 with two (2) outbreaks in Kedah and Sarawak.

### Hand, Foot and Mouth Disease

The number of HFMD cases reported in 2018 was 76,446 reflecting an incidence rate of 232.62 per 100,000 populations. The cases reported were close to three (3) times higher compared to 2017 (29,359). Three (3) HFMD deaths were reported in 2018 each one case from Pulau Pinang, Selangor and Sarawak. There were also 1,941 HFMD outbreaks in 2018. The trend for HFMD was depicted in **Figure 4.14**. In 2018, the predominant circulating HFMD strain in Peninsular Malaysia was Coxsackie A16 (41 per cent). However, the predominant circulating virus for Sabah and Sarawak was Enterovirus 71, comprising of 41 per cent and 52 per cent respectively.



**Figure 4.14**  
**Trend of HFMD in Malaysia, 2017 and 2018**



Source : Disease Control Division, MOH

## VECTOR BORNE DISEASE SECTOR

### DENGUE AND CHIKUNGUNYA

#### Dengue

In 2018, a total of 80,615 Dengue cases were reported, a reduction of 3.9 percent compared to cases reported in 2017. The Dengue incidence rate was 245.3 per 100,000 population, a decrease of 5.3 per cent compared to 2017. A total of 147 deaths were reported in 2018, presenting a reduction of 13.6 per cent compared to the reported figures in 2017. The case fatality rate (CFR) was 0.18 percent in 2018, a decrease of 13.6 per cent in comparison to 2017.

An analysis of Dengue cases in 2018 also showed that 65.7 per cent of Dengue cases and 35.4 per cent of Dengue deaths occurred in the Klang Valley involving the state of Selangor and Federal Territory of Kuala Lumpur-Putrajaya. From the analysis, 75 per cent of the reported cases occurred in the urban areas and 86 percent of the epidemic sites had Aedes breeding indices above WHO's limit of 1 percent.

#### Chikungunya

In 2018, a total of 87 Chikungunya cases were reported which was a reduction of 69 per cent of the number reported in 2017. The Chikungunya cases were reported; 77 cases in Kelantan State, five (50 cases in Kedah, two (2) cases in Selangor and one (1) cases in Perlis state, Sabah and Sarawak.

### MALARIA ELIMINATION PROGRAMME

Malaysia aimed to achieve malaria elimination by 2020 and had successfully achieved zero indigenous human malaria cases for the first time in 2018. Concurrently 8 out of 15 states in

Malaysia achieved zero indigenous human malaria for at least three (3) consecutive years. Malaysia remains on track to achieve zero indigenous human malaria by 2020. In 2018, Malaysia reported 478 imported human malaria and 4,131 cases for zoonotic malaria. There were 12 deaths reported which were attributed to zoonotic malaria infection.

Malaysia continued to put emphasis on post-elimination surveillance to prevent malaria re-introduction. For this purpose, Malaysia had started using MyFoci, a web-based foci registration system and as a tool to guide the programme in implementation of intervention activities at the foci level. Concurrently, Ministry of Health was in collaboration with Malaysia Remote Sensing Agency (MRSAs) to develop 'Malaria Geo-Reference Information and Coordination System for Malaria Elimination' (MAGICs.ME), a system equipped with geospatial and remote sensing technology.

## **LYMPHATIC FILARIASIS ELIMINATION PROGRAM AND JAPANESE ENCEPHALITIS**

### **Filariasis**

In Malaysia, there are 127 endemic Implementation Unit (IU) or red IUs with microfilaria positivity rate greater than 1 per cent involving eight (8) states; Kedah, Perak, Johor, Pahang, Terengganu, Kelantan, Sabah and Sarawak. This involved total population of 1,117,733 people in endemic areas after mapping done in 2002. In the 2<sup>nd</sup> phase of elimination, mass drug administration (MDA) using combination of two (2) drugs; Diethylcarbamazine (DEC) and Albendazole involved the entire population in endemic areas for minimum of five (5) cycles. Malaysia managed to achieve MDA coverage of more than 80 per cent of total population in the targeted IU.

In 2018, a total of 105 out of 127 IUs had achieved less than 1 per cent of microfilaria rate. 21 IUs had completed MDA cycle and currently in the post MDA surveillance phase. We were now left with only one (1) IU, Debak in Sarawak that will undergo additional two (2) cycles of MDA using triple drug therapy (Ivermectin + DEC + Albendazole) as planned.

### **Japanese Encephalitis**

In 2018, there were 28 reported Japanese Encephalitis (JE) cases in Malaysia, an increase of 5 cases (2.2 per cent) as compared to 23 cases in 2017. Sarawak contributed the highest number with 12 cases (42.9 per cent); followed by Perak and Sabah each with five (5) cases (17.9 per cent); four (4) cases (14.3 per cent) in Kedah and one (1) case reported in Negeri Sembilan and Pulau Pinang. Two (2) deaths were reported in 2018, one each from Sarawak and Perak. The national incidence rate (IR) increased from IR 0.07 per 100,000 populations in 2017 to IR 0.09 in 2018.

**Table 4.19** showed the distribution of Vector Borne Diseases by State for year 2018

**Table 4.19**  
**Distribution of Vector Borne Diseases by State for year 2018**

State	Dengue (*)	Malaria			Filariasis	Chikungunya	Japanese Encephalitis (*)
		Human Malaria		Zoonotic Malaria (*)			
		Introduced	Import				
Perlis	369 (0)	0	0	1 (0)	0	1	0
Kedah	2,190 (7)	2	3	29 (0)	17	5	4 (1)
Penang	6,071 (16)	0	5	1 (0)	10	0	1
Perak	2,736 (6)	0	9	175 (1)	14	0	5
Selangor	45,349 (41)	0	57	45 (1)	0	2	0
WPKL	7,591 (11)	0	17	1 (0)	0	0	0
N.Sembilan	1,864 (6)	0	11	30 (1)	33	0	1
Malacca	722 (0)	0	3	4 (0)	0	0	0
Johor	5,885 (20)	0	22	42 (0)	33	0	0
Pahang	990 (3)	0	4	119 (1)	22	0	0
Terengganu	550 (3)	6	1	38 (0)	6	0	0
Kelantan	1,950 (4)	5	17	113 (1)	5	77	0
Sarawak	823 (1)	3	304	1,247 (5)	121	1	12 (1)
Sabah	3,423 (29)	5	25	2,286 (2)	139	1	5
WP Labuan	102 (0)	0	0	0	0	0	0
<b>TOTAL</b>	<b>80,615 (147)</b>	<b>21</b>	<b>478</b>	<b>4131 (12)</b>	<b>402</b>	<b>87</b>	<b>28</b>

Note : (\*) Death

Source : Disease Control Division, MOH

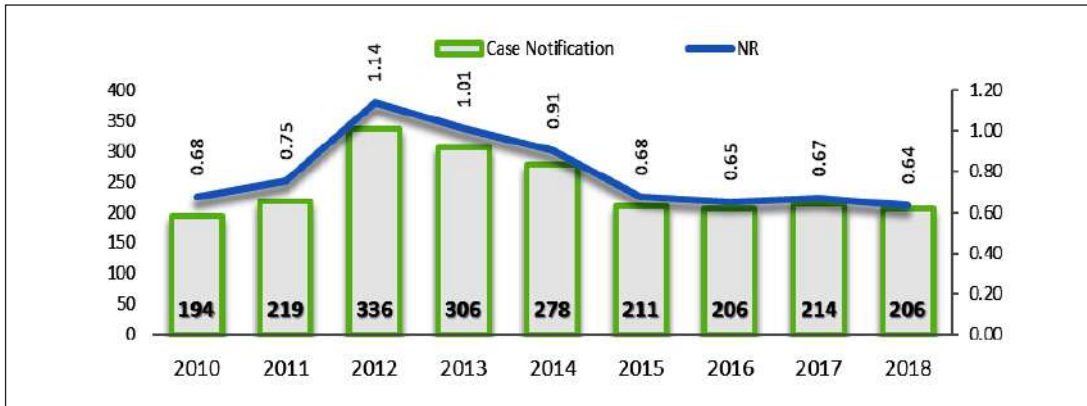
## TUBERCULOSIS & LEPROSY SECTOR

### NATIONAL LEPROSY CONTROL PROGRAMME ACHIEVEMENT 2018

#### Case Notification and Notification Rate

Malaysia had achieved leprosy elimination status since 1994 at a prevalence rate of 0.9 cases for every 10,000 population. However, there were several endemic areas still had not achieved the elimination level (less than 1 case for every 10,000 population). In 2018, 206 leprosy cases were reported, a decrease of 3.7 per cent from the year before (214 cases) (Figure 4.15)

**Figure 4.15**  
**Leprosy Case Notification and Notification Rate, 2010 to 2018**

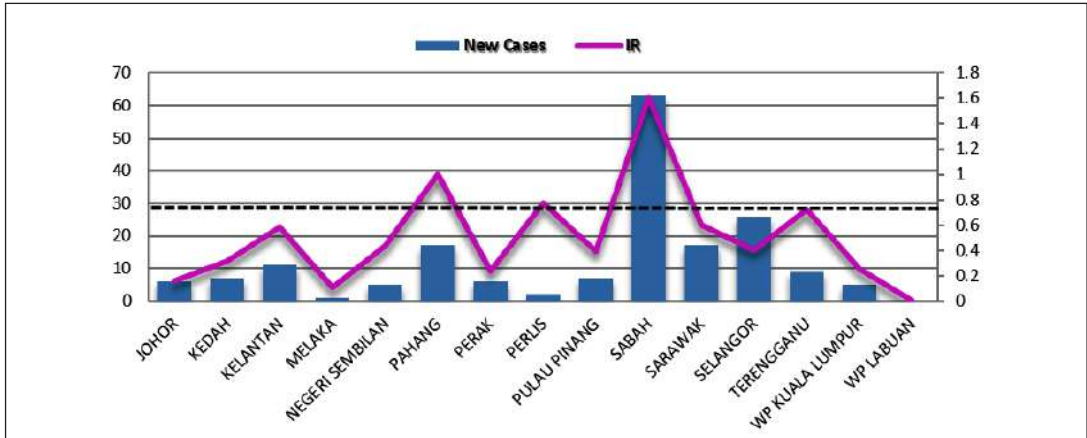


Source : Disease Control Division, MOH

### New Leprosy Cases and Incidence Rate (IR)

In 2018, Sabah and Pahang recorded high incidence rate which was above the target set i.e. Sabah - 1.6.cases/100,000 population and Pahang - 1 case/100,000 population (target for IR is set at <1 case/100,000 population) (Figure 4.16).

**Figure 4.16**  
**New Leprosy Cases and Incidence Rate (IR)**



Source : Disease Control Division, MOH

### Achievement of the Leprosy Programme Indicators

Referring to Table 4.20, Malaysia boasted a prevalence rate of 0.14 cases for every 10,000 population and incidence rate of 0.57 cases/100,000 population. The percentage for completed treatment among the new cases was very low i.e. 52.4 per cent against the target set at 80 per cent while the percentage of new leprosy cases in children recorded at 5.5 per cent, too, did not achieve the target (<3 per cent). New cases with Grade 2 Deformity were reported at 0.03 cases/100,000 population, above the target set at <0.02 cases/100,000 population.

**Table 4.20**  
**2018 Achievement of the Leprosy Programme Indicators by State**

State	Notification		New Cases		Cases in Treatment		Paediatric Cases (New)		New Cases + G2D		Completed Treatment (New Cases)		
	All cases	Notification Rate	All cases	Incidence Rate	All Cases	Prevalence Rate	All cases	Percentage (%)	All cases	G2D Rate	Completed Treatment	New Cases	Percentage (%)
Johor	8	0.22	6	0.16	30	0.08	-	-	-	-	1	15	6.7
Kedah	7	0.33	7	0.32	14	0.07	-	-	1	0.05	4	6	66.7
Kelantan	12	0.67	11	0.58	30	0.17	1	9.1	1	0.06	9	10	90.0
Melaka	3	0.33	1	0.11	5	0.06	-	-	-	0.00	1	1	100.0
Negeri Sembilan	6	0.52	5	0.44	16	0.14	-	-	2	0.17	3	5	60.0
Pahang	21	1.23	17	1.00	49	0.29	1	5.9	-	-	5	20	25.0
Perak	9	0.35	6	0.23	19	0.07	-	-	-	-	4	4	100.0
Perlis	2	0.79	2	0.77	5	0.20	-	-	1	0.39	2	2	100.0
Pulau Pinang	8	0.47	7	0.40	13	0.08	-	-	1	0.06	4	6	66.7
Sabah	64	1.72	63	1.61	108	0.29	8	12.7	3	0.08	55	71	77.5
Sarawak	19	0.70	17	0.60	36	0.13	-	-	-	-	4	12	33.3
Selangor	29	0.48	26	0.40	46	0.08	-	-	-	-	2	22	9.1
Terengganu	11	0.90	9	0.72	29	0.24	-	-	1	0.08	2	6	33.3
WPKL	7	0.37	5	0.25	33	0.17	-	-	-	-	3	9	33.3
WPLabuan	-	-	-	-	1	0.10	-	-	-	-	-	-	-
<b>Malaysia</b>	<b>206</b>	<b>0.65</b>	<b>182</b>	<b>0.57</b>	<b>434</b>	<b>0.14</b>	<b>10</b>	<b>5.5</b>	<b>10</b>	<b>0.03</b>	<b>99</b>	<b>189</b>	<b>52.4</b>

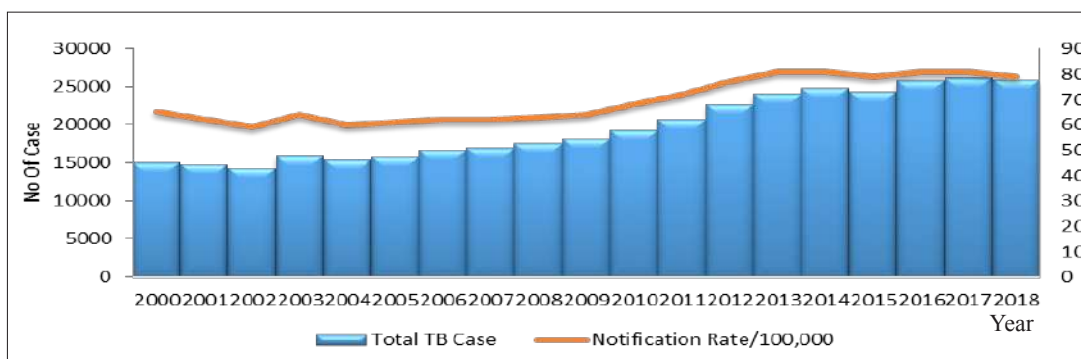
Source : Disease Control Division, MOH

This presents a need to focus on delivering adequate and complete treatment as well as early detection in order to control and contain the transmission of leprosy among vulnerable children, in particular. Early detection will prevent leprosy patients from developing and suffering with permanent disability. Leprosy control and its strategy also need to be targeted at endemic localities as well as high risk population and individuals such as Orang Asli, Pribumis and foreigners.

### NATIONAL TUBERCULOSIS PREVENTION & CONTROL PROGRAM ACHIEVEMENT (2018)

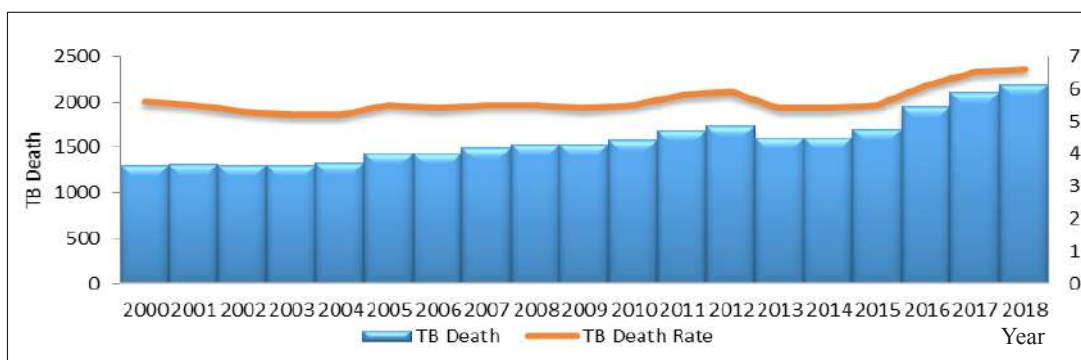
Tuberculosis (TB) remains a public health problem globally and for Malaysia. Total number of notified TB cases for 2018 was 25,837 cases (NR 78.6 per 100,000 populations) a reduction of 1.3 per cent compared to 26,168 cases (NR 81.3 per 100,000 populations) in 2017. Number of TB deaths increased from 2,098 deaths (MR 6.5 per 100,000 populations) in 2017 to 2184 deaths (MR 6.6 per 100,000 populations) in 2018 (**Figure 4.17** and **4.18**)

**Figure 4.17**  
Total Number of Case and Notification Rate of TB for Malaysia (2000 to 2018)



Source : Disease Control Division, MOH

**Figure 4.18**  
Total Number of TB Death and Mortality Rate (MR) for Malaysia (2000 to 2018)



Source : Disease Control Division, MOH

## TB SURVEILLANCE

Of the 25,837 TB cases notified in 2018, 23,805 (92.1 per cent) were new cases, 1,372 (5.3 per cent) were relapse cases, 577 (2.2 per cent) were treatment after default cases and 82 (0.3 per cent) were treatment after failure case. Of this 25,837 cases, 15,337 (59.4 per cent) were pulmonary TB smear positive cases, 5,907 (22.9 per cent) pulmonary TB smear negative/smear not done/not known cases, 3,779 (14.6 per cent) were extra-pulmonary TB cases and 814 (3.1 per cent) were pulmonary TB and extra-pulmonary TB cases.

### TB Cases By State

Selangor contributed the highest number of TB cases i.e. 5,071 cases (19.6 per cent) followed by Sabah 5,008 cases (19.4 per cent) and Sarawak 3,122 cases (12.1 per cent). Number of TB cases and notification rate of other states in Malaysia is further illustrated in **Table 4.21**

**Table 4.21**  
**Total TB Case, Notification Rate, TB Mortality and TB Mortality Rate according to States (2018)**

States	Total Case	TB Notification Rate (per 100,000 population)	TB Death	TB Mortality Rate (per 100,000 population)
Johor	2150	56.24	146	3.82
Kedah	1336	60.56	154	6.98
Kelantan	1172	62.19	125	6.63
Malacca	622	66.55	64	6.85
NS	591	51.80	51	4.47
Pahang	940	55.20	91	5.34
Perak	1546	60.17	195	7.59
Perlis	134	51.70	18	6.94
PP	1228	69.49	151	8.54
Sabah	5008	127.77	376	9.59
Sarawak	3122	110.35	240	8.48
Selangor	5071	77.90	375	5.76
Terengganu	777	62.39	70	5.62
WPKL	2017	102.29	113	5.73
Labuan	123	122.51	15	14.94
<b>MALAYSIA</b>	<b>25837</b>	<b>78.62</b>	<b>2184</b>	<b>6.65</b>

Source : Disease Control Division, MOH

### TB by Gender and Age Group

Majority of TB cases were male (16,667 cases, 64.5 per cent). TB cases among pediatric age group were 728 cases (2.8 per cent) of all TB cases. Distribution of TB cases by age groups; 3759 cases (14.5 per cent) in the age group of 15-24 years old, 4795 cases (18.5 per cent) in the age group of 25-34 years old, 4458 cases (17.2 per cent) in the age group of 35-44 years old, 4319 cases ( 16.7 per cent) in the age group of 45-54 years old, 4021

cases (15.6 per cent) in the age group of 55-64 years old and 3757 cases (14.5 per cent) in the age group of 65 year old and above.

#### **TB Among Non-Malaysians**

TB cases among Non-Malaysian for 2018 was 3242 cases (12.5 per cent from the total cases), an increment of 3 per cent from 3133 cases in 2017.

#### **Comorbid TB-HIV**

For 2018, 22,861 (88.5 per cent) among the notified TB cases underwent HIV screening. Of these, 1352 cases (5.9 per cent) were HIV positive with 402 (30 per cent) of the latter had received HAART and 108 cases (8 per cent) had received CPT.

#### **TB Among Ministry of Health Workers (HCW)**

TB cases among Ministry of Health, healthcare worker for 2018 were 310 cases compared to 289 cases in 2017. Notification rate of TB among HCW increased to 126.5 per 100,000 HCWs in 2018 from 118.0 per 100,000 HCWs in 2017.

#### **Multi Drug Resistant TB (MDR –TB)**

There were 64 cases of MDR-TB notified in the year 2018 making up 0.2 per cent of all notified TB cases in 2018.

### **TB PREVENTION AND CONTROL ACTIVITIES**

#### **BCG Vaccination Programme**

BCG coverage was above 98 per cent since the year 2000 and onwards. The achievement was 98.4 per cent for the year 2018.

#### **TB Screening Programme**

For 2018, 554,882 out-patients (1,688 per 100,000 populations) were screened for TB symptoms and 15,690 of them had positive AFB direct smear examination. A total of 179,423 contacts were examined at first visit to healthcare facilities in 2018 with 531 cases diagnosed and treated with TB. Meanwhile, a total of 441,696 individual identified to be at higher risks of contracting TB were screened by chest radiograph and a total of 3,424 positive cases was found and subsequently treated with anti-TB.

### **VACCINE PREVENTABLE DISEASE/FOOD & WATER-BORNE DISEASE SECTOR**

#### **VACCINE PREVENTABLE DISEASE PROGRAMME**

##### **Poliomyelitis**

Malaysia were declared polio-free in October 2000, along with other countries in the Western Pacific Region. In 2010, Malaysia had stopped administering tOPV and switched to using inactivated polio vaccine (IPV) for immunization of children at age 2, 3, 5 and 18 months following the declaration of successful worldwide eradication of type 2 wild polio (WPV2) virus by the Global Commission for Polio Eradication Certification on 20 September 2015. Thus, the trivalent oral polio vaccine (tOPV) for children aged 7 years at school as the additional



dose was discontinued in 2016. The remaining surplus of the tOPV were centrally disposed at the Institute of Medical Research (IMR) in 2016. Nationwide survey were conducted to verify and follow-up on the eradication of wild poliovirus (WPV2) or polioviruses emerging from the use of tOPV (VDPV2) still being kept at any laboratory. All existing WPV2 isolates were directed to IMR for disposal to avoid the risk of infection.

The Contingency Plan for the Importation of Wild Polio Virus endorsed by the National Committee on Certification (NCC) Polio Eradication Program in 2011 was revised and updated in 2015. In 2018, AFP surveillance has achieved AFP's non-polio rate of 2.2 per 100,000 population of less than 15 years old, exceeding the target set by WHO of 1 in 100,000. However, AFP surveillance quality should be improved especially for rate of non-polio enterovirus isolation and delivery of two stool samples within 14 days after the onset of paralysis (**Table 4.22**).

**Table 4.22**  
**AFP Surveillance Indicator, 2014 to 2017**

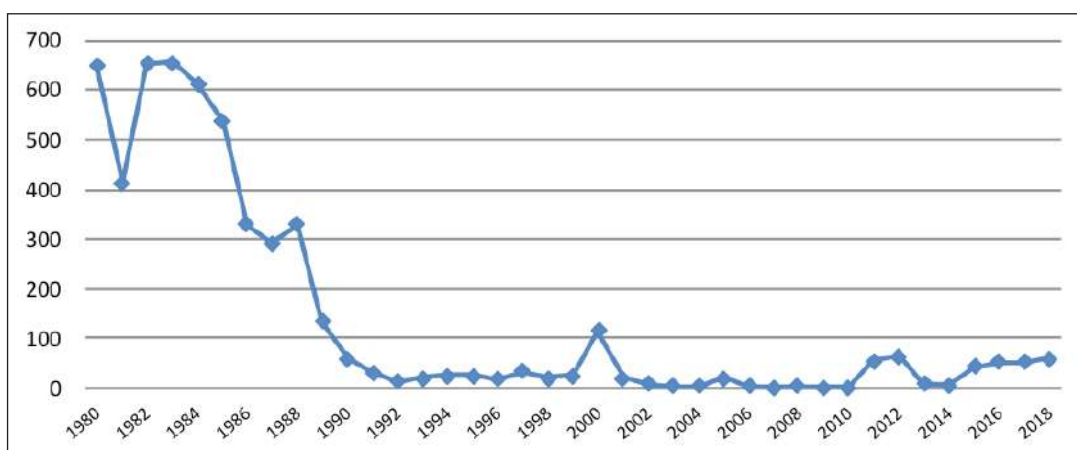
No.	Indicator	Target	2014	2015	2016	2017	2018
1.	<i>Non-polio</i> AFP rate per 100,000 penduduk berumur <15 tahun)	≥1	2.1	1.9	1.9	2.0	2.2
2.	Per cent AFP case with <i>adequate stool</i> (Discard 1)	≥80 per cent	73.3	77.1	80.4	80.5	78.4
3.	Per cent AFP case notified within 14 days of paralysis onset	≥80 per cent	83.2	80.6	80.4	89.6	84.2
4.	Per cent AFP cases investigated within 48 hour after notification	≥80 per cent	87.0	79.2	81.1	89.6	87.7
5.	Per cent AFP case with <i>inadequate stools</i> sample followed-up	≥80 per cent	100.0	96.9	100.0	96.7	100
6.	Per cent AFP case with <i>follow-up</i>	≥80 per cent	98.8	96.5	100.0	98.7	99.4
7.	Per cent <i>non-polio enterovirus</i> isolated	≥10 per cent	1.6	5.4	3.9	4.5	4.5

Source: Disease Control Division, MOH

### Measles

The increase in number of measles since 2014 continued until 2018. In 2018, 1,958 cases were reported with an incidence rate of 59.6 per 1,000,000 population, a rate much higher compared to 1,709 cases (incidence rate of 52.8/1,000,000) in 2017, as shown in **Figure 4.19**. A total of 34 per cent of cases had never received measles vaccine and 25 per cent of cases were still not eligible for vaccination (less than 9 months old).

**Figure 4.19**  
**Measles Incidence Rate per 1,000,000 People in Malaysia, 1980 to 2018**



Source: Disease Control Division, MOH

In 2018, there was an increase in the number of measles outbreaks (133 clusters), compared to 110 clusters in 2017 (**Table 4.23**). Selangor recorded the highest number of measles cluster for 2018 with 43 clusters, followed by Sarawak (29 clusters) and Terengganu (18 clusters). Most of the epidemics occurred among household members and in small numbers. There were only two (2) clusters involving more than 10 cases. The large number of cases for measles clusters demonstrated unsatisfactory level of herd immunity and the lack of effective prevention and control activities. Nevertheless, Supplementary Immunisation Activities (SIA) were conducted in Bintulu Sarawak following outbreaks of Measles in 2018. There were six (6) measles death in 2018; all victims had no history of measles immunization.

Until 2018, Malaysia still bore the endemic status for measles. The endemic virus genotypes of measles in Malaysia in 2018 were D8 and B3.

**Table 4.23**  
**Measles Elimination Program Indicator 2012 to 2018**

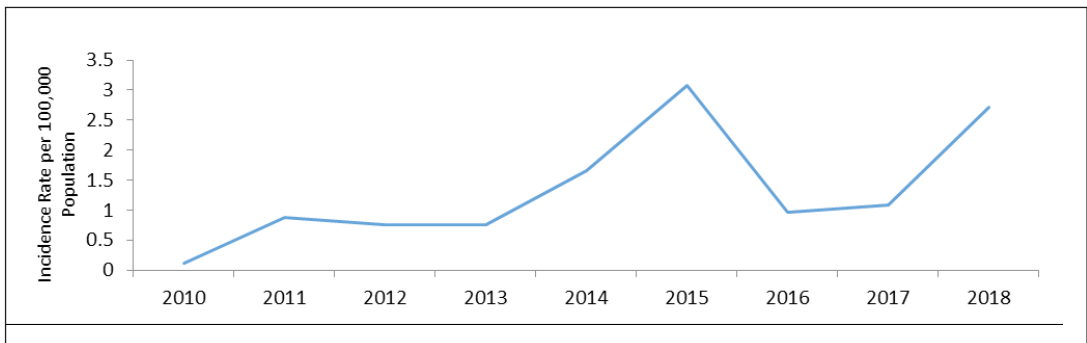
No	Indicator	Target	2012	2013	2014	2015	2016	2017	2018
<b>Incidence</b>									
1.	Confirmed measles cases(Lab confirmed, epid linked or clinically compatible)	<1/1 Million Population	63.9	6.6	7.8	43.2	51.4	52.8	59.6
<b>Surveillance Quality</b>									
1.	non-measles & non-rubella cases	≥2 kes/ 100,000 population	22.7	18.8	12.9	12.6	15.8	19.8	24.7
2.	per cent state reporting ≥ 2/ 100,000 non-measles, non-rubella cases	≥80 per cent	93.3	100.0	100.0	100.0	100.0	100.0	100.0
3	Case investigated within 48 hour after notification.	≥80 per cent	82.6	91.5	87.6	89.0	90.1	95.1	92.6
4.	Adequate blood specimen taken within 28 dys of rash onset	≥80 per cent	83.3	89.9	98.3	92.0	89.6	92.0	89.9
5.	Measles serology result available within 4 days	≥80 per cent	84.8	91.9	57.9	71.3	74.8	71.8	74.6
6.	Measles cases fully investigated	≥80 per cent	82.9	82.0	76.3	87.3	86.0	90.0	88.8

Source: Disease Control Division, MOH

### **Pertussis**

Incidence of Pertussis were increasing since 2010 (**Figure 4.20**) attributable to the introduction of the PCR test for case validation. In 2018, the number of cases had increased to 892 cases from 353 cases in 2017. About 64 per cent of these cases were of those less than 5 months old of age. The number of death cases also rose to 22 deaths from 13 deaths in the previous year. About 3 cases of pertussis mortality were among infants who were not yet eligible for pertussis immunization (1 month old) while 6 cases of death were among the non-citizens. A total of 21 incidents of confirmed pertussis cluster were reported in 2018.

**Figure 4.20**  
**Incidence Rate of Pertussis per 100,000 Population in Malaysia, 2010 to 2018**

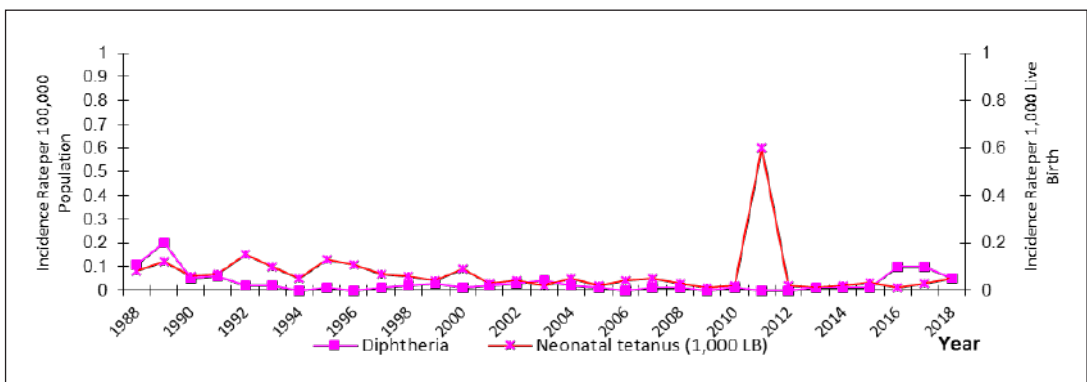


Source: Disease Control Division, MOH

### Other Vaccine Preventable Diseases

In 2018, there was a decrease in the number of cases of diphtheria, 18 cases with 6 deaths, compared to 32 cases with 7 deaths in 2017. A total of two (2) diphtheria clusters exceeding 2 cases were reported in 2018 in Pahang and Penang. 83.3 per cent of the cases were among children who did not receive immunization or received incomplete immunization. No epidemiological linkage between each cluster was identified. Neonatal tetanus incidence was maintained at less than 1/100,000 population over 20 years (**Figure 4.21**) following Malaysia's certification of Maternal and Neonatal Tetanus Elimination (MNTE) in 2000. However, neonatal tetanus had increased from 16 cases in 2017 to 26 cases in 2018. Majority of the cases were reported in Sabah (26 cases) and only 2 cases involving Malaysian citizens. There were six (6) cases of neonatal tetanus deaths reported in 2018.

**Figure 4.21**  
**Incidence Rate of Diphtheria and Neonatal Tetanus in Malaysia 1988 to 2018**



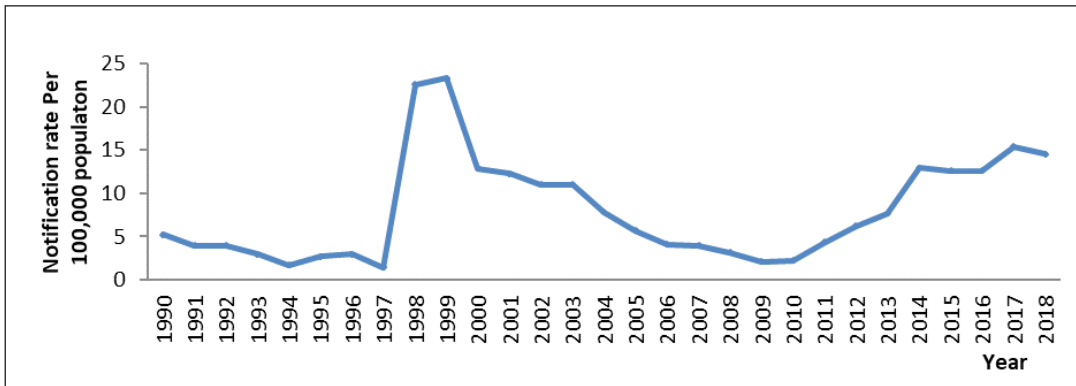
Source: Disease Control Division, MO

### Hepatitis B

The increase in Hepatitis B cases since 2012 was contributed by increased awareness among medical practitioners to screen and report hepatitis cases. These reported cases included those detected from screening program for Hepatitis B. The notification rate of Hepatitis

B was 14.52 per 100,000 population in 2018, lower than that of 2017 (**Figure 4.22**). The number of cases among Malaysians born after 1989 (the Hepatitis B immunization start date for children) was 215 in 2018 compared to 265 in 2017. The majority of Hepatitis B patients (98.8 per cent) were 18 years of age and above. In 2011, Malaysia's achievement had been verified by the WHO Western Pacific Region after successfully met the target of Hepatitis B control program. This acknowledgement was given after observing the seroprevalence of Hepatitis B among vaccinated cohort of Malaysian children of (<5 years old) 0.3 per cent, lower than the prescribed target of less than 1 per cent.

**Figure 4.22**  
Notification Rate of Hepatitis B per 100,000 Population in Malaysia, 1988 to 2018

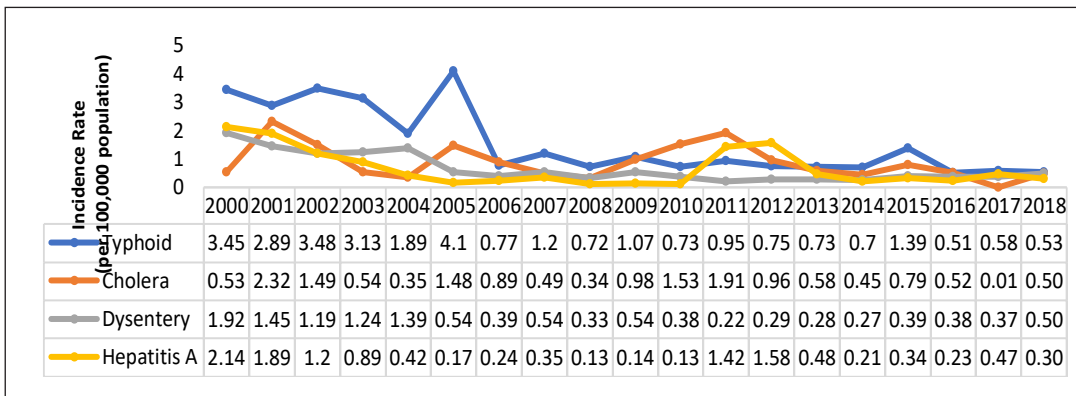


Source: Disease Control Division, MOH

### FOOD AND WATERBORNE DISEASE CONTROL PROGRAM

Incidence Rate for Typhoid, Cholera, Dysentery, Hepatitis A showed a downward trend between the year 2000 to 2006 (**Figure 4.23**). However, there was no significant changes observed since 2017 to 2018. Since 2016, the annual incidence rate for Typhoid, Cholera, Dysentery, Hepatitis A was one (1) per 100,000 population.

**Figure 4.23**  
Incidence Rate for Typhoid, Cholera, Dysentery, Hepatitis A in Malaysia, 2000 to 2018



Source : Disease Control Division, MOH

## Typhoid

The incidence rate for Typhoid had declined for the last 10 years. In the year 2018, the incidence rate for Typhoid was 0.53 per 100,000 population, declined as compared to the year 2017. Two (2) states recorded high incidence rates. They were Kelantan, 2.33 per 100,000 population and Sabah, 1.48 per 100,000 population. The main risk factors linked to the Typhoid infection were the transmission from carriers among food handlers, unsafe food handling and unsatisfactory hygiene. In certain areas, the use of unsafe water and poor sanitation were the major risk factors to Typhoid infection.

## Cholera

Since the last 10 years, the incidence rate for Cholera showed a consistent trend with Sabah recording the highest incidence rate every year. In the year 2018, the incidence rate for Cholera was 0.50 per 100,000 population, which was an increase compared to the year 2017 (0.01 per 100,000 population). Out of the total number of cases reported, 98.8 per cent was from the state of Sabah. The high incidence rate in Sabah was contributed by non-Malaysian comprising 65.7 per cent of the total cases, especially among residents who did not have any valid identification document. The main risk factors included unsafe water supply, poor hygiene and sanitation. There was an imported Cholera case reported in Selangor in the year 2018, a Bangladeshi worker who had just arrived in Malaysia.

## Dysentery

Dysentery is a syndrome of acute infective diarrhoeal disease with the presence of blood in stools caused by specific infectious agents such as *Shigella dysenteriae*, *E. Coli 0157*, *Entamoeba histolytica* etc. Since the last 10 years, there was no significant change in the incidence rate of Dysentery with an annual rate of less than one (1) case per 100,000 population. In the year 2018, the incidence rate of Dysentery increased to 0.50 per 100,000 population from that of the year 2017. Most of the cases occurred sporadically and did not involved an outbreak.

## Hepatitis A

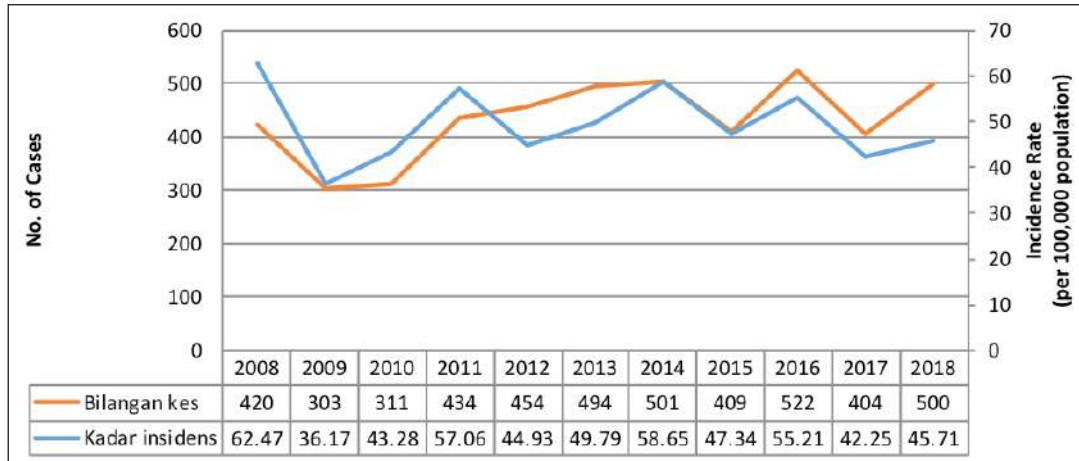
Data for the past 10 years had shown an increase in incidence of Hepatitis A in the year 2011 and 2012. The increase in the year 2010 was due to an outbreak among Orang Asli (OA) community in Terengganu while in the year 2012 there was an outbreak in Perak caused by contaminated alcoholic beverage *toddy* which was produced illegally. Since the year 2013, the incidence rate of Hepatitis A was stable with a rate of below one (1) per 100,000 population. The Orang Asli were often linked to Hepatitis A outbreaks due to unsafe water supply. However, since 2015, there were no Hepatitis A cases reported among the Orang Asli community (**Diagram 9**). In the year 2018, the incidence rate of Hepatitis A was 0.3 per 100,000 population, a slight decline as compared to the year 2017 (0.47 per 100,000 population). Most Hepatitis A cases reported in the year 2018 occurred sporadically and did not involved an outbreak.

## Food Poisoning

Data for the past 10 years did not show any significant changes in incidence rates and number of episodes of food poisoning between the year 2008 until 2018 (**Figure 4.24**). In the year 2018, a total of 500 episodes of food poisoning were reported, an increase compared to 404 episodes in the year 2017. The number of food poisoning episodes which occurred in schools in 2018 had increased slightly to 143 episodes from 140 episodes in the year 2017. Food

poisoning in schools contributed to 44.8 per cent in the year 2017 compared to 39 per cent in the year 2018. In 2018 out of 500 episodes of food poisoning, 143 (28.6 per cent) episodes occurred in Ministry of Education (MOE) schools, 51 episodes (10.2 per cent) occurred in Non MOE schools, 70 episodes (14 per cent) in institutions other than schools, 124 episodes (24.8 per cent) occurred at homes and 112 episodes (22.4 per cent) occurred in other localities

**Figure 4.24**  
**Incidence and Episodes of Food Poisoning in Malaysia, year 2008 to 2018**



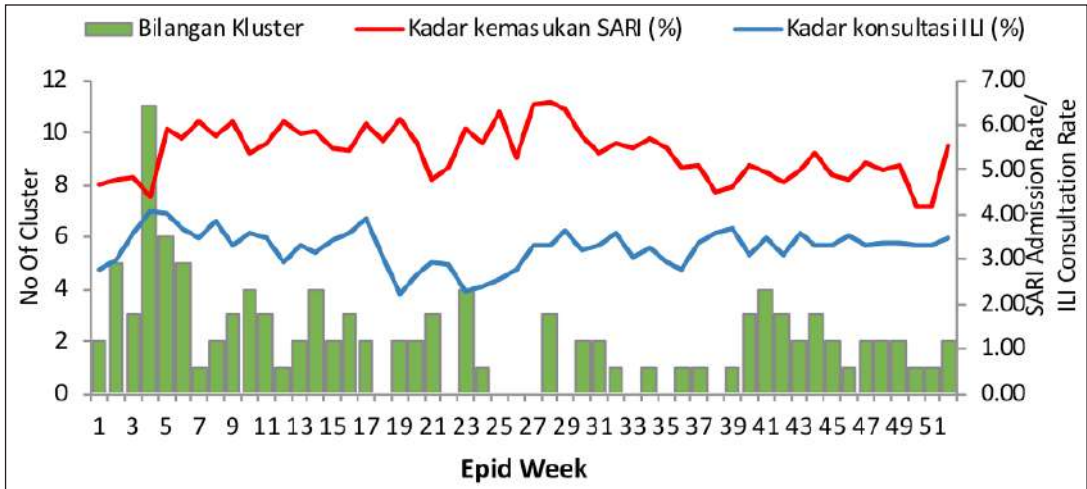
Source : Disease Control Division, MOH

## DISEASE SURVEILLANCE SECTOR

### INFLUENZA SURVEILLANCE PROGRAMME

The influenza surveillance programme aims to describe the antigenic character and genetic makeup of the circulating influenza viruses. As shown in **Figure 4.25**, the occurrence of influenza activity occurred throughout the year and did not show any seasonal variation. The highest influenza like illness (ILI) consultation rate was recorded during Epid Week 4/2018 (4.08 per cent) while the lowest ILI consultation rate was recorded during Epid Week 19/2018 (2.23 per cent). In addition, the highest severe acute respiratory infection (SARI) admission rate was recorded during Epid Week 28/2018 (6.53 per cent) while the lowest SARI admission rate was recorded during Epid Week 51/2018 (4.13 per cent). There were a total of 111 respiratory associated outbreaks reported in 2018. Most of them were reported in Epid Week 4/2018, which comprised of 11 respiratory associated outbreaks. Both the National Public Health Laboratory (NPHL) Sungai Buloh and the Institute of Medical Research (IMR) received a total of 4,460 influenza samples for testing in 2018, out of which 493 (11.05 per cent) samples tested positive for influenza. Influenza A virus was the most dominantly isolated virus with 291 (59.03 per cent) positive isolates followed by influenza B with 202 (40.97 per cent) isolates.

**Figure 4.25**  
**The Occurrence of Influenza Activity throughout Year 2018**



Source : Disease Control Division, MOH

## SURVEILLANCE OF MIDDLE EAST RESPIRATORY SYNDROME (MERS) INFECTION

Since November 2012, the surveillance of MERS-CoV infection had been on-going due to annual Hajj and Umrah pilgrimage. For the year 2018, there had been a total of 1,969 notified persons under investigation (PUI) for MERS-CoV, whereby, 1,678 (85.2 per cent) PUI notifications were for Umrah pilgrimage and 291 (14.8 per cent) PUI notifications were for Hajj pilgrimage. All the notifications tested negative for MERS-CoV. There were more females (1199 individuals; 60 per cent) notified as PUI MERS-CoV compared to males (770 individuals; 40 per cent). Majority of the PUIs aged between 61 years to 70 years.

## INTERNATIONAL HEALTH SECTOR

The International Health Sector is now known as the International Travel Health & Health Regulations Sector under the restructuring of the Disease Control Group. This sector played a number of key roles including implementing international health-related programs such as the International Health Regulations (2005), Travel Health including Hajj Health, Monitoring of Health Activities at All International Entrances, Migrants' Health, foreign workers and international health cooperation. Among the activities under the sector of the health and health travel sector were international travel regulations.

## INTERNATIONAL HEALTH REGULATIONS (IHR) 2005 IMPLEMENTATION

### Malaysia Strategic Workplan For Emerging Diseases and Public Health Emergencies (MySED II) (2017 to 2021)

The Disease Control Division has completed Malaysia Strategic Workplan for Emerging Diseases and Public Health Emergencies (MySED II) (2017 to 2021), in order to ensure global security and global health by maintaining a generic approach in preparation and action



against all hazards. The MySED II Workplan (2017 to 2021) document was formulated based on the Asia Pacific Strategy for Emerging Diseases and Public Health Emergencies (APSED III). MySED II (2017 to 2021) was designed following extensive consultations with WHO participating countries, technical experts and partners from various levels and organizations by incorporating past experiences in managing real events through approaches to all types of hazards. The main objective was to strengthen core public health functions as well as implement the key functions of the health system such as health workforce, service delivery, information and technology system, leadership and governance as well as support more resilient health systems.

### **Training course in IHR 2005**

The 2005 IHR course was held once a year for District Health Officers, Epidemiologist, Environmental Health Officers and Assistant Environmental Health Officers from all over the country at the Health Management Institute.

### **Points Of Entry Supervisory Visits**

The International Health Sector had conducted 60 supervisory visits at several Entrants from 2011 to 2018 in an effort to ensure that entry points in the country met the requirements of the 2005 IHR.

## **INTERNATIONAL HEALTH COLLABORATION**

Prior to 2014, the International Health Regulation and Travel Health Sector collaborated with the International Policy and International Division of the Ministry of Health to coordinate international meetings or conferences that were later taken over by the Global Health Unit.

## **TRAVEL ADVISORY**

The International Health Sector prepared and reviewed the Travel Advisory information uploaded in the Ministry of Health's MyHEALTH Portal at the URL: [myhealth.gov.my](http://myhealth.gov.my) especially the list of 23 countries at risk of Yellow Fever transmission as updated by the World Health Organization and the list of the approved Yellow Fever vaccination centre.

## **ACTIVITIES AT POINTS OF ENTRY**

The public health activities that were routinely conducted at the International Points of Entry in Malaysia included Communicable Diseases Control, Surveillance, Assessment and Response, Public Health Emergency Preparedness, Monitoring the activities related to Importation and Exportation of Human Remains, Human Tissues, Pathogenic Organisms and Substances, Vector Control, Food Safety and Quality Control, Environmental Sanitation, Safe water supply, Enforcement of inspectorate and legislations, Non-communicable Disease Control, Health Promotion, Occupational Safety and Health, and others. This sector was also involved in health screening of travellers arriving from countries with yellow fever risk as well as assessment and monitoring of the yellow fever dose vaccination center (**Table 4.24**)

**Table 4.24**  
**Yellow Fever Screening in Points of Entry**

Year	Total Travelers Screened	Travelers With Valid Certificate	Travelers Quarantine	Travelers Under Surveillance
2011	31,180	30,963 (99.3 per cent)	175 (0.60 per cent)	42 (0.10 per cent)
2012	31,183	30,961 (99.3 per cent)	210 (0.67 per cent)	12 0.03 per cent)
2013	27,909	27,868 (99.9 per cent)	32 (0.07 per cent)	9 (0.03 per cent)
2014	30,235	30,088 (99.5 per cent)	133 (0.40 per cent)	14 (0.10 per cent)
2015	27,808	27,705 (99.6 per cent)	99 (0.30 per cent)	4 (0.10 per cent)
2016	32,090	31,923 (99.5 per cent)	135 (0.42 per cent)	26 (0.08 per cent)
2017	31,184	31,056 (99.6 per cent)	72 (0.38 per cent)	6 (0.02 per cent)
2018	39,187	39,060 (99.7 per cent)	117 (0.28 per cent)	10 (0.02 per cent)

*Source: Health Information Monitoring System, MOH*

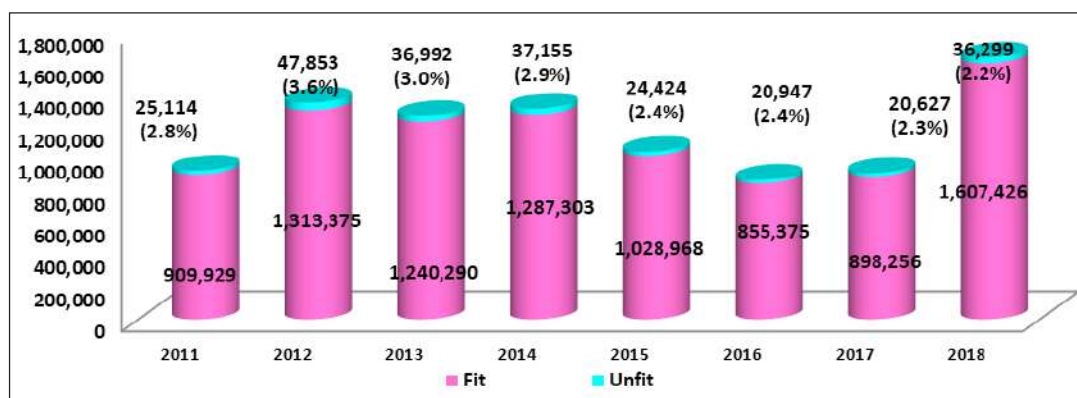
## **PILGRIMS' HEALTH**

From 2011 to 2018, on average, 22,248 Malaysian pilgrims had registered to perform Hajj in the Holy Land of Mecca each year and the number had increased to 40,200 people each year from 2017 to 2018. Every year health check for the pilgrims was performed to ensure their good health before they left for the holy land. A medical team from the Ministry of Health was available in the holy land to provide services to the pilgrims so that they remained healthy and able to perform the pilgrimage acts. According to annual statistics, the main causes of outpatient clinic attendances were chest illnesses which accounted for between 56.9 to 79.1 per cent per year. This may be influenced by the weather in Mecca. In addition to respiratory tract diseases, cardiovascular disease and metabolic disorders were also the main causes of hospitalization. This may be due to the hot weather and stress during the pilgrimage activities accompanied by insufficient rest. Diseases related to ear, nose and throat problems, muscle-bones (musculoskeletal), skin problems and gastrointestinal problems were also the cause of pilgrims' admission to the hospital.

## **FOREIGN WORKERS' MEDICAL EXAMINATION**

The Foreign Workers Medical Examination Monitoring Agency (FOMEMA) had been granted the concession since 1997 by the Malaysian Government to implement, manage and supervise mandatory health screening programs nationwide for all legal foreign workers in Malaysia. The new concession agreement between the Malaysian government and FOMEMA was signed on 16 December 2016. **Figure 4.26** showed the results of medical examination of foreign worker by FOMEMA from 2011 to 2018

Figure 4.26  
Results of Medical Examination of Foreign Worker by FOMEMA in 2011 to 2018



Source FOMEMA Sdn. Bhd.

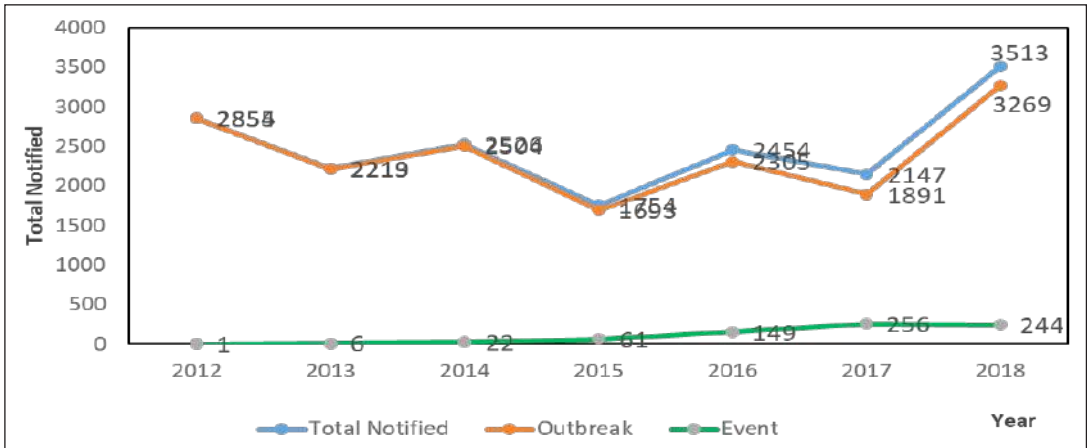
Findings from the screening programmes throughout 2011 to 2018 period noted the main health problem that categorized a worker as being unfit was infectious diseases including diseases such as tuberculosis (highest screening rates) followed by Hepatitis, Syphilis, HIV/AIDS, Malaria and Leprosy.

## OUTBREAK & DISASTER MANAGEMENT SECTOR

### SURVEILLANCE OF OUTBREAK AND EVENT

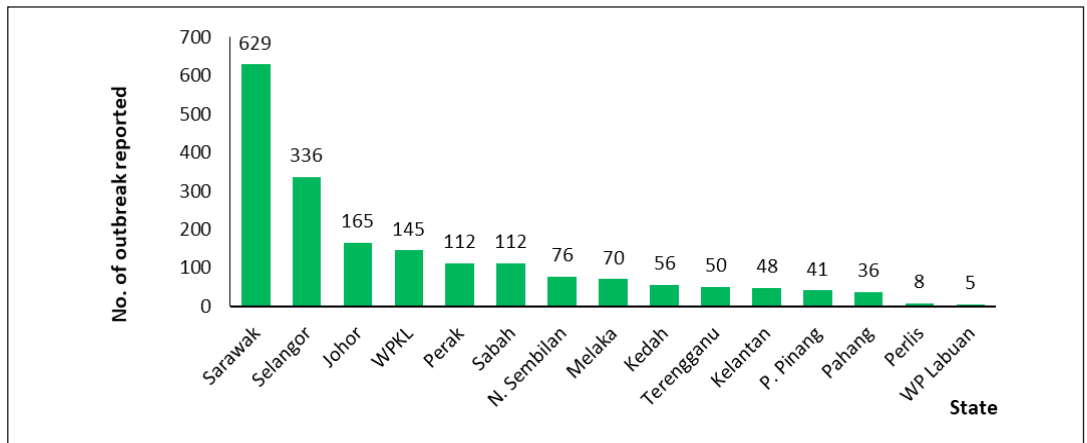
Surveillance of outbreaks and events (events that can cause public health emergencies) played an important role in early warning towards disaster. Therefore, reporting, collection and analysis of outbreaks and events data that had been transmitted via electronic reporting system (eWabak system) were the important activities carried out by the Sector. In 2018, the summaries of outbreaks and events had been distributed daily to all top management personnel at the State Health Department and Ministry of Health level. A total of 3,269 outbreaks and 244 events had been reported to the Outbreak and Disaster Management Sector in 2018 (**Figure 4.27**). Sarawak State reported the highest number of outbreak with 629 episodes (**Figure 4.28**). The outbreak of Hand, Foot and Mouth Disease (HFMD) and food poisoning were the two commonest diseases reported (**Table 4.25**). Meanwhile, flood was the most frequent events reported (**Table 4.26**).

**Figure 4.27**  
**Total Number of Outbreaks and Events Reported from 2012 to 2018**



Source: National CPRC, MOH

**Figure 4.28**  
**Total Number of Outbreaks Reported by State in 2018**



Source: National CPRC, MOH

**Table 4.25**  
**Total Number of Outbreaks from 2014 to 2018**

No.	Diseases	Number of Outbreaks				
		2014	2015	2016	2017	2018
1.	HFMD	1565	956	1441	917	1908
2.	Food poisoning	504	426	544	400	502
3.	Measles	19	53	94	125	131
4.	Chicken pox	20	23	24	108	179
5.	ILI / URTI	60	53	40	89	74
6.	Mumps	0	0	6	44	100
7.	AGE	20	20	31	27	45
8.	Fever & rash	11	12	10	7	35
9.	Scabies	6	12	11	24	46
10.	Rotavirus	1	1	4	19	14
11.	Diphtheria	1	1	9	22	11
12.	Influenza	0	3	2	14	42
13.	Typhoid	7	18	7	15	9
14.	Leptospirosis	39	24	25	17	33
15.	Pertussis	4	7	6	12	33
16.	Cholera	20	48	43	5	37
17.	Malaria	0	0	0	6	0
18.	Conjunctivitis	173	12	3	5	51
19.	Rabies	0	0	0	4	1
20.	Hepatitis A	0	0	0	2	0
21.	Viral Hepatitis	3	9	0	2	5
22.	Adenovirus	0	0	0	1	0
23.	Milk allergic	0	0	0	1	0
24.	Amoebiasis	0	0	0	1	0
25.	Brucellosis	1	3	0	1	2
26.	Fever & joint pain	0	0	0	1	0
27.	Nosocomial infection	0	0	0	1	0
28.	Skin itchiness	0	0	0	1	0
29.	Disentry	2	1	0	1	1
30.	Rubella	8	1	0	1	0
31.	Scurvy	0	0	0	1	0
32.	Meningitis	2	0	0	0	1
33.	Mers-Cov	1	0	0	1	0
34.	ARDS	0	0	0	0	0
35.	Melioidosis	0	0	0	0	0
36.	Others	37	10	5	16	9
<b>Total</b>		<b>2504</b>	<b>1693</b>	<b>2305</b>	<b>1891</b>	<b>3269</b>

Source: National CPRC, MOH

**Table 4.26**  
**Number of Events from 2014 to 2018**

No.	Events	Total Number of Events				
		2014	2015	2016	2017	2018
1.	Flood	2	24	55	142	110
2.	Fire	10	16	25	49	68
3.	Storm	1	7	8	19	21
4.	Mercury spillage	0	0	25	14	2
5.	Gas / chemical leakage	1	0	12	9	8
6.	Accident	0	2	7	8	26
7.	Boat capsized	4	1	2	3	1
8.	Airplane crash	0	4	4	3	0
9.	Drowning	0	0	1	2	7
10.	Boat / lorry tanker explosion	0	0	0	2	0
11.	Landslide	2	2	7	2	0
12.	Earthquake	0	1	0	1	1
13.	Bridge collapse	0	0	0	1	0
14.	Fireworks explosion	2	1	0	1	0
15.	Others	0	3	3	0	0
<b>Total</b>		<b>22</b>	<b>61</b>	<b>149</b>	<b>256</b>	<b>244</b>

Source: National CPRC, MOH

### ACTIVATION OF NATIONAL CRISIS PREPAREDNESS AND RESPONSE CENTRE

In 2018, CPRC was activated twice for Hand, Foot and Mouth Disease (HFMD) outbreaks and methanol poisoning respectively (Table 4.27).

**Table 4.27**  
**Activation of CPRC From 2006 to 2018**

Disaster	Year
Dengue	Since 2006
Pandemic Influenza	2009
Haze	2011, 2013, 2014, 2015
Flood	2011, 2013, 2014, 2017
Imported MERS-CoV Case	2014, 2018
MH 370 Incident	2014
MH 17 Incident	2014

Disaster	Year
Diphtheria	2016
Zika	2016
HSAJB fire	2016
Avian influenza in poultry (Kelantan)	2017
HFMD	2018
Methanol Poisoning	2018

Source: National CPRC, MOH

### Dengue

The National CPRC for Dengue had continued to be in the active surveillance mode to monitor dengue outbreaks and for response coordination. Daily meetings related to outbreaks were conducted and reports were distributed via email to all relevant parties.

### Hand, Foot and Mouth Disease

The National CPRC was activated when more than 1,000 cases of HFMD were being reported per week. During activation, monitoring of prevention and control activities implemented by affected districts to contain the spread of the disease was undertaken.

### Methanol Poisoning

The National CPRC was activated on the 18 September 2018 following 51 case notifications of methanol poisoning around Selangor and Kuala Lumpur.

## RISK COMMUNICATION

CPRC Facebook (<https://www.facebook.com/kkmcprc>) was created to facilitate sharing of information amongst member of public and CPRC since 2013. Facebook was updated daily by designated staff. Through Facebook, the information on DOCE related public health incidents was conveyed and advices were issued to the public to advocate health promotion and mitigate panic. **Table 4.28** illustrates the relevant facebook-related activities. Generally, the activities had been increasing among clients except Private Messaging.

**Table 4.28**  
CPRC Facebook Activities from 2015 to 2018

No.	Activities	2015		2016		2017		2018	
		No	%	No	%	No	%	No	%
1.	Likes (Support by user)	8729	46.9	12933	52.2	14219	53	15586	54
2.	Comments (by user)	912	4.9	1248	5.0	1157	4	1009	3.5
3.	Shares (by CPRC Admin)	236	1.3	365	1.5	425	2	523	1.8
4.	Views (by user)	7421	39.9	8659	35.0	9653	34.9	10062	34.9

No.	Activities	2015		2016		2017		2018	
		No	%	No	%	No	%	No	%
5.	PM (Private Messages by user)	23	0.1	30	0.1	33	0.1	26	0.1
6.	Uploads Posting, Information, graphic (by CPRC Admin)	1285	6.9	1539	6.2	1588	6	1659	5.7
<b>Total</b>		<b>18606</b>	<b>100</b>	<b>24774</b>	<b>100</b>	<b>27075</b>	<b>100</b>	<b>28865</b>	<b>100</b>

Source: National CPRC, KKM

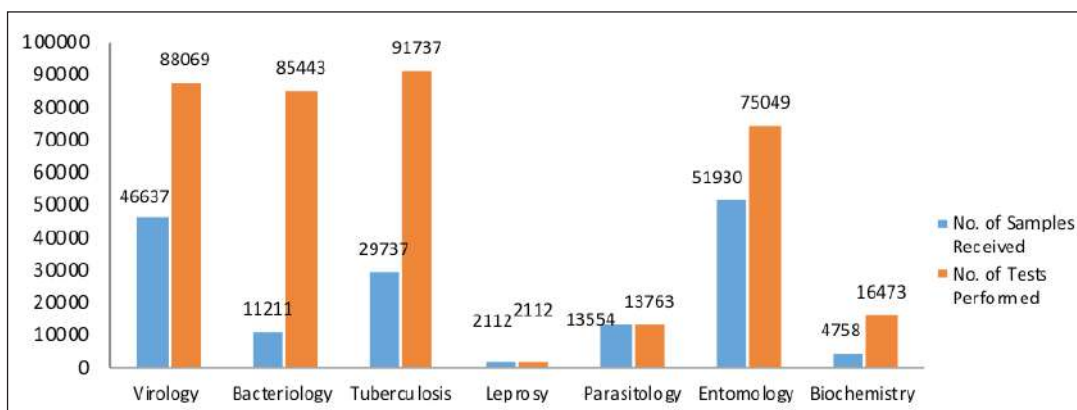
## NATIONAL PUBLIC HEALTH LABORATORY

The National Public Health Laboratory was established under Ministry of Health Malaysia to provide laboratory support for public health program. It was located in Sungai Buloh, Selangor and directly under the purview of Disease Control Division. The main function of NPHL involved outbreak investigation, laboratory based disease surveillance, laboratory based technical capacity development for public health, research of public health importance and enforcement of relevant act.

## SAMPLE MANAGEMENT

A total of 176,010 samples were received and 431,085 tests were conducted by Disease and Food Sectors as shown in **Figure 4.29** and **4.30** below:

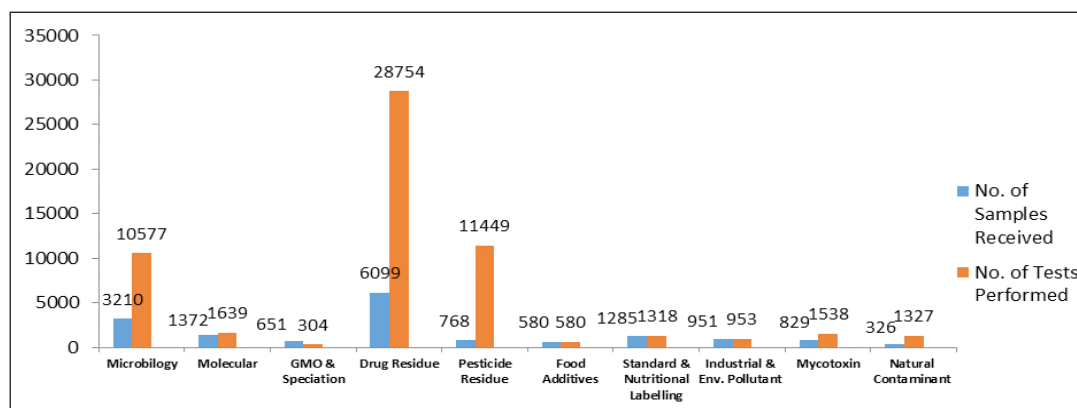
**Figure 4.29**  
**Specimens Received by Disease Sectors 2018**



Source : Disease Control Division, MOH



**Figure 4.30**  
**Specimens Received by Food Sector, 2018**



Source : Disease Control Division, MOH

## ACHIEVEMENTS

### Laboratory Performances Indicators

Laboratory Performances Indicators showed in **Table 4.29**

**Table 4.29**  
**Performance Indicators for 2018**

No	Activity	Indicator ( Client Charter)	Performance
1.	Analytical diagnostic for outbreak investigations	≥ 90 per cent test result reported within stipulated time	Achieved
2.	Analytical diagnostic for disease surveillance	≥ 80 per cent test result reported within stipulated time	Achieved
3.	Analytical diagnostic for clinical cases	≥ 80 per cent test result reported within stipulated time	Achieved
4.	Enforcement of Law	100 per cent test result reported within stipulated time	Achieved
5.	Epidemiology Report	100 per cent epidemiology report shared with the stakeholders within stipulated time	Achieved
6.	Administration Services	100 per cent payment made to the supplier within stipulated time. 100 per cent response to Customers Report shared within stipulated time.	Achieved

Source : Disease Control Division, MOH

### Accreditation & Certification

MKAK has successfully maintained its accreditation and certification status for ISO/IEC 17025 and ISO 17025 since 2004 and 2006 respectively. The recognition as a Reference Laboratory for Measles & Rubella since 2004 and Japanese Encephalitis since 2012 by World Health

Organization (WHO) has been successfully maintained. The laboratory is currently in the process of obtaining accreditation for ISO 17043.

## FAMILY HEALTH DEVELOPMENT DIVISION

### MATERNAL HEALTH SERVICES

Maternal health care essentially monitors the well-being of the mother and baby during pregnancy and continues during intrapartum and postnatal. In 1990, the antenatal coverage for at least one visit was 78.1 per cent, increased to 98 per cent in 2013, and 99.6 per cent in 2018. Other health indicators are as in **Table 4.30**.

**Table 4.30**  
**Maternal Health Coverage in Malaysia, Selected Years 1990 to 2018p**

	1990	2000	2010	2012	2014	2016	2017p	2018p
Estimated No. of Pregnant Mothers	676,382	691,664	587,479	580,536	592,489	599,306	550,108	550,108
Antenatal Coverage	528,029 78.1 %	517,138 74.8%	483,136 82.2%	560,323 96.5%	575,604 97.25	554,721 92.6%	570,445 103.7%	548,115 99.6%
Average Antenatal Visits per Mother	6.6	8.5	10	10.0	10.6	10.8	10.7	10.8
Tetanus Toxoid Immunisation Coverage (2 <sup>nd</sup> & Booster Dose)	414,445 81.7%	449,608 86.8%	432,581 84.6%	466,666 92.4%	478,206 92.8%	466,903 89.6%	479,299 94.3%	448,936 88.3%
Total Deliveries	476,196	507,891	439,447	455,650	461,220	443,432	450,894	449,358
Safe Deliveries	92.8%	96.6%	98.6%	98.7%	98.9%	99.5%	99.6%	99.5%
Postnatal Coverage	318,953 67.0%	417,232 82.1%	428,140 97.4%	450,160 98.8%	467,522 101%	458,893 103%	458,529 101%	445,724 99.2%

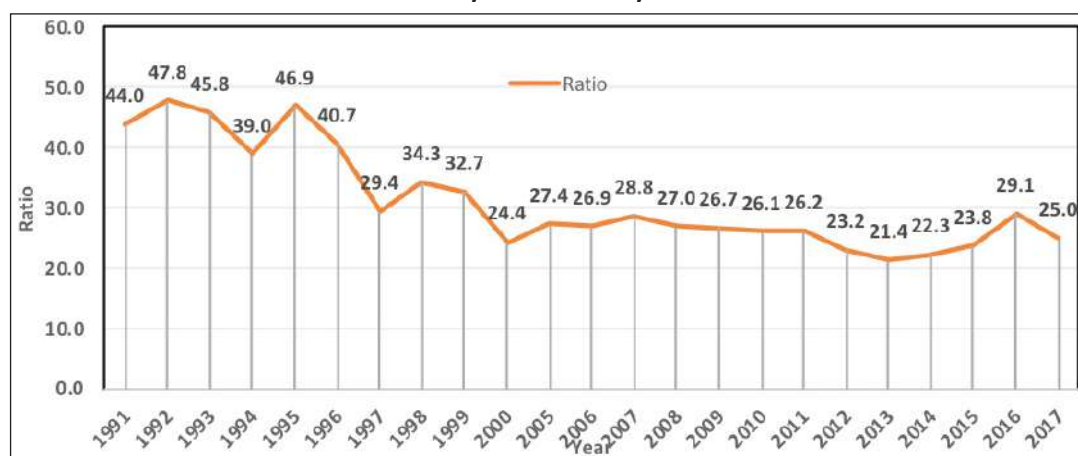
Source: Health Informatics Centre, MOH

Note: Data for 2017 and 2018 is preliminary.

### Maternal Death

The current situation is very challenging for the country to achieve SDG. In 2004, MMR was 27.2 per 100,000 live births (LB) but plateaued the next few years. The MMR began to decline from 2011 onwards to 21.4 per 100,000 LB in 2013 but rose to 29.1 per 100,000 LB in 2016 and declined to 25 per 100,000 LB in 2017 (**Figure 4.31**). The four (4) common causes of maternal deaths in Malaysia were Associated Medical Conditions, Postpartum Haemorrhage, Pulmonary Embolism and Hypertensive Disorders in Pregnancy.

**Figure 4.31**  
**Maternal Mortality Ratio in Malaysia : 1991 to 2017**



Source: Department of Statistics Malaysia.

### Family Planning Services

The total number of new family planning acceptors registered in MOH clinics increased from 115,760 (2017) to 120,698 (2018). The number of active users increased from 337,913 in 2017 to 343,811 in 2018. The most popular contraceptive method used in year 2018 was contraceptive pill (45.8 per cent) followed by progestogen-only injection (39.2 per cent), male condoms (7.4 per cent) and intrauterine device (3.5 per cent). The family planning programme among high-risk women is to highlight the need for high risk women to optimise their health before embarking on the next pregnancy.

### Highlights in 2018

Training of senior nurses on effective supervision and monitoring is one of critical measures to ensure services are provided according to the standard guidelines. Two (2) training workshops were carried out in two (2) zones where the trainees were guided to conduct supervision according to *Buku Panduan Penyeliaan Program Perkhidmatan Kesihatan ibu dan Perancang Keluarga di Klinik Kesihatan*.

The guidelines developed for Pre-pregnancy Care (PPC) is expected to kick-off in 2019, where the PPC will serve to optimise the patient's medical condition before she embarks on her pregnancy. In year 2018, three (3) main resource material were revised i.e Perinatal Care Manual 3<sup>rd</sup> Edition 2013, *Garispanduan Senarai Semak Bagi Penjagaan Kesihatan Ibu dan Bayi Mengikut Sistem Kod Warna edisi 4 2013* and *Buku Rekod Kesihatan Ibu* (pink card). FHDD has also published two (2) other documents in 2018 i.e *Buku Panduan Penyeliaan Program Perkhidmatan Kesihatan ibu dan Perancang Keluarga di Klinik Kesihatan* and *Prevention and Treatment of Thromboembolism in Pregnancy and Puerperium : A Training Manual*. Safe motherhood training was conducted for Medical Officers in June 2018.

## CHILD HEALTH SERVICES

Child health care services focus on comprehensive services towards prevention of morbidity and mortality, health promotion and curative interventions. Services provided include newborn screening, growth and development assessment, immunization, nutrition counseling and parent education to empower parents to ensure health of their newborn, infant and children under 7 years. The percentage of infants attending public health clinics has been well above the targeted 75 per cent since 2015 (**Table 4.31**).

**Table 4.31**  
**Child Attendance to Health Facilities by Age group, Malaysia, 2015 to 2018p**

Year	Attendance Of Children And Average Visit To Health Facilities Per Children											
	Infant				Toddler				Pre-school			
	New	%	Total	Ave.	New	%	Total	Ave.	New	%	Total	Ave.
2015	534,685	79.8	4,135,433	7.7	853,789	42.6	3,763,990	4.4	198,165	19.9	464,766	2.3
2016	506,741	76.1	4,288,072	8.5	950,285	46.4	3,970,732	4.2	222,352	22.3	473,163	2.1
2017	518,368	75.3	4,474,879	8.6	1,038,228	49.5	4,631,519	4.5	233,449	23.3	567,403	2.4
2018p	513,735	76.1	4,510,410	8.8	1,058,441	48.3	4,892,903	4.6	253,512	24.1	535,062	2.1

Source: Health Informatics Centre, MOH

### National Immunisation Program

The target set for coverage of all immunisation is  $\geq 95.0$  per cent. The coverage for MMR dose 1 has been below target for the past few years (**Table 4.32**).

**Table 4.32**  
**National Immunisation Coverage (%) , Malaysia, 2011 to 2018p**

Year	2011	2012	2013	2014	2015	2016	2017	2018p
BCG	98.7	98.7	98.5	98.6	98.5	98.3	98.5	98.4
DPT-IPV//HiB Dose 3	99.5	99.7	96.9	96.7	99.0	97.9	98.9	98.7
Hep B Dose 3	97.1	98.1	96.3	96.3	99.2	97.9	98.2	100
MMR Dose 1*	95.2	95.4	95.2	92.0	93.1	94.3	93.5	96.6

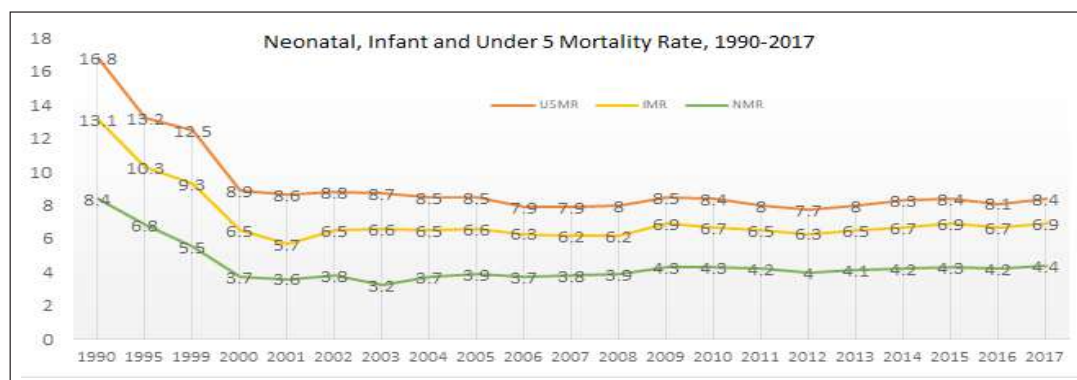
Source: Health Informatics Centre, MOH

Denominator : Estimated live births \* Estimated number of children 1-<2 years

### Under-5 Mortality, Infant Mortality and Neonatal Mortality

Under-5 and Infant Mortality Rates showed a decline by 50 percent from 1990 to 2000 and reached a plateau over the past 15 years (**Figure 4.32**). The year 2016 marks the beginning of Sustainable Development Goals as a continuation of the MDG. The overall target for child health under the SDG (Goal 3) is to end preventable deaths of newborn and children less than 5 years old by 2030. Guidelines to classify preventable deaths among children under 5 years have been circulated to states.

**Figure 4.32**  
**Under-5, Infant and Neonatal Mortality, Malaysia, 1990 to 2017**



Source: Department of Statistics, Malaysia

## SCHOOL HEALTH SERVICES

The school health program was established in 1967 aimed at maintaining the health of the students at optimum levels. Health services were offered to preschool up to Form 4 students. Services provided include health education, screening and health assessment, immunization, treatment and early referral.

### School Health Services Coverage

The health service coverage for Year 1, Year 6 and Form 3 pupils has maintained over 98 per cent since 2010. The coverage of preschool children increased from 96.7 per cent to 98.0 per cent 2016.

### School Children Nutritional Status

It was observed that the percentage of school children with overweight and obesity were highest during Year 6 and declined when the students reached Form 3. This is likely due to the growth spurt during adolescent period.

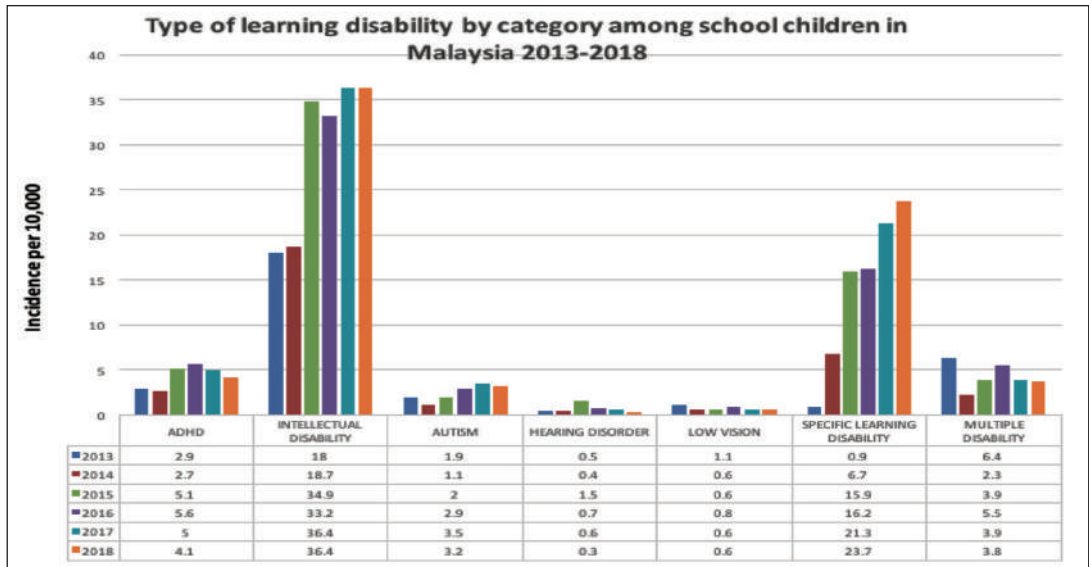
### School Health Immunisation Services

HPV immunization for Form 1 girls began in 2010 with the goal of preventing cervical cancer amongst HPV immunization recipients. The trend of parental consent exceeded 98.0 per cent since 2012. The immunization coverage for dose 1 and complete immunization among those with written permission remained above 99 per cent since 2012. The coverage for DT and MR booster immunization for Standard 1 and the ATT booster immunization for Form 3 students has maintained above 98 per cent coverage since 2012.

### Learning Disabilities

A total of 3,232 Year 3 school children were diagnosed to have learning disability in 2018. Of this total, Intellectual Disability has the highest incidence followed by those with Specific Learning Disability, ADHD and Multiple Disability. Since 2013 to 2018, intellectual disability has been the most common type of learning disability detected and diagnosed among school children (Figure 4.33).

**Figure 4.33**  
**Type of Learning Disabilities among School Children in Malaysia 2013 to 2018**

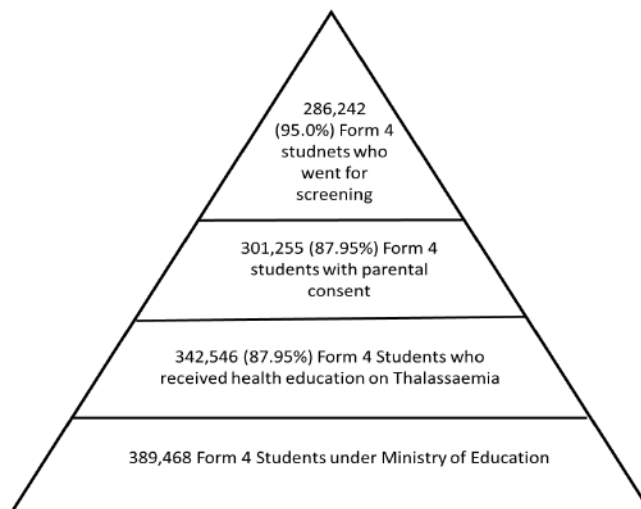


Source: Family Health Development Division, 2018, MOH

#### Form 4 Thalassaemia Screening

In 2018, a total of 342,546 (87.95 per cent) has received awareness on importance on Thalassaemia prevention. Of those, 286,242 (73.5 per cent) were screened. Among those screened, 25.24 per cent were suspected as Beta Thalassaemia carrier and 12.50 per cent were anaemic. Sabah, WP Labuan and Perak showed the most number of students with suspected Thalassaemia carrier (**Figure 4.34**).

**Figure 4.34**  
**Coverage of Form 4 Thalassaemia Screening**



Source : Form 4 Thalassaemia Screening Record, FHDD

## ADOLESCENT HEALTH SERVICES

Adolescent Health Programme was established in 1996 as one of the expanded scope of Family Health Development Division (FHDD). This program aims to develop and strengthen health services for the adolescent population.

### Adolescent Health Service Coverage

In 2018, the Malaysian adolescent (10-19 year old) population was 5,286,000 or 16 per cent of the total population. A total of 359,904 (6.80 per cent) teenagers were screened which is above the annual target of 5 per cent. Among those screened 30,334 (8.43 per cent) had nutritional problems, 12,214 (3.39 per cent) risky behaviours, 3,891 (1.08 per cent) physical health problems, 3,079 (0.86 per cent) sexual reproductive health and 1,773 (0.49 per cent) with mental health problems. \*Preliminary data 2018.

### Sexual Reproductive Health

Indicators for teenage pregnancy generally show a declining trend. New antenatal cases among adolescents registered in the MOH primary health care facilities have declined from 18,847 (2012); 17,588 (2013); 16,528 (2014); 13,831 (2015); 12,492 (2016); 11,024 (2017); to 10,501 (2018\*). In 2018, a total of 6,574 adolescents (62.6 per cent) were married and the remaining 3,927 were unmarried status. \* Preliminary data 2018.

According to the Statistics Department of Malaysia, the Age-Specific Fertility Rate (ASFR) among 15-19 year adolescents has decreased from 28/1000 per population (1992) to 9/1000 (2017). The decline reflects the efforts by various stakeholders in dealing with teenage pregnancy.

The *Generasiku Sayang* (GKS) programme aimed at increasing public awareness on the importance to prevent teen pregnancy was launched in 2015 and is still well-implemented. Johor, Kelantan, Terengganu, Penang, Perak, Pahang, Selangor, Melaka, Sabah have established the GKS Center or integrated its concept. While Sarawak and Perak have set up a 'One Stop Teenage Pregnancy Committee' (OSTPC).

### Networking With Other Agencies and NGOs

Since 2008, the Ministry of Health has conducted the National Technical Committee Meeting on Adolescent Health twice a year. The objective is to discuss the current adolescent health issues and monitor the implementation of the The National Adolescent Health Policy and Plan of Action 2015 to 2020. This national technical committee is chaired by Deputy Director General (Public Health) and members are representatives from various government and non government agencies such Ministry of Education (MOE), Ministry of Women, Family and Community Development (KPWKM), Malaysian Communications & Multimedia Commission (MCMC), Jabatan Kemajuan Islam Malaysia (JAKIM), Federation of Reproductive Health Associations Malaysia (FRHAM) and Malaysian Association for Adolescent Health (MAAH). The committee have succeeded in addressing few issues and they were presented at the National Social Council, State Ministers/Chief Ministers Meetings as well as Council of Rulers Conference that resulted with new policies.

## ADULT HEALTH SERVICES

The main programmes are Cervical Cancer Screening Programme, Breast Cancer Prevention Programme, health risk assessment for adults and activities related to reproductive health and gender.

### **National Pap Smear Screening Programme**

The programme policy is to screen all women aged between 20 and 65 years for cervical cancer, once every three years. The number of slides taken has increased from 535,263 (2015) to 538,038 (2016) and 532,127 (2017) and decreased to 477,839 (2018). There was a reduction in coverage from 26.3 percent in 2017 to 23.0 percent in 2018. The coverage for eligible women aged 50 to 65 years decreased from 22.5 percent (2017) to 19.7 percent (2018). The overall percentage of unsatisfactory slides reported increased from 0.95 percent (2013) to 1.3 percent (2014), 1.4 percent (2017) and 1.6 percent (2018). In Malaysia, the percentage of slides with absent endocervical cells has improved from 23.35 percent (2016) to 19.88 (2017) and 17.63 (2018). The overall positive detection rate has increase from 0.94 per cent in 2016 and 2017 to 1.14 per cent in 2018. The break-ups for each classification LGSIL - 29.4 per cent, ASCUS - 39.9 per cent, HGSIL - 16.8 per cent, , Adeno CA - 3.8 per cent and SCC - 1.7 per cent and HPV 6.0 per cent.

### **Breast Cancer Prevention Programme**

Ministry of Health Malaysia has started breast health awareness campaign since 1995 to encourage women to perform breast self-examination (BSE). Starting 2009, it emphasised on clinical breast examination (CBE) as a modality for early detection of breast cancer among general women population.

The percentage of CBE among clients age 20 years and above has reduced from 27.9 per cent in 2017, to 25 percent in 2018. There was 0.2 percent abnormality detected and referred for further investigation. In 2018, the number of high risk women registered (new cases) was 17,439. A total of 12,512 women were referred for mammogram screening and all of them had undergone the screening and 106 (0.85 per cent) of the women confirmed cancer.

### **Health Risk Screening Programme**

In 2018, the coverage of adult male screened has increased from 3.6 per cent to 4.7 per cent and female 4.7 per cent to 5.1 per cent, an improvement compared to 2017. In addition, the coverage for women was better than men in all states. Common risk of cancer in women for 2018 are breast cancer (2,792 cases), cervix (2,301), lung (781) and colorectal cancer (404) while in men are lung (4,305), NPC (832), testis (692) and colorectal cancer (489). The risk of cardiovascular disease and diabetes are also higher in women (20,085; 24,963) than men (18,710; 20,316). Women also tend to have high incidence of unhealthy diet (31,897) and inactivity (54,073) compared to men (28,981; 39583). Men however are likely to smoke (80,584), drink alcohol (12,218) and taking drugs (281) than women (2,471; 3,497 and 144).



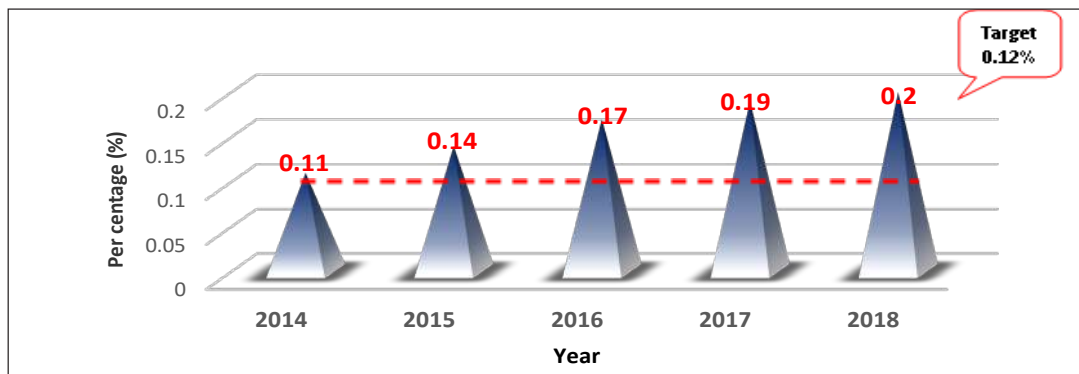
## HEALTH SERVICES FOR PERSONS WITH DISABILITIES (PWDs)

Health care programmes for Persons with Disabilities (PWDs) were planned and implemented in line with Plan of Action of Health Care for PWDs 2011 to 2020, National Plan of Action for PWD 2016 to 2022, PWD Act 2008, The Convention on The Rights of PWD 2008, Malaysian Plan (RMK) and The WHO Global Disability Action Plan 2014-2021.

### Health Services for Children : Early Detection of Disabilities

Programme to improve early detection of disabilities among children has been conducted in primary healthcare since year 1996 and strengthened with enhanced activities such as promotion and prevention towards diseases, awareness of disabilities, immunisations, prevention of injuries, early intervention as well as rehabilitation. The monitoring of 'Percentage of Detection of Disabilities Among Children Age 0 to 1 Year' shows an increasing trend and this indicates that more children were screened at the early age as to provide prompt holistic intervention (Figure 4.35).

Figure. 4.35  
Trend in The Percentage of Detection of Disabilities among Children Age 0 to 1 Year Old, in Malaysia (Year 2014 to 2018)



Source : Health Information System Reten of Children with Disabilities Health Aged 0-18 year (Malaysia, Tahun 2018)

### Health Service For Adult PWDs: Domiciliary Health Care Services (DHC)

Introduced in the primary healthcare in year 2014, this programme has benefited 11,534 patients all over Malaysia in which 70 per cent were the elderly. The services rendered at home by multidisciplinary team in health clinics consist of nursing care to the stable bedridden patients, rehabilitation to improve the quality of life and support to the caregivers/family members in terms of education on basic patient care. Starting from 2016, this service was expanded to include palliative care and was piloted at selected health clinics in Selangor and Kedah. To date, there are 160 health clinics running DHC and 36 with have included palliative care service.

## ELDERLY HEALTH SERVICES

The implementation of elderly healthcare services is based on The National Healthcare Policy for the Elderly which emphasizes the efforts towards healthy, active and productive ageing by empowering senior citizens, families and communities with knowledge, skills and environment

that support healthy ageing. The Ministry of Health Malaysia supports the recommendations of the World Health Organization, which is being implemented through health promotion activities, health screening and assessment, medical examination, consultation, rehabilitation services, as well as recreational, social, and welfare activities.

### Elderly Health Care Programme Achievements

As of December 2018, a total of 2,641,118 (81.2 per cent) elderly have registered with primary healthcare facilities whilst the target is to reach 85 percent by the end of 2025. A total of 6.2 percent of the elderly population have been screened using the *Borang Saringan Warga Emas (BSSK)*. The top five (5) main morbidities detected among elderly receiving treatment at primary healthcare services are hypertension, diabetes mellitus, joint problems, respiratory problems, and visual defect. This trend has been similar for the past 5 years which sees the shift from age related condition to lifestyle associated diseases (**Table 4.33**).

**Table 4.33**  
**Elderly Healthcare Programme Achievements for 2014 to 2018**

No.	Activity	Indicator	Target	2014	2015	2016	2017	2018
1.	Elderly Registry (Cumulative)	Per centage of elderly receiving Elderly Healthcare Services	85 per cent (2025)	62.1%	75.2 %	78.1%	80.4%	81.2%
2.	Health Screening For Elderly	Per centage of elderly screened using BSSK	5 per cent from the estimated total elderly population	9.2%	8.0%	8.9%	6.4%	6.2%
3.	Elderly With Controlled Diabetes	Per centage of elderly with controlled diabetes (HbA1c < 7 per cent)	30 per cent	N/A	N/A	44.7%	35%	49.7%
4.	Rehabilitation (Fisiotherapy)	Per centage of elderly with risk of fall, improved after 3 months of intervention	60 per cent	N/A	N/A	N/A	90.0%	90.3%
5.	Rehabilitation (Occupational Therapy)	Per centage of elderly with improvement in Activities of Daily Living after 3 months of intervention	75 per cent	N/A	N/A	N/A	76.4%	87.0%
6.	Establishment of <i>Kelab Warga Emas</i> (KWE)	Number of <i>Kelab Warga Emas</i> established	Increment of 1 KWE per district per year	270	285	224	233	269

No.	Activity	Indicator	Target	2014	2015	2016	2017	2018
7.	Training in Elderly Healthcare	Number of healthcare personnel trained	500 person	897	1068	1934	2211	2831
8.	Training in Elderly Healthcare	Number of carer of elderly trained	250 person	864	1419	1773	2084	3914
9.	Health Screening for Elderly in Institution	Per centage of elderly in institution screened and treated	≥ 90 per cent	89.7%	87.6%	88.9%	93.3%	96.2%
10.	Health Screening for Bedridden Elderly	Percentage of bedridden elderly screened	-	93.3%	95.1%	72.6%	90.3%	77.7%
11.	Healthcare for Government Pensioner	Per centage of government pensioner using the R-Lane	-	15.6%	15.9%	17.1%	16.5%	16.7%
12.	Healthcare for Government Pensioner	Per centage of government pensioner screened	-	27.0%	22.7%	20.9%	12.1%	9.2%

Source :1. Reten PKWE 201A 2. Reten WE 1/2012 3. Reten NBOS 74. Reten NBOS 105. National Diabetes Registry

### Highlights of 2018

A guideline that spells out the role of community nurses in strengthening NCD services and providing elderly health services has been prepared (*'Peranan Jururawat Masyarakat (Jururawat Di Klinik Desa) Dalam Memperkuhkan Pelaksanaan Perkhidmatan Penyakit Tidak Berjangkit dan Perkhidmatan Kesihatan Warga Emas di Klinik Desa'*).

A pilot project on health intervention for the elderly at the *Pusat Aktiviti Warga Emas (PAWE)* was conducted by Klinik Kesihatan Port Dickson and *Kelab Warga Emas, Klinik Kesihatan Kuala Pilah*. The assessment on the effectiveness of this pilot project will be carried out in 2019.

National Health Morbidity Survey (NHMS) 2018: Elderly Health was conducted by the Institute For Public Health (IKU) in 2018 with technical inputs from Elderly Healthcare Sector of Family Health Development Division, MOH. This survey aims to provide evidence based data on health status profile of elderly and pre-elderly to assist in reviewing the national health priorities, policies and programmes as well as to plan for allocation of resources for elderly healthcare programmes.

Private Aged Healthcare Facilities and Services (Act 802) was gazetted on 29 March 2018. This act will regulate private aged healthcare facilities and services in Malaysia.

## PRIMARY HEALTH CARE INFORMATICS

### Teleprimary Care (TPC)

Teleprimary Care (TPC) is a Health Information System that enables sharing of information between primary and secondary healthcare facilities. The TPC application was developed by the Ministry of Health Malaysia and caters to patient care needs from registration, consultation, order management, referral and follow-up. Since 2005, TPC has been in use in 89 (9 per cent) health clinics in primary care and specialist clinics in 6 hospitals. The TPC will migrate to the new system namely the 'Teleprimary Care-Oral Health Clinical Information System (TPC-OHCIS) in phases beginning in 2019 onwards.

**Table 4.34** showed Total Number of New Patients Registered, Total Number of Patient's Visits and Total Number of Medical Records (Careplan) from 2010 to 2018

**Table 4.34**  
Total Number of New Patients Registered, Total Number of Patient's Visits and Total Number of Medical Records (Careplan) from 2010 to 2018

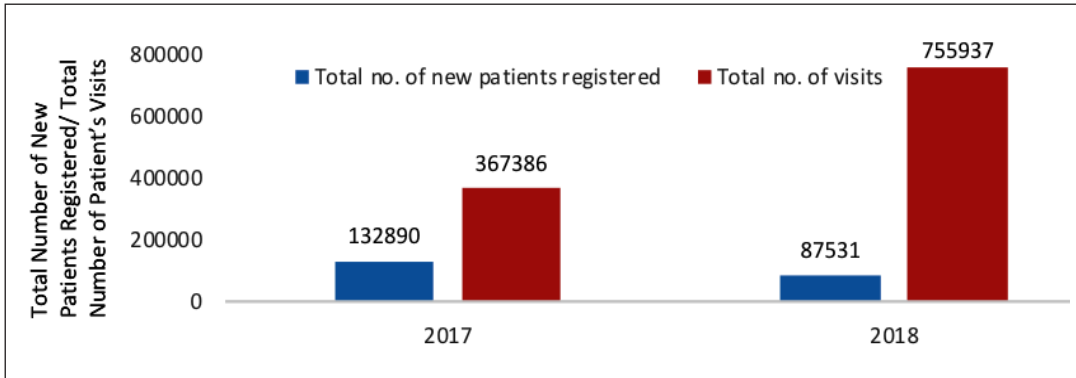
Year	Transaction Type		
	Total no. of new patients registered	Total no. of visits	Total no. of medical records (Careplan)
2018	648,203	6,959,285	4,815,177
2017	665,065	8,538,313	4,495,770
2016	633,410	6,638,760	5,689,326
2015	540,947	6,925,753	3,290,237
2014	708,487	7,224,046	2,474,012

Source: Healthcare providers from TPC database.

### Development of the Teleprimary Care-Oral Health Clinical Information System (TPC-OHCIS)

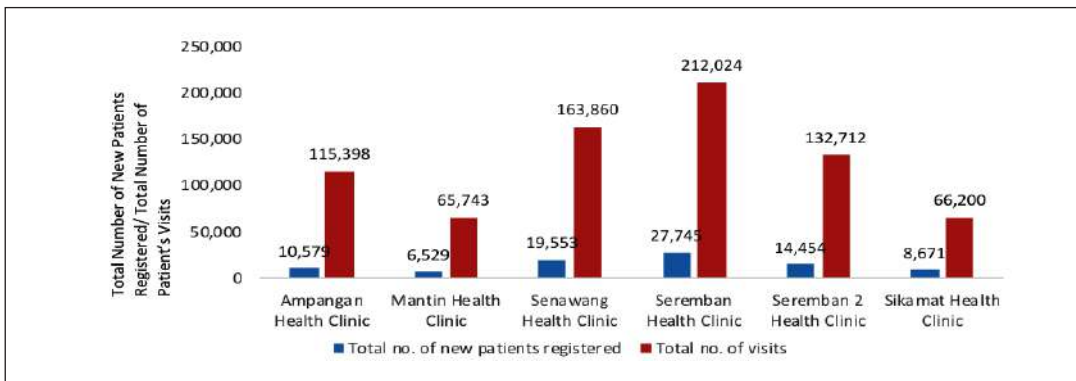
Consolidation of the two existing systems (TPC and TPC-OHCIS) is a joint project between the Ministry of Health and MIMOS which began in December 2014 was funded by a research grant from MOSTI. The development phase was completed in mid-2016. Furthermore, this application underwent User Acceptance Test (UAT) cycles, Provisional Acceptance Test (PAT) and Final Acceptance Test (FAT) which had been completed in the first six months of 2017. The new system was pilot in 6 Health Clinics in district of Seremban, Negeri Sembilan. In 2018, the number of new patients registered in the TPC-OHCIS system was 87,531 patients, while the total number of visits was 755,937 (**Figure 4.36** and **4.37**).

**Figure 4.36**  
**Total Number of Newly Registered Patients and Total Number of Patient Visits in TPC-OHCIS System from 2017 to 2018**



Source: Healthcare Providers from TPC-OHCIS Database.

**Figure 4.37**  
**Total Number of Newly Registered Patients and Total Number of Patient Visits in TPC-OHCIS System by Clinics from 2017 to 2018.**



Source: Healthcare Providers from TPC-OHCIS Database.

### Primary Medical Emergency Care

Emergency services are provided through a widespread network of urban and rural primary health facilities. These services at the primary care level are continuously improving, as it is a significant entry point into the health system. Indicators to measure the quality of emergency care service include response time and health workers trained in Basic Life Support. The target to attend to emergency cases is one minute during office hours and 15 minutes after office hours. Overall, 99.9 per cent of emergency cases during office hours received treatment within one minute while 99.7 per cent of cases after office hours received treatment within 15 minutes. The findings are almost similar to the 430 health clinics equipped with Emergency Alert System where 97.8 per cent received treatment within 15 minutes after office hours.

The number of assistant medical officers trained in Basic Life support (BLS) increased from 89.4 per cent in 2015 to 96 per cent in 2018. The staff nurses and community health nurses trained in BLS gradually increased from 45.8 per cent to 63 per cent and 31.6 per cent to 55 per cent respectively during the same period. In 2018, RM579,200 was allocated to purchase manikins for BLS training.

Ambulance service is an important component in the provision of emergency care. 81 per cent of the ambulance at primary care was reported to be in good condition whereas, 9 per cent were not functional and 10 per cent were in the process or confirmed to be Beyond Economical Repair (BER). In 2018, 163 ambulances was distributed to the health clinics throughout Malaysia majority of which replaced those, which were BER. In addition, another 25 4WD ambulances was procured for the remote health clinics in Sarawak, Sabah, Johor, Perak and Kelantan.

### **Mobile Health Services**

In 2018, there were 239 mobile teams providing services through various transportation modes such as boats, buses, 4-wheel drives and helicopters. The acquisition of 4 wheel drive vehicles for the use of this service was made for the State of Perak, Selangor, Negeri Sembilan, Johor, Pahang and Kelantan using an allocation of RM1,500,000.00 which was approved in 11<sup>th</sup> Malaysia Plan.

### **Flying Doctor Service (FDS)**

The Flying Doctor Service provides services to 109 areas in the interior of Sarawak. The attendances increased from 20,445 in 2016 to 21,664 in 2018. Diseases of the respiratory system remain the main cause of outpatient attendance. In Sabah, the FDS has been temporarily suspended and replaced with health services provided by bots and 4WD. All emergency cases are accessed through Medical Transfers (MEDEVAC).

## **PRIMARY HEALTH CARE QUALITY**

### **Prevention and Infection Control in Primary Health Care**

Strengthening of prevention and infection control policy in Primary Health Care was started in 2012. Standard Precautions Compliance Audit and Hand Hygiene Compliance Survey are the two (2) main activities which have been monitored. There are 1834 facilities, consisting of health clinics, maternal and child clinics, community clinics, 1 Malaysia Clinics and mobile clinics were audited in 2018. The national percentage of standard precautions compliance decreased by 0.9 per cent to 94.2 per cent, as compared to 2017. However, the percentage of compliance in all domains excluding hand hygiene increased, in a range of 92 per cent to 96 per cent. A total of 403 health clinics participated in Hand Hygiene Compliance Survey in 2018 whereby this was 186 per cent more than the number of participating health clinics targeted. The National percentage of Hand Hygiene Compliance was 94 per cent, increased seven (7) per cent as compared to 2017.

### **Malaysian Patient Safety Goals and Incident Reporting**

Reporting of patient safety goals in primary healthcare has been implemented since 2013. All health clinics including maternal and child health clinics (stand-alone) are required to implement, monitor and report their performance annually through 'e-goals patient safety'.

The four (4) goals that applicable to primary healthcare facilities are; implementing clinical governance, ensuring medication safety, reducing patient falls and incident reporting. In 2018, 93.5 per cent of the clinics had reported their performances, which is 3.5 per cent higher compared to 2017. A total of 142 incidents had been reported through out 2018, 19.0 per cent lower than 2017. Patient fall was the highest incident reported (47) in 2018, followed by medication error (40) and investigation error (23).

### **QAP Client Friendly Clinic and QAP Appropriate Management of Asthma**

The implementation of Client Friendly Clinic and Appropriate Management of Asthma continued in 2018. The 2018 national performance in QAP Friendly Clinic showed an increased by 1 per cent from 97 per cent in previous year to 98 per cent in the median of the percentages of respondents with 80 per cent marks, and by 2.5 per cent in the percentage of nation-wide participating clinics from 90.1 per cent (2017) to 92.6 per cent. The 2018 national performance in QAP Appropriate Management of Asthma also showed an increased in both median of the percentages of respondents with 6/6 marks from 69.8 per cent (2017) to 73.8 per cent and percentage of participating eligible clinics from 83.8 per cent (2017) to 87 per cent.

### **Antimicrobial Stewardship in Primary Health Care**

Antimicrobial stewardship (AMS) activity in primary healthcare was planned based on *Pekeliling Ketua Pengarah Kesihatan Bilangan 3/2018 : Pelaksanaan Antimicrobial Stewardship di hospital dan klinik kesihatan*. This AMS activity is aimed to prevent and reduce incidence of antimicrobial resistance by promoting appropriate antimicrobial usage. The States' Core Team were invited for an implementation briefing in August 2018. Subsequently, each individual state had planned and carried out their echo training to increase the awareness among the healthcare providers. The implementation and monitoring of the General and Specific Policy of antimicrobial stewardship will be commenced in 2019.

## **PRIMARY POLICY DEVELOPMENT**

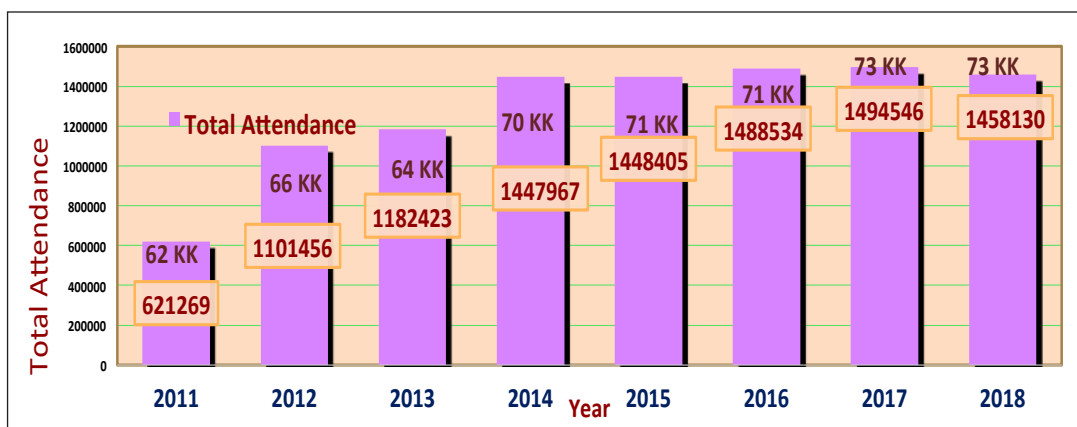
### **Family Doctor's Concept (FDC)**

The Family Doctor's (FDC) concept introduced in 2015 has been implemented in health clinics to ensure comprehensive provision of primary healthcare services. The introduction of Enhanced Primary Health Care (EnPHC) has further improved the work processes of the FDC. Risk profiling has been introduced for early detection of important health risks for effective monitoring and reflecting the profile of the health status of population coverage. ICT infrastructure constraints are among the key challenges in the population registration process.

### **Extended Hour Services**

This service has been implemented in 73 health clinics, which aims to increase community access to after-hours service as well to reduce congestion at emergency departments in nearby hospitals. **Figure 4.38** shows the number of attendances in the 73 clinics. The state of Selangor recorded the highest number of clinics and number of attendees using this service.

**Figure 4.38**  
**Number of Patient Attendances for Extended Hours Services, year 2011 to 2018**



Source: Family Health Development Division

### Health Clinic Advisory Panel (PPKK)

The PPKK appointment of 14,489 people for the period 2016 to 2018 has expired in December 2018. A total of 866 (81 per cent) facilities are involved in Advisory Panel activities. Annual Technical Committee meetings are held twice a year to discuss the issues of achievement and implementation. Each PPKK received RM 5000 to carry out health activities.

### Collaboration with various Institutions outside the Ministry of Health Malaysia (MOH)

The purpose of this collation is to reduce the incidence and spread of infectious diseases and deaths at various institutions outside the Ministry of Health that provides health services. The main involvement is in giving input towards delivery of health services ranging from prison institutions (42), detention depots (19), welfare institutions (33), learning institutions (17), drug rehabilitation centers (28) police training centers (8), youth and sports institutions (5) and occupational health departments (16). Up to 2018, there were 1,532 cadres comprising Medical Officers, Assistant Medical Officers, Nurses, Pharmacy Assistants, Occupational Therapists, Physiotherapists, Dietetic Officers and attendant placed at the institution. Discussions involving various institutions were done to identify areas of priority, service issues and action plans to improve the services provided by health staff.

## PRIMARY MEDICAL CARE

### Integrated Health Risks Screening

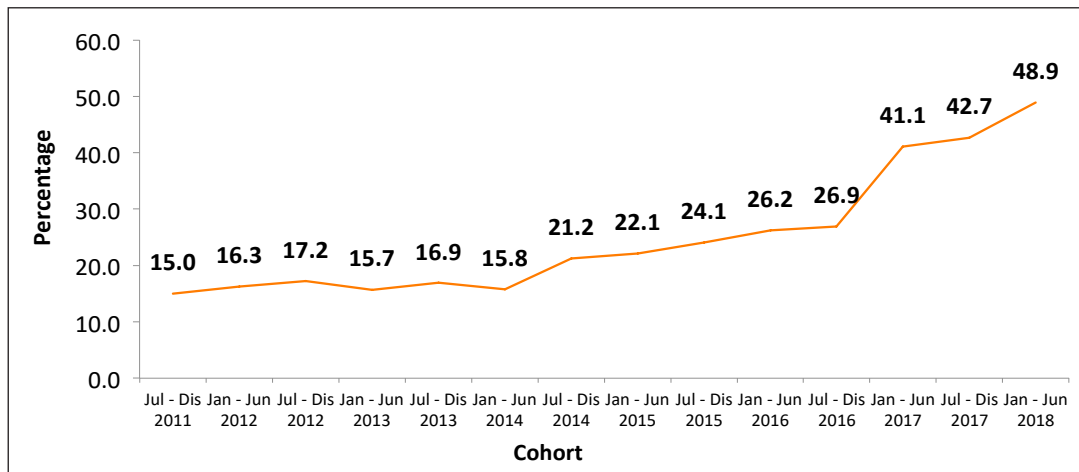
Integrated Health Risks Screening used the Health Status Screening Form (BSSK) to allow for comprehensive health services and reduce disease burden through early disease detection. In 2018, a total of 1,307,512 clients (5.4 per cent of the population from the estimated population of Malaysia in 2018 aged 10 years and over). Overweight is the main health risk among those screened.



## Quit Smoking Services

There are 774 health clinics that provide smoking cessation services. The success rate of quitting smoking showed an increase trend, with the quitting rate for cohort Jan-June 2018 rose to 48.9 per cent. In cohort Jan-June 2018, 9381 clients registered for the quit services, and 1805 clients from 3689 clients with 'Quit Date' successfully quit smoking. Trends in stop smoking rates as shown in **Figure 4.39**

**Figure 4.39**  
Trend in Quit Rate, Year 2011 to 2018 (January to June)



Total no. of clients	3991	4830	4116	4948	4364	4768	3241	4111	3947	4835	4735	3957	4024	3689
Total no. of clients quit smoking	600	785	709	777	738	752	686	908	951	1265	1276	1625	1717	1805

Source: Stop Smoking Rate Data, Family of Health Development Division, 2018

## MENTAL HEALTH SERVICES AT HEALTH CLINICS

### Mental Health Screening

A total of 331,052 clients have undergone a mental health screening using Depression Anxiety Stress Scales (DASS), out of which 27,611 (8.3 per cent) had stress, 33,628 (10.2 per cent) had anxiety and 21,450 (6.5 per cent) had a depression.

### Treatment for Stable Mental cases in Health Clinics

For the year 2018, a total of 22,331 mental cases sought treatment in health clinics where 9.6 per cent (2,133) were new cases. There were 959 defaulter contributing to 4.3 per cent which is still under WHO standards where defaulter cases not to exceed 10 per cent.

### **1Malaysia Clinic (K1M)**

For 2018, there are 346 Klinik 1Malaysia nationwide, not inclusive of 21 K1M which were upgraded into Klinik Kesihatan - 19 in Urban Transformation Centers; Pasir Pekan, Kelantan and Bagan Pinang, Negeri Sembilan. Out of those, 93 of them had medical officers services. For the second half of 2018, The Ministry had embarked on developing a transformation plan for services in Klinik 1Malaysia. This transformation plan aims to uplift quality of services offered and to streamline healthcare delivery at these facilities focusing on outpatient care especially chronic non communicable diseases (Chronic NCD).

Pelan Transformasi Perkhidmatan Klinik 1Malaysia (Klinik 1Malaysia Services Transformation Plan) will consist of three (3) main components namely:

- Component 1 : Value adding current Klinik 1Malaysia by placing Medical Officers and Pharmacist and streamlining services towards outpatient care and basic emergency services; and will be known as Klinik Komuniti
- Component 2 : Upgrading of suitable facilities into Klinik Kesihatan
- Component 3 : Closure of non-cost effective (underperforming) facilities

For 2018, there's a 11 per cent year-on-year reduction in attendances from 6.59 million (2017) to 5.88 million (2018) due to reduction in number of facilities in 2018 (346) from 367 in 2017.

### **PRIMARY HEALTHCARE FACILITIES INFRASTRUCTURE DEVELOPMENT**

In 2018, there were 3229 static clinics (3226 in 2017) and 239 clinics/mobile teams (244 in 2017). Static clinics consist of 1001 health clinics (KK), 90 maternal and child health clinics (KKIA), 1791 village clinics (KD) and 347 1Malaysia clinics (K1M); while mobile clinics consist of 239 clinics/mobile teams (land - 175 teams, water - 32 teams and air - 12 teams) and 20 teams conducting 11 mobile clinics, seven (7) buses and four (4) boats (**Table 4.35**).

Table 4.35

Static Clinics and Mobile Teams, by States, 2018

No	State	District	Static Clinic				Total Static Clinic	Mobile Team					Total Mobile Team	
			KK	KKIA	KD	K1M		Land	Water	Air	Team (Bus)	KB1M Team (Boat)		
1.	Perlis	1	10	0	30	4	44	0	0	0	0	0	0	0
2.	Kedah	11	60	6	218	22	306	3	1	0	0	0	0	4
3.	Penang	5	30	6	59	24	119	0	0	0	0	0	0	0
4.	Perak	11	87	11	231	24	353	13	1	1	2(1Bus)	0	0	17
5.	Selangor	9	79	4	113	48	244	11	1	0	2(1Bus)	0	0	14
6.	W.P KL & Putrajaya	5	19	7	0	26	52	0	0	0	0	0	0	0
7.	N.Sembilan	7	50	0	96	18	164	8	0	0	0	0	0	8
8.	Malacca	3	30	1	60	19	110	0	0	0	0	0	0	0
9.	Johor	10	96	3	261	35	395	18	2	0	2(1Bus)	0	0	22
10.	Pahang	11	86	5	239	20	350	19	1	0	4(2 Buses)	0	0	24
11.	Terengganu	8	47	1	128	15	191	1	0	0	0	0	0	1
12.	Kelantan	10	85	0	175	21	281	4	0	0	0	0	0	4
13.	Sabah	26	109	22	166	36	333	34	1	2	1(1 Bus)	4 (2 Boats)	0	42
14.	Sarawak	40	211	24	5	34	274	64	25	9	1(1 Bus)	4 (2 Boats)	0	103
15.	W.P Labuan	1	2	0	10	1	13	0	0	0	0	0	0	0
<b>TOTAL</b>		<b>158</b>	<b>1001</b>	<b>90</b>	<b>1791</b>	<b>347</b>	<b>3229</b>	<b>175</b>	<b>32</b>	<b>12</b>	<b>12(7Buses)</b>	<b>8 (4 Boats)</b>	<b>0</b>	<b>239</b>

Source: Family Health Development Division, 2018

There were only four (4) new projects for primary health care facilities under RMK-11, Rolling Plan Three (3) consisted of three (3) KK and one (1) quarters as in the **Table 4.36** below.

**Table 4.36**  
**Projects for Primary Health Care Facilities RMK-11 (Rolling Plan 3) 2018**

No.	State	District	Category Of Project	Name Of Project
1.	Kedah	Kepala Batas	Replacement	KK (Type 3) Kepala Batas
2.	Johor	Segamat	Upgrade	KK (Type 2) Segamat
3.	Pahang	Jerantut	Replacement	KK (Type 5) Kuala Tahan, Jerantut
4.	Johor	Kota Tinggi	New	Kuarters KK Kesihatan Bayu Damai, Pengerang

*Source: Family Health Development Division, 2018*

### **Clinical Support Service (PSK) (Maintenance)**

Services provided by PSK include the maintenance of facilities engineering, cleaning services and clinical waste management services. In 2018, a total of 162 health clinics have been selected to implement this service, most of which are Type 1 to Type 4 health clinics either in accordance with standard plans or average daily attendees. The number of clinics by state are: Perlis (2), Kedah (12), Pulau Pinang (9), Perak (13), Selangor (20), Kuala Lumpur and Putrajaya (6), Negeri Sembilan (12), Melaka (7), Johor (15), Pahang (10), Terengganu (9), Kelantan (6), Sabah (20) and Sarawak (21). The PSK contract is given to one (1) company each state for 3 years.

## **CLINICAL SUPPORT SERVICES**

### **Human Resource Development in Primary Health Care**

Human resource development is important to ensure a comprehensive, quality, and effective basic healthcare service. Hence, continuous efforts have been made to increase the total number of posts in each category, making more promotions forecast and adding new categories of professional staff in line with the development of primary care services. These include allied health science professionals such as Medical Social Workers, Assistant Pharmacists, Dietetians, Physiotherapists, Occupational Therapists and Optometrists. The percentage of posts filled by healthcare professionals in health clinics has increased slightly over 2017, as shown in **Table 4.37**. However, this number is still insufficient to meet the health needs of the population in primary care. Emphasis is also given to the enhancement of Continuous Professional Development (CPD) through the introduction of a new degree program for public health and the implementation of a family medicine parallel pathway program to produce more Family Medicine Specialists.

**Table 4.37**  
**Status of Post Filled by Category (2015 to 2018)**

No	Category	2015	2016	2017	2018
1.	Family Medicine Specialist	281 (124 %)	329(107%)	395(129%)	439(142%)
2.	Medical and Health Officer	3643 (98.5%)	4929 (110%)	4689 (119.98%)	5877(101%)
3.	Pharmacist	1846 (84.8%)	2149 (98.9%)	2142 (97.8%)	2142 (97.8%)
4.	Assistant Medical Officer	4294 (90.0%)	4374(92%)	5045(96%)	5270(95.1%)
5.	Nurse	10,943 (87.4%)	11,122 (94.02%)	11,752(98.13%)	11,752(98.13%)
6.	Pharmacist Assistant	1950 (95.0%)	2016 (98.3%)	1991(96.7%)	1991(96.7%)
7.	Medical Lab Technologist	1856 (92.4%)	1896(92.9%)	1883(94.0%)	1916(96.2%)
8.	Radiographer	410 (95.3%)	399 (92.79%)	402(99.75%)	410(92.3%)
9.	Community Health Nurse	13837 (90.8%)	13,853 (97.2%)	13,331(93.59%)	13,331(93.59%)
10.	Medical Social Worker*	20(95.2%)	20(95.2%)	19(85.71per cent)	21(99%)
11.	Occupational Therapist*	215 (81.4%)	215(81.4%)	242(96.03%)	258(97.7%)
12.	Dietitian*	60(92.0%)	59(91%)	63(95.5%)	66(100%)
13.	Physiotherapist*	308 (86.8%)	332(93%)	312(98.7%)	337(94.1%)
14.	Optometrist*	1(100%)	1(100%)	2(100%)	2(100%)

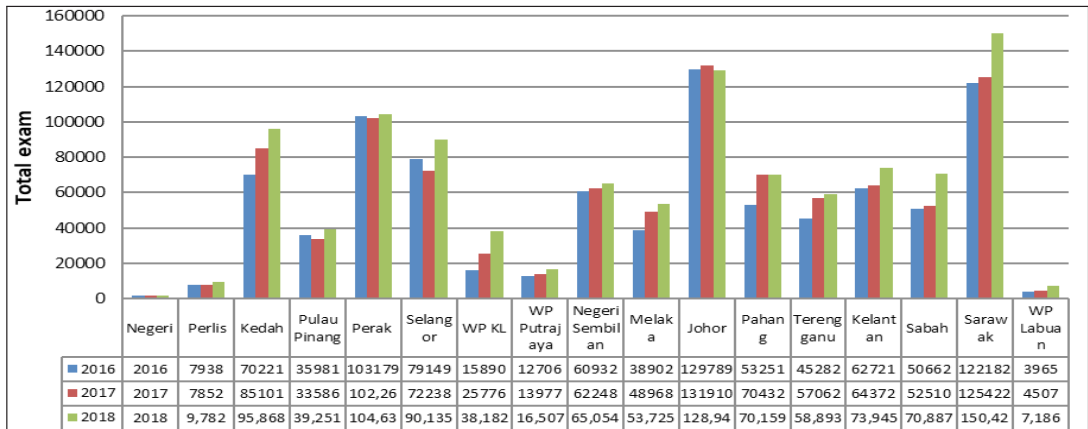
\*Additional category monitored under Primary Care since 2015.

Source: Family Health Development Division, MOH

### **Radiological Services**

National performance for the quality assurance program in radiology services has achieved the set target of less than 2.5 per cent. Percentage of image rejection decreased from 0.83 per cent in 2017 to 0.74 per cent. The film processing method has improved with the replacement of conventional processing to the Computerized Radiographic System (CR). The number of health clinics with CR system has increased from 41 (2016) to 55 clinics. In addition, another 115 units will be acquired under the Medical Equipment Enhancement Tenure (MEET) project over the next three (3) years. The Health clinics with radiology services have increased by 9.23 per cent from 195 (2016) to 213 (2018). The same trend was observed in the workload whereby the number of X-Ray inspections increased by 20.25 per cent from 892,750 (2016) to 1,073,584 (**Figure 4.40**)

**Figure 4.40**  
**Workload of Radiology Services in Primary Care (2016 to 2018)**

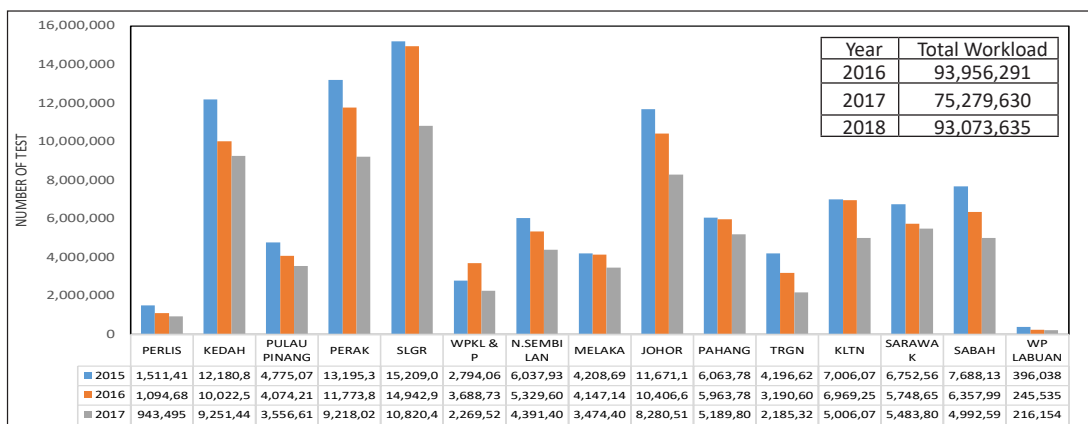


Source: Family Health Development Division, MOH

### Laboratory Service

Currently, there are 753 laboratory facilities in primary care, an increase of 0.9 per cent compared to 743 in 2017. Workload in the last 3 years shows a downward trend from 93,959,291 in 2016 to 75,279,630 in 2017 as shown in **Figure 4.41**. This decline is due to changes in laboratory calculation format that was introduced by the National Pathology Service in 2016. However, the burden of work increased to 93,073,635 in 2018. A minimum quality standard for primary care laboratory has also been established to ensure the quality of laboratory services in primary care facilities towards obtaining MS ISO 15189 certification. The number of laboratory participation in the QAP program (Lab Turnaround Time) for the laboratories with hematological analyzer machines also increased from 90.1 per cent in 2016 to 92.2 per cent in 2018. Overall, the LTAT achievements for all states exceed 95 per cent target except for Sabah and Kedah. The State of Sabah reached 85.0 per cent whilst Kedah reached 92.0 per cent in 2018, mostly due to equipment damage, lack of Medical Laboratory Technologist (MLT) and power supply disruption.

**Figure 4.41**  
**Workload for Laboratories in Primary Care (2016 to 2018)**



Source: Family Health Development Division, MOH

## HEALTH EDUCATION DIVISION

Health Education Division focuses on implementing the primary health promotion programmes and also strengthening them to create health-conscious Malaysians. Implementation of health promotion programmes are based on three (3) main objectives:

- i. Enhancement of health literacy through accessibility to health information and health promotion campaigns;
- ii. Building capacity on health education and promotion; and
- iii. Strengthening health promotion service delivery in various settings.

### ENHANCEMENT OF HEALTH LITERACY THROUGH ACCESSIBILITY TO HEALTH INFORMATION AND HEALTH PROMOTION CAMPAIGNS

#### 1. Digital Health Promotion Media

This Division provides access to [www.infosihat.gov.my](http://www.infosihat.gov.my) and [www.myhealth.gov.my](http://www.myhealth.gov.my) portals as well as optimizing the use of social media as a platform to disseminate health messages among community. Social media platforms such as Facebook, Twitter, Instagram and YouTube have been utilising to trigger social advocacy in the context of health. In 2018, this Division has published six (6) issue of e-Health Magazine (MyHealth Edition) (Figure 4.42).

Figure 4.42  
Social Media Achievement in Health Promotion



Source: Health Education Division, MOH

#### 2. *Kempen Hidup Aktif: When Active Living Kicks (WALK) 2018 - 2025*

Health Education Division has launched *Kempen Hidup Aktif: When Active Living Kicks (WALK) 2018 to 2025* which was officiated by YAB Tun Dr Mahathir bin Mohamed on 3rd November 2018 at the Oval Lawn, Setia City Park, Setia Alam, Selangor. A variety of activities conducted during the event such as 10,000 steps challenge, run, health screening, fitness test, coaching zone, creative zone, fitness zone, extreme zone, shooting zone and surf in zone. During his speech the Prime Minister has recommended 15 minutes of light exercise at the workplace (Figure 4.43 and Image 4.8).

**Figure 4.43**  
**Kempen Hidup Aktif: When Active Living Kicks (WALK) 2018 to 2025**



Source: Health Education Division, MOH

**Image 4.8**  
**Kempen Hidup Aktif: When Active Living Kicks (WALK) 2018 to 2025**



Source: Health Education Division, MOH

### 3. Health Promotion in Learning Institutions (HePiLI) National Convention

Health Promotion in Learning Institutions (HePiLI) National Convention was held on 24th to 27th January 2018 at the International Islamic University Malaysia. A total of 1,203 participants



from 16 states participated in the convention, consisted of 706 *Kelab Doktor Muda* members, 197 teachers, 160 PROSIS members, 22 PROSIS coordinators and 117 health staffs. Three (3) ministries involved in the convention namely Ministry of Health Malaysia, Ministry of Education Malaysia and Ministry of Rural Development. The objective of this convention is to encourage schools to implement programmes and activities related to health behaviour interventions through community projects, teaching aids innovation projects and peer intervention projects (**Image 4.9**).

**Image 4.9**  
**Health Promotion in Learning Institutions (HePiLI) Convention**



Source: Health Education Division, MOH

#### **4. Anugerah Media Kesihatan**

*Anugerah Media Kesihatan* was held on 5th October 2018 at Eastin Hotel, Kuala Lumpur and officiated by YB Datuk Seri Dr. Dzulkefly Ahmad, Minister of Health, Malaysia. The objective of this event is to appreciate and recognized the press and media agencies for their creative contribution in promoting health and health literacy among the communities. A total of 265 nominees for this year, involving 21 recognition categories (**Image 4.10**).

**Image 4.10**  
**Malam Anugerah Media Kesihatan**



Source: Health Education Division, MOH

#### **5. Sambutan Hari Tanpa Tembakau Sedunia**

*Hari Tanpa Tembakau Sedunia* was held on 31st May 2018 at the Main Lecture Hall, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia and officiated by YB Datuk Seri

Dr. Dzulkefly Ahmad, Minister of Health, Malaysia. The event involved collaborations with Faculty of Medicine and Health Sciences, *Universiti Putra Malaysia* and *Hospital Serdang* with the theme “*Tembakau dan Penyakit Jantung - Ke Arah Generasi Tanpa Merokok*”. This event aimed to raise awareness among society on effects of smoking habit especially on heart related diseases (**Image 4.11**).

**Image 4.11**  
***Sambutan Hari Tanpa Tembakau***



Source: Health Education Division, MOH

#### **6. Anugerah Institusi Pendidikan Tinggi (IPT) Bebas Denggi**

*Anugerah Institusi Pendidikan Tinggi (IPT) Bebas Denggi* was held in conjunction with the ASEAN Dengue Day held at Sekolah Rendah Agama Kampung Sungai Kayu Ara Damansara Utama, Petaling Jaya, Selangor on 7th July 2018. This competition involved 20 public universities in which the Universiti Utara Malaysia (UUM) crowned as champion, the second place won by Universiti Teknologi Mara (UiTM) and third place won by Universiti Malaysia Sabah (UMS). This competition encouraged all universities to produce innovation and creativity in prevention of dengue and continuous efforts to overcome dengue outbreak (**Image 4.12**).

**Image 4.12**  
***Anugerah Institusi Pendidikan Tinggi (IPT) Bebas Denggi***



Source: Health Education Division, MOH

## BUILDING CAPACITY ON HEALTH EDUCATION AND PROMOTION

### 1. Capacity Building on Physical Activity and Fitness

In order to strengthen and foster the capacity among individuals, families, communities and organizations to adopt healthy lifestyles and be more active, this Division has organized four (4) courses of Training of Trainers (TOT) on body weight management intervention and basic aerobics in collaboration with the Ministry of Youth and Sports. Through these courses, a total of 187 participants were successfully trained as instructors and gained knowledge and skills to coach weight management interventions by using a more comprehensive Weight Management Intervention Module (IFitEr). The trainers received accreditation status by the Ministry of Youth and Sports. The Weight Management Intervention Module (IFitEr) is the main reference module for weight management interventions conducted in MOH.

The TOT courses successfully produced a number of qualified IFitEr instructors who are equipped with sufficient knowledge and skills in handling interventions to help health workers and community to achieve targeted weight loss. IFitEr instructors are skillful to carried out mass exercises in line with the aim of the World Health Organization (WHO) to reduce physical inactivity rate by 10 per cent worldwide by 2025 (**Image 4.13**).

**Image 4.13**  
**Trainings and Courses for Physical Activity Instructors**

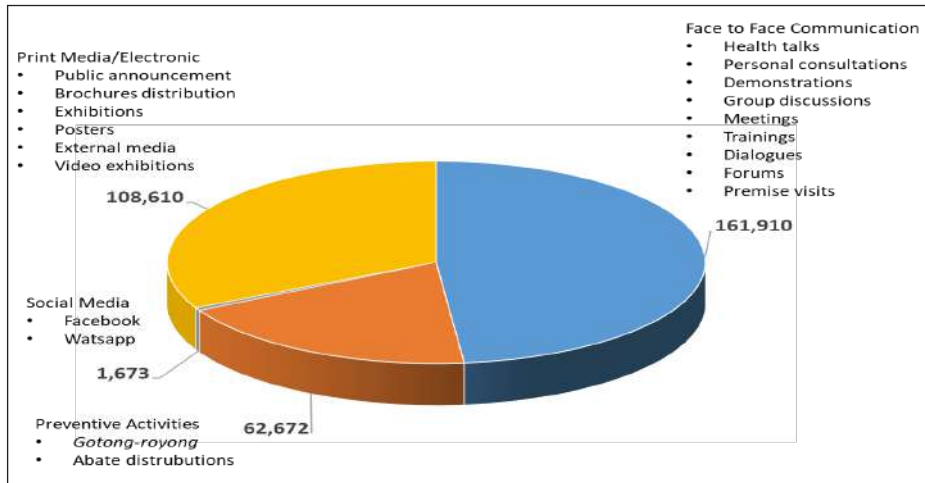


Source: Health Education Division, MOH

### 2. Communication for Behavioural Impact (COMBI)

There are 2,723 Dengue COMBI teams with 63,000 volunteers nationwide with the addition of 216 new COMBI teams. A total of 62,672 preventive activities carried out involving *gotong-royong* activities and abate distribution. The total health education and promotion activities as shown below (**Figure 4.44**).

**Figure 4.44**  
**Health Promotion Activities Conducted by COMBI Dengue Teams 2018**



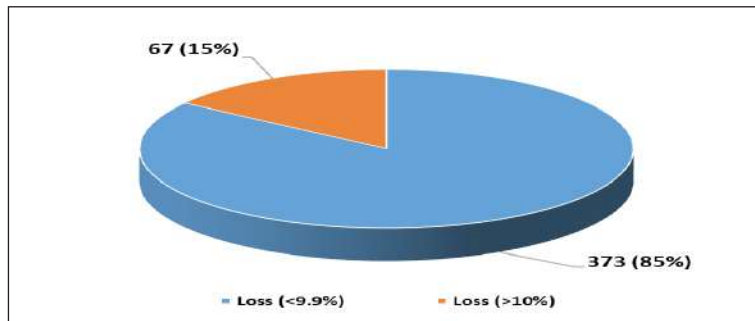
Source: Health Education Division, MOH

## STRENGTHENING OF PROMOTION SERVICE DELIVERY IN VARIOUS SETTINGS

### 1. Weight Management Intervention (IFitEr) in Pusat Promosi Kesehatan Komuniti (PPKK)

There were seven (7) modules for body weight management interventions (IFitEr) explained namely Guidelines, Health Screening and Fitness Test, Behavioral Modification, Nutrition Plan, Exercise Training Plans, MyLogBook and MyTools. The IFitEr intervention 2018 was conducted in 21 PPCKs and involved 440 participants. A total of 373 (85 per cent) participants recorded a weight loss of less than 10 per cent of their original weight using IFitEr module. Meanwhile, 67 (15 per cent) participants managed to lose weight more than 10 per cent of their original weight (Figure 4.45).

**Figure 4.45**  
**Achievement of Weight Management Program (IFitEr)**



Source: Health Education Division, MOH

## 2. Quit Smoking Behaviour Modification Intervention

This service is conducted by the Health Education Officers in hospitals using behavioral modification interventions for all referred patients and voluntary clients. The number of clients registered with Quit Smoking Clinics in 2018 was 2,897 and 1,505 (52 per cent) of the clients have set the date to quit smoking while a total of 879 (58 per cent) of the clients have successfully quit smoking. There was an increase of 221 clients who successfully quit smoking as compared to last year (**Figure 4.46**).

**Figure 4.46**  
Total of Quit Rate for Quit Smoking Clinic Service, 2016 to 2018

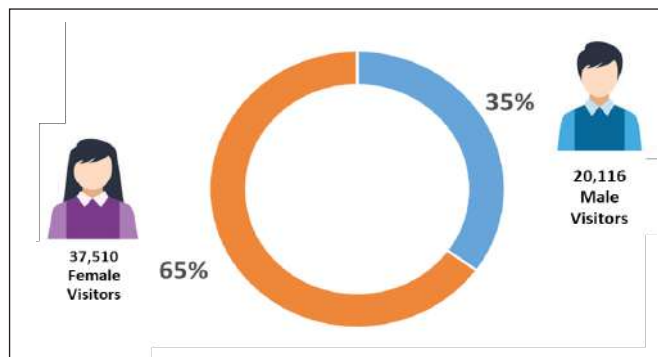


Source: Health Education Division, MOH

## 3. Promotion of Healthy Lifestyle in the Community

*Pusat Promosi Kesihatan Komuniti* (PPKK) is a facility that provides comprehensive, intensive and organized health promotion services that encourage healthy lifestyle among local communities. To date, 21 PPKKs established throughout the country. In 2018, the number of PPKK visitors nationwide is 57,626 with a breakdown of 37,510 (65 per cent) for female visitors and 20,116 (35 per cent) for male visitors (**Figure 4.47**).

**Figure 4.47**  
Number of Visitors in PPKK According to Gender



Source: Health Education Division, MOH

Among the services available at PPKK include weight loss management interventions, health screening, physical activity sessions, personal coaching sessions (quit smoking service, healthy eating and stress management) and healthy cooking demonstrations. The service that records the highest community participation is physical activity with a total of 47,525 clients. Weight loss program seen to have a positive impact as it helps many participants to lose weight and feel healthier. A total of 26,808 clients were screened through the health screening service. As a result, a total of 26,364 clients were referred to consultation (**Image 4.14**).

**Image 4.14**  
**Activities Conducted in Pusat Promosi Kesehatan Komuniti (PPKK)**



Source: Health Education Division, MOH

#### **4. Health Promotion in Learning Institutions**

Health Promotion Program in Learning Institution (HePiLI) includes the programmes such as *Tunas Doktor Muda*, IMFree Programme, *Kelab Doktor Muda* and *Program Siswa Sihat* (PROSIS). Target groups include students at preschool and *Tabika KEMAS* for *Program Tunas Doktor Muda*, primary school students for Program IMFree and *Kelab Doktor Muda* and secondary schools students for *Program Kelab Doktor Muda* and students at the institutes of higher learning for *Program Siswa Sihat* (PROSIS). The objectives of HePiLI are to raise awareness, skills and practices of healthy lifestyles to the target groups.

In 2018, the status of HePiLI programme implementation across the country as shown in **Table 4.38, 4.39** and **4.40**.

**Table 4.38**  
**Achievement of Tunas Doktor Muda Programme**

Year	School	Number of Schools	Total of Students
2018	Tabika KEMAS	1,122	46,408
2018	Preschool	720	
<b>Total</b>		<b>1,842</b>	

Source: Health Education Division, MOH

**Table 4.39**  
**Achievement of IMFree Programme**

School	Student	Number of Schools	Total of Students
Pioneer Schools 2016	Year 1,2 dan 3	36	12,366
Expansion of Schools 2017	Year 1 dan 2	314	51,227
Expansion of Schools 2018	Year 1	286	37,501
<b>Total</b>		<b>636</b>	<b>101,094</b>

Source: Health Education Division, MOH

**Table 4.40**  
**Achievement of Kelab Doktor Muda Programme**

School	Student	Number of Schools	Education Activities
Primary	77,908	3,286	65,878
Secondary	19,876	577	9,075
<b>Total</b>	<b>97,784</b>	<b>3,863</b>	<b>74,953</b>

Source: Health Education Division, MOH

## 5. **Program Siswa Sihat (PROSIS)**

*Program Siswa Sihat (PROSIS)* started at the public universities, and now it was expanded to private universities, community colleges, polytechnics, Teachers' Institute of Education and matriculation. A total of 67 IPTs implemented this program at their respective institutions and involving various activities such as fun run, weight loss intervention, 10,000 steps, physical activities, healthy cooking competition, blood donation, health talk and so on. In 2018, a total of 6,275 members of PROSIS throughout Malaysia were trained based on PROSIS training modules and PROSIS fitness instructor (**Image 4.15**).

**Image 4.15**  
**Activities conducted by PROSIS members**



Source: Health Education Division, MOH

## CONCLUSION

Throughout the year 2018, the Health Education Division has implemented various health promotion programmes involving the participation of various government agencies, private sector, non-governmental organizations, local community leaders and individuals. Those promotion programmes implemented are to provide a supportive environment towards people's involvement and participation to achieve good health status. This Division will continue to implement health promotion programmes in line with the principles of the Ottawa Charter to enable the people to have strength and efforts towards improving their health and to achieve holistic health, physical, mental and overall wellbeing.

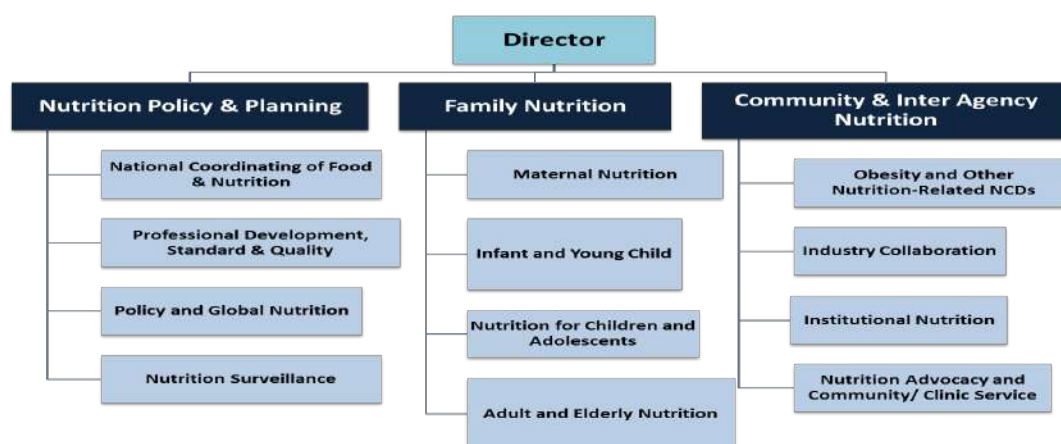
## NUTRITION DIVISION

Beginning in 2017, in line with the rapid evolution of nutrition in the country, services by the Nutrition Division were restructured. The two (2) existing branches namely Policy and Nutrition Operational were restructured into three (3) branches. These three (3) branches are the Nutrition Policy & Planning, Family Nutrition, and Community & Inter-Agency Nutrition with each branch consisting of several sectors as shown in **Figure 4.48**.

The main function of the Nutrition Division is to plan, develop, implement, monitor and evaluate nutrition programs.



Figure 4.48  
Organization Chart of the Nutrition Division



Source: Nutrition Division MOH 2018

## PLANNING & NUTRITION POLICY

### ACTIVITY 1: IMPLEMENTATION OF NUTRITION STRATEGY AND PROGRAMME THROUGH THE COLLABORATION WITH INTERNATIONAL AGENCY AND NATIONAL NUTRITION POLICY

Nutrition is one of the components incorporated into the technical collaboration between Malaysia and The United Nations International Children’s Emergency Fund (UNICEF) through the Country Programme Action Plan (CPAP), 2016 to 2020: Rolling Work Plan 2018 to 2019. This plan was coordinated by the Economic Planning Unit (EPU), Prime Minister Department. Through this plan, nutrition activities involving UNICEF to tackle the double burden malnutrition among children under 5 year age were executed.

Besides that, to ensure the nutritional well-being of Malaysians is achieved, the National Nutrition Policy was formulated in 2005. This policy ensures access to adequate, nutritious, safe and quality food and nutrition of the population. It also integrates and synergises the efforts of relevant stakeholders in planning, implementing and evaluating food and nutrition programmes that are effective and sustainable. Thus, The National Plan of Action for Nutrition Malaysia (NPNM) III was formed to facilitate the implementation of this policy. The National Nutrition Policy which was formulated in 2005 is currently under review. The revision was started in 2018 and expected to be completed in 2020.

### ACTIVITY 2: PUBLIC ENGAGEMENT ON ALLIED HEALTH PROFESSIONS ACT (774) FOR NUTRITIONIST

The public engagement for the Nutritionist Profession with the relevant stakeholders and practitioners was held twice on 25 May 2018, at the Complex E Auditorium, Ministry of Health (MOH) and 30 June 2018, at the Universiti Malaysia Sabah. These two (2) sessions were attended by 475 people from various sectors including government agencies, academics, the industry as well as students. The main purpose of the session was to obtain feedback from the practitioners before the Allied Health Profession Act (Act 774) is enforced.

Most of the issues raised were on the status of the current Nutritionist who is practising and has no qualification, scope of practice and status of the students graduated from the unrecognised institutions and those who will be graduating in the year of this 774 Act is enforced (Image 4.16).

**Image 4.16**  
**Public Engagement on AHP ACT (Act 774)**



Source: Nutrition Division, MOH 2018

### **ACTIVITY 3: NATIONAL COORDINATING SECTOR FOR FOOD AND NUTRITION (NCSFN)**

The National Coordinating Sector for Food and Nutrition is responsible in coordinating the National Plan of Action for Nutrition of Malaysia (NPANM) III, 2016 to 2025 which aimed “Towards Achieving Optimal Nutritional Well-Being of Malaysian”. This plan is using trans- and multi-sectoral approach in combating malnutrition in the country.

The monitoring of NPANM III, 2016 to 2025 is divided into two (2) components, which are monitoring of nutritional status (impact indicators) and monitoring of implementation status of activities (process indicators). There are two (2) levels of monitoring; intra-agencies (within divisions in the Ministry of Health, state health departments and district health offices) and inter-agencies (various ministries/non-governmental organizations/associations /universities/ professional bodies/food industry). The progress or achievement status of impact and process indicators are presented annually in the National Coordinating Committee for Food and Nutrition (NCCFN) meeting chaired by the Deputy Director-General of Health (Public Health) and the Food Safety and Nutrition Council (MKMPK) chaired by the Honourable Minister of Health of Malaysia.

In order to support the implementation of this plan, several initiatives and activities were undertaken in 2018 as follows:

- Meeting on the Monitoring of NPANM III's Activities Implementation at states and districts level.
- The NPANM III's advocacy activities, 2016-2025 to various ministries and agencies.
- Establishment of the Technical Working Group (TWG) of Food and Nutrition Security on 6 July, 2018, jointly chaired by the Director of Nutrition Division, Ministry of Health (MOH) and Under-Secretary of Strategic Planning and Policy Division, Ministry of Agriculture Ministry of Agriculture and Agro-based Industry (MOA). This TWG is a platform to address issues on food and nutrition security in the country.
- Integration of nutrition component into Urban Agriculture Programme, Department of Agriculture to give an added value to the existing programme such as to support fruits and vegetables intake among the population.

#### **ACTIVITY 4: NATIONAL NUTRITION SURVEILLANCE SYSTEM**

The National Nutrition Surveillance System acts as a mechanism of monitoring and reporting of regular and systematic nutrition indicators not only at national but also at international level. Some of the nutrition indicators monitored are data on programme implementations, impact indicators in the National Plan of Action Malaysia (NPANM), Global Nutrition Target 2025, Sustainable Development Goal and Universal Health Coverage across all age groups. These indicators were obtained from administrative data at clinic level, nutrition surveys at population level and data from government agencies such as Department of Statistics Malaysia.

In 2018, nutrition indicators (eg. the percentage of exclusive breastfeeding below six months, nutritional status of children under 5 years and prevalence of low birth weight) have been integrated into the Sistem Maklumat Rawatan Pelanggan (SMRP); Family Health Services under the Malaysia Health Data Warehouse (MyHDW) Phase 2 project. This project has been developed by Planning Division, Ministry of Health Malaysia in collaboration with MIMOS Berhad.

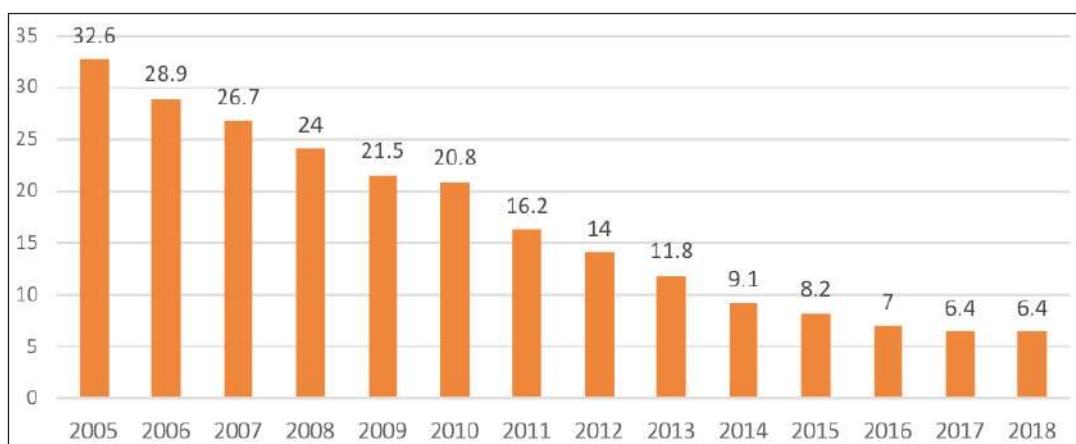
#### **FAMILY NUTRITION**

##### **ACTIVITY 5: PREVENTION AND CONTROL PROGRAMMED FOR ANEMIA AMONG PREGNANT MOTHERS**

Iron deficiency anaemia (IDA) is the common cause of anemia among pregnant mothers. It occurs due to an increase in demand for iron and other vitamin for the development of fetus and the physiological changes during pregnancy. Since 2015, prevention and control programme for Anaemia has been implemented as a Quality Assurance Indicator for National Indicator Approach (NIA). Various intervention programmes at state and district level had been executed accordingly.

In 2018, prevalence of anaemia among antenatal mothers (Hb < 11gm per cent) attending government health clinics was 6.4 per cent. It was a significant reduction as compared to 32.6 per cent in 2005. However, this year's prevalence remained stagnant since 2017 (**Figure 4.49**).

**Figure 4.49**  
**Percentage of Anaemic among Antenatal Mothers (Hb < 11gm per cent) Attending Government Health Clinics, 2005 to 2018\***



Source: \*Preliminary Data, Health Informatics Centre, MOH

#### **ACTIVITY 6: BABY FRIENDLY HOSPITAL INITIATIVE (BFHI)**

Baby Friendly Hospital Initiative (BFHI) is a global initiative by the World Health Organization (WHO) and UNICEF that aim to give every baby the best start in life by creating health care environment in supporting breastfeeding as the norm. BFHI was launched in Malaysia in 1992 and has been recognised by WHO as the third country in the world with 100 percent government hospitals recognized as baby friendly in 1998.

As of December 2018, total of 155 hospitals in Malaysia had attained the Baby-Friendly status as shown in **Table 4.41**. A total of 56 (96.6 per cent) out of 58 hospitals re-assessed using the WHO/UNICEF 2009 global criteria in 2018 had successfully retained their Baby Friendly Hospital status.

**Table 4.41**  
**Distribution of Baby Friendly Hospitals in Malaysia**

No	Hospitals	Numbers of Hospital
1.	Hospitals under the Ministry of Health	130
2.	Hospitals under the Ministry of Higher Education	3
3.	Hospitals under the Ministry of Defence	3
4.	Private hospitals	19
<b>Total</b>		<b>155</b>

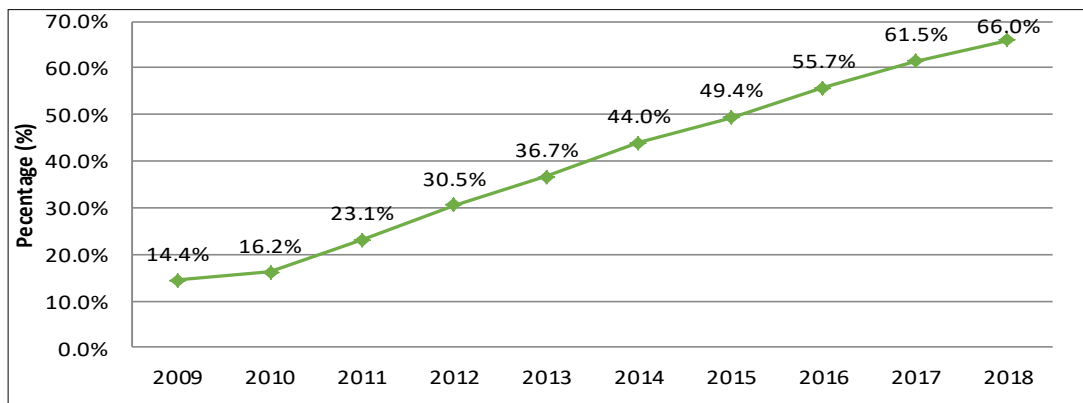
Source: Nutrition Division, MOH 2018

## ACTIVITY 7: INFANT AND YOUNG CHILD FEEDING

For optimal growth and development of infants and young children in Malaysia, all infants should be breastfed exclusively from birth until six months of age. Complementary foods should be introduced at the age of six months while continuing to breastfeed to two years. Feeding of all infants and young children should be timely, adequate, safe, appropriate and proper.

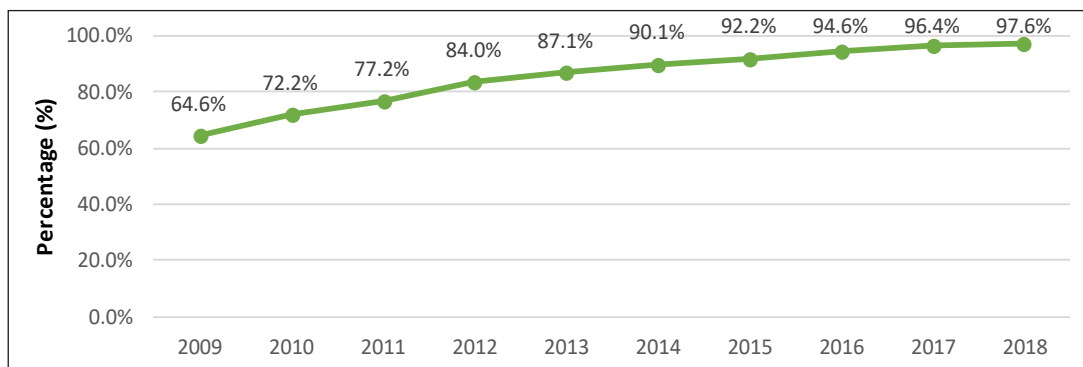
Since 2009, breastfeeding rates in Malaysia have continued to increase as shown in **Figure 4.50**. Exclusive breastfeeding at 6 months had increased from 61.5 per cent in 2017 to 66.0 per cent in 2018. **Figure 4.51** shows that the timely initiation of complementary feeding in Malaysia at 6 months had increased from 96.4 per cent in 2017 to 97.6 per cent in 2018.

**Figure 4.50**  
Exclusive Breastfeeding Practices at 6 Months



Source: State Health Department, 2018

**Figure 4.51**  
Timely Initiation of Complementary Feeding Practice at 6 months



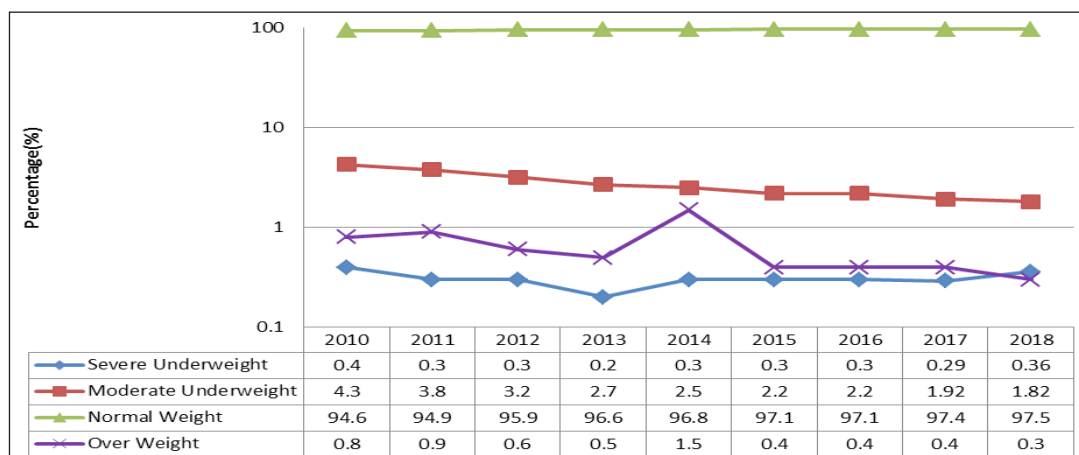
Source: State Health Department, 2018

## ACTIVITY 8: NUTRITIONAL STATUS FOR CHILDREN BELOW 5 IN MALAYSIA

The Ministry of Health Malaysia monitors the nutritional status of children under five years old through the National Nutrition Surveillance System (NSS) under the Health Management

Information System. **Figure 4.52** shows the trend of the nutritional status of children below five years old from 2010 until 2018. There is a slight increase in the nutritional status of under-five children for 2018 as compared to 2017. Thus, 97.5 per cent of the children were in the normal weight classification. For severe underweight, there was a slight increased as compared to 2017 while for moderate underweight had shown a decline as compared to 2017. For the percentage of overweight children in 2018, it was slightly lower than in 2017.

**Figure 4.52**  
Nutritional Status of Children under 5 Years in Malaysia, 2010 to 2018

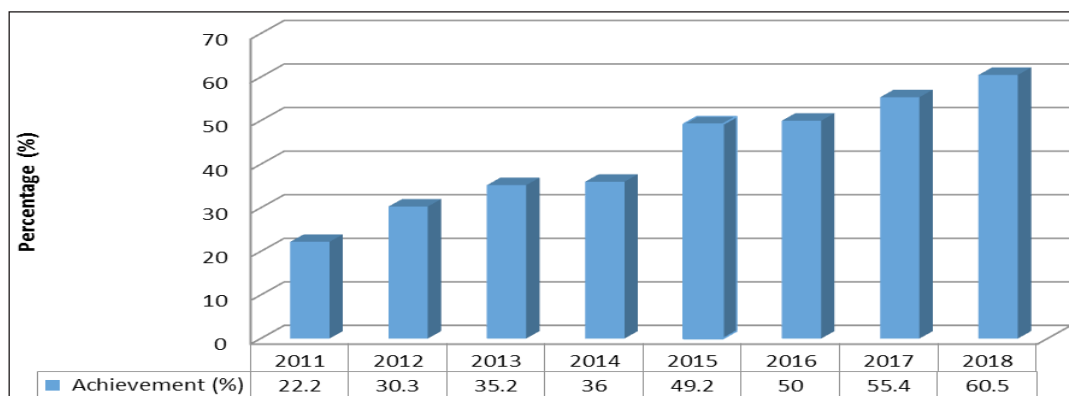


Source: Health Informatics Centre, MOH

### ACTIVITY 9: REHABILITATION PROGRAMME FOR MALNOURISHED CHILDREN

In 2018, a total of 8,413 malnourished children from households with monthly income below RM 2000 had received the food baskets. As shown in **Figure 4.53**, 60.5 per cent of the malnourished children had managed to increase body weight, which was better than in the previous years.

**Figure 4.53**  
Percentage of Malnourished Children with Increased Body Weight

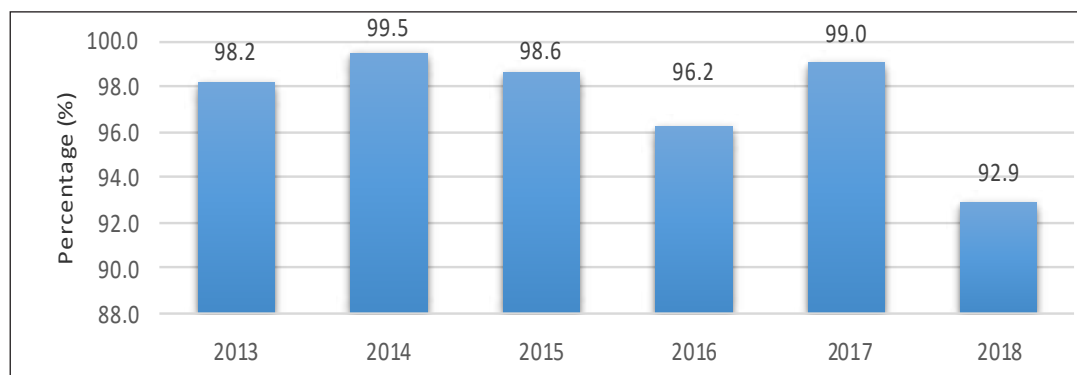


Source: State Health Department, 2018

## ACTIVITY 10: COMMUNITY FEEDING PROGRAMME (PCF)

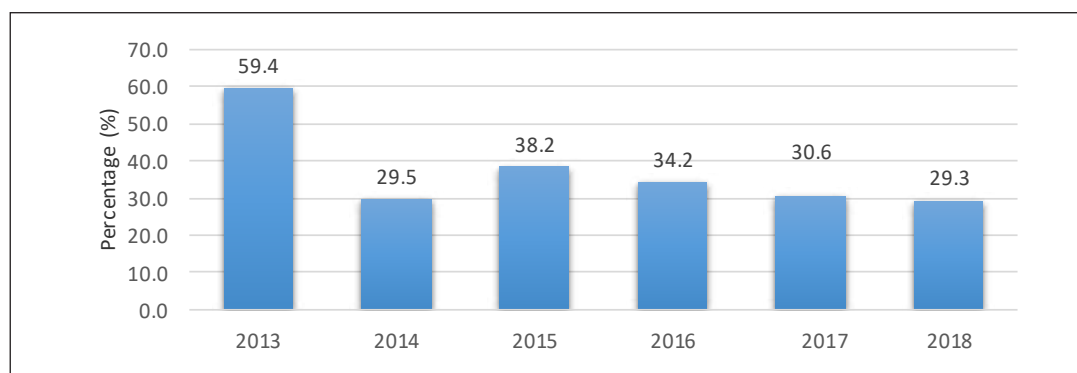
Up to now, there are 46 centres in Perak, Pahang, Kelantan, and Sarawak since its implementation in 2012. In 2018, three (3) centres in Sarawak were closed since all the cases were rehabilitated. Therefore, only 43 centres are still operating. A total of 1301 *Orang Asli* children have involved in 2018 the PCF Programme. As shown in **Figure 4.54**, 130 children also received food basket since they were eligible for the PPKZM programme. In 2018, we managed to achieve 92.9 per cent coverage while the percentage of recovered cases was over the target ( $\geq 25$  per cent) which was 29.3 per cent (**Figure 4.55**).

**Figure 4.54**  
Percentage of Coverage for Malnourished Children in Community Feeding Programme in 2013 to 2018



Source: State Health Department, 2018

**Figure 4.55**  
Percentage of Recovery for Malnourished Children After 6 Months in the Programme in 2013 to 2018



Source: State Health Department, 2018

## ACTIVITY 11: NUTRITIOUS SCHOOL MEAL PROGRAMME (HiTS)

Nutritious School Meal Programme (HiTS) is a package of nutritious meals consisting of carbohydrate and protein sources, vegetables and fruits. It fulfills 15 to 30 per cent of daily

total calorie and nutrients requirement of the pupils. The healthy menus were developed by nutritionist for one month cycle. The objectives of the programme are to ensure pupils obtain nutritious meals according to their needs, improve their knowledge and healthy eating habit, and also to provide a supportive environment on healthy eating habit among the pupils.

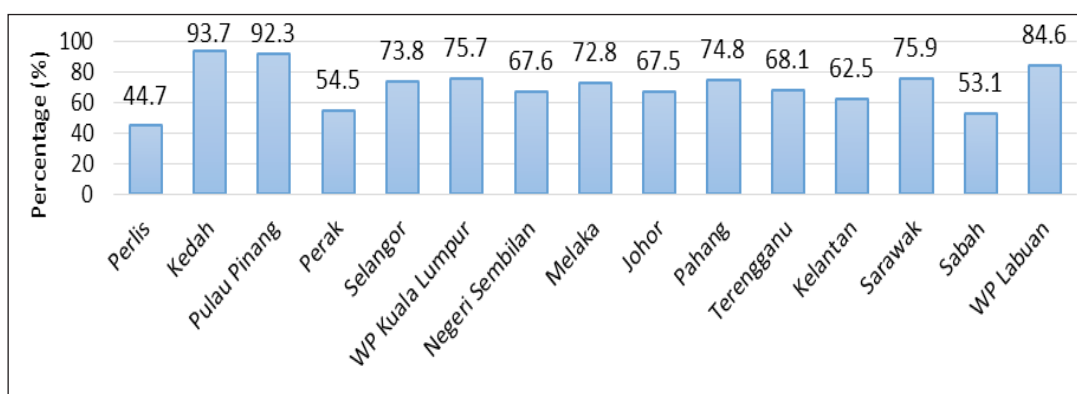
HiTS were implemented voluntarily in 42 schools in Johor, Kuala Lumpur, Putrajaya, Negeri Sembilan, Selangor, and Kedah. Promotional materials on HiTS were also disseminated through social media. Apart from, CDs on HiTS have been distributed to all State Health Departments and the Ministry of Education Malaysia. These materials can be accessed through facebook: Ministry of Health Malaysia and Nutrition Division, Ministry of Health Malaysia. Meanwhile, the expansion of HiTS was agreed upon by the Director General of Education Malaysia in the Meeting between Director Generals of Ministry of Health (MOH) and Ministry of Education (MOE) in Addressing Obesity Problems among School Students on 17 December 2018.

### ACTIVITY 12: SALES ON FOOD AND DRINKS AT SCHOOL CANTEEN

The Healthy School Canteen Management Guide was published by the Ministry of Education Malaysia (MOE) in 2011 and was revised in 2016. Subsequently, in 2017, MOE has disseminated a circular to State Education Department to ensure the prohibition of foods and drinks that are not allowed to be sold at school.

Until December 2018, all schools canteens in the country were monitored. The achievement of this activity was beyond the target of 65 per cent. This target refers to the achievement at the national and state level targets. This monitoring covered 32 per cent of schools that were not monitored in 2017 and 33 per cent of schools with low scores based on the achievement in 2017. As shown in **Figure 4.56**, Kedah had the highest coverage of 93.7 per cent (654 schools), while the lowest was Perlis of 44.7 per cent (46 schools).

**Figure 4.56**  
Coverage Of Schools Monitored for Sale on Food and Drink at School Canteens by State in 2018



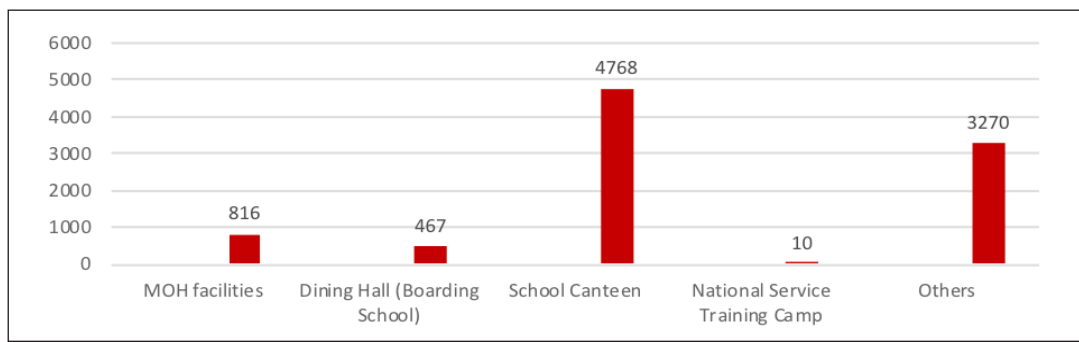
Source: State Health Department, 2018



### ACTIVITY 13: HEALTHY CATERING TRAINING

In 2018, two (2) Healthy Catering Trainings were conducted by the Nutrition Division. These training involved operators and food handlers who provided food service at Nestle Products Sdn. Bhd. and the Ministry of Housing and Local Governance. Meanwhile, at the state level, each of 116 out of 118 districts/regions/divisions had conducted a minimum of two (2) trainings. There were two (2) districts in Sabah, namely Kunak and Kinabatangan that conducted one (1) training due to human resource constraint. A total of 9,331 food operators and food handlers had participated in this training in 2018. The distribution of food operators and food handlers trained by settings in 2018 is as shown in **Figure 4.57**. **Image 4.17** shows Healthy Catering Training Sessions to Food Operators and Food Handlers

**Figure 4.57**  
**Food Operators and Food Handlers Trained by Settings**



Source: State Health Department, 2018

**Image 4.17**  
**Healthy Catering Training Sessions to Food Operators and Food Handlers**



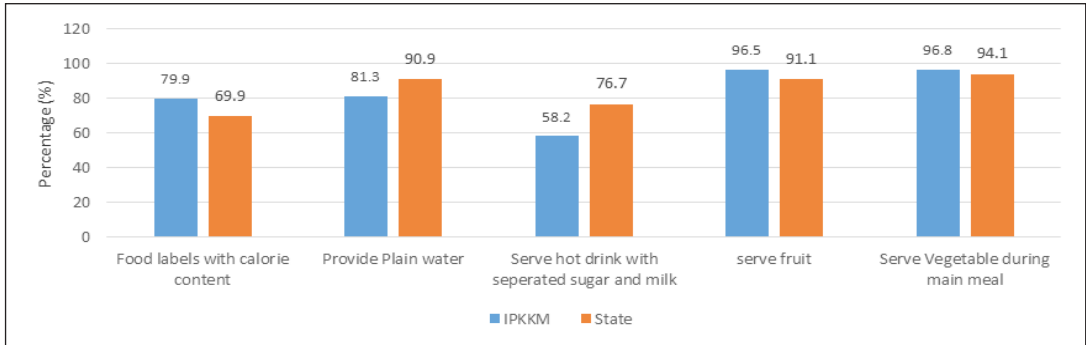
Source: Nutrition Division, MOH 2018

### ACTIVITY 14: HEALTHY FOOD PREPARATION DURING MEETINGS (PHSSM)

Healthy Food Preparation during Meetings (PHSSM) is an initiative by the Ministry of Health in encouraging healthy eating practices in workplace by serving healthier food choice to the meeting participants. PHSSM has been implemented in MOH since 2011. In 2018, 21 (51.2 per cent) out of 41 Divisions in MOH's Headquarter implemented PHSSM, which involved 824

meetings. **Figure 4.58** shows the percentage of PHSSM implemented at the ministry level and states according to PHSSM criteria. PHSSM has also been implemented at state level which involved 5,122 meetings in year 2018.

**Figure 4.58**  
**Percentage of PHSSM Implementation According to PHSSM Criteria at the MOH Headquarter and States in 2018**



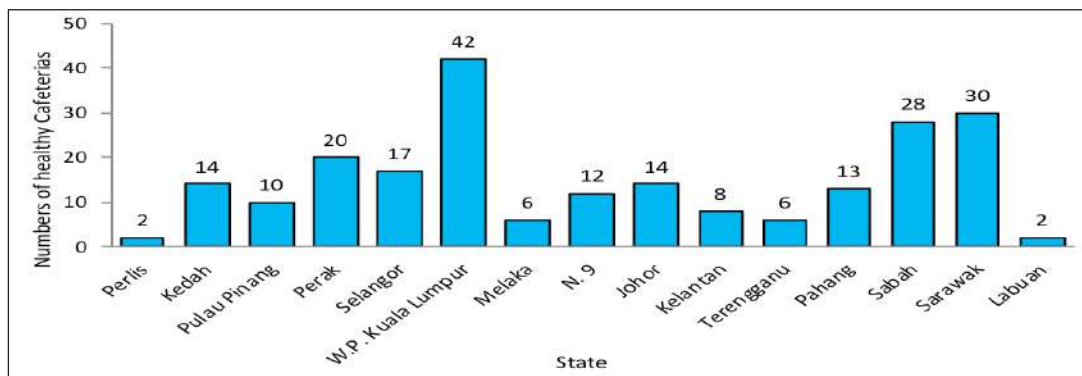
Source: State Health Department, 2018

### ACTIVITY 15: HEALTHY CAFETERIA

Healthy Cafeteria recognition is one of the initiatives taken by the Ministry of Health in supporting healthy eating practice among Malaysians. This recognition is awarded to cafeterias which prepare, serve and sell healthy, clean and safe food in accordance with Healthy Cafeteria Recognition Guidelines.

In 2018, 33 cafeterias in health facilities and nine (9) cafeterias in other government agencies were recognised as Healthy Cafeterias. Apart from that, six (6) cafeterias in private facilities were recognised as healthy cafeterias including food premises under the Sime Darby Convention Centre, Menara CIMB Bank Berhad, TNB Kepong, Hospital Columbia Asia Setapak, and Kyla Vision Sdn. Bhd. **Figure 4.59** shows distribution of Healthy Cafeterias throughout the country In 2018.

**Figure 4.59**  
**Distribution of Healthy Cafeterias throughout the Country In 2018**



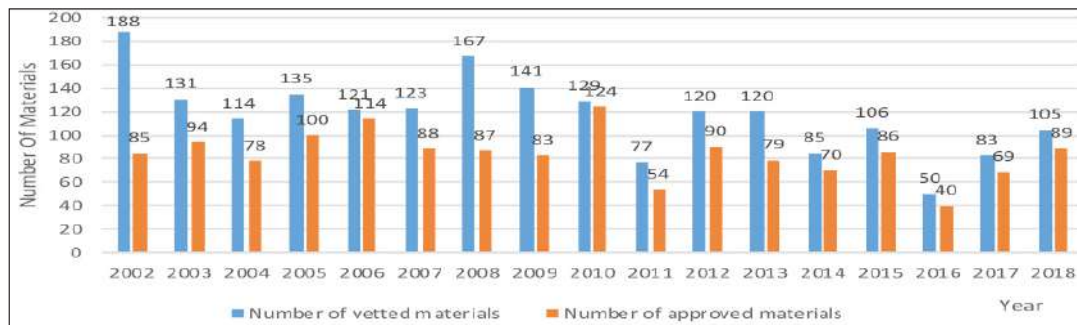
Source: State Health Department, 2018

## COMMUNITY & INTER AGENCY NUTRITION BRANCH

### ACTIVITY 16: CODE OF ETHICS FOR THE MARKETING OF INFANT FOOD AND RELATED PRODUCTS

The Vetting Committee on the Code of Ethics for the Marketing of Infant Foods and Related Products is responsible to vet information materials and product labels related to the designated products and complementary foods submitted by milk industries. Approval codes are given to materials that comply with the Code of Ethics for the Marketing of Infant Foods and Related Products. In 2018, there were 105 educational materials and product labels related to infant foods and related products vetted by the committee. Out of these, 89 (84.76 per cent) materials were given approval codes (**Figure 4.60**).

**Figure 4.60**  
Vetting Trends of Educational Materials and Product Labels Related to Breastmilk Substitutes and Complementary Foods (2003 to 2018)



Source: Code of Ethics for the Marketing of Infant Foods and Related Products Annual Report, 2018

In addition, to strengthen the implementation of the Baby Food and Related Product Marketing Ethics at the state level, a Code of Ethics for the Marketing of Infant Foods and Related Products' Monitoring Training was held on 17 to 19 July 2018 at RHR Hotel Uniten, Bangi, Selangor (**Image 4.18**). This training was conducted to the state's monitoring team consisting of Nutritionists, Medical Officers, Assistant Environmental Health Officers and Nurses.

**Image 4.18**  
Code of Ethics for the Marketing of Infant Foods and Related Products' Monitoring Training, 17 to 19 July 2018



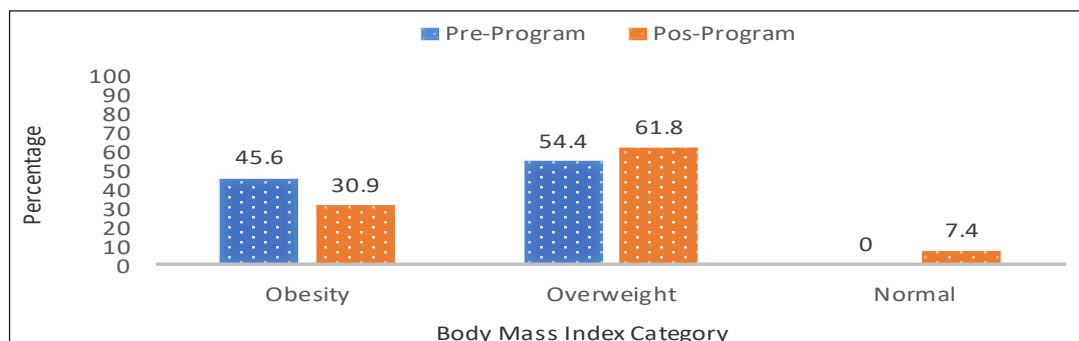
Source: Nutrition Division, MOH 2018

## ACTIVITY 17: TRIM AND FIT WEIGHT MANAGEMENT PROGRAM

Trim and Fit Weight Management Programme organised by the Nutrition Division, Ministry of Health Malaysia is an intervention programme for overweight and obese civil servants. In 2018, a total of 68 civil servants from various government agencies in Putrajaya such as the Ministry of Health Malaysia, Ministry of Education, Prime Minister's Department, Immigration Department of Malaysia, Fire and Rescue Department of Malaysia, Department of Statistics Malaysia and Department of Standards Malaysia participated in this programme. The programme was implemented for six (6) months from March to September 2018 which involved intervention on nutrition, physical activity and motivational components activities such as Trim & Fit Seminar, nutrition consultation sessions, weekly exercise, outdoor activities (hiking), Healthy Shopping at Supermarkets Tour, aquarobic and Trim & Fit closing ceremony. Trim & Fit Seminar and Trim & Fit Closing Ceremony were launched by YBhg. Dato' Seri Chen Chaw Min, Secretary General, Ministry of Health Malaysia.

After six (6) months of intervention, 62 (91.2 per cent) participants had managed to lose body weight and achieved normal Body Mass Index (BMI) with the highest reduction of 13.8kg (17.8 per cent) from the initial body weight. At baseline or the beginning of the programme, 31 (45.6 per cent) were obese and 37 (54.4 per cent) were overweight. After six (6) months of intervention (post-programme), the number of obese participants decreased to 21 (30.9 per cent) participants while overweight participants was 42(61.8 per cent). There were 5 (7.4 per cent) participants successfully achieved a normal weight (**Figure 4.61** and **Image 4.19**).

**Figure 4.61**  
**Percentage Participants' Pre and Post Programme Body Mass Index (BMI) Category**



Source: Nutrition Division, MOH 2018

Image 4.19  
Trim And Fit Weight Management Program



Source: Nutrition Division, MOH 2018

#### ACTIVITY 18: HEALTHIER CHOICE LOGO MALAYSIA INITIATIVE

The Healthier Choices Logo (HCL) Malaysia is an initiative started on 20 April 2017. It is in line with the strategy of the National Plan of Action for Nutrition Malaysia (NPANM) III (2016 to 2025) to promote healthy eating and active living for all. In general, HCL initiative aims to help the consumers to make informed choices by merely looking at the front label of the food packages as well as to identify the healthier products as compared to other products within the same category. Moreover, HCL encourages the food and beverage industries to reformulate the products and hence manufacture healthier products in the market.

A cumulative of 328 products have been authenticated with HCL Logo until 31 December 2018. The continuous supports and efforts from multi-stakeholders are required to strengthen the implementation of HCL initiative. HCL advocacy and promotion will continuously be carried out to boost up the consumers' awareness and acceptance toward HCL initiative (**Image 4.20**).

**Image 4.20**  
Food and Beverage Products with HCL Malaysia Logo



Source: FMM MAFMAG, 2018

**ACTIVITY 19: EMPOWERMENT INITIATIVE OF PARENTS AND TEACHERS ASSOCIATIONS (PTA) TO COMBAT OBESITY AMONG SCHOOL CHILDREN (C-HAT CARA HIDUP ANDA TERBAIK INITIATIVE)**

The C-HAT Initiative (*Cara Hidup Anda Terbaik*) was implemented from 2016 to 2018. It is a smart collaboration with the Ministry of Education Malaysia (MOE) as one of the strategies to address obesity problems among school children. This initiative uses PTAs trained as ambassadors to carry out activities towards healthy eating habits and lifestyles. The strategies used in the implementation of this initiative include enhancing the knowledge and awareness of parents and teachers on the importance of healthy eating and physical activity and thus translating the knowledge gained by practising and cultivating healthy eating habits and physical activity continuously at school and out of school. Briefing and training were held for a period of 3 years from 2016 to 2018 while the monitoring of implementation of nutrition and healthy lifestyle activities will begin in 2019. A total of 8,426 (82.6 per cent) schools and 17,062 PTA members have been trained from 2016 to 2018 (Table 4.42).

**Table 4.42**  
**Cumulative Achievement Training for PTA Members To Combat Obesity Problems in Schools (C-HAT Initiative) from 2016 to 2018**

No	State	No. of School			Cumulative Achievement				No. of PTA Members Trained
		Primary	Secondary	Total	Primary	Secondary	Total	Percentage (%)	
1.	Perlis	74	30	104	76	26	102	98.1	199
2.	Kedah	547	201	748	471	173	644	86.1t	1436
3.	Penang	271	127	398	253	122	375	94.2	1045
4.	Perak	853	250	1103	774	232	1006	91.2	1634
5.	Selangor	659	275	934	569	241	810	86.7	2302
6.	WP Kuala Lumpur	201	101	302	199	94	293	97.0	430

No	State	No. of School			Cumulative Achievement				No. of PTA Members Trained
		Primary	Secondary	Total	Primary	Secondary	Total	Percentage (%)	
7.	WP Putrajaya	14	11	25	12	11	23	92.0	143
8.	Negeri Sembilan	350	125	475	329	117	446	93.9	1339
9.	Malacca	237	77	314	207	76	283	90.1	426
10.	Johor	906	274	1180	715	335	1050	89.0	1454
11.	Pahang	540	196	736	474	169	643	87.4	1121
12.	Terengganu	352	149	501	275	117	392	78.2	781
13.	Kelantan	418	174	592	387	137	524	88.5	1113
14.	Sarawak	1264	195	1459	829	136	965	66.1	1605
15.	Sabah	1085	225	1310	692	152	844	64.4	1946
16.	WP Labuan	17	10	26	16	10	26	100.0	88
<b>Total</b>		<b>7,788</b>	<b>2,420</b>	<b>10,207</b>	<b>6,278</b>	<b>2,148</b>	<b>8,426</b>	<b>82.6</b>	<b>17,062</b>

Source: Nutrition Division, MOH 2018

## C-HAT INITIATIVE STRENGTHENING MEETING

Three (3) series of C-HAT Initiative Strengthening Meetings were held in 2018 in Ipoh, Perak for the Northern & Central Zone (Perlis, Kedah, Penang, Perak, Selangor, Federal Territory of Kuala Lumpur and Putrajaya), in Johor Bahru, Johor for Southern Zone (Negeri Sembilan, Melaka and Johor) and in Kuantan, Pahang for the Eastern Zone (Pahang, Kelantan and Terengganu). A total of 58 *Jurulatih Utama Negeri* (JUN) C-HAT were trained with their C-HAT State (Image 4.21). Action Plan to be executed in 2019

**Image 4.21**  
C-HAT Initiative Strengthening Meeting



Let's Eat Fruit Campaign, Nutrition Talk at SK Petani Jaya, Kedah



Junior Healthy Master Chef Competition in conjunction with the Johor Non-Infectious Disease Awareness Week 2018



Malaysian Healthy Movement Program at SMK Bandar Baru Seriting, Negeri Sembilan



Aerobics Program at SMK Dukit Diman, Terengganu

Source: Nutrition Division, MOH 2018

## ACTIVITY 20: SMARTPHONE APPLICATION 'MYNUTRIDARI 2' (MND2)

The 'MyNutriDiari' smartphone application (MND2) has been designed in order to meet up with the innovation and advancement of the current information technology. The development of this application is in line with the vision of the Ministry of Health Malaysia to create a 'calorie conscious' society. In 2018, MND2 has undergone a system-building process to improve the quality of the application as well as making it a more user-friendly app (Figure 4.62).

Figure 4.62 MyNutriDiari 2 Logo



Source: Nutrition Division, MOH 2018

The module has been updated for verified calorie database of foods and drinks up to 7,000 food and beverage item, plus easier management of food diary and calorie intake monitoring. MND2 app can be downloaded for free on Apple Apps Store and Google Play Store. As of December 2018, more than 81,000 users have downloaded this app.

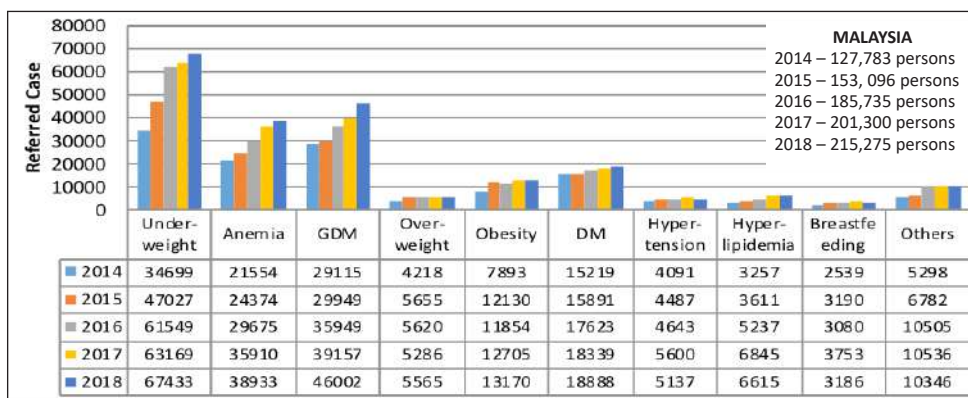
## ACTIVITY 21: NUTRITION CONSULTATION SERVICES IN HEALTH CLINICS

Nutrition Consultation Service is one of the important services given by Nutritionists to patients referred by Family Medicine Specialist (FMS) or Medical Officer in the health clinics.



Overall, there was an increasing trend of cases being referred annually for nutrition consultation services. A total of 215,275 patients had received nutrition consultations in 2018 as compared to 201,300 patients in 2017 (an increase of 7.0 per cent). Nutrition counseling services were given to underweight children (67,433 cases, 31.3 per cent), 46,002 cases (21.4 per cent) for gestational diabetes mellitus (GDM), 38,933 cases for anemia (18.1 per cent), 18,888 cases for diabetes mellitus (8.8 per cent) and the remaining 44,019 cases (20.4 per cent) were for overweight and obesity cases, hyperlipidemia, hypertension, breastfeeding and other nutrition-related problems (**Figure 4.63**).

**Figure 4.63**  
**Number and Type of Patients Given Nutrition Consultation by**  
**Nutritionist from 2014 to 2018**



Source: State Health Department

## WAY FORWARD

Throughout 2018, the planning, implementation, monitoring and evaluation of the diseases prevention and control programmes and activities were conducted as planned. Even though the achievements for these activities are laudable, there are still areas which can be further improved and strengthened in order to cope with the future challenges posed by the various changing diseases scenarios and health problems.

5

Medical



## INTRODUCTION

The Medical Program is responsible for matters relating to services provided in hospitals headed by the Deputy Director-General of Health (Medical). The programme consists of five (5) divisions: Medical Development, Medical Practice, Allied Health Sciences, Nursing and the Traditional and Complementary Medicine.

### MEDICAL DEVELOPMENT DIVISION

Medical Development Division is responsible in policy making as well as in planning, implementation and development of medical services. The ultimate aim is to prepare comprehensive medical services which support primary health care. All these functions are fulfilled by four (4) sections as below:

- i. Medical Services Development Section
- ii. Medical Profession Development Section
- iii. Quality In Medical Care Section
- iv. Malaysian Health Technology Assessment Section

### MEDICAL SERVICES DEVELOPMENT SECTION

Medical Services Development Section is responsible in coordinating policy and guideline publication as well as their implementation for all medical services (specialty and subspecialty) in Medical, Surgical, Emergency, Obstetrics and Gynaecology, Paediatrics and Support Services. The Section is also responsible in the planning and monitoring for the expansion of medical services management. This includes reforms in the healthcare system by restructuring of secondary and tertiary healthcare, as well as strengthening the current medical services. Medical Services Development Section is also involved in planning, procurement and monitoring of medical equipments, medical consumables and reagent (including instrument placement) for all medical services in Ministry of Health (MOH) hospitals.

### HOSPITAL MANAGEMENT SERVICES UNIT

The functions of Hospital Management Services Unit are to facilitate policy formulations and implementation activities which may include project management related to medical services development, facility development, medical records, information technology and health financing.

#### Cluster Hospitals

In 2014, the Ministry of Health introduced Cluster Hospitals starting with Melaka Cluster (3 hospitals), Middle Pahang Cluster (4 hospitals) and Tawau Cluster (4 hospitals) as a pilot project. The main objective of this project was to improve people's access to medical specialty as well as optimising the usage of current resources. In 2018, this project has been expanded to 13 clusters including seven (7) state hospitals, six (6) major specialist hospitals, six (6) minor specialist hospitals and 27 non-specialist hospitals. The details of cluster hospitals expansion are as in **Table 5.1**.

**Table 5.1**  
**Cluster Hospitals**

Year	Cluster Hospitals	
2014 (pilot project)	Cluster Melaka (3 Hospital), Cluster Pahang Tengah (4 Hospital), Cluster Tawau (4 Hospital)	
2016	Cluster Seberang Perai (4 Hospital), Cluster Ipoh (4 Hospital), Cluster HTAN (3 Hospital)	
2017	Cluster Kedah Utara (3 Hospital), Cluster Perak Utara (5 Hospital), Cluster Selangor Tengah (3 Hospital), Cluster Terengganu Utara (4 Hospital)	
2018	Cluster Seremban (3 Hospital), Cluster Johor Timur (3 Hospital), Cluster Kelantan Utara (4 Hospital)	
<b>Total</b>	<b>13 Clusters</b> <b>11 States</b> <b>47 Hospitals</b>	<b>7 States Hospitals, 6 Major Specialist Hospitals, 6 Minor Specialist Hospitals and 27 Non Specialist Hospitals</b>

Source: Medical Development Division, MOH

### Lean Healthcare Programme

Lean Healthcare is an initiative to relook into the whole work process and eliminate all non-value added activities to improve efficiency. Lean Healthcare initiative has been introduced to MOH hospitals in 2013 and currently 52 hospitals have implemented Lean Healthcare Programme in various departments (**Table 5.2**).

For year 2018, the overall achievements are as follow;

- 19 per cent (7 hospitals) from 36 hospitals managed to score overall grade A (efficient work process)
- Average waiting time to see a doctor in Emergency Department (Green Zone) is 51.6 minutes while average length of stay for patient in Green Zone is 106 minutes compared to 55.7 minutes and 132.7 minutes prior to Lean Healthcare respectively.
- Average discharge time from Medical Ward is 161 minutes as compared to baseline of 283.8 minutes.
- Average bed turnaround time (the elapsed time between one patient being discharged from a bed and another patient admitted to the same bed) is 17.1 minutes, compared to baseline which was 52 minutes.
- However, there is an increment in bed waiting time (from decision to admit the patient in Emergency Department until the patient occupied a bed in the Medical ward). Average bed waiting time is 273.3 minutes, compared to baseline of 217.8 minutes.

The first Lean conference, 2018 National Lean Healthcare Conference was held from 25 to 27 September 2018 in Kelantan. The main aim of the conference was to spread awareness among other healthcare personnel who were interested to start Lean Healthcare Programme at their facilities. There were also 20 officers and hospital staff who have been awarded and elected as Lean Champions in the conference.

### **Casemix System**

The Casemix system, MalaysianDRG was developed by MOH aims to provide a classification method for patient based on the cost of treatment involved. The system also provides a mechanism for comparison and benchmarking of quality/performance of health service delivery. The treatment cost estimation generated from this system helps policy makers to plan necessary funding for hospitals. In addition, this system facilitates the hospital management to plan and monitor the effectiveness of the services provided.

Until December 2018, 59 hospitals have implemented Casemix Sytem Malaysian DRG for inpatient service (**Table 5.2**). There are three (3) new modules developed in this project which are Malaysian Health Mortality Information System Module, Pay-for-Performance Module, and Executive Information System (EIS) Module. At the same time, the main module Clinical and Costing Module is currently in the process of upgrading. Outputs from the MalaysianDRG are retrievable from its EIS module including Major Diagnostic Category list (MDC), Diagnosis Related Group list (DRG), Treatment cost per disease according to DRG, Estimated treatment cost for inpatient service care, Casemix Index (CMI) (**Table 5.3**) and health facility efficiency index.

### **Hospital Mesra Ibadah**

Since the launching of Hospital Mesra Ibadah (HMI) Programme in 2014 to December 2018, 67 Islamic Religious Affairs Officers from the Department of Islamic Development Malaysia (JAKIM) were placed in 54 hospitals and special medical institutions. A total of another 23 MOH facilities have implemented the HMI Programme in collaboration with the Islamic Religious Affairs Officers from nearby hospitals (**Table 5.4**). As in previous years, two parts of Shari'e Counseling Course have been held with the involvement of 60 clinical staff from various categories including Specialists, Medical Officers, Nurses and Assistant Medical Officers. This course aims to enhance services by providing basic knowledge in spiritual needs of patients.

To acknowledge every MOH facility that has implemented HMI Programme, the audit certification manual has been developed and will be adopted by mid-2019. Information on HMI Programme has been included as part of the inpatient orientation session, as an effort to increase the patients' involvement in performing *ibadah* in the hospital (**Table 5.5**).

Table 5.2  
Current MOH Hospital by Types, December 2018 (145)

State / Wilayah Persekutuan	Specialist Hospital & Institutions				Non –Specialist Hospitals			Cluster Hospital	
	State Hospital	Major Specialist Hospital	Minor Specialist Hospital	Special Hospitals/ Institutions	75	Name	Lead	Non Lead	
<b>Wilayah Persekutuan</b>	14 H. Kuala Lumpur D, C, M, L	28 H. Putrajaya H, F, M, L	18 H. Labuan	10 Inst Per. Respiratori *Pusat Darah Negara H. Rehabilitasi Cheras M Inst Kanser Negara H, C, M					
<b>Perlis</b>									
<b>Kedah</b>	H. Tengku Fauziah C, M, L HSB.Alor Setar. H, C, M, L	HSAH, Sg.Petani H, M, L H. Kulim, M, L	H. Langkawi, M, L		H. Baling H. Jitra C H. Kuala Nerang C	H. Sik H. Yan	H. Sultanah Bahiyah	H. Jitra H. Kuala Nerang	
<b>Pulau Pinang</b>	H. Pulau Pinang D, F, C, M, L	H. Seberang Jaya D, C, M, L	H. Bkt Mertajam C, M, L H. Kepala Batas H, C, M, L		H. Balik Pulau	H. Sungai Bakap C	H. Seberang Jaya	H. Bukit Mertajam H. Kepala Batas H. Sg. Bakap	

State / Wilayah Persekutuan	Specialist Hospital & Institutions				Non –Specialist Hospitals		Cluster Hospital		
	State Hospital	Major Specialist Hospital	Minor Specialist Hospital	Special Hospitals/ Institutions	75		Name	Lead	Non Lead
Perak	HRPB, Ipoh S, C, M, L	H. Taiping S, C, M, L H. Teluk Intan, M, L	H. Seri Manjung M, L H. Slim River C, M	H. Bahagia M	H. Batu Gajah C, M H. Cgkt Melintang M H. Kampar C, M H. Parit Buntar C, M H. Selama C	H. Sungai Siput C, M H. Tapah M H. Gerik C, M H. Kuala Kangsar C, M	Kluster Ipoh (2016)	H. Raja Permaisuri Bainun	H. Sungai Siput H. Batu Gajah H. Kampar
							Kluster Perak Utara (2017)	H. Taiping	H. Kuala Kangsar H. Selama H. Gerik H. Parit Buntar
Selangor	HTAR, Klang D, C, M, L	H. Ampang H, F, M, L H. Kajang D, C, M, L H. Selayang H, F, M, L H. Serdang H, F, C, M, L H. Sg Buloh H, F, M, L H. Shah Alam H, C, M, L	H. Banting C, M, L	**PKKN	H. K. Kubu Bharu M H. Tg Karang C , M	H. Sabak Bernam M H. Orang Asli Gombak	Kluster Selangor Tengah (2017)	H. Tengku Ampuan Rahimah	H. Shah Alam H. Banting
Negeri Sembilan	HTJS Seremban S, C, M, L	H TAN, Kuala Pilah C, M, L	H. Port Dickson S, C, M, L		H. Jelebu C, M H. Jempol C, M	H. Tampin C	Kluster HTAN (2016)	H. Tengku Ampuan Najihah	H. Tampin H. Jempol
							Kluster Seremban (2018)	H. Tuanku Ja'afar	H. Port Dickson H. Jelebu

State / Wilayah Persekutuan	Specialist Hospital & Institutions				Non –Specialist Hospitals			Cluster Hospital			
	State Hospital	Major Specialist Hospital	Minor Specialist Hospital	Special Hospitals/ Institutions	75	Name	Lead	Non Lead	Name	Lead	Non Lead
	14	28	18	10							
<b>Melaka</b>	H. Melaka D, C, M, L				H. Alor Gajah C	H. Jasin C	H. Melaka	H. Jasin H. Alor Gajah	Kluster Melaka (2014–2016)		
<b>Johor</b>	HSA Johor Bahru D, F, C, M, L	H SN, Bt Pahat D, M, L HPSF, Muar M, L HSIH, F, C, M, L H. Segamat M, L	HEBHK Kluang M,L	H. Permai M	H. Mersing C, M H.Kota Tinggi C,M H. Pontian H. Tangkak	H. Temenggung Seri Maharaja Tun Ibrahim, Kulai	H.Sultan Ismail	H. Kota Tinggi H. Mersing	Kluster Johor Timur (2018)		
<b>Pahang</b>	HTAA, Kuantan D, C, M, L	HOSHAS, Temerloh H, C, M, L	H.Kuala Lipis H.Bentong S, C H. Pekan H, L		H. Jerantut C H. Rompin M H. Jengka C H. Raub	HSHK, Cameron. Highlands H. Muadzam Shah	H.Sultan Hj. Ahmad Shah	H. Jengka H.Jerantut H. Bentong	Kluster Pahang Tengah (2014–2016)		
<b>Kuala Terengganu</b>	HSNZ, Kuala Terengganu H, C, M, L	H. Kemaman M, L			H.Dungun M H Besut C, M	H. Setiu C, M H. Hulu Terengganu C, M	H.Sultanah Nur Zahirah	H. Besut H. Setiu H. Hulu Terengganu	Kluster Terengganu Utara (2017)		
<b>Kelantan</b>	HRPZ II, Kota Bharu S, C, M, L	H. Kuala Krai M, L H. Tanah Merah M, L			H.Jeli H.Machang H.Tumpat C	H.Pasir Mas C H.Gua Musang HTA, Pasir Puteh C, M	H. Raja Perempuan Zainab II	H.Tumpat H.Pasir Mas H.Tengku Anis	Kluster Kelantan Utara (2018)		



State / Wilayah Persekutuan	Specialist Hospital & Institutions				Non –Specialist Hospitals	Cluster Hospital		
	State Hospital	Major Specialist Hospital	Minor Specialist Hospital	Special Hospitals/ Institutions		Name	Lead	Non Lead
<b>Sabah</b>	14 HQE, Kota Kinabalu D, M, L	28 HDOK, Sandakan M, L H. Tawau C, M, L HQE II, Kota Kinabalu F, L	18 H. Lahad Datu H, C, M, L H. KeningauH, L	10 H. Mesra Women & Children Hospital, Likas	75 H.Pitas H.Ranau H.Semporna C H.Sipitang H.Tambunan H.Tenom H.Tuaran H.Kota Marudu	<b>Kluster Tawau (2014-2016)</b> H. Tawau	H. Semporna H. Kunak H.Lahad Datu	
<b>Sarawak</b>	HUS, Kuching C, M, L	H. Miri M, L H. Sibul M, L PJ HUS – (Specific Speciality Only) F H. Bintulu H M, L	H. Kapit L H. Limbang H. Sarikei M H. Sri Aman M, L	H. Sentosa	H. Marudi H. Saratok H. Serian H. Simunjan H. Lundu H. Rajah Charles Brooke Memorial			
	Target: 49 resident specialities	Target: 20 resident specialities	Target: 10 resident specialities	Specific resident specialities		13 Clusters 11 States 47 Hospitals	7 States, 6 Major Specialist Hospitals, 6 Minor Specialist Hospitals & 27 Non Specialist Hospitals	

\*Pusat Darah Negara , unlike other hospitals or institutions, has no bed,

\*\*PKKN, although not yet officially de-gazetted as a leprosarium, is part of Hospital Sungai Buloh for Administrative matters

Target for resident specialities are based on the specialist/ subspecialty framework.

Classification of hospital is for functional planning within MOH

Source: Medical Development Division, MOH

S : Sistem Pengurusan Pesakit (SPP) - 6 hospital  
D : Sistem Pengurusan pesakit Dalam (SPPD) – 10 hospital  
H : Hospital Information System (HIS) -17 hospital  
F : Full Paying Patient (FPP) -10 hospital  
C : Case Mix Malaysian DRG – 59 hospital  
M : Hospital Mesra Ibadah (HMI) – 77 hospital  
L : Lean Health Care (L) -52 Buah

**Table 5.3**  
**Casemix Index (CMI) of MOH hospitals**

Hospital (by category)	Casemix Index (CMI)
State Hospital	0.88
Major Specialist Hospital	0.82
Minor Specialist Hospital	0.66
Hospital without specialist	0.78
Special Medical Institution	0.63

Source: Modul EIS, MalaysianDRG, 2016

Note: CMI > 1 = Efficient;

CMI = 1 = Optimum; and

CMI < 1 = Inefficient.

**Table 5.4**  
**Hospital Mesra Ibadah Programme in MOH Hospital and Special Medical Institution (2018)**

No.	State	Hospital (With Islamic Religious Affairs Officer Post)	Hospital (Without Islamic Religious Affairs Officer Post)
1.	Perlis (1)	Tuanku Fauziah, Kangar	
2.	Kedah (4)	Sultanah Bahiyah, Alor Setar Sultan Abdul Halim, Sungai Petani Kulim Langkawi	
3.	Pulau Pinang (4)	Pulau Pinang Seberang Jaya Bukit Mertajam Kepala Batas	
4.	Perak (14)	Raja Permaisuri Bainun, Ipoh Taiping Teluk Intan Seri Manjung Slim River Bahagia, Ulu Kinta	Tapah Parit Buntar Gerik Kuala Kangsar Sungai Siput Batu Gajah Kampar Changkat Melintang
5.	Selangor (11)	Tengku Ampuan Rahimah, Klang Selayang Serdang Sungai Buloh Ampang Kajang Shah Alam Banting	Sabak Bernam Tanjong Karang Kuala kubu Bharu

No.	State	Hospital (With Islamic Religious Affairs Officer Post)	Hospital (Without Islamic Religious Affairs Officer Post)
6.	WPKL (2)	Kuala Lumpur	Hospital Rehabilitasi Cheras
7.	WP Putrajaya (2)	Putrajaya Institut Kanser Negara, Putrajaya	
8.	Negeri Sembilan (5)	Tuanku Ja'afar, Seremban Tuanku Ampuan Najihah, Kuala Pilah Port Dickson	Jempol Jelebu
9.	Melaka (1)	Melaka	
10.	Johor (9)	Sultanah Aminah, Johor Bahru Pakar Sultanah Fatimah, Muar Sultan Ismail, Johor Bahru Sultanah Nora Ismail, Batu Pahat Segamat Enche' Besar Hajjah Kalsom, Kluang Permai, Johor Bahru	Kota Tinggi Mersing
11.	Pahang (3)	Tengku Ampuan Afzan, Kuantan Sultan Haji Ahmad Shah, Temerloh	Rompin
12.	Terengganu (6)	Sultanah Nur Zahirah, Kuala Terengganu	Besut Setiu Dungun Hulu Terengganu Kemaman
13.	Kelantan (3)	Raja Perempuan Zainab II, Kota Bharu Kuala Krai Tanah Merah	
14.	Sabah (6)	Queen Elizabeth, Kota Kinabalu Duchess of Kent, Sandakan Tawau Lahad Datu Wanita dan Kanak-kanak Sabah, Likas	Kunak
15.	Sarawak (6)	Umum Sarawak, Kuching Sibu Miri Bintulu Sarikei Sri Aman	
<b>Total</b>		<b>54</b>	<b>23</b>

Source: Medical Development Division, MOH

**Table 5.5**  
**Per centage of Muslim Patients Who Received Information on HMI Programme**  
**during Ward Orientation**

Year	Number of Hospital	Per centage of Orientation to Muslim Patients (%)
2017	54	100
2018	77	100

*Source: Medical Development Division, MOH*

### **Full Paying Patient Service**

The Full Paying Patient Service (FPP) has been introduced at selected Ministry of Health hospitals since the year 2007. This service offers additional incentive to MOH Specialists as part of a retention package to mitigate the migration of government specialists to private hospitals. FPP patients treated by selected FPP Specialists will be charged fully without subsidies from the government. The revenue collected by the hospitals through this service will be shared between the Specialists registered under this service and the Government. Currently, 10 MOH hospitals have implemented this service (**Table 5.2**).

After 11 years of implementation, there is an increasing trend in the number of patients and involvement of MOH Specialists in FPP service. By December 2018, there were 360 registered FPP Specialists compared to 71 FPP Specialists in the year 2009. The 26,739 patients who opted for this service in 2018 contributed to more than RM22Million revenue from January to December 2018. The governance of this service had been audited by National Audit Department of Malaysia from 2017 to 2018. The Auditor-General's Report in 2018 found that additional income earned by FPP Specialists motivated them to remain in the public sector. It also stated that the amount of revenue collected through FPP service was able to reduce subsidized healthcare expenditures and that the governance of this service complies with the rules and guidelines set by MOH.

### **Hospital ICT Development**

Medical Development Division has been involved in the planning and implementation of hospital Information and Communications Technology (ICT) development projects since 2016. The Clinical Documentation Project and SPP Enhancement are the main components in developing the Electronic Medical Record to complete Hospital Information System (HIS) at MOH. Hospital Raja Permaisuri Bainun, Ipoh was chosen to be the pilot site for this initiative. This project which was commenced on 21 March 2016 is scheduled to be completed fully by October 2019. Up until 2018, the development of other systems including Laboratory Information System (LIS), Operation Theatre Management System (OTMS), Central Sterile Supply Information System (CenSSIS), Blood Bank Information System (BBIS) and Pharmacy Information System (PHIS) are still ongoing.

## **MEDICAL SERVICES UNIT**

There were three (3) guideline books published in 2018, which include National Hemodialysis Quality Standards 2018 to provide guidance in providing hemodialysis services in government and private health facilities, Guideline on Medical Assessment of Child Custody Cases to

train psychiatrists in assessing and treating Child Custody, as well as Guideline in Assisting Hostage Negotiation for Health Professionals to train medical personnel involved in hostage negotiations.

The Domiciliary Healthcare Program (home care services of palliative patients) have been expanded to four (4) states with Palliative specialists residing in Kedah, Penang, Perak and Selangor which involved 26 Health Clinics in Selangor, 10 in Kedah, one (1) in Penang and two (2) in Perak.

In 2018, free Hepatitis C treatment services has been expanded to 24 Ministry of Health hospitals which involved 17 hospitals in Peninsular Malaysia, four (4) hospitals in Sarawak and three (3) hospitals in Sabah. Meanwhile, dialysis services have been provided at 14 health clinic to improve access to hemodialysis treatment in Malaysia.

## **SURGICAL AND EMERGENCY SERVICES**

### **Surgical Services**

In 2018, surgical services in Ministry of Health (MOH) hospitals continue to upgrade their available services with new initiatives and expansion of services. Among the most important initiatives are as below:

- i. One of the most important initiatives is Global Surgery Framework, an agenda to strengthen surgery and anesthesiology care as an element of Universal Health Coverage to remote areas lacking access to health system. This initiative started in June 2018 with key stakeholders, namely General Surgery and Anesthesia and Critical Care forming Working Group for developing this framework, following which Hospital Sabak Bernam has been identified as the pilot project.
- ii. Another initiative, involving Public and Private partnership, was collaboration between Standard Chartered Finance (SCF) and Ministry of Health Ophthalmology services, with SCF's donation of USD55,000.00 (estimated at RM220,000.00) for the benefit of purchasing 1,000 intraocular lenses.
- iii. The third initiative involves Ophthalmology Services and Otorhinolaryngology (ORL) Services, whereby these two (2) services have been working tirelessly to ensure that two (2) Touch Point Projects which started in 2017 materialised in 2018. The two (2) projects were procurement of intraocular lens for 2,327 patients (with a budget of RM1,110,000.00), in which patients were operated from the list of cataract patients, benefitting patients in Kuala Lumpur Hospital, Sarawak General Hospital, Women and Children Hospital, Likas and Sultanah Nor Zahirah Hospital and hearing screening as well as provision of hearing aid benefitting 231 patients (with a budget of RM800,000.00).

Full utilisation of the operation theatres as well as increasing Operation Time have always been the aim of all surgical services disciplines, resulting in active participation of all the relevant Surgical discipline in the cluster hospital concept which has 25 more new clusters in 2018. To date, there are 486 operating rooms functioning (87.9 per cent) from 553 operating rooms available all over Malaysia, as compared to 463 operating rooms functioning (85.9 per cent) from 539 operating rooms in 2017.

## Day Care Services

Day Care Services are available in 127 public hospitals and MOH has built eight (8) dedicated Ambulatory Care Centre (ACC) in providing these services. Comparisons of workload from these eight (8) hospitals with ACC are shown in **Table 5.6**.

**Table 5.6**  
**Total Number of Surgical/Nonsurgical Procedures Done in Eight (8) ACC**  
**from Year 2015 to 2017**

No.	Hospitals with ACC	2015	2016	2017
1.	Hospital Kuala Lumpur	6,267	5,650	7,058
2.	Hospital Raja Permaisuri Bainun, Ipoh	37,052	40,922	39,593
3.	Hospital Tengku Ampuan Rahimah, Klang	6,649	7,890	18,818
4.	Hospital Sultanah Nur Zahirah, Kuala Terengganu	7,020	8,689	8,703
5.	Hospital Raja Perempuan Zainab II, Kota Bharu	23,352	24,378	10,460
6.	Hospital Tengku Ampuan Afzan, Kuantan	8,974	9,969	9,813
7.	Hospital Tuanku Ja'afar, Seremban	21,026	27,023	31,331
8.	Hospital Pulau Pinang	24,898	21,034	18,597

Source: Medical Development Division, MOH

The main priorities for Day Care services are on to the implementation of the 'True Day Care Surgery', as well as non-surgical procedures that are done at ACC facilities in MOH hospitals.

## National Organ & Tissue Transplantation Services

In 2018, 100 potential cases for organ donation were referred to National Transplantation Resource Centre, in which 31 cadaveric organ/tissue donors were procured. The details of various organ/tissue procured and transplantation surgeries performed in 2018 are in **Table 5.7**.

**Table 5.7**  
**Total Number of Cadaveric Organ/Tissues Procured, and Transplantation**  
**Surgeries Done in 2018**

Activities	Types of Organ/Tissues							
	Kidney	Heart	Liver	Lung	Cornea	Heart valve	Skin	Bone
No. of organ/tissue procured	14	1	3	1	51	6	1	30
Transplantation Surgery performed	72	1	3	-	-	-	-	-

Source: Medical Development Division, MOH

MOH intends to strengthen national organ and tissue transplantation services with three (3) main strategies as follows:

- i. **Enhances public acceptance of organ donation, especially from religious perspectives**  
MOH has started collaboration with JAKIM to conduct a review on national fatwa of organ donation which was released in 1970 and to study religious views to recognize organ donation pledges as Islamic wills. In addition to this, MOH will launch "Follow through

Your Pledge” campaign which was inspired by the YB Minister of Health to ensure that pledgers will eventually become donor upon death.

**ii. Review the current “Opt-in” law to “Opt Out”**

Based on the provisions of the Human Tissue Act 1974, all organ tissue procurement from a cadaveric donor requires the consent from family members. MOH is reviewing whether “Opt Out” law practiced in most developed countries with high organ donation rates should be adopted here, where all citizens are considered as organ donors automatically after death except if there is an explicit refusal from the citizen.

**iii. Strengthen the governance and organization at national, state and hospital levels**

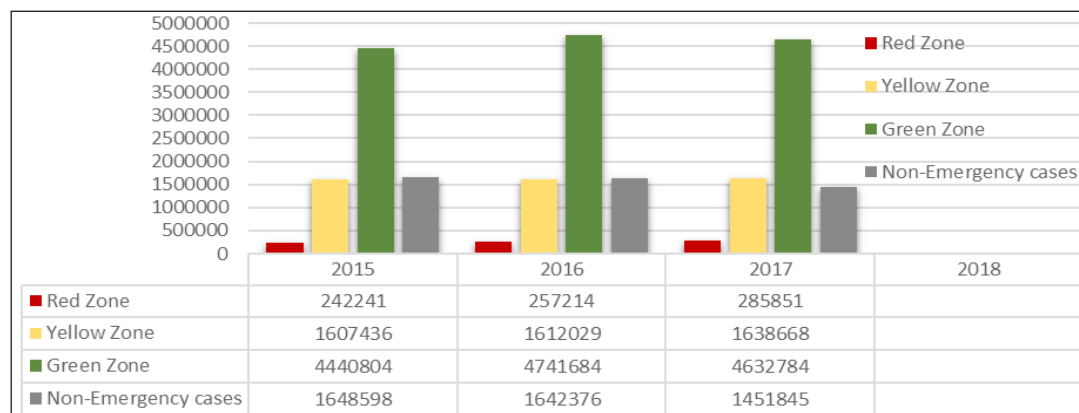
Under this initiative, MOH intends to rebrand the National Transplant Resource Center to become National Transplant Center. Additionally, 16 dedicated units will be established in 16 focus hospitals nationwide which will be manned by at least 2 full-time medical officers. Meanwhile, 26 TOP teams in major hospital will be manned by a full-time medical officer.

**Emergency Services**

In 2018, Emergency Services Unit continues to expand whereby the number of new Emergency Physician has increased from 271 in year 2017 to 327 in year 2018 (20 per cent increment) posted to 56 hospitals all over Malaysia. Emergency and Trauma Services is one of the services that is involved in the cluster hospital project. In 2018, there were 13 clusters involving 41 hospitals (including non-specialist hospitals), with 28 non-specialist hospitals having access to Emergency and Trauma Specialty.

Various activities were carried out throughout the year to improve the quality of services including development of service guidelines and policies; and revision of the Emergency Medical and Trauma Services Policy. Some of these documents are expected to be released in 2019. In terms of workload, the number of patients who attended Emergency and Trauma Department were expected to be increased as mean increment from 2015 to 2017 was about 3 per cent per year, as depicted in **Figure 5.1**.

**Figure 5.1**  
**Patient Attendance at the Emergency and Trauma Department**

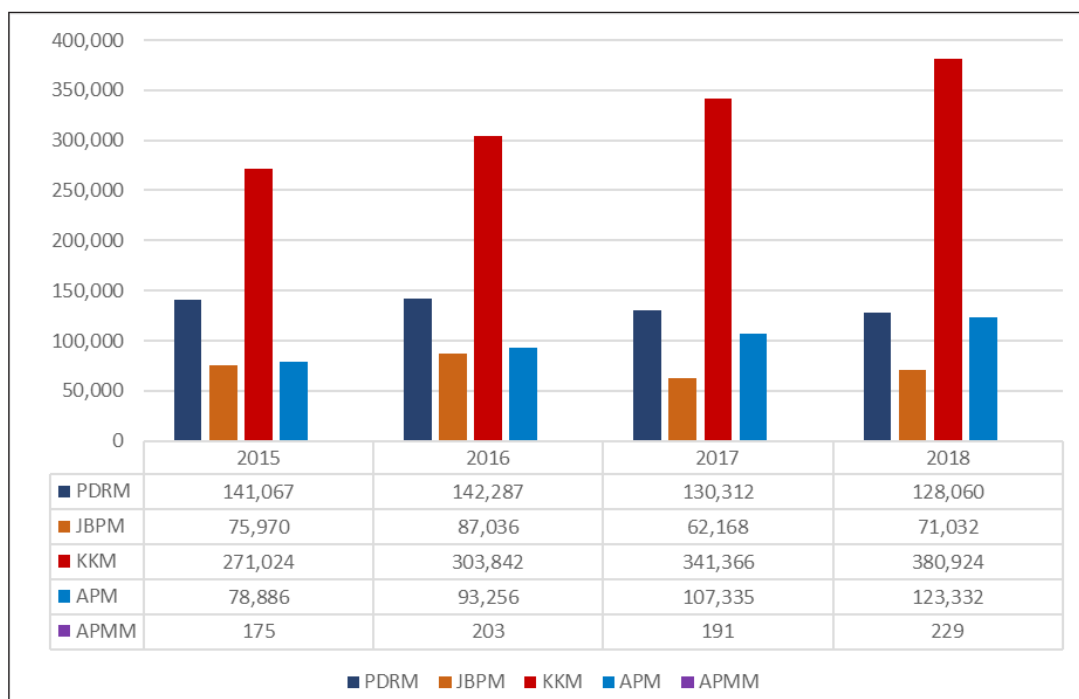


Source: Medical Development Division, MOH

Pre-hospital Care and Ambulance Service is one of the main focuses of improvement with the ambulance response time set to be the national KPI and monitored at the Ministry level. MOH will continue to collaborate with other agencies in delivering the Pre Hospital Care and Ambulance Service. These agencies are Fire and Rescue Department (JBPM), Malaysian Civil Defence Force (APM), St John Ambulance, Malaysia and Malaysian Red Crescent with the latter two (2) agencies covering five (5) hotspot areas in Klang Valley under a special project with grants provided by MOH.

MOH Data from MERS999 system has shown that MOH received the highest number of emergency calls (54 per cent) as compared to other agencies such as Royal Malaysian Police (PDRM), the Fire and Rescue Department (JBPM), the Malaysian Maritime Enforcement Agency (APMM) and the Malaysian Civil Defence Force (APM). In 2018 the number of emergency calls received by MOH has increased to 12 per cent, from 341,366 calls in 2017 to 380,924 calls in 2018. This is shown in **Figure 5.2**.

**Figure 5.2**  
**Number of Emergency Calls**



Source: Medical Development Division, MOH

## PAEDIATRICS AND OBSTETRIC & GYNAECOLOGY SPECIALTY

### Paediatrics Services

There are 16 Paediatric subspecialty services in MOH hospitals, including genetics which was a priority in 2018. The focus was on inherited metabolic disorders where a National Framework For Rare Disease In Malaysia is being drafted. The aim of this framework is to



integrate a comprehensive approach in the management of rare disease and build cooperation among various stakeholders in addressing the multifaceted needs of rare disease. The Unit is also involved in stem cell services for the MOH hospitals and a 3<sup>rd</sup> edition on Guidelines on Stem Cell Research & Therapy is currently being prepared. This latest edition included cell therapy, usage of blood products for non-homologous use, pre-clinical testing, and processes of application & requirements of GMP, GTP and GLP. Three (3) policy papers are also currently being drafted by the Unit; Healthcare Transition from Paediatric to Adulthood, A National Strategy Plan of Paediatric Palliative in MOH Hospitals and National Haemophilia Program which includes both paediatric and adult haemophilia patients.

### **Obstetric and Gynaecology Services**

Assisted Reproductive Technology (ART) services are part of the Reproductive Medicine in O&G subspecialty that is given importance in 2018. There are 1,203 women that have undergone fertility treatment in Ministry Of Health Malaysia hospitals in 2018, from which 687 women were treated with fresh embryo transfer while 516 others had frozen embryo transfer. The success rate for fresh embryo transfer in 2018 was 19.8 per cent while for frozen embryo transfer was 40 per cent. A guideline in managing requests for termination of pregnancy is currently being drafted. This is to ensure health professionals in Ministry Of Health Malaysia hospitals are equipped with the knowledge and skills in assessing and managing mental health injuries among women requesting for termination of pregnancy. An echo training course was conducted later on the guidelines in Sarawak and attended by 42 participants.

## **CLINICAL SUPPORT SERVICES UNIT**

### **Transfusion Medicine**

In 2018, Clinical Support Services Unit (CSSU) successfully obtained budget approval for the expansion of *Nucleic Acid Amplification Testing (NAT)* through Transfusion Medicine Services to five (5) states namely Perak, Pulau Pinang, Terengganu, Sabah and Sarawak. This expansion will continue throughout 2019, ensuring up to 100 per cent NAT screening for the entire supply of blood products donated in the country. NAT screening is a step towards ensuring blood products is disease-free.

### **Forensic Medicine**

In 2018, CSSU has also witnessed the recognition of Forensic Medicine Services at the international level through the collaboration of Ministry of Health Malaysia (MOH), Ministry of Defense Malaysia and New Zealand Defense Force (NZDF) via the Te Auraki (The Return) Operations, where the skeletal remains of 27 military personnel and a child were exhumed from the Commonwealth War Graves in Malaysia. The involvement of Malaysian MOH Disaster Victim Identification (DVI) team comprising of Forensic Pathologist, Forensic Anthropologist, Forensic Odontologist, and Forensic Radiologist was based on their respective expertise and wide experience.

### **Nuclear Medicine**

Among other achievements was the yearly conference organized by the Nuclear Medicine fraternity titled 'Inaugural Malaysian Nuclear Medicine Conference 2018' which was held on 27 September 2018 in Sunway Medical Centre. Moreover, Nuclear Medicine's first 'Operational Policy in Nuclear Medicine Services' was also published in August 2018.

## Pathology

The Pathology Services had also organized their annual National Pathology Conference in Shah Alam on 7 August 2018 with the theme 'Value Based Care in Pathology'. The first 'International Pathology Day Malaysia 2018' was also held in Institut Kanser Negara on the 26 until 27 November 2018. The Pathology Service also printed their second edition of 'National Standards for Stem Cell Transplantation: Collection, Processing, Storage and Infusion of Haemopoetic Stem Cells and Therapeutic Cells in 2018' which was then distributed for the standardization of service.

## Central Sterile Supply Services

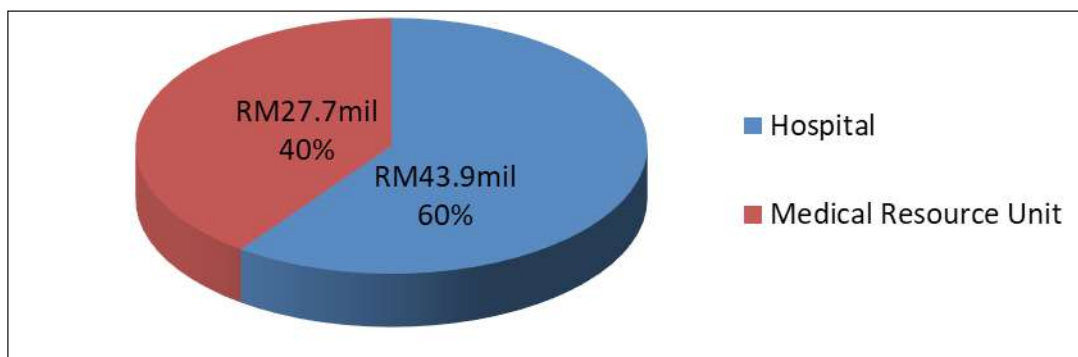
During the same year, the Central Sterile Supply Services also published and distributed their first policy with the title 'Central Sterile Supply Services Policy'.

## MEDICAL RESOURCE UNIT

### BUDGET AND ALLOCATION

Medical Programme had received a total allocation of RM71,608,100.00 in 2018 for medical and non-medical equipment procurement. From that amount, Medical Resource Unit was allocated a total of RM27,734,966.00, whereas the balance of RM43,873,134.00 was distributed to MOH hospitals (**Figure 5.3**).

**Figure 5.3**  
Budget and Allocation for Medical Programme 2018



Source: Medical Development Division, MOH

Details of allocation to Medical Resource Unit are as below:

No	Source of Budget	Purpose	Total Allocation (RM)
1.	Development	Upgrading of Medical and Non-Medical Equipment	26,639,616.00
2.	Development	Women and Child Block Ipoh Hospital and Rembau Hospital	631,750.00
3.	Expenditure	Special Project Facilities - Ventilator	463,600.00
<b>GRAND TOTAL</b>			<b>27,734,966.00</b>

## PROCUREMENT

### Upgrading of Medical and Non-Medical Equipment

In 2018, various projects for upgrading of medical and non-medical equipment had been implemented by Medical Resource Unit through project tenders and quotations with overall cost of RM26,210,896.48. Through these projects, the Unit managed to achieve savings of RM426,615.76. From the savings, Medical Resource Unit was able to purchase medical and non-medical equipment through direct purchase with overall cost of RM424,512.00.

### Consumables, Reagen and Instrument Placement

There are six (6) centrally procured consumable items which are tendered every 2-3 years. All of these items are monitored closely to ensure that the supplied items complied with the specifications, terms and conditions as stated in the contract. In 2018, tenders were completed for two (2) items which include Disposable Twin Bag Integrated Disconnect Peritoneal Dialysis System for Continuous Ambulatory Peritoneal Dialysis (CAPD) with contract value of RM210,667,666.00 and High Flux, High Efficiency Disposable Hollow Fibre Sterile Dialyser with contract value of RM19,269,800.00. These items will be supplied for the year 2019 to 2022.

Medical Resource Unit is also involved in conducting the central procurement tender for reagents and consumables as well as instrument placement for three (3) tenders as in **Table 5.8**. These items will be used by MOH Pathology Departments for the duration of four (4) years.

**Table 5.8**  
**Tenders for reagents, consumables and instrument placement procured**  
**in 2018 for MOH Pathology Departments**

No.	Tenders	Contract value (RM)
1.	Tissue Processor	7,279,961.50
2.	Immunohistochemistry (IHC) Testing	3,564,780.00
3.	HBA1C Testing	16,771,622.40

*Source: Medical Development Division, MOH*

This unit also collaborates with Procurement and Privatisation Division in monitoring 336 consumable products through a concession agreement called Approved Product Purchase List (APPL) Programme with Pharmaniaga Logistics Sdn Bhd from 2017 to 2019.

### Leasing Procurement Program

In 2018, the Ministry of Health Malaysia (MOH) led by the Medical Resources Unit had approved implementation of a Leasing Procurement Program via open tender involving six (6) types of medical equipment namely Computed Tomography (CT) Scanner, Magnetic Resonance Imaging (MRI), General X-Ray, Intensive Care Bed, Orthopedic Operating Table and General Surgery Operating Table. The program will be implemented in 2019 and it involves a leasing tenure of five (5) years which includes maintenance by the manufacturer with an estimated cost of RM 19.7million per-year.

## MEDICAL PROFESSIONAL DEVELOPMENT SECTION

### SPECIALIST TRAINING PROGRAMME

#### Masters of Medicine

The Master of Medicine Programme for basic specialties is conducted by seven (7) local public universities in collaboration with Ministry of Health (MOH), Malaysia. As of 2018, there are 23 areas of specialty training currently being offered in the Master of Medicine Programme. 33 MOH hospitals have been accredited as training centres for the Master of Medical Programme in 2018.

The increase in scholarship slots for Master of Medical Programme over the years has resulted in the rise of number of specialists produced annually. In 2018, there were 550 medical officers graduated from the programme, as compared to 481 in 2016, 442 in 2015 and 371 in 2014.

#### The Specialty Training Programme - Parallel Pathway in MOH Malaysia (Membership and Fellowship from International Collegiate)

Medical Officers in MOH Malaysia can also opt to pursue specialty training via The Specialty Training Programme - Parallel Pathway, which is another training programme to produce specialists in the basic specialties (Table 5.9). The training programme is run either partially or fully in Malaysia. There are two (2) local training programmes under MOH Malaysia Specialty Training Programme - Parallel Pathway in Urology and Cardiothoracic Surgery, both started in 2017 and Plastic Surgery in 2018.

Table 5.9  
Number of Medical Specialist from Parallel Pathway Programme 2011 to 2018

Discipline	Awarded	2011	2012	2013	2014	2015	2016	2017	2018
Internal Medicine	MRCP	67	76	47	77	85	112	78	172
Paediatric	MRCPCH	25	27	27	37	35	15	39	40
O&G	MRCOG	5	5	4	2	9	1	6	26
Ophthalmology	FRCOphth	0	0	0	0	1	0	0	0
Clinical Oncology	FRCR ONCOLOGY	1	1	3	0	2	4	0	0
Anesthesiology	FCAI	0	0	0	0	0	1	1	0
Radiology	FRCR	0	0	0	0	0	0	1	6
Psychiatry	MRCPsych	0	0	0	0	0	0	3	3
<b>Total</b>		<b>98</b>	<b>109</b>	<b>81</b>	<b>116</b>	<b>132</b>	<b>133</b>	<b>128</b>	<b>247</b>

Source: Medical Professional Development Section, Medical Development Division, MOH

### GAZETTEMENT OF SPECIALISTS AND SUBSPECIALISTS

Every doctor with recognised post-graduate qualification has to be gazetted by the Special Gazettement Committee (*Jawatankuasa Khas Perubatan*) which is chaired by Director-General of Health and three (3) panel members; in accordance to Section 27, Chapter F of the Public Service's General Order. In 2018, 777 clinical specialists were gazetted as compared to 707 in

2017 (**Table 5.10**). The field of Internal Medicine has produced the most number of gazetted specialists, followed by Paediatrics and Anaesthesiology.

**Table 5.10**  
**Number of Specialists and Subspecialists Gazetted Based on Specialty (2014 to 2018)**

Total of Gazetted Specialist				
2014	2015	2016	2017	2018
528	503	586	707	777

*\*Including Contract Medical Specialist*

*Source: Medical Professional Development Section, Medical Development Division, MOH*

## CLINICAL SPECIALISTS IN MOH HOSPITALS

The number of specialists and subspecialists in MOH Hospitals are increasing year by year. The total number of specialists increased from 5,100 in 2017 to 5,507 in 2018. Eventhough there is an increase of number of specialists every year; however it is still not enough to cater the needs of the country as we are moving towards achieving developed country status (**Table 5.11**).

**Table 5.11**  
**Number of Clinical Specialists in MOH Hospitals (2014 to 2018)**

Discipline	No. of Specialists (Including subspecialty trainee and specialists on contract basis)				
	2014	2015	2016	2017	2018
Anaesthesiology	479	474	514	533	573
Cardiology	51	49	46	68	76
Cardiothoracic Surgery	24	24	21	19	18
Dermatology	41	40	40	47	54
Emergency Medicine	207	207	246	271	324
Forensic	28	28	27	31	34
General Medicine	622	644	804	790	764
General Surgery	287	284	303	321	342
Hand and Microsurgery	1	1	1	0	0
Nephrology	71	70	67	75	94
Neurology	30	30	29	37	47
Neurosurgery	47	46	54	57	58
Nuclear Medicine	22	22	22	25	27
Obstetrics and Gynaecology	303	293	306	329	371
Ophthalmology	233	232	252	278	288
Orthopaedic	278	276	297	328	358
Otorhinolaryngology	159	159	162	162	187
Paediatric	438	435	459	478	500

Discipline	No. of Specialists (Including subspecialty trainee and specialists on contract basis)				
	2014	2015	2016	2017	2018
Paediatric Surgery	25	24	27	32	36
Pathology	306	305	333	384	422
Plastic Surgery	27	26	30	31	36
Psychiatry	176	176	203	223	245
Radiology	275	275	324	339	379
Radiotherapy and Oncology	32	31	31	34	35
Rehabilitation Medicine	49	49	57	62	70
Respiratory Medicine	39	38	37	43	55
Sports Medicine	19	19	23	27	32
Urology	30	28	27	35	35
Transfusion Medicine	34	34	35	41	47
<b>Total</b>	<b>4,333</b>	<b>4,319</b>	<b>4,777</b>	<b>5,100</b>	<b>5,507</b>

Source: Medical Professional Development Section, Medical Development Division, MOH

Note: Excluding Family Medicine Specialists, Public Health Specialists and Dental Specialists

## SUBSPECIALTY PROGRAMME

Partial scholarship will be awarded to those pursuing the local training, while full scholarship is awarded to those who pursue overseas training. Annually, MOH provides 150 scholarship slots for subspecialty training. In 2018, MOH has also offered 157 training slots without scholarship. The most popular subspecialties were Nephrology followed by Rheumatology, Cardiology, Neonatology and Colorectal Surgery

## HOUSEMANSHIP PROGRAMME

Medical graduates have the opportunity to be appointed to the Public Service as House Officers (HO) to undergo training at the 47 Training Hospitals including three (3) University Hospitals. The HO program is a two-year training program to train house officers before they are eligible for a Full Registration Certificate and be able to practice as medical practitioners.

Some improvements in the HO Program have been made, namely:

- i. Flexible Working Time System from 1 September 2011.
- ii. Process of Contract Appointment from December 2016.
- iii. Improvement of the Housemanship Programme Logbook (2017 edition).

## CONTINUING PROFESSIONAL DEVELOPMENT

Continuing Professional Development (CPD) is an enhanced form of Continuing Medical Education (CME), which had been implemented in a more comprehensive nature. It is a systematic planned process of lifelong learning and professional development that enables

health professionals to maintain and enhance knowledge, skills and competency for practice in provide quality health care in the country.

The Ministry of Health has launched myCPD version 2.0 system in 2017 and is currently being used by over 230,000 registered users from 52 various health professional or health schemes in MOH, private sectors and universities. Various programs and workshops had carried out to increase user awareness.

CPD points will continue to be used for various purposes for different requirements such as for Annual Practicing Certificate renewal for Health Practitioners and also for National Specialist Register (NSR).

## **QUALITY IN MEDICAL CARE SECTION**

The Quality in Medical Care Section plays a major role in ensuring the institutionalisation of quality in the Medical Programme, whereby seven (7) categories of essential quality improvement core activities are routinely implemented by healthcare personnel. One of our roles is also to generate high quality evidence for evidence-based decision making by the Medical Programme specifically and the MOH in general. The seven (7) units of the Medical Care Quality Section encompass the major areas for Quality Improvement in Healthcare within the Medical Programme. The units are tasked with implementing the appropriate Quality Improvement activities in order to address these core issues.

## **ACCREDITATION AND STANDARDS UNIT**

The Accreditation and Standards Unit comprises of four (4) subunits:

### **Hospital Accreditation**

Its main function is to facilitate, coordinate and monitor the implementation of the Accreditation programme for Malaysia's government hospitals in collaboration with the Malaysian Society for Quality in Health (MSQH), which is the national accrediting body for healthcare facilities and services. The role of the MSQH is to develop standards for best practices in the delivery of healthcare in Malaysia. The Hospital Accreditation Unit is responsible for obtaining the necessary financial support for this programme. At present, 22 hospitals had been accredited in 2018.

### **MS ISO 9001:2015**

In 2018, five (5) divisions of the Medical Programme, namely, Medical Development Division, Medical Practice Division, Allied Health Division, Nursing Division and Traditional & Complimentary Medicine Division were unified in their concerted efforts at MS 9001:2015 certification. As the secretariat, our role is to ensure the practice of MS ISO 9001:2015 is applied and streamlined by all component divisions, through the monitoring of the documents needed for certification. We are also responsible for organizing courses to strengthen the knowledge and implementation of ISO amongst our staff and in the Medical Programme

### **Ekosistem Kondusif Sektor Awam (EKSA)**

EKSA originated from “5S”, which is intended to strengthen the organisational culture of high performance and innovation amongst public sector agencies by providing a conducive environment, work culture and positive values for public servants. Our unit is responsible for ensuring that EKSA practice is applied to the Medical Development “Zone” via audits. We also provide related training for new staff as well as refresher courses related to EKSA for existing staff. For 2018, the Ministry of Health was awarded certification by MAMPU for its excellent performance in implementing EKSA.

### **Innovation**

Our role is to provide support services in implementing innovative ideas in the Ministry of Health. We arrange sharing sessions between the innovators, Heads of Services as end-users and also important stakeholders such as SIRIM and the Medical Devices Authority (MDA) of the MOH to review potential innovations for commercialisation purposes.

### **VALUE AND ETHICS UNIT**

This Unit’s main function is as co-ordinator for public complaints/enquiry/acknowledgments towards hospitals and institutions under the Medical Development Division. In addition, this Unit is also the co-ordinator for Customer Satisfaction Feedback (SERVQUAL) for hospitals and institutions within the Medical Development Division, co-ordinator of Hospital Client Charter for Medical Development Division and the Secretariat for Compensation Claim Committee for Road Accident Cases involving Vehicles under the Medical Development Division. **Table 5.12** showed the achievements of this unit for year 2016 to 2018

**Table 5.12**  
**Achievements Value and Ethics Unit**

	2016	2017	2018		
Total clinical (non medicolegal) complaints addressed	769	1,486	2,529		
Total acknowledgement received	550	680	673		
Overall Patient Satisfaction (SERVQUAL)	Inpatient		Outpatient		
	Satisfied	Not Satisfied	Satisfied	Not Satisfied	
2016	37,620 (98.0%)	781 (2.0%)	35,561 (96.0%)	1,487 (4.0%)	
2017	57,127 (98.6%)	798 (1.4%)	56,862 (96.5%)	2,054 (3.5%)	
2018	77,115 (98.3%)	1,319 (1.7%)	84,658 (96.1%)	2,788 (3.9%)	
MOH Core Client Charter			Target	2017	2018
Numbers of medical reports prepared within the stipulated time: *State & Major Hospitals: ≤ 4 weeks *Other type of hospitals: ≤ 2 weeks <i>The new core client charter was commenced in 2017</i>			90%	93.18%	93.7%

Source: Quality in Medicafe Care Section, Medical Development Division, MOH



## OCCUPATIONAL SAFETY AND HEALTH UNIT

The Occupational Safety & Health (OSH) Unit looks after the safety, health and welfare of health care workers in all government hospitals and medical institutions in Malaysia as well as workers in Block E1, Parcel E, Putrajaya in line with the Occupational and Safety (OSH) Act 1994.

### Statistics on Workplace Violence towards Healthcare Workers in Hospitals and Medical Institutions, MOH

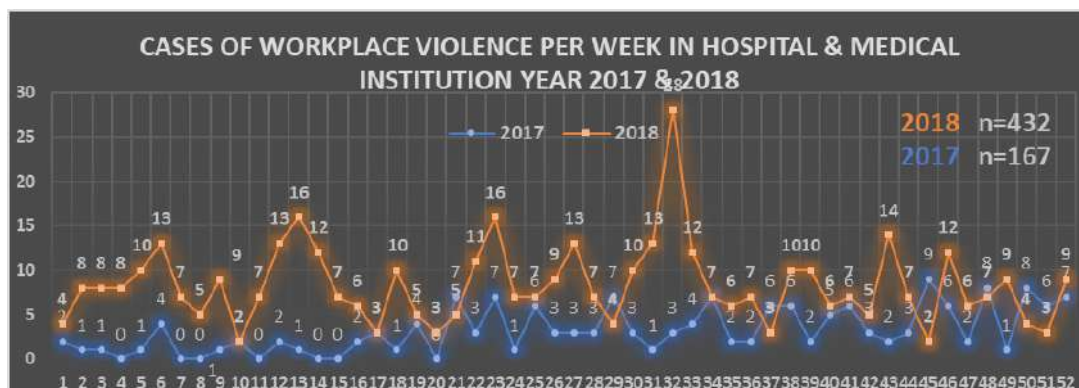
The number of workplace violence cases reported in 2018 were 432, compared to 167 cases in 2017 and 44 cases accumulated from year 2013 to 2016 (**Table 5.13**). More comprehensive data surveillance was conducted after the launching of Guideline on Prevention and Management of Workplace Violence Among Healthcare Workers on 28 April 2017 and an analysis of workplace violence cases by category of workers in 2018 showed that staff nurses were the most affected with 28 per cent or 121 cases, followed by medical officers (23 per cent or 101 cases) and medical assistants (10 per cent or 45 cases). The number of cases of workplace violence per week was 3 for 2017 and 8 for 2018 (**Figure 5.4**).

**Table 5.13**  
Statistics of Workplace Violence amongst Healthcare Workers in Hospitals and Medical Institutions, MOH

Monitoring of program	2013-2016	2017	2018
Workplace Violence Among Health Care Workers in Hospitals and Medical Institutions, MOH	44 Cases	167 Cases	432 Cases

Source: Occupational Safety and Health Unit, Medical Care Quality Section, Medical Development Division, MOH

**Figure 5.4**  
Number of Cases of Workplace Violence per Week in Year 2017 and 2018



Source: Occupational Safety and Health Unit, Medical Care Quality Section, Medical Development Division, MOH

## INFECTION CONTROL UNIT

The Infection Control Unit is responsible for ensuring the prevention and control of Healthcare Associated Infections by coordinating surveillance, developing policies and guidelines as well as conducting training on infection control. The Unit is also responsible for the coordination of the Antimicrobial Resistance (AMR) programme in the Ministry of Health. This is achieved by engagement through the National Antimicrobial Resistance Committee (NARC), a “One Health” platform that coordinates AMR efforts across human, animal and environmental sectors. Additionally, the Infection Control Unit provides secretariat support for the NARC. Through this platform, a five-year action plan - the Malaysian Action Plan on AMR (MyAP-AMR), has been developed and focuses on four (4) key strategies in combating AMR. The Infection Control Unit is also responsible for the National Wound Care Programme and acts as the secretariat to the National Wound Care Committee. Its aim is to improve the quality of wound care in Malaysia.

Infection Control Unit Monitoring and Achievements:

- i. **Healthcare Associated Infection (HCAI):** HCAI prevalence in 2018 was 4.5 per 100 admission which was within the national target rate of 5 per 100 admission
- ii. **MDRO:** Rate per 100 admissions for the organisms monitored namely MRSA, ESBL *Klebsiella pneumoniae*, ESBL *Escherichia coli*, MDR *Acinetobacter baumannii*, Carbapenem resistant *enterobacteriaceae* (CRE) and Vancomycin resistant *enterococcus* (VRE) were within the national target rate.
- iii. **Antimicrobial Stewardship (AMS) Team Implementation:** There were 59 hospitals with AMS team in 2018 which fulfilled the target number of 49 hospitals set in the MOH Strategic Plan.

## PATIENT SAFETY UNIT

Patient Safety Unit was established to improve patient safety and to establish patient safety policies and programmes in Malaysia. There are seven (7) main programmes under the purview of the Patient Safety Unit namely the Secretariat of the Patient Safety Council of Malaysia, Malaysian Patient Safety Goals (MPSG), Incident Reporting & Learning System, Patient Safety Curriculum, Safe Surgery Saves Lives (SSSL), PATIENTS For Patient Safety Malaysia (PFPSM) and Patient Safety Awareness.

The highlights for 2018 are as follows:

- i. **ISQua International Conference 2018**  
The prestigious conference was held on 23 to 26 September 2018. Patient Safety Unit was involved as a technical secretariat/local committee for the conference. Medical Programme had sponsored 50 MOH participants with 38 participants presenting their oral/poster presentation in the conference.
- ii. **3<sup>rd</sup> International Patient Safety Conference, Lahore Pakistan 2018** which was held on 3 to 4 November 2018. Head of Patient Safety Unit had conducted a Root Cause Analysis workshop and presented “Overcoming Resistance to Report Patient Safety Incidents with Simplicity, Empowerment & Leadership” during the conference.
- iii. **Malaysian Patient Safety Council Meeting** on 18 September 2018.
- iv. Implementation of the **New Incident Reporting & Learning System 2.0** for MOH Malaysia Hospitals

- v. 15 in-country **Patient Safety Course** presentation and five (5) international presentation on Patient Safety
- vi. Five (5) in-country **Incident reporting/CA/Risk Reduction Strategies Workshop** conducted.

**Table 5.14** showed quality initiatives and monitoring for year 2016 to 2018

**Table 5.14**  
**Quality Initiatives and Monitoring 2016 to 2018**

Year	2016	2017	2018
Per centage of Government Healthcare Facilities Reporting Malaysian Patient Safety Goals Performance	84.1%	83.6%	90.3%
No. of Patient Safety Incident Report for MOH Malaysia Hospitals and Institution	2,769	5,689	8,950
House Officers Undergone Mandatory Patient Safety Awareness Course for House Officers	(implementation started in 2017)	4,936	4,604

*Source: Patient Safety Unit, Medical Care Quality Section, Medical Development Division, MOH*

## CLINICAL AUDIT UNIT

The Clinical Audit Unit undertakes a number of essential Quality Improvement activities including the Pain-Free Programme (PFP), Peri-operative Mortality review (POMR), MENANG Programme, and Clinical Audit itself.

### Pain-Free Programme

The implementation of Pain as the 5<sup>th</sup> Vital Sign (P5VS) is a cross-programme activity involving Public Health, Oral Health and Pharmaceutical Services Programmes in the Pain-Free Programme. With regard to the Pain Free Hospital (PFH) certification, to date, 19 hospitals have been certified as Pain Free Hospitals throughout the country.

### POMR

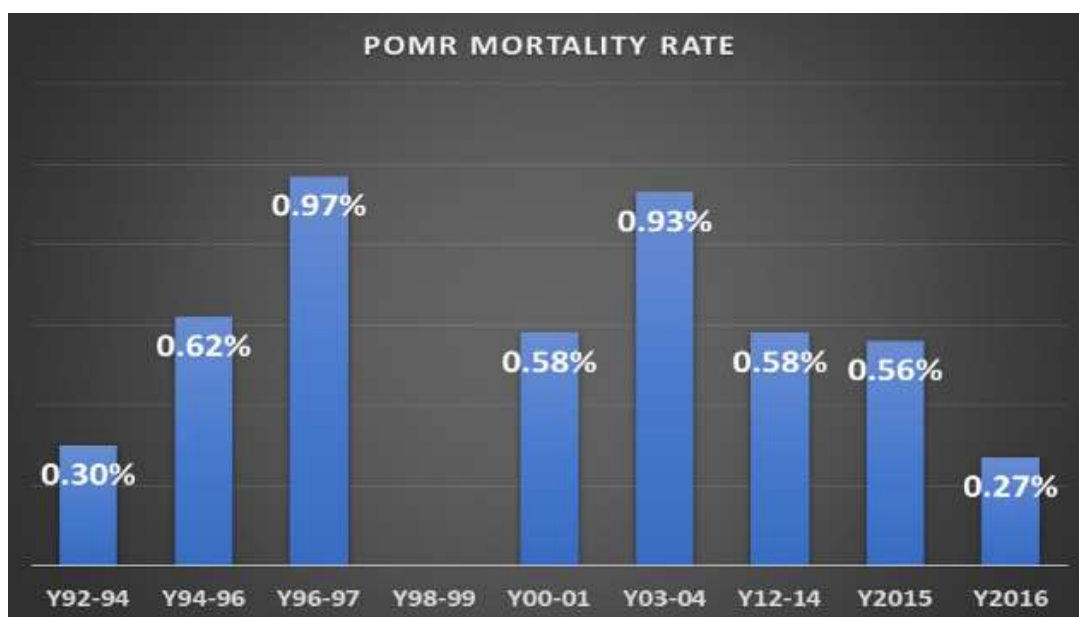
The POMR is a peer-review clinical audit involving 71 Specialist Hospitals throughout Malaysia. It is an essential component of Global Surgery 2030, whereby the targeted reporting rate for POMR is at 100 per cent by 2030. Encouragingly in the MOH, the POMR annual reporting rate is on the increase (**Table 5.15**). The POMR Mortality Rate, however, has been fluctuating and under-reporting could be a contributory factor to this phenomenon (**Figure 5.5**).

**Table 5.15**  
**POMR Reporting Rate**

Year	Rate
2016	48.90%
2017	54.79%
2018	73.40%

*Source: Medical Care Quality Section, Medical Development Division, MOH*

**Figure 5.5**  
**MOH POMR Mortality Rate**



Source: Medical Care Quality Section, Medical Development Division, MOH

### **MENANG Programme**

The MENANG Programme, which focuses on patients with chronic pain, will be expanded by 2020. At present, the MENANG Programme is only being implemented regionally as well as in certain selected hospitals.

### **Clinical Audit**

For Clinical Audit, in 2018, the Dengue National Clinical Audit was conducted in a number of selected hospitals and clinics in the Klang Valley. In 2019, the 1<sup>st</sup> MOH Clinical Audit Guidelines is expected to be published.

### **CLINICAL PERFORMANCE SURVEILLANCE UNIT**

The Clinical Performance Surveillance Unit (CPSU) does not only undertake the clinical performance surveillance, but also acts as the KPI Secretariat for Ministry of Health. Its main function is to inculcate a high-quality service culture amongst healthcare workers through the implementation of performance surveillance activities. This Unit also functions to enhance the quality assurance cycle systematically with performance benchmarking initiative. Besides that, establishing performance reporting mechanisms through a comprehensive Balanced Scorecard is also a key function of this unit. In order to ensure high integrity of the performance data, a regular systematic performance audit is conducted by the unit.

From March to May 2018, the CPSU conducted Regional Meetings on the Clinical Performance of the Medical Programme for the six (6) Zones, to discuss the achievements of the Performance Indicator Programme for the various Clinical Services and Hospital Performance

Indicator for Accountability (HPIA) 2017 at Hospital or State Health Department levels. The meetings were intended to provide updates on the latest requirements of clinical surveillance activities. Performance Indicators of the Medical Program have been audited in a total of four (4) hospitals in 2018, to ensure the accuracy and integrity of the reported achievements.

In 2018, CPSU also conducted a survey entitled “*Kajian Soal Selidik Persepsi Rakyat Malaysia Terhadap Perkhidmatan Kesihatan Di Hospital KKM.*” Based on feedback from 1,810 respondents comprising visitors, patients and quality coordinators through the 49 questionnaires, the CPSU found that the people’s expectations and beliefs for an improvement to the waiting times and public utilities in MOH hospitals. It was also discovered that only some Malaysians had knowledge on eGL. Subsequently in 2018 the CPSU revised the HPIA, Clinical Services KPI and CPVF (Clinical Performance Verification Form) through a feasibility studies conducted in hospitals. On the whole, average performance index for the Director General of Health is 1.22 for 2018. It can be reliably concluded that the monitored KPI have reached the desired standard.

### MALAYSIAN HEALTH TECHNOLOGY ASSESSMENT SECTION (MaHTAS)

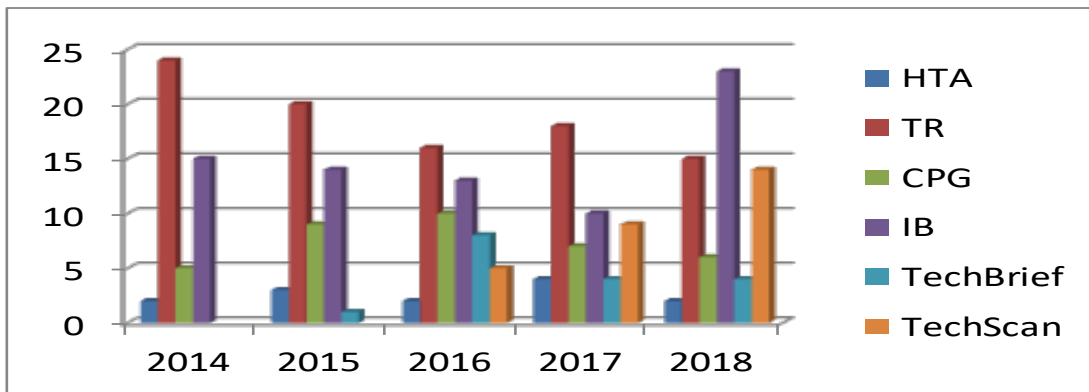
MaHTAS was established since August 1995, in keeping with the Ministry of Health’s (MOH) policy of ensuring that safe, effective and cost-effective technology is being used in the MOH facilities. This is done through the conduct of Health Technology Assessment (HTA), mini-HTA (Technology Review report), rapid assessment (Information Brief), the development and implementation of Clinical Practice Guidelines (CPG) and horizon scanning of emerging health technologies.

### ACHIEVEMENT

#### Health Technology Assessment Reports and Clinical Practice Guidelines

Throughout 2018, MaHTAS produced two (2) Health Technology Assessment (HTA) reports, 15 Technology Review (TR) reports, 23 Information Briefs (IB), four (4) TechBrief reports, 14 TechScan reports and six (6) Clinical Practice Guidelines (CPGs). Local economic assessment has also been conducted for one (1) of the HTA reports and three (3) TR reports.

**Figure 5.6**  
Number of MaHTAS Reports produced from 2014 to 2018



Source: Malaysian Health Technology Assessment Section (MaHTAS), MOH

Cumulatively, from 1997 to 2018, MaHTAS has produced a total of 71 HTA reports, 353 TR reports, 117 CPGs, 133 IBs, 28 TechScan reports and 17 TechBrief reports. **Figure 5.6** shows the number of reports that have been produced from 2014 to 2018.

The titles of the reports and CPGs produced throughout 2018 are listed in **Table 5.16** and **Table 5.17**. All of these reports and CPGs are made available on and can be downloaded from Ministry of Health Malaysia's Official Portal at [www.moh.gov.my](http://www.moh.gov.my) or via myMaHTAS mobile application.

**Table 5.16**  
**List of HTA Reports, TechBrief Reports and CPGs Produced in 2018**

Health Technology Assessment (HTA)	Clinical Practice Guidelines (CPG)
<ul style="list-style-type: none"> <li>i. Bronchoscopic Treatment of Emphysema</li> <li>ii. Bone targeting agents in preventing skeletal related events (SREs) for metastatic cancers of solid tumours and economic evaluation</li> </ul>	<ul style="list-style-type: none"> <li>i. Malaysian Hypertension CPG 2018 (Fifth Edition)</li> <li>ii. Stable Coronary Artery Disease 2018 (Second Edition)</li> </ul>
TechBrief Reports	<ul style="list-style-type: none"> <li>iii. Management of Atopic Eczema</li> <li>iv. Management of Chronic Kidney Disease in Adults (Second Edition)</li> <li>v. Management of Diabetic Foot (Second Edition)</li> <li>vi. Management of Haemophilia</li> </ul>
<ul style="list-style-type: none"> <li>i. Emicizumab for Prophylaxis Treatment of Haemophilia A with Inhibitors</li> <li>ii. Rituximab Biosimilars</li> <li>iii. Rotasiiil</li> <li>iv. i-MRT</li> </ul>	

Source: Malaysian Health Technology Assessment Section (MaHTAS), MOH

**Table 5.17**  
**List of TR Reports Produced in 2018 Categorized According to Level of Recommendations**

Recommended Technology	Recommended Technology for Research Purpose
<ul style="list-style-type: none"> <li>i. Radiofrequency Ablation (RFA) versus antiarrhythmic drugs (AADs) for atrial fibrillation and Economic Evaluation</li> <li>ii. Primary Percutaneous Coronary Intervention (PCI) compared with Thrombolytic Therapy (Streptokinase and Tenecteplase) in STEMI and Economic Evaluation</li> <li>iii. Intrauterine System for Severe Dysmenorrhoea</li> <li>iv. Digital BP measurement sets</li> <li>v. Hepatitis B and C screening among high risk group</li> <li>vi. Whole Body Computed Tomography (WBCT Scan) in adult with major blunt trauma</li> <li>vii. Salt meter for food</li> <li>viii. Botulinum Toxin Type A (BTA) Injection for Chronic Anal Fissure (CAF)</li> </ul>	<ul style="list-style-type: none"> <li>i. Surgical and Non-surgical (Instrumental) Method for Vaginal Tightening</li> <li>ii. Proton Beam Therapy for treatment of cancer - An Update</li> <li>iii. Photo Dynamic Therapy for Cancer Treatment - An Update</li> <li>iv. Phytotherapy for Autism and Attention Deficit Hyperactive Disorder (ADHD)</li> </ul>
	Technology Not Recommended
	<ul style="list-style-type: none"> <li>i. Particle Knife Treatment Using I-125 for Cancer</li> <li>ii. Non-invasive Haemoglobinometer for Blood Donors Screening</li> <li>iii. Immunotherapy for Metastatic Melanoma and Economic Evaluation</li> </ul>

Source: Malaysian Health Technology Assessment Section (MaHTAS), MOH

## Presentation

MaHTAS continued to be actively involved in the dissemination and sharing of information through presentations either locally or internationally as shown in **Table 5.18**.

**Table 5.18**  
**List of Presentations at International and Local Levels**

<b>7<sup>th</sup> HTAsiaLink Annual Conference</b> “Testing Treatments: Strengthening HTA for Better” 8 to 11 May 2018   Chiang Mai, Thailand	
i. Introducing HTA for Alternative and Traditional Medicine ii. Impact/influence of Health Technology Assessment (HTA) Reports in Malaysia: Result of A Mixed-Method Evaluation iii. Fatigue in Cancer Patients Receiving Chemotherapy: Is There a Role for Chinese Herbal Medicines? iv. Adverse Effect of Unhealthy Food and Beverages Marketing to Children: A Systematic Review v. Clinical Hypnotherapy for Pain Management, Anxiety, Depression and Addiction vi. Microinvasive Glaucoma Surgery (MIGS) using iStent: A Systematic Review and Meta-analysis vii. Self-labeled Iodine-131-Rituximab Radioimmunotherapy for Non-Hodgkin’s Lymphoma. A Systematic Review viii. Traditional and Complementary Medicine (TCM) in Malaysia: HTA role in decision/policy making ix. Ineffective Technologies: Health Technology Assessment (HTA) in Malaysia	
<b>7<sup>th</sup> International Public Health Conference 2018</b> “IR 4.0 & New Health Paradigm” 28 to 30 August 2018   Putrajaya, Malaysia	
i. Low dose CT for Screening of Lung Cancer (won Best Three Posters Award) ii. Barcode Medication Administration System	
<b>ISPOR 41<sup>st</sup> Health Technology Assessment Roundtable &amp; ISPOR 12th Patient Representatives Roundtable - Asia Pacific</b> 8 to 9 September 2018   Tokyo, Japan	
i. Real-world Evidence in HTA and Round Table Conferences among Invited Countries Representatives	
<b>50<sup>th</sup> Asia-Pacific Academic Consortium for Public Health Conference (APACH)</b> “Milestone event – Moving Forward to Address Challenges in Regional Health” 12 to 14 September 2018   Kota Kinabalu, Sabah	
i. Hepatitis B and Hepatitis C Screening Among High Risk Groups	
<b>Seminar on Evidence in Action</b> 1 October 2018   Monash University Malaysia	
i. HTA in Malaysia	
<b>2018 World Cancer Congress</b> 1 to 4 October 2018   Kuala Lumpur Convention Centre, Malaysia	
i. Selective Internal Radiation Therapy (SIRT) Using Yttrium-90 Radio-Embolization for Hepatocellular Carcinoma ii. Trastuzumab as an Adjuvant Therapy for Early Breast Cancer - Economic Evaluation from Malaysian Perspective iii. Systematic Review of Healthcare Economic Evaluation in Malaysia: An Overview on Cancer-Related Economic Studies iv. An Economic Evaluation of Sunitinib Versus Pazopanib as First Line Treatment For Metastatic Renal Cell Carcinoma v. A Treatment for Metastatic Renal Cell Carcinoma: The Cost Effectiveness of Axitinib from Malaysian Perspective vi. An Economic Evaluation of Everolimus As Second Line Treatment for Metastatic Renal Cell Carcinoma: A Malaysian Perspective vii. Trastuzumab as an Adjuvant Therapy for Early Breast Cancer	

Source: Malaysian Health Technology Assessment Section (MaHTAS), MOH

## Publication

One (1) article from MaHTAS, in collaboration with members of the CPG development group, academics, and other medical practitioners has been published in a peer-reviewed journal in 2018:

- i. Husain, S., Amilia, H. H., Rosli, M. N., Zahedi, F. D., Sachlin, I. S., Development Group Clinical Practice Guidelines Management of Rhinosinusitis in Adolescents & Adults (2018). Management of rhinosinusitis in adults in primary care. Malaysian family physician: the official journal of the Academy of Family Physicians of Malaysia, 13(1), 28-33.

## ACTIVITIES

### CPG Implementation Activities

#### i. Launching

Three (3) national CPGs were successfully launched in 2018. The launchings were carried out in collaboration with various professional associations. The CPGs launched in 2018 were the Management of Asthma in Adults, Management of Diabetes in Pregnancy and Management of Colorectal Carcinoma.

#### ii. Quick Reference (QR) and Training Module (TM)

Five (5) Quick Reference were developed for the following CPGs: Management of Asthma in Adults, Management of Colorectal Carcinoma, Management of Diabetes in Pregnancy, Management of Chronic Kidney Disease in Adults (Second Edition) and Management of Atopic Eczema.

In addition, four (4) Training Modules have been developed for CPG Management of Glaucoma (Second Edition), Management of Diabetes in Pregnancy, Management of Asthma in Adults and Management of Colorectal Carcinoma. Trainings of Core Trainers (TOT) were also conducted for these CPGs. Following the TOT conducted at national level, CPGs echo trainings were conducted at state level by the trainees.

### Training

MaHTAS continues to organise awareness and training activities in 2018 such as:

- i. Health Technology Assessment Course for Expert Committee and Central Region 2018 on 5 to 6 March 2018
- ii. Systematic Review of Evidence-based Clinical Practice Guidelines (CPG) Development and Implementation Workshop 1/2018 on 13 to 15 March 2018
- iii. Interpreting and Reporting Biostatistics Course on 26 to 28 March 2018
- iv. Applied Statistics for Economic Evaluation Workshop on 28 to 29 June 2018
- v. Manuscript Writing for Journal Publication Workshop on 16 to 17 July 2018
- vi. Course on Introduction to Economic Evaluation for Clinicians on 3 to 4 September 2018
- vii. Systematic Review of Evidence-based Clinical Practice Guidelines (CPG) Development and Implementation Workshop 2/2018 on 4 to 6 September 2018

Internal trainings were also conducted to ensure continuous capacity building among MaHTAS officers. Additionally, MaHTAS officers were also involved as presenters, speakers, or facilitators in many activities such as:



- i. Presentation on Critical Appraisal in Good Research Practice Course 1/2018 organised by the Institute for Health Management on 21 March 2018
- ii. Search Strategy Workshop organised by Hospital Selayang Clinical Research Centre on 16 May 2018
- iii. Systematic Search for Scientific Databases Workshop organised by the Institutes for Health Systems Research on 24 May 2018
- iv. Critical Appraisal Workshop organised by the Institutes for Health Systems Research on 7 August 2018
- v. Course on Systematic Review of Evidence-based Clinical Practice Guidelines (CPG) Development for Dental CPG for Dental Specialist and Dental Officer 2018 on 7 to 9 August 2018

### Evaluation

- i. A study on impact/influence of HTA and TR reports in Malaysia using the mixed method which involved 46 reports produced from 2016 to 2017 has been conducted. The results are as following:
  - Impact Indicator: 89.1 per cent agree with report conclusions/recommendations; 80.4 per cent agree to use reports as reference material; 39.1 per cent agree to incorporate reports into policy/decision/administrative document
  - Impact Level: Reports were found to either have an impact on Informed Decision, have a major impact on decisions or being considered by decision makers in determining various policies and decisions related to health technology
- ii. QR Use Analysis
  - Management of Neonatal Jaundice (Second Edition)  
Involving 283 respondents - 84.5 per cent were aware on the existence of the QR and 74.9 per cent were using the QR. The per centage of its three (3) main uses is as follows: 86.6 per cent use the QR as a reference, 83.5 per cent use the QR as a guide for decision making in clinical practice, and 47.6 per cent use the QR as a source to increase the understanding of disease management.
  - Early Management of Head Injury in Adults  
Involving 285 respondents - 70.9 per cent were aware of the availability and using the QR. The per centage of its three (3) main uses is as follows: 68.5 per cent use the QR as a reference, 76.4 per cent use the QR as a guide for decision making in clinical practice, and 36.4 per cent use the QR as a source to increase the understanding of disease management.

## MEDICAL PRACTICE DIVISION

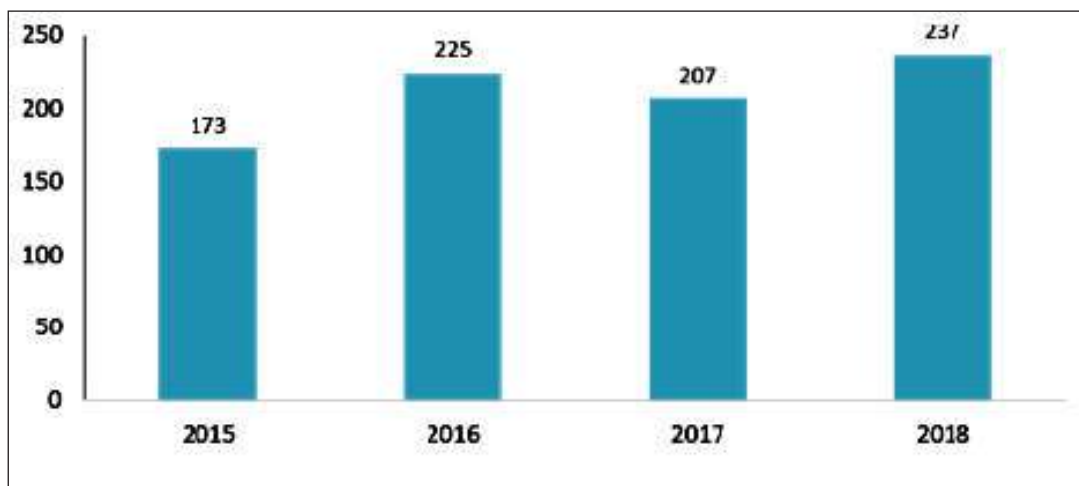
### MEDICO LEGAL SECTION

Medico Legal Section is responsible for the management of medico legal cases involving healthcare facilities within the Ministry of Health (MOH). This includes management of complaints with alleged medical negligence, assisting the Attorney General's Chamber in medical malpractice litigation, coordination of ex gratia payment, conducting awareness training on medico legal issues and performing surveillance activities.

## MANAGEMENT OF MEDICO LEGAL COMPLAINTS

**Figure 5.7** shows the number of medico legal complaints received by Medico Legal Section from year 2015 to 2018. These complaints would investigate by the facility involved and the investigation report would reviewed by Medico Legal Section for further action. The number of medico legal complaints in 2018 is 237.

**Figure 5.7**  
Number of Medico Legal Complaints (2015 to 2018)



Source: Medico Legal Section, MOH

## INDEPENDENT INQUIRY COMMITTEE

Independent Inquiry Committee is formed when a medico legal complaint is not resolved at the facility level or when there is a demand for compensation. The Committee of external panel consists of a Senior Consultant, a Specialist from related discipline, representative from State Health Departments, Representative from Medical Practice Division and a community representative. In 2018, a total of 142 Independent Inquiry Committee were formed.

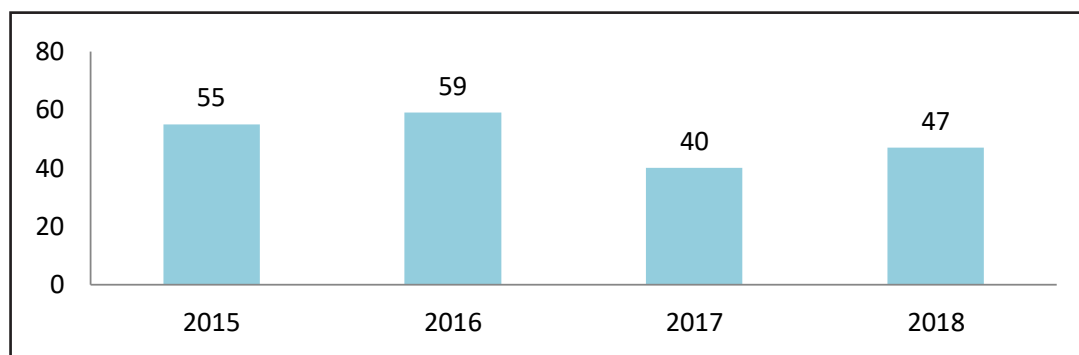
## EX GRATIA MEETING

Ex Gratia Meeting are conducted in Ministry of Health to discuss on medico legal complaints requesting compensation based on the findings by the Independent Inquiry Committee. In 2018, a total of 135 cases were presented and discussed of which 90 cases (67 per cent) were considered for ex gratia.

## MEDICAL MALPRACTICE LITIGATION IN MINISTRY OF HEALTH

**Figure 5.8** shows the number of summon relating to medical malpractice received by Medico Legal Section from year 2015 to 2018. Medico Legal Section provides technical inputs and support to the Attorney General's Chambers and coordinate the preparation of documents, witnesses and appointment of Expert Witness for litigation cases.

**Figure 5.8**  
**Number of Summon (2015 to 2018)**



Source: Medico Legal Section, MOH

## COMPENSATION

**Table 5.19** showed the amount of compensation for both ex gratia and litigation from the year 2015 to 2018. In 2018, the total payment is RM18,373,113.19.

**Table 5.19**  
**Compensation (2014 to 2018)**

Year	Ex Gratia		Litigation		Total (RM)
	Amount (RM)	No. of Cases	Amount (RM)	No. of Cases	
2015	4,430,400.00	63	20,099,197.37	30	24,529,597.37
2016	7,663,684.63	65	5,986,092.39	13	13,649,777.02
2017	2,540,876.90	59	13,404,713.88	26	15,945,590.78
2018	5,050,145.58	83	13,322,967.61	10	18,373,113.19

Source: Medico Legal Section, MOH

## AUDIT AND SURVEILLANCE ACTIVITIES

Medico Legal Section monitors the implementation of remedial steps recommended by the Independent Inquiry Committee. This is done through reports from the healthcare facility and the State Health Department along with periodical audit meeting. In 2018, five (5) Medico Legal Case Audit Meetings were conducted with the MOH Nursing Division, Sabah, Pahang, Kelantan and Kedah State Health Departments.

## TRAINING AND COURSES

In 2018, Medico Legal Section organized an Expert Witness Training Course for 45 MOH Specialists. The course aims to train more MOH Specialists on the role and function of an Expert Witness in medical malpractice litigation. Medico Legal Section also collaborated with the Institute of Health Management to conduct two (2) medico legal courses involving 60 Medical Officers (**Image 5.1**).

**Image 5.1**  
**Participants of the Expert Witness Training Course**



Source: Medico Legal Section, MOH

## PUBLICATIONS

Medico Legal Section had managed to produce three (3) publications in 2018 (**Image 5.2**).

- i. Compilation of Legal Opinion on Medico Legal Issues
- ii. Guideline on Ex Gratia for Medico Legal Complaints
- iii. E-bulletin Medico Legal Section.

**Image 5.2**  
**Publication from Medico Legal Section in 2018**



Source: Medico Legal Section, MOH

## WAY FORWARD

Medico Legal Section aims for the betterment of healthcare services within the MOH. This can be achieved through systematic management of complaints, regular monitoring and surveillance activities along with training and awareness program. The Section had planned various initiatives and activities for the year 2019.

- i. Meetings with stakeholders (AGC, State Health Department) to discuss issues pertaining to medico legal case management.
- ii. Medico Legal Case Audit Meeting
  - a. Emergency and Trauma Head of Service
  - b. Penang State Health Department
  - c. Hospital Kuala Lumpur
  - d. Perak State Health Department
- iii. Courses and trainings
  - a. Expert Witness Training
  - b. Mediation Training
- iv. Proposed publications
  - a. Guideline on the Management of Medico Legal Complaints in Ministry of Health
  - b. Guideline on the Management of Medical Malpractice Litigation in Ministry of Health
  - c. Consensus Guidelines on the Management of Cerebral Palsy
  - d. E-bulletin Medico Legal Section
- v. Proposal paperwork
  - a. Expert Witness Incentive
  - b. No Fault Compensation

## **PRIVATE MEDICAL PRACTICE CONTROL SECTION**

The Private Medical Practice Control Section (CKAPS) undertakes the role to implement and enforce the Private Healthcare Facilities and Services Act 1998 [Act 586] which has come to its twelfth year of implementation in 2018. The regulation and control of private healthcare facilities and services under this Act include registration, approval, licensing, handling of complaints, evaluation of quality, enforcement activities and matters relating to the private healthcare facilities and services (PHFS).

There are three (3) main sectors under this Section, namely:

- i. Policy, Resources and Standard Sector;
- ii. Technical and Operational Sector; and
- iii. Services Evaluation Sector;

There are two (2) units under Policy, Resources and Standard Sector, namely:

- i. Policy and Resources Unit; and
- ii. Senior Citizen Unit.

Under Technical and Operational Sector, there are five (5) units, namely:

- i. Clinic Unit;
- ii. Haemodialysis Unit;
- iii. Hospital Unit;
- iv. Psychiatric, Nursing Home and Hospice Unit; and
- v. Ambulatory Care Centre, Blood Bank, Maternity Home and Combined Unit.

Under Services Evaluation Sector, there are four (4) units, namely:

- i. Complaint Unit;

- ii. Quality Unit;
- iii. Enforcement Unit; and
- iv. Prosecution Unit.

## MAIN ACTIVITIES UNDER CKAPS

### 1. Clinic Unit

The scopes and functions of Clinic Unit under CKAPS are to process the applications related to Certificate of Registrations (COR) of private medical clinics and private dental clinics, as listed below:

- i. Registrations of private medical clinics and private dental clinics;
- ii. Transfer of Certificate of Registration;
- iii. Amendment to Certificate of Registration;
- iv. Duplicate of Certificate of Registration;
- v. Disposal of Certificate of Registration;
- vi. Revocation of Certificate of Registration;
- vii. Amendment of registration information; and
- viii. Withdrawal of application.

In addition, this unit is also responsible for conducting verification visit, inspection visit and issue out show cause notice to suspend or revoke the certification of clinic registration. At the end of 2018, **7718** private medical clinics and **2311** private dental clinics were registered with the Ministry of Health, as in **Table 5.20**.

**Table 5.20**  
**Number of Registered Private Medical Clinics and Private Dental Clinics in Malaysia**  
**(Until 31 December 2018)**

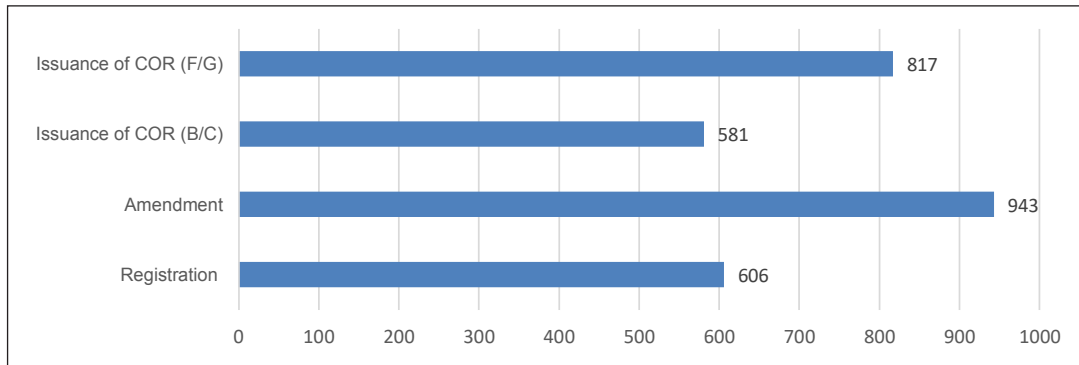
No.	State	Clinic Categories	
		Private Medical Clinic	Private Dental Clinic
1.	Johor	967	254
2.	Kedah	372	76
3.	Kelantan	221	64
4.	Malacca	296	56
5.	Negeri Sembilan	299	70
6.	Pahang	243	58
7.	Penang	548	171
8.	Perak	640	134
9.	Perlis	36	7
10.	Selangor	2050	745
11.	Terengganu	176	50
12.	Sabah	381	122
13.	Sarawak	336	96
14.	WP KL & Putrajaya	1139	404
15.	WP Labuan	14	4
<b>Total</b>		<b>7718</b>	<b>2311</b>

Source: Private Medical Practice Control Section, MOH

The number of applications processed by Clinic Unit for 2018, is as shown in **Figure 5.9**

**Figure 5.9**

**Number of Applications Processed and Issuance Certificate of Registration By Clinic Unit for 2018**



Source: Private Medical Practice Control Section, MOH

Analysis of application trends shows there is an increase in the number of applications for Amendment and Issuance Certification of Registration (COR) (B/C). However total number of applications for Registration and Issuance COR (B/C) are reduced in year 2018 compared to year 2017, as shown in **Table 5.21** and **Figure 5.10**

**Table 5.21**

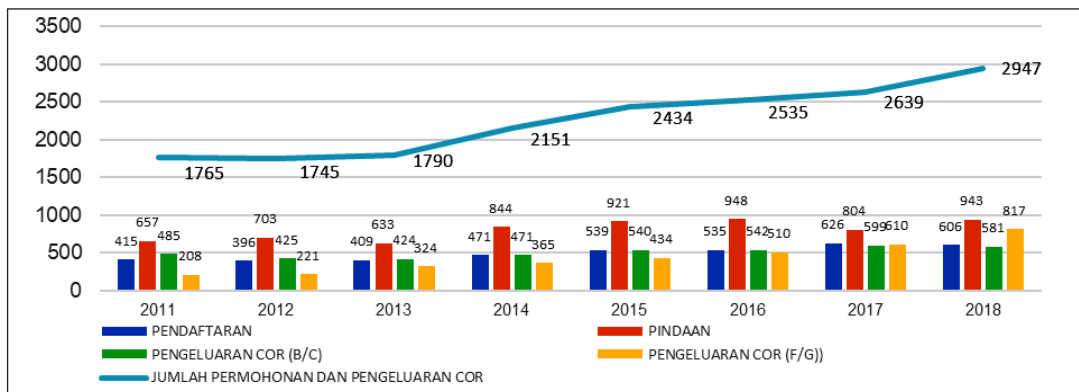
**Total Numbers of Applications Processed and Issuance Certificate of Registration by Clinic Unit from 2011 to 2018**

Type of Application	2011	2012	2013	2014	2015	2016	2017	2018
Registration	415	396	409	471	539	535	626	606
Amendment	657	703	633	844	921	948	804	943
Issuance COR (B/C)	485	425	414	471	540	542	599	581
Issuance COR (F/G)	208	221	324	365	434	510	610	817

Source: Private Medical Practice Control Section, MOH

**Figure 5.10**

**Total Number of Applications Processed and COR Issued by Clinic Unit (2011 to 2018)**



Source: Private Medical Practice Control Section, MOH

## 2. Unit Hemodialysis

Licensing of private haemodialysis centre, consists of two (2) stages namely Approval to establish or maintain and License to operate or provide. The scopes and functions of Haemodialysis Unit are related to processing these applications:

- i. Pre Establishment (for the location);
- ii. Approval to Establish;
- iii. Licence;
- iv. Renewal of a Licence;
- v. Extension or Alteration;
- vi. Transfer of Approval or Licence;
- vii. Amendment of particulars of Approval or Licence;
- viii. Duplication of an Approval or Licence;
- ix. Disposal of Approval or Licence; and
- x. Withdrawal of applications.

In addition, the unit is also responsible to perform verification visit and inspection visit as well as issuing show cause notice and revoking an Approval or Licence. At the end of 2018, **478** private haemodialysis centre were licensed as in **Table 5.22**

**Table 5.22**  
**Number of Licensed Private Haemodialysis Centre in Malaysia (Until 31 December 2018)**

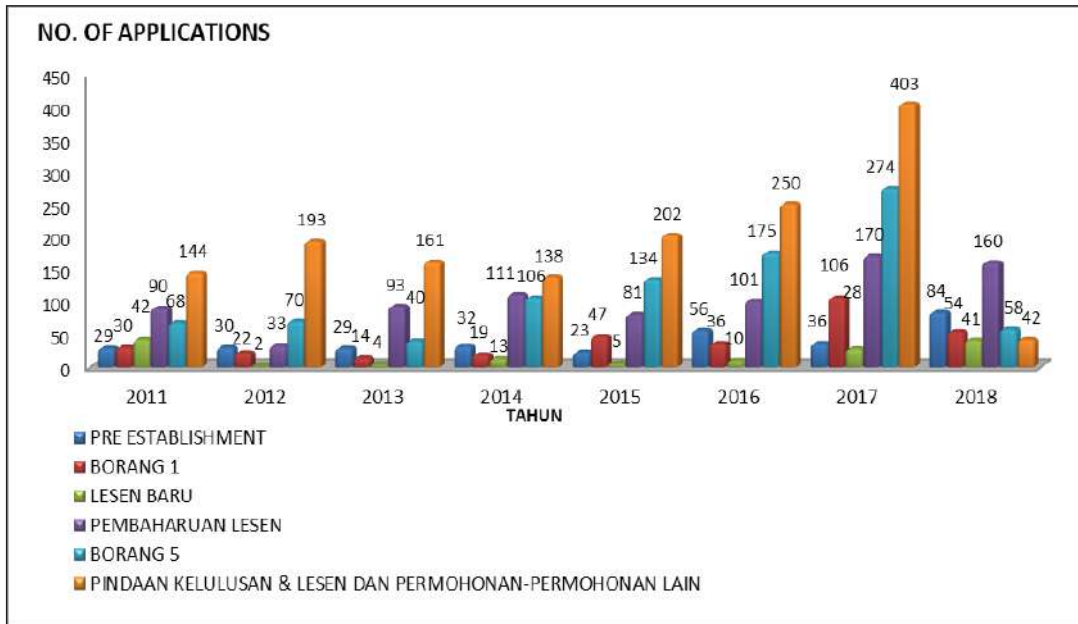
No.	State	Number of Private Haemodialysis Centre
1.	Johor	79
2.	Kedah	43
3.	Kelantan	16
4.	Malacca	21
5.	Negeri Sembilan	27
6.	Pahang	21
7.	Penang	42
8.	Perak	46
9.	Perlis	2
10.	Selangor	105
11.	Terengganu	14
12.	Sabah	13
13.	Sarawak	11
14.	WP Kuala Lumpur & Putrajaya	38
15.	WP Labuan	0
<b>Total</b>		<b>478</b>

Source: Private Medical Practice Control Section, MOH

**Figure 5.11** showed the total number and type of applications for private haemodialysis centre processed by haemodialysis unit from 2011 to 2018.



**Figure 5.11**  
**Total Number and Type of Applications for Private Haemodialysis Centre Processed by**  
**Haemodialysis Unit (2011 to 2018)**



Source: Private Medical Practice Control Section, MOH

### 3. Hospital Unit

Licensing of private hospital consists of two (2) stages namely Approval to establish or maintain and License to operate or provide.

The scopes and functions of Hospital Unit are related to processing of these applications:

- i. Pre approval (for the location);
- ii. Approval to Establish;
- iii. Licence;
- iv. Renewal of a Licence;
- v. Extension or Alteration;
- vi. Transfer of Approval or Licence;
- vii. Amendment of particulars of Approval or Licence;
- viii. Duplication of an Approval or Licence;
- ix. Disposal of Approval or Licence; and
- x. Withdrawal of applications.

In addition, the unit is also responsible to perform verification visit and inspection visit as well as issuing show cause notice and revoking an Approval or Licence or refusal renewal of Licence. Until the end of 2017, **210** private hospitals were licensed as in **Table 5.23**

**Table 5.23**  
**Number of Licensed Private Hospital in Malaysia (Until 31 December 2018)**

No	State	Total Private Hospital
1.	Johor	29
2.	Kedah	9
3.	Kelantan	4
4.	Malacca	4
5.	Negeri Sembilan	7
6.	Pahang	5
7.	Penang	20
8.	Perak	17
9.	Perlis	1
10.	Selangor	54
11.	Terengganu	2
12.	Sabah	8
13.	Sarawak	12
14.	WP Kuala Lumpur & Putrajaya	38
15.	WP Labuan	0
<b>Total</b>		<b>210</b>

*Source: Private Medical Practice Control Section, MOH*

#### **4. Psychiatric, Nursing Home and Hospice Unit**

Applications processed by this Psychiatric, Nursing Home and Hospice Unit, are related to the private healthcare facilities as listed below:

- i. Private Psychiatric Hospital;
- ii. Private Nursing Home;
- iii. Private Psychiatric Nursing Home;
- iv. Private Hospice; and
- v. Private Community Mental Health Centre.

Licensing of the private healthcare facilities as above consist of two (2) stages namely Approval to establish or maintain and License to operate or provide. The scopes and functions of Psychiatric, Nursing Home and Hospice Unit are related to processing of these applications for private healthcare facilities (i-v) as above:

- i. Approval to Establish
- ii. Licence;
- iii. Renewal of a Licence;
- iv. Extension or Alteration;
- v. Transfer of Approval or Licence;
- vi. Amendment of particulars of Approval or Licence;
- vii. Duplication of an Approval or Licence;
- viii. Disposal of Approval or Licence; and
- ix. Withdrawal of applications.

In addition, the unit is also responsible to perform verification visit and inspection visit as well as issuing show cause notice and revoking an Approval or Licence (**Table 5.24**)

**Table 5.24**  
**Numbers of Licensed Private Community Mental Health Centre, Private Nursing Home and Private Hospice (Until 31 December 2018)**

No.	State	Licensed Private Healthcare Facility Or Service Category		
		Private Community Mental Health Centre	Private Nursing Home	Private Hospice
1.	Johor	0	5	0
2.	Kedah	0	1	0
3.	Kelantan	0	0	0
4.	Malacca	0	1	0
5.	Negeri Sembilan	0	0	0
6.	Pahang	0	1	1
7.	Penang	0	0	0
8.	Perak	0	1	0
9.	Perlis	0	0	0
10.	Selangor	0	2	0
11.	Terengganu	0	0	0
12.	Sabah	0	0	1
13.	Sarawak	0	5	0
14.	WP Kuala Lumpur & Putrajaya	1	5	0
15.	WP Labuan	0	0	0
<b>Total</b>		<b>1</b>	<b>21</b>	<b>3</b>

Source: Private Medical Practice Control Section, MOH

##### **5. Ambulatory Care Centre, Blood Bank, Maternity Home and Combined Unit**

Applications processed by this Ambulatory Care Centre, Blood Bank, Maternity Home & Combined Unit, are related to the private healthcare facilities as listed below:

- i. Private Ambulatory Care Centre (ACC);
- ii. Private Maternity Home swasta;
- iii. Private Blood Bank; and
- iv. Combined Facilities (two (2) or more PHFS under Section 3, Act 586).

Licensing of the private healthcare facilities as above consist of two (2) stages namely Approval to establish or maintain and License to operate or provide.

The scopes and functions of Ambulatory Care Centre, Blood Bank, Maternity Home & Combined Unit are related to processing of these applications for private healthcare facilities (i-iv) as above:

- i. Approval to Establish
- ii. Licence;

- iii. Renewal of a Licence;
- iv. Extension or Alteration;
- v. Transfer of Approval or Licence;
- vi. Amendment of particulars of Approval or Licence;
- vii. Duplication of an Approval or Licence;
- viii. Disposal of Approval or Licence; and
- ix. Withdrawal of applications.

In addition, the unit is also responsible to perform verification visit and inspection visit as well as issuing show cause notice and revoking an Approval or Licence (Table 5.25).

**Table 5.25**  
**Number of Licensed Private Ambulatory Care Centre, Private Blood Bank, Private Maternity Home and Combined Facilities (Until 31 December 2018)**

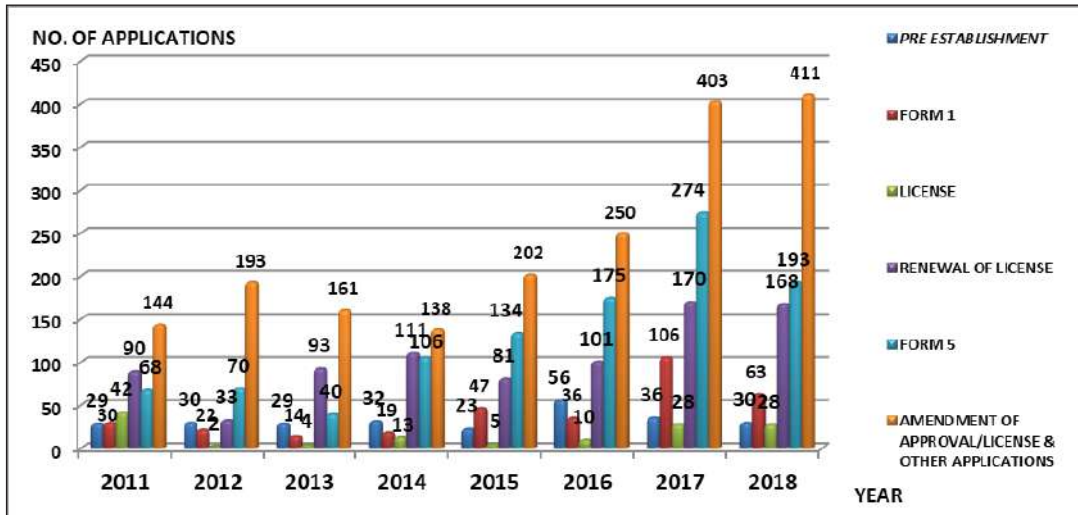
No.	State	Licensed Private Healthcare Facility Or Service Category			
		Private Ambulatory care Centre	Private Blood Bank	Private Maternity Home	Combined Facilities
1.	Johor	19	0	1	0
2.	Kedah	1	0	0	0
3.	Kelantan	0	0	2	0
4.	Malacca	3	0	0	0
5.	Negeri Sembilan	1	0	1	0
6.	Pahang	0	0	1	0
7.	Penang	9	0	0	0
8.	Perak	9	0	0	0
9.	Perlis	0	0	0	0
10.	Selangor	36	3	6	0
11.	Terengganu	0	0	2	0
12.	Sabah	7	0	1	0
13.	Sarawak	5	0	0	0
14.	WP Kuala Lumpur & Putrajaya	31	2	2	2
15.	WP Labuan	0	0	0	0
<b>Total</b>		<b>121</b>	<b>5</b>	<b>16</b>	<b>2</b>

Source: Private Medical Practice Control Section, MOH

There is an increase in the number of applications for Amendment of Approval & License and other types applications of private healthcare facilities and services other than private clinic and private haemodialysis centre in Malaysia from 2011 to 2018 as shown in Figure 5.12.

Figure 5.12

**Total Number and Type of Applications for Private Healthcare Facilities and Services (Other Than Private Clinic and Private Haemodialysis Centre) 2011 to 2018**



Source: Private Medical Practice Control Section, MOH

**6. Complaint Unit**

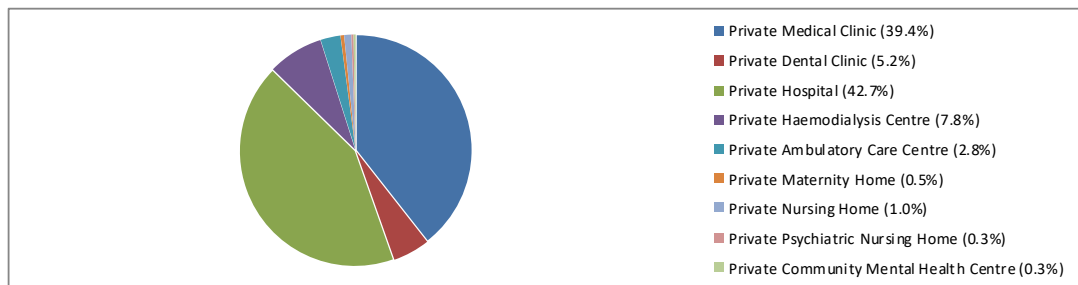
The scopes and functions of Complaint Unit are :

- i. To regulate and monitor grievance mechanism plans by PHFS;
- ii. To investigate complaints received by CKAPS or UKAPS, when necessary; and
- iii. To analyse and to take necessary action on reports received regarding complaints handled by UKAPS.

Throughout 2017, Private Medical Practice Control Section received a total of **386** complaints, involving PHFS regulated under Act 586, as shown in **Figure 5.13**

Figure 5.13

**Complaints Received According to Facilities Regulated Under Act 586 for 2018**

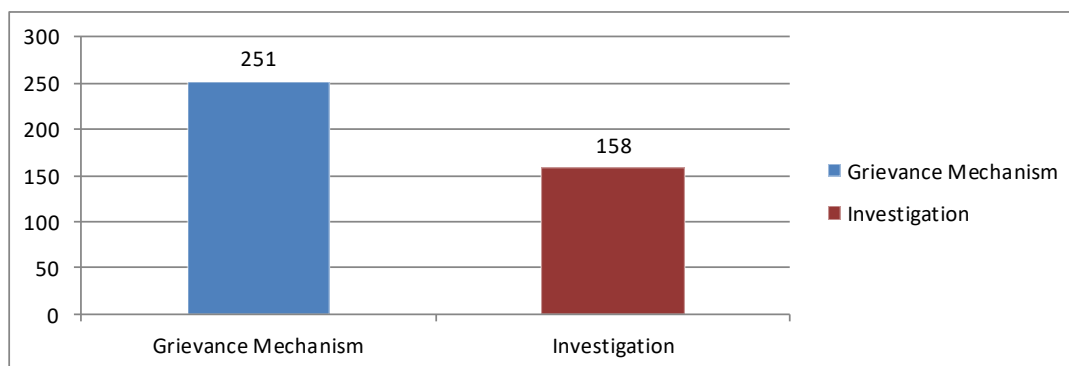


Source: Private Medical Practice Control Section, MOH

Note: There were no complaints received involving private psychiatric nursing home, private psychiatric hospital, and private community Mental health centre

Complaints received from the patients or patients' representative were dealt according to the patient grievance mechanism plan, as stipulated under Act 586. There were complaints warranted investigations to be carried out such as complaints that were received from other parties and complaints that involved death of the patient or other detrimental issues, following which necessary actions will be taken in accordance to Act 586 such as show cause notice, suspension or revocation of Licence or Registration (**Figure 5.14**).

**Figure 5.14**  
**Number of Complaint Handling Mechanism for Complaints Received in 2018**



Source: Private Medical Practice Control Section, MOH

## 7. Quality Unit

The scopes and functions of Quality Assessment Unit are:

- i. To handle case related to notification of incident reporting - IR-1;
- ii. To handle case related to notification of assessable death - AD;
- iii. To handle statistic summary unforeseeable or unanticipated incidents (incident reporting (IR-2A dan IR-2B)
- iv. To investigate other mortality cases (maternal mortality, under 5 years old mortality and denggue mortality) involving PHFS;
- v. To coordinate establishment Jawatankuasa Penilaian Kematian Kebangsaan(JPKK) for assessable death;
- vi. To conduct surveillance visits for quality assurance purposes in PHFS periodically;
- vii. To update and analyze Incident Reporting and Assessable Death notifications data;
- viii. To provide draft of instructions, orders, guidelines or Standard Operating Procedure (SOP) relevant to PHFS standards

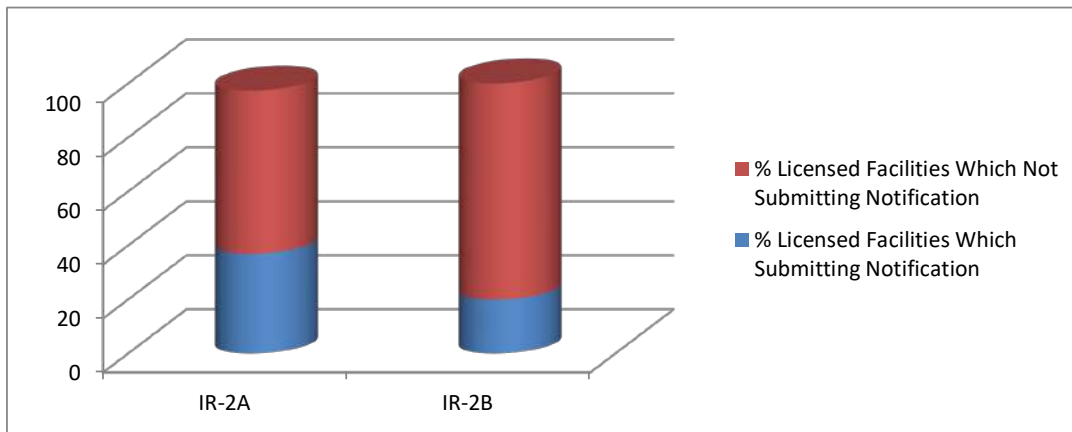
Effective since 1 January 2011, all licensed facilities under Act 586 were required to report their unexpected incidents (Incident Reporting - IR) and occurrence of Assessable Death (AD), as directed under Director General of Health's Directives Bil. 1/2010. The aim of monitoring these IR and AD are mainly for the purpose of quality improvement. All reporting and notifications will not be subjected to punitive action. The scope of IR and AD is mainly to gather data and information regarding incidents and deaths that occurred in PHFS. The reporting and notifications are on voluntary basis, using these forms:

- i. Form IR-1 : every time any incident (*as listed in form*) happen;

- ii. Form IR-2 : 6-months statistical summary of incidents that occur (*incidents that are not listed to be reported under IR-1*);
- iii. Form AD-1 : every time an assessable death occurs (*within 72 hours of death*).

Throughout 2018, a total of **65** AD notifications and **68** reports were recorded. While for IR-2, a total of **338** IR-2A and **170** IR-2B (as of 15 February 2019) reports were recorded, as in **Figure 5.15**.

**Figure 5.15**  
**Per centage of Licensed Private Healthcare Facilities and Services (other than the Private Clinics) in Malaysia Submitted IR-2A and IR-2B Forms for Year 2018**



Source: Private Medical Practice Control Section, MOH

### 8. Enforcement Unit

Throughout 2018, a total of **46** enforcement activities were done under the Private Healthcare Facilities and Services Act 1998 [Act 586]. Subsequently, **46** investigation papers were opened for various offences, either for prosecution or compound. The top three (3) reasons for the enforcement actions taken were premises operating without licence/registration; engaging unqualified/unregistered healthcare practitioners; and offering services that are outside of the licensed/registered scope of services. Courts' fines amounted to RM730,000 and compounds paid were RM270,000 for 12 cases and 5 cases respectively, totalling to **RM1,000,000** collected in this year alone.

On the other hand, another **68** files were opened in 2018, due to incompliances found during the routine/scheduled surveillance visits done towards registered or licensed private healthcare facilities. These premises were given warnings and/or orders to rectify the shortfalls identified.

### 9. Prosecution Unit

The scopes and functions of Prosecution Unit are:

- i. To check investigation paper and assist Deputy Public Prosecutor in preparation for court case;

- ii. To check investigation paper to be presented to Deputy Public Prosecutor for compound approval; and
- iii. To suggest compound amount/value for approval from Director General of Health

Members of this unit comprise of the officers from other sectors or units.

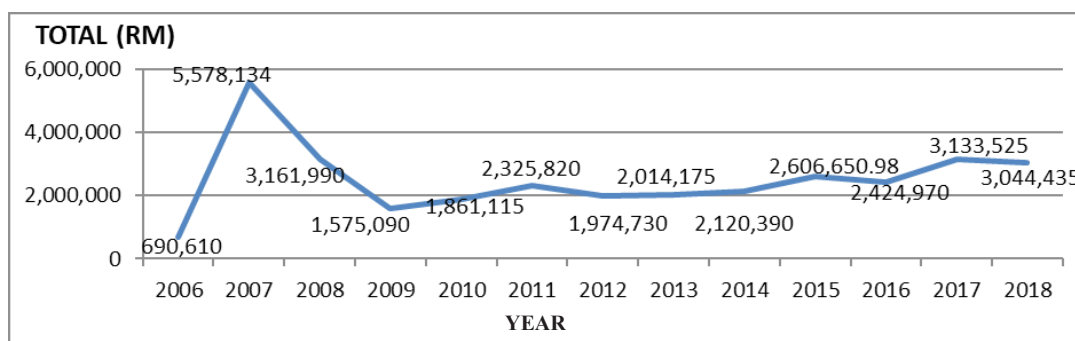
### 10. Policy, Resources and Standard Sector

The scopes and functions of Policy, Resources and Standard Sector are:

- i. To provide information and input for higher authority, other division or section, intra or inter-agencies to ensure right and precise informations delivered;
- ii. To manage the income collection from the processing fee, issuance fee and compound under Act 586;
- iii. To manage administrative matters including personel, job employment, training, asset management and transportation;
- iv. To manage online application system (clinic registration) and to coordinate feedback for establishment of new MedPCs (registration and licensing);
- v. To assist Deputy Director CKAPS to formulate directive for Minister of Health and Director General;
- vi. To publish e-buletin CKAPS;
- vii. To maintain appointment for members Board of Visitor;
- viii. To coordinate engagement session between stakeholders and public such as dialogue and MPC workshops; and
- ix. To provide the information and input for formulation and amendment of laws.

Generally, there is no significant difference in revenue collection since 2009. The difference in total revenue collection 2018 as compared to 2017 is RM89,090.00 (Figure 5.16).

**Figure 5.16**  
Revenue Collection of Year 2006 to 2018 (Registration & Licensing Process)



Source: Private Medical Practice Control Section, MOH

### OTHER TASKS AND ACTIVITIES

#### i. Organizing Workshops for CKAPS and UKAPS members

To enhance the understanding and skills among CKAPS and UKAPS members , four (4) workshops and two (2) meeting have been conducted in 2018, as follows:



No.	Title	Date/Venue
<b>Workshop</b>		
1.	<i>Bengkel Penyediaan Job Description Bahagian Amalan Perubatan</i>	7 April 2018 Bilik Mesyuarat 1 CKAPS
2.	<i>Bengkel Pengendalian Aduan 2018, Anjuran Bersama CKAPS dan UKAPS Perak</i>	16 to 18 April 2018 Kinta Riverfront Hotel & Suites, Ipoh, Perak
3.	<i>Bengkel Pembacaan dan Pengurusan Dokumen Berkaitan Pelan Lantai Bawah Akta 586</i>	6 to 8 July 2018 Amverton Hotel, Ayer Keroh, Melaka
4.	<i>Bengkel Pengendalian Isu-Isu Pendaftaran dan Pelesenan Kemudahan dan Perkhidmatan Jagaan Kesihatan Swasta (KPJKS) Untuk Staf CKAPS dan UKAPS</i>	3 to 5 October 2018 Crystal Crown Hotel, Petaling Jaya, Selangor
<b>Meeting</b>		
5.	<i>Mesyuarat Teknikal &amp; Pelan Tindakan CKAPS dan UKAPS Bil. 1/2018</i>	30 January 2018 Bilik Mesyuarat Ibnu Ar-Razi, Level 1, Block E1, Parcel E, Ministry Of Health, Putrajaya
6.	<i>Mesyuarat Teknikal CKAPS, Bahagian Amalan Perubatan dan UKAPS, Jabatan Kesihatan Negeri/ WP Bersama Timbalan Ketua Pengarah Kesihatan (Perubatan) dan Pengarah Kesihatan Negeri 2018</i>	14 May 2018 Dorsett Putrajaya Hotel

## ii. Education and Sharing Sessions with Private Sectors

In 2018, CKAPS has conducted a few dialogue and meetings for private sectors mainly to deliver an understanding on the licensing process, registrations and other matters relating to the private healthcare facilities and services (PHFS) as well as to remove key constrains involved in the process. Among other dialogue and meetings are:

No.	Title	Date
1.	Dealing With Construction Permits For Private Hospitals Workshop, organized with Malaysia Productivity Corporation - Middle Region	24 to 25 February 2018
2.	<i>Taklimat Akta 586 &amp; Perundangan Subsidiari serta Sesi Dialog Timbalan Pengarah CKAPS Dengan Pihak KPJKS, Jabatan Kesihatan Negeri Selangor</i>	28 February 2018
3.	<i>Taklimat Akta 586 &amp; Perundangan Subsidiari serta Sesi Dialog Timbalan Pengarah CKAPS Dengan Pihak KPJKS, Jabatan Kesihatan Negeri Sarawak</i>	5 March 2018
4.	<i>Taklimat Akta 586 &amp; Perundangan Subsidiari serta Sesi Dialog Timbalan Pengarah CKAPS Dengan Pihak KPJKS, Jabatan Kesihatan Negeri Sabah</i>	7 March 2018
5.	<i>Taklimat Akta 586 &amp; Perundangan Subsidiari serta Sesi Dialog Dengan Pihak KPJ Healthcare Berhad</i>	29 March 2018

No.	Title	Date
6.	<i>Akta 586 dan Peraturan-peraturannya</i> - Malaysian Association of Plastic, Aesthetic, and Craniomaxillofacial Surgeons (MAPACS) Annual Scientific Congress 2018	14 April 2018
7.	<i>Akta 586 dan Peraturan-peraturannya</i> - Bengkel Medical Aesthetic Certification (MAC) Program 2018	15 April 2018
8.	Dealing With Construction Permits For Private Hospitals Workshop, organized with Malaysia Productivity Corporation - South Region	21 to 22 February 2018
9.	Dealing With Construction Permits For Private Hospitals Workshop, organized with Malaysia Productivity Corporation - North Region	28 to 29 July 2018
10.	Dealing With Construction Permits For Private Hospitals Workshop, organized with Malaysia Productivity Corporation - Sabah/Sarawak Region	22 to 23 September 2018
11.	Dealing With Construction Permits For Private Hospitals Workshop, organized with Malaysia Productivity Corporation - Advanced Level	24 to 25 November 2018

**Image 5.3**  
**Activities in CKAPS for 2018**



Dialogue Session Health Minister & Deputy Health Minister with CKAPS Medical Practice Division & UKAPS, State Health Department on 3 October 2018



Dealing with Construction Permits for Private Hospitals – Northern Region on 28 July 2018



Technical Meeting CKAPS, Medical Practice Division & UKAPS, State Health Department/Federal Territory with Deputy Director General of Health & Directors of State Health Departments 2018 on 14 May 2018

Source: Private Medical Practice Control Section, MOH

### iii. Publication

In 2018, CKAPS has published *Arahan Ketua Pengarah Kesihatan Bilangan 1/2018: Garis Panduan Untuk Menubuhkan dan/atau Menyediakan Kemudahan dan Perkhidmatan Fototerapi di Rumah oleh Kemudahan dan Perkhidmatan Jagaan Kesihatan Swasta* to provide guidance to any parties who intend to provide facilities and home phototherapy services. These guidelines can be downloaded at the following link:

<http://medicalprac.moh.gov.my/v2/uploads/Arahan%20KPK%20Bi%201-2018.pdf>

CKAPS has also published E-Bulletin No. 1/2018 to share the activities carried out by CKAPS and to inform the general public of the requirements under Act 586. Other publications are still in the process of preparing and planning by CKAPS, in particular the guidelines for setting up PHFS and other facilities.

## CHALLENGES

### **Drafting Regulations of Private Aged Healthcare Facilities & Facilities Act 2018**

The Rang Undang-undang (RUU) was approved by the Parliament on 19 December 2017. The next challenge will be to draft the regulations which is suitable, practical and realistic which will be coordinated by CKAPS and CPA (Cawangan Penggubalan Akta). Currently there are about 1000 unlicensed facilities will be subjected to this Act in future.

### **Awareness To Private Sector Regarding Act 586**

The main challenge for CKAPS is to increase awareness among the private healthcare providers regarding the importance to comply with Act 586. CKAPS proactively updates and uploads guidelines and checklists at Bahagian Amalan Perubatan website (medicalprac.moh.gov.my) to convey information to private healthcare provider as well as to the public.

Serial meeting with professional associations such as APHM, MPCAM, MMA was done as a platform for private sector to discuss and give suggestion to Ministry of Health. Dialogues and meetings with stakeholders such as MPC, foreign investor, MIDA, MITI are also frequently conducted to convey clear and accurate information regarding regulation of private healthcare in Malaysia.

### **Collaboration With Other Agencies**

CKAPS also collaborates with Jabatan Bomba Malaysia to ensure all the licensed private healthcare facilities comply with Act 586 whereby the facilities must be certified with *Sijil Perakuan Bomba* to ensure the facilities are safe to operate once they applied for license.

The challenge for CKAPS is to process the application of the high rise building facilities and commitment from the PHFS to prepare the disaster management plan. CKAPS also collaborate with Pharmacy Division, MOH and Polis Diraja Malaysia (PDRM) in enforcement activities.

In conclusion, CKAPS is committed towards ensuring patients safety and enhancing quality of care provided by PHFS in Malaysia. Therefore, cooperation and support from all parties especially higher authorities, stakeholders dan consumers are essential so that the standard of private healthcare facilities and services in Malaysia, is at least at par with other countries and is able to meet the expectation of the people that they serve.

## MALAYSIAN OPTIC COUNCIL

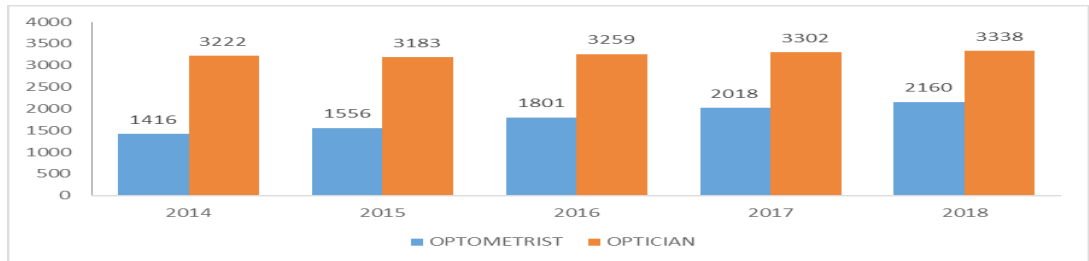
Malaysian Optical Council (MOC) was established on 1 February 1992. MOC is responsible for the registration of optometrists and opticians, monitoring optometry services and practices and also evaluate and recognize Optometry and Opticianry Programme provided by Higher Education Provider in Malaysia.

## ACTIVITIES AND ACHIEVEMENTS

### FULL REGISTRATION OF OPTICIAN AND OPTOMETRIST

All application for registration of optician and optometrist will be evaluated by MOC Evaluation Committee. **Figure 5.17** shows the increasing numbers of optometrist and opticians registered with MOC annually.

**Figure 5.17**  
**Number of Registered Optometrist and Optician, 2014 to 2018**



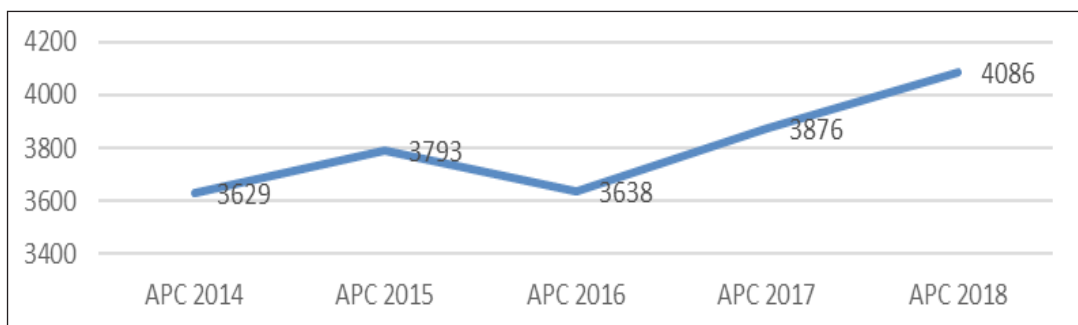
Source: MOC Activities Report 2018, 74<sup>th</sup> MOC Meeting

Malaysian Optical Council Evaluation Committee which is responsible for matters relating to registration and certification has held five (5) meetings throughout the year 2018.

### ANNUAL PRACTISING CERTIFICATE (APC) FOR OPTICIAN AND OPTOMETRIST

According to section 32 Optical Act 1991, APC will be issued to registered optician and optometrist who intend to practise in Malaysia. **Figure 5.18** shows numbers of practitioners who had renewed their APC (2014 to 2018).

**Figure 5.18**  
**Total APC Issued by Year (2014 to 2018)**



Source: MOC Activities Report 2018, 74<sup>th</sup> MOC Meeting

## PERMIT TO PRESCRIBE AND DISPENSE CONTACT LENSES

Permit to Prescribe and Dispense Contact Lenses (Contact Lens Permit) is a certificate issued to the registered optician who has passed contact lens examination organized by Malaysian Optical Council. In year 2018, four (4) registered opticians had passed both the theory and practical exams. Up to year 2018, a total of 575 registered opticians are allowed to practice contact lens.

## ACREDITATION AND RECOGNITION OF OPTOMETRY/OPTICIANRY PROGRAMME

Joint Technical Committee (JTC) of Malaysian Optical Council which responsible in evaluating and monitoring optometry/opticianry programme offered by the higher education providers has held four (4) meetings throughout the year 2018.

Three (3) evaluation programs and monitoring sessions were also held throughout the year 2018 to ensure that the optometry/opticianry programmes were carried out in line with the standards set by the Malaysian Qualification Agency (MQA). The list of higher education providers offering optometry/opticianry programmes in Malaysia are shown in **Table 5.26**.

**Table 5.26**  
**List of Higher Education Provider Offered Optometry/Opticianry Programme**

No.	University/College	Programmes	Accreditation Status
1.	Universiti Islam Antarabangsa Malaysia (UIAM)	<i>Sarjana Muda Optometri (Kepujian)</i>	Full Accreditation
2.	Universiti Teknologi MARA (UiTM)	<i>Sarjana Muda Optometri (Kepujian)</i>	Full Accreditation
3.	Management & Science University (MSU)	Bachelor of Optometry	Full Accreditation
4.	SEGi University	Bachelor of Optometry (Hons)	Full Accreditation
5.	National Institute of Ophthalmic Science (NIOS)	Bachelor of Science in Optometry	Full Accreditation
6.	Universiti Kebangsaan Malaysia (UKM)	<i>Sarjana Muda Optometri (Kepujian)</i>	Full Accreditation
7.	UCSI University	Bachelor of Optometry (Hons)	Full Accreditation
8.	Institut Profesional Axismatic	FBDO	Full Accreditation
9.	Vision College	Diploma in Opticianry	Full Accreditation
10.	Business & Management International College	Diploma in Opticianry	Provisional Accreditation

Source: MOC Activities Report 2018, 74<sup>th</sup> MOC Meeting

To ensure that the panel of assessors appointed is trained and highly skilled, Malaysian Optical Council has organized Outcomes Based Education Workshop on 23 April 2018 and COPPA V2.0 & Evaluation Instruments for COPPA V2.0 briefing on 29 November 2018.

### OPTICAL ACT 1991 & OPTICAL REGULATION 1994

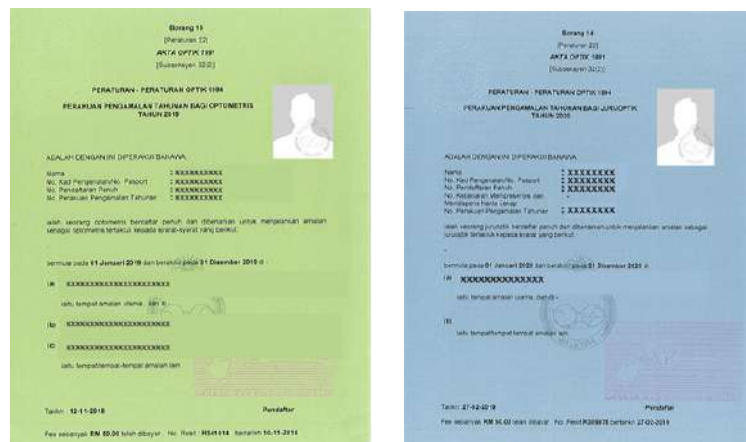
Beginning January 2018, MOC Optical Act Amendment Committee has organized several engagement and workshops sessions in preparation for the drafting of the new Optical Bill. There were two (2) amendments made to the Optical Regulations 1994, amendment to Full Registration Certificate and Annual Practicing Certificate for Optician and Optometrist. The new certificates are as **Image 5.4** and **Image 5.5**.

**Image 5.4**  
**Full Registration Certificate for Optician and Optometrist**



Source: Optical Regulations 1994, MOC

**Image 5.5**  
**Annual Practicing Certificate for Optician and Optometrist**



Source: Optical Regulations 1994, MOC

## **ETHICS AND COMPLAINTS**

MOC through the Ethics Committee has resolved complaints received against registered practitioners. Of the 16 complaints received in 2018, 10 complaints are about unregistered practitioners, five (5) complaints regarding the sale of contact lenses online and one (1) complaint on the sale of eye medicines to treat eye diseases. The Committee has resolved these complaints by sending a warning letter and referring the complaint to the Pharmacy Division and Medical Device Authority. Advice was also given to ensure that practitioners provide safe and high quality optometry services to the community.

On 24 to 27 July 2018, MOC has organized the 3<sup>rd</sup> Workshop for Intelligence Officer using the Malaysian Anti-Corruption Academy (MACA) training module at Bayview Hotel, Melaka. A total of 25 Intelligence Officers comprising MOH optometrists were trained to conduct investigation in the event of complaints. Three (3) speakers and facilitators from MACA were invited to give lectures and conduct training.

## **CONTINUING PROFESSIONAL DEVELOPMENT (CPD)**

The number of active registered opticians and optometrists in 2018 are 3868. Of these, 1277 people have registered with myCPD system.

## **WAY FORWARD**

In line with the rapid development of the optical, medical and information technologies, and an increasingly sophisticated clientele, the Malaysian Optical Council is expected to face greater challenges moving forward.

Thus, there is a need for endless planning, implementation, coordination, monitoring and evaluation efforts not only among government-optometry practitioners, optometry practitioners in the private sector and education sector and also the public so that the following goals can be achieved:

- i. To ensure all Optometry practitioners in Malaysia are registered with MOC.
- ii. High standards of optometry practices are practiced by all Optometry practitioners in Malaysia.
- iii. To ensure that the public is protected from the consequences/dangers that may be caused by prescription and use of glasses and contact lenses issued by unqualified persons through the enforcement of Optics and Regulations.
- iv. To ensure Malaysians receive safe and professional eye health care.

The Malaysian Optical Council will always endeavor to promote, regulate and protect the vision healthcare of the people of Malaysia by ensuring quality care is given by optometry practitioners through law enforcement and regulation.

## **MEDICAL ASSISTANT BOARD**

The registration and practice of Medical Assistant's (Assistant Medical Officer) are regulated by Medical Assistant Board under the Medical Assistant's Act 1977. The board also oversees

the registrations of Estate Hospital Assistant's which is regulated by Estate Hospital Assistant's Act 1965. The Healthcare Assistants (Pembantu Perawatan Kesihatan) has been also placed under the responsibility of the Medical Assistant Board since 2015. The organization chart of Medical Assistant Board is shown as below (Figure 5.19)

**Figure 5.19**  
**Organisational Chart**



Source: Medical Assistant Board, MOH

## REGISTRATION AND ANNUAL REGISTRATION CERTIFICATE (ARC) UNIT

### QUALITY OBJECTIVE OF REGISTRATION

The quality objective of registration is for 85 per cent Issuance of Certificate of Registration as Medical Assistant with the Malaysian Medical Assistant Board completed within two (2) months. **Table 5.27** shows the registration performance for year 2018 is 100 per cent, meanwhile **Table 5.28** shows the increasing in number of Renewal for Annual Registration Certificate (ARC) from 2014 to 2018.

**Table 5.27**  
**Registration Performance 2018**

Month	No. of Registration	Compliance	Non-Compliance	Per centage (%)
January	258	258	-	100
February	450	450	-	100
March	8	8	-	100
April	16	16	-	100
May	6	6	-	100
June	5	5	-	100
July	3	3	-	100



Month	No. of Registration	Compliance	Non-Compliance	Per centage (%)
August	753	753	-	100
September	-	-	-	-
October	19	19	-	100
November	37	37	-	100
December	139	139	-	100

Source: Medical Assistant Board, MOH

**Table 5.28**  
**Renewal of Annual Registration Certificate (ARC) 2013 to 2018**

Year	2014	2015	2016	2017	2018
Total Application of ARC	12,059	12,929	14,129	15,527	18,079

Source: Medical Assistant Board, MOH

## ACADEMIC AND ACCREDITATION UNIT

**Table 5.29** and **Table 5.30** show the number of Trainee Assistant Medical Officers, Lecturers, Clinical Instructors, Local Preceptors in Private Institutions and also MOH for year 2018

**Table 5.29**  
**Number of Trainee Assistant Medical Officers, Lecturers, Clinical Instructors, Local Preceptors in Private Institutions 2018**

No	Private Institution	No. of Trainee (M)	No. of Trainee (F)	Total No. of Trainee	No. Lecturer	No. of Clinical Instructor	No. of Local Preceptor
1.	Kolej I System, Kuching Sarawak	17	52	69	10	8	2
2.	Management & Science University (MSU)	26	71	97	4	8	0
3.	Kolej Antarabangsa MURNI	23	71	94	11	22	0
4.	WIDAD UNIVERSITY COLLEGE	5	12	17	4	2	0
5.	RAMSAY SIME DARBY Healthcare College	19	92	111	4	4	4
6.	LINCOLN International University College	1	6	7	TMD	TMD	TMD
7.	PICOMS International University College	121	353	474	15	14	0

No	Private Institution	No. of Trainee (M)	No. of Trainee (F)	Total No. of Trainee	No. Lecturer	No. of Clinical Instructor	No. of Local Preceptor
8.	Cyberjaya University College of Medical Science (CUCMS)	29	75	104	4	3	0
9.	University Kuala Lumpur (UniKL)	35	90	125	7	5	0
10.	GEOMATIKA International University College	8	18	26	3	1	0
11.	Institut Latihan Kesehatan ATM (INSAN)	11	4	15	1	1	4

Source: Medical Assistant Board, MOH

**Table 5.30**  
**Number of Trainee Assistant Medical Officers, Lecturers, Clinical Instructors, Local Preceptors in MOH 2018**

No	MOH Training Centre	No. of Trainee (M)	No. of Trainee (F)	Total No. of Trainee	No. of Lecturer	No. of Clinical Instructor	No. of Local Preceptor
1	KSKB SAS	620	52	672	36	10	109
2	KSKB Johor Bharu	802	235	1037	17	5	110
3	KSKB Kota Kinabalu	313	171	484	19	2	300
4	KSKB Kuching	355	168	523	20	3	104
5	ILKMM Seremban	484	434	918	20	4	109
6	ILKMM Alor Setar	326	101	427	20	4	250

Source: Medical Assistant Board, MOH

## COMPULSORY PLACEMENT PROGRAMME

The 6-month Compulsory Placement Program (PPW) in Emergency Department is a special program designed and implemented to all fresh Assistant Medical Officers in the Ministry of Health, aimed at strengthening their clinical skills, enhancing ability to make decisions, and improving their communication effectiveness. **Table 5.31** showed the number of Compulsory Placement Programme candidates by State

**Table 5.31**  
**Number of Candidates by State**

No	State	Group.1C/2017	Group.1D/2017	Group.1/2018	Total
1.	Perlis	0	0	3	3
2.	Kedah	0	0	30	30
3.	Penang	8	12	37	63
4.	Perak	3	9	66	78
5.	Selangor	31	13	140	184
6.	Hospital Kuala Lumpur	7	8	23	38
7.	W.P.Putrajaya	19	11	20	50
8.	Negeri Sembilan	15	10	38	63
9.	Malacca	10	12	30	52
10.	Johor	30	35	100	165
11.	Kelantan	0	0	5	5
12.	Terengganu	0	0	20	20
13.	Pahang	0	0	40	40
14.	Sabah	0	0	70	70
15.	Sarawak	0	0	45	45
	<b>Total</b>	<b>123</b>	<b>110</b>	<b>667</b>	<b>906</b>

Source: Medical Assistant Board, MOH

## POLICY AND STRATEGIC PLANNING

### HUMAN RESOURCE AND ACADEMIC QUALIFICATION OF ASSISTANT MEDICAL OFFICERS (AMO)

**Table 5.32** shows human resource and academic qualification of Assistant Medical Officers

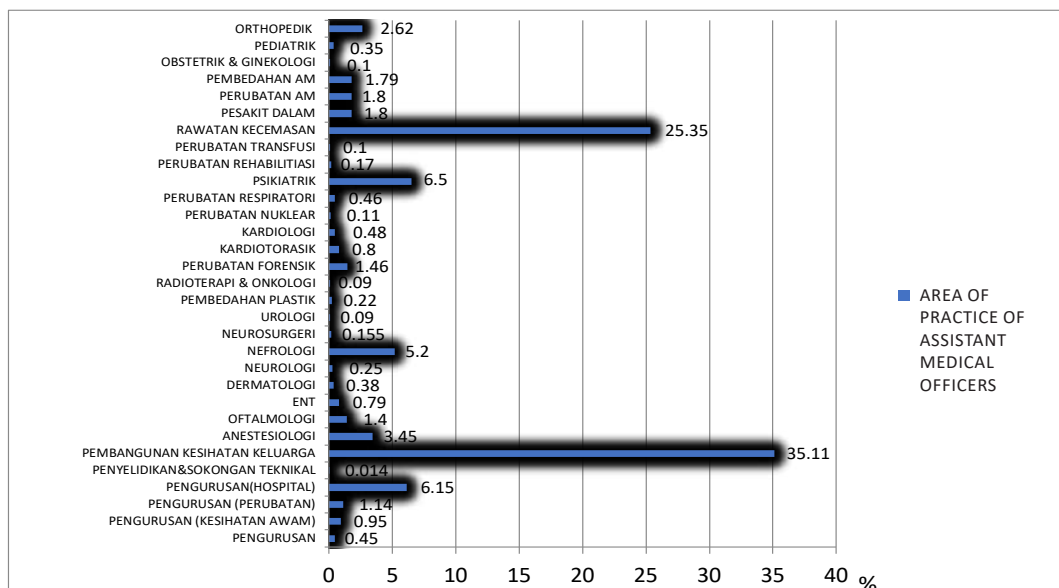
**Table 5.32**  
**Human Resource and Academic Qualification of Assistant Medical Officers (AMO)**

No	Details	Total
1.	Total numbers of Registered AMO's	23426
2.	Total numbers of AMO's (Gov)	14607
3.	Total numbers of AMO's (Private)	2990
4.	AMO's with Post Basic	5655
5.	AMO's with Bachelor Degree	688
7.	AMO's with Master Degree	25
8.	AMO's with PhD	6
9.	AMO's without Post Basic	8952
10.	Post Basic Graduates per year (Average)	418

Source: Medical Assistant Board, MOH

Figure 5.20 shows the area of practice by AMO in which mainly at the family health development and emergency treatment.

**Figure 5.20**  
**Area of Practice of Assistant Medical Officers.**



Source: Medical Assistant Board, MOH

## HUMAN RESOURCE HEALTHCARE ASSISTANTS (PPK).

There are 25,235 out of 28,119 post of Human Resource Healthcare Assistant (PPK) filled in Malaysia, as shown in Table 5.33

**Table 5.33**  
**Total Number of Healthcare Assistant**

No	Grade	Filled Post	Empty Post	Total Number Of Post
1.	U 16	71	29	100
2.	U 14	882	125	1,007
3.	U 11/14	24,282	2,730	27,012
<b>TOTAL</b>		<b>25,235</b>	<b>2,884</b>	<b>28,119</b>

Source: Medical Assistant Board, MOH

## ESTATE HOSPITAL ASSISTANT'S BOARD (LPHE)

### HUMAN RESOURCE

The Estate Hospital Assistants Board is responsible for the registration and the matters involving Estate Hospital Assistants according to Section 2(1) Act 435 EHA (Registration)

No.12/1965. A total of 955 Estate Hospital Assistant were registered under public category and 693 were registered under armed force category. **Table 5.34** and **5.35** show the number of registered Estate Hospital Assistants for 2018

**Table 5.34**  
**Number of Estate Hospital Assistants for Public Category in 2018**

State	Registered Estate Hosp Assistant	Male	Female	Probation	Various Grades
Perlis	0	0	0	0	0
Kedah	165	165	0	130	35
Penang	5	5	0	5	0
Perak	193	187	6	133	60
Selangor	112	111	1	80	32
WKL	15	15	0	15	0
Negeri Sembilan	33	33	0	32	1
Malacca	11	11	0	10	1
Johor	54	53	1	41	13
Pahang	30	22	8	22	8
Terengganu	11	5	6	7	4
Kelantan	3	3	0	3	0
Sabah	322	42	280	185	137
Sarawak	1	1	0	1	0
<b>TOTAL</b>	<b>955</b>	<b>653</b>	<b>302</b>	<b>664</b>	<b>291</b>

Source: Medical Assistant Board, MOH

**Table 5.35**  
**Number of Estate Hospital Assistants for Armed Force Category in 2018**

State	Registered Estate Hosp Assistant	Male	Female	Probation	Various Grades
Perlis	4	4	0	4	0
Kedah	54	54	0	46	8
Penang	15	15	0	13	2
Perak	95	95	0	84	11
Selangor	23	23	0	20	3
WKL	75	75	0	64	11
Negeri Sembilan	53	52	1	42	11
Malacca	180	180	0	149	31
Johor	79	79	0	58	21
Pahang	42	42	0	30	12
Terengganu	16	15	1	15	1
Kelantan	41	41	0	37	4
Sabah	6	6	0	5	1
Sarawak	10	10	0	10	0
<b>TOTAL</b>	<b>693</b>	<b>691</b>	<b>2</b>	<b>577</b>	<b>116</b>

Source: Medical Assistant Board, MOH

## ALLIED HEALTH SCIENCES DIVISION

Allied Health Sciences Division (AHSD) is responsible for the development of Allied Health Professionals (AHP) human capital and advancement of services in line with the progression of health delivery system in Malaysia. AHSD is determined to ensure AHP services are delivered in accordance to quality standards, effective, efficient with optimization of resources and technology.

### ACTIVITIES AND PERFORMANCE

#### DIRECTOR-GENERAL OF HEALTH KEY PERFORMANCE INDICATOR (KPI), 2018

The Percentage of Patients who Receive Therapeutic and Patient Management Services by AHPs within Defined Period was monitored as KPI for the Director-General of Health, Ministry of Health (MoH) in the year 2018. AHSD has been given the responsibility to coordinate and monitor the achievement of the KPI which the target is  $\geq 90$  per cent. The performances of 6 professions that have been selected for this KPI are as outlined in **Table 5.36**.

**Table 5.36**  
Performance of Key Performance Indicator (KPI) Director General of Health for Allied Health Professionals, 2018

Profession	Numerator	Denominator	Performance % (Target $\geq 90\%$ )
Dietitian	152,545	157,806	96.7
Speech-Language Therapist	24,132	29,640	81.4
Audiologist	4,232	5,090	83.1
Physiotherapist	245,318	247,633	99.1
Occupational Therapist	101,074	101,500	99.5
Clinical Psychologist	827	950	87.0
<b>TOTAL</b>	<b>528,128</b>	<b>542,619</b>	<b>97.3</b>

Source: Allied Health Sciences Division, MoH

#### STUDY VISIT TO VICTORIAN DEPARTMENT OF HEALTH & HUMAN SERVICES, AUSTRALIA

A study visit was conducted to the Victorian Department of Health & Human Services Australia, Monash Medical Centre, Allied Health Professions Australia (AHPA) and Australian Health Practitioner Regulation Agency (AHPRA) from 22 to 24 October 2018 (**Image 5.6**). This bilateral meeting was to explore information and best practice on workforce distribution and health workforce system design, AHP involvement in quality and safety improvements in chronic disease and prevention strategies, allied health and community services, research initiatives, credentialing framework and regulatory framework in Victorian Department of Health and Human Services, Australia. Monash Medical Centre with more than 1,000 AHP play a critical role in diagnosis, recovery and quality of life for people of all ages across all specialties, working in hospitals, facilities and community and mental health services.

AHPA is the recognised national voice for allied health professions in Australia, representing and advocating for the role of allied health professional's health, aged care, disability, education and all systems where allied health services have a role. AHPA on the other end works in partnership with 16 National Health Practitioners Boards and accreditation authorities to set professional standards, accredit programs of study, Register and renew practitioners, maintain national register, manage notifications (complaints) and deal with offences. The primary role of the National Boards is to protect the public and they set standards and policies that all registered health practitioners.

The visit was an insight to learn how together with doctors and nurses, allied health practitioners are regarded as the third pillar of health care providers in Australia. The Allied Health workforce contribution could be strengthened by:

- i. Workforce models: single discipline care to multi- and inter-disciplinary care, integrated care, collaboration, and coordination.
- ii. Scopes of practice: full, expanded and advanced, and new non-traditional roles.
- iii. Settings: services delivered 'close to home', community chronic condition management and primary health care for prevention and restoration of function.
- iv. Skills management: using the skills-mix to substitute for traditional providers of that care.

**Image 5.6**  
**Study Visit to Victorian Department of Health & Human Services, Australia**



Source: Allied Health Sciences Division, MoH

## **WORLD HEALTH ORGANIZATION (WHO) BUDGET PROGRAMME 2018 to 2019: THE ESTABLISHMENT OF WORKFORCE PROFILE FOR AHP IN MALAYSIA**

In 2018, Allied Health Sciences Division was awarded with WHO Budget Programme to conduct a project on Establishment of Workforce Profile for AHP in Malaysia. This project is planned for the year 2018 and 2019 in collaboration with World Health Organisation (WHO). The project was initiated by engaging stakeholders from Planning Division, Medical Development Division, Family Health Development Division, Institute for Health Research, Institute for Health System Research, Clinical Research Centre, Academic, Professional Associations and head of AHPs in the country. Technical Working Group and Research Team were also established to work on the project. WHO consultant, Prof Emeritus Arie Rotem was appointed to facilitate the working group.

The aims of this project are:

- i. To review the current production and deployment of Allied Health Professions (AHPs in Malaysia).
- ii. To develop comprehensive dynamic workforce profile/database.
- iii. To develop a model for estimating the AHPs staffing requirements.
- iv. Technical Write-up on Workforce Profile for AHPs (Government), Malaysia.

### **ESTABLISHMENT OF MALAYSIAN ALLIED HEALTH PROFESSIONS COUNCIL (MAHPC)**

Over the year, the Secretariat of Malaysian Allied Health Professions Council (MAHPC), has developed draft of Guidelines Criteria required for 23 Professions under Schedule Two in Allied Health Profession Act 2016 (Act 774), draft of Practitioner Registration Guidelines, draft of Practising Certificate Guidelines and draft of Temporary Practising Certificate Guidelines.

Numbers of public engagement/consultation sessions were also carried out with the stakeholders to create awareness and to fulfil requirement of Malaysia Productivity Corporation (MPC) and to produce Regulatory Impact Statement (RIS) report towards the implementation of Act 774. 26 of consultation sessions have been done which engaged AHPs from public sector, private sector and higher education institutions.

### **REGULATORY**

Regulatory Section, Allied Health Sciences Division (AHSD) was established since Jun 2017 after restructuring of AHSD in order to execute the enforcement of Act 774. For now, numbers of Standard Operating Procedures (POS) were developed in 2018 are as follows:

- i. Complaints Management
- ii. Scheduled Visit to Facilities
- iii. Raid
- iv. Investigation
- v. Intelligence
- vi. Management of Exhibits and Its Store
- vii. Verbal Statement Recording



In 2018, the Regulatory Section took the initiative to conduct two (2) trainings for the participants whom will be appointed as the enforcers. *Kursus Asas Regulatori* was held on 9 to 10 July 2018 and *Kursus Asas Perisikan, Perundangan & Siasatan untuk Pegawai BSKB* was held on 11 to 14 September 2018. The objective of the courses was to expose the participants to the Act 774, to share enforcement experience from various MOH divisions and also to give better understanding among the participants with regard of procedures of the enforcement.

Study visits to other divisions/agencies were also carried out to Malaysia Anti-Corruption Agency (MACA), Inspectorate and Legislative Sector, Public Health Division, MOH, Malaysia Medical Council (MMC) and Pharmacy Enforcement Division, MOH.

## SUBJECT MATTER EXPERT (SME) CAREER ADVANCEMENT

A total of 21 sub-fields of the Special Matter Expert (SME) Career Advancement for the Group 1 of the Allied Health Professions (AHPs) have been approved by the Public Service Department (JPA). The list of the sub-fields is as in **Table 5.37**.

**Table 5.37**

**List of Fields and Sub-Fields of the Subject Matter Expert (SME) Career Advancement Approved by JPA**

No.	Service Scheme	Description Of Designation	Fields	Sub-Fields
1.	Science Officer	Physicist	1. Medical Physics	1. Radiotherapy Physics 2. Radiology Physics 3. Physic Nuclear Medicine
		Geneticist	2. Genetics	4. Sitogenetics (Chromosome studies, Molecular Sitogenetics) 5. Molecular Genetics
		Nutritionist	3. Nutrition	6. Public Health Nutrition 7. Nutrition Epidemiology 8. Maternal, Infant & Young Child
		Microbiologist	4. Microbiology	9. Mycoobacteriology 10. Parasitology (Malaria) 11. Virology (Dengue Virus)
		Biochemist	5. Transfusion	12. Immunohaematology
2.	Dietitian	-	6. Dietetic	13. Oncology Dietetic
3.	Optometrist	-	7. Binocular Vision	14. Orthoptics
4.	Diagnostic Radiographer	Therapy Imaging	8. Radiotherapy	-
		Diagnostic	9. Diagnostic Imaging	15. CT Scan Imaging 16. Cardiovascular Imaging 17. Breast Imaging
		Audiology	10. Audiologic Rehabilitation	18. Tinnitus 19. Balance & Vestibular
5.	Medical Rehabilitation Officer	Speech-Language Therapy	11. Speech Therapy & Language Therapy	20. Rehabilitation 21. Geriatrics

Source: Allied Health Sciences Division, MOH

The Human Resource Department, MOH has received 99 applications for SME from the AHPs comprising of 52 candidates for Level 1 (Grade 44 to Grade 48), 27 candidates for Level 2 (Grade 48 to Grade 52), 17 candidates for Grade 3 (Grade 52 to 54) and 1 candidate for Level 4 (Grade 54 to JUSA C). The SME recognition by JPA will be implemented in 2019.

## GUIDELINES FOR CAREER DEVELOPMENT AND ADVANCEMENT

In 2018, another five (5) Guidelines for the Advancement and Career Development has been developed and distributed for the use of Allied Health Professionals in Ministry of Health. The guidelines are prepared for Nutritionist, Entomologist, Dental Technologist, Health Educator Officer and Medical Social Officer (**Image 5.7**).

**Image 5.7**  
The Allied Health Professional Guidelines for Career Development and Advancement



Source: Allied Health Sciences Division, MOH

## STANDARD OPERATING PROCEDURES (SOPS)

19 types of Standard Operating Procedures (SOPs) were developed in order to standardize the practice of AHPs services in the Ministry of Health. The number of SOPs that have been prepared in 2018 is shown in **Table 5.38**

**Table 5.38**  
Number of AHPs' Standard Operating Procedures (SOPs) Prepared in 2018

No.	Profession	Title
1.	Optometrist (2 <sup>nd</sup> Edition)	1. <i>Pelan Pengurusan Operasi Perkhidmatan Optometri</i>
		2. <i>POS Perkhidmatan Optometri Asas</i>
		3. <i>POS Penjagaan dan Pemulihan Penglihatan Menggunakan Kanta Lekap</i>
		4. <i>POS Perkhidmatan Penjagaan Pesakit Optometri Pediatrik</i>
		5. <i>POS Perkhidmatan Penjagaan Pesakit Anomali Penglihatan Binokular</i>
		6. <i>POS Perkhidmatan Penjagaan dan Rehabilitasi Visual Pesakit Penglihatan Terhad</i>
		7. <i>POS Perkhidmatan Penjagaan Mata Primer</i>

No.	Profession	Title
2.	Medical Social Officer	1. <i>Pelan Pengurusan Operasi Perkhidmatan Kerja Sosial Perubatan</i>
		2. <i>POS Pengurusan Bantuan Praktik</i>
		3. <i>POS Pengurusan Bantuan Terapi Sokongan</i>
3.	Counselling Psychologist	1. <i>Pelan Pengurusan Operasi Perkhidmatan Psikologi Kaunseling</i>
		2. <i>POS Perkhidmatan Kaunseling Individu</i>
		3. <i>POS Perkhidmatan Kaunseling Kelompok</i>
		4. <i>POS Perkhidmatan Kaunseling Keluarga &amp; Perkahwinan</i>
4.	Radiation Therapist	1. <i>Pelan Pengurusan Operasi Perkhidmatan Radioterapi Oleh Pegawai Pengimejan/ Juru X-Ray (Terapi)</i>
		2. <i>POS Rawatan Brakiterapi Oleh Pegawai Pengimejan/ Juru X-Ray (Terapi)</i>
		3. <i>POS Rawatan Teleterapi Oleh Pegawai Pengimejan/ Juru X-Ray (Terapi)</i>
5.	Dental Technologist	1. <i>Pelan Pengurusan Operasi Perkhidmatan Makmal Pergigian</i>
		2. <i>POS Juruteknologi Pergigian di Makmal Pergigian</i>
<b>Total Number of SOPs</b>		<b>19</b>

Source: Allied Health Sciences Division, MOH

The development of SOPs for the use of third group of AHPs has commenced in 2018. The five (5) AHP groups involved are Clinical Psychologists, Embryologists, Medical Physicist, Geneticist and Entomologist (**Image 5.8**)

**Image 5.8**  
**Standard Operating Procedure (SOPs) Books**



Source: Allied Health Sciences Division, MOH

## CREDENTIALING FOR ALLIED HEALTH PROFESSIONALS

In total, 5753 AHPs were credentialed in their respective field up to year 2018. The credentialing system was started in year 2014 which included five (5) professions; Physiotherapist, Occupational Therapist, Diagnostic Radiographer, Radiation Therapist and Dental Technologist. Later, in 2017 another four (4) professions had undergone the credentialing system which

included Optometrist, Audiologist, Speech-Language Therapist and Dietitian. **Table 5.39** shows the number of AHPs awarded Credentialing in 2018.

The application process of the AHPs for Credentialing recognition has been implemented on a scheduled basis in two (2) stipulated terms, i.e. from 1 March to 30 April 2018 and 1 August to 28 September 2018. The online Credentialing application, e-Credentialing trial session, was started this year involving 5 facilities around Klang Valley with registration of 36 applicants.

Two (2) Sub-Specialty Committee (SSC) meetings were held for each profession in May 2018 and also in October/ November 2018. The National Credentialing Committee Meeting (NCC) No. 1/2018 was held on 31 May 2018 was chaired by Dr Mohd Fikri bin Ujang and the NCC Meeting No. 2/2018 was chaired by YBhg. Dato' Dr Azman bin Abu Bakar on 29 November 2018.

**Table 5.39**  
**List of Allied Health Professionals Awarded Credentialing in 2018**

No.	Profession	AHPs awarded Credentialing in 2018
1.	Physiotherapist	109
2.	Occupational Therapist	209
3.	Diagnostic Radiographer	243
4.	Radiation Therapist	23
5.	Dental Technologist	33
6.	Optometrist	39
7.	Dietitian	-
8.	Speech-Language Therapist	26
9.	Audiologist	27
<b>TOTAL NUMBERS CREDENTIALLED</b>		<b>709</b>

*Source: Allied Health Sciences Division, MOH*

## STUDENTS TRAINING AT MINISTRY OF HEALTH FACILITIES

In total, 55 Memorandum of Understanding (MoA) between the local public and private universities and MOH are still active which includes 175 various areas of allied Health Sciences programmes. In 2018, a total of 13 new/additional applications were processed and approved by MOH.

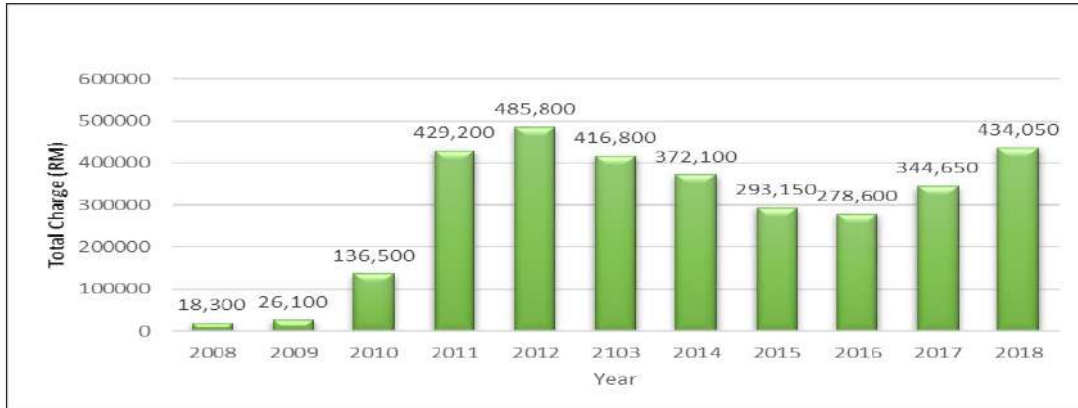
5,720 students have been accepted to be placed in the Ministry of Health facilities (hospitals, clinics etc.) throughout the year. Of these, a total of RM434,050 was collected as fees for student placement programs. **Figure 5.21** shows the amount of collection received from 2008 to 2018.

Meeting with the Dean/Head of Allied Health Sciences Programme from Higher Education Institutions (IPT) was held at the *Dewan Serbaguna*, Level 8, E1, Ministry of Health on 26 April 2018, chaired by the Director General of Health, YBhg. Datuk Dr Noor Hisham bin Abdullah. He has emphasized on MOH policies relating to the placement of IPT students in MOH facilities

in particular on the issue of Clinical Instructor and Local Preceptor. In addition, some issues were also discussed including the status of a Memorandum of Agreement (MoA) of the institutions, the status of the placement of university students as well as the *e-Penempatan Pelajar* (e-PP) System which will be launched in year 2019 (Image 5.9).

**Figure 5.21**

**Total Collection Charges for Student Placement Payment at MOH Facility by Year (2008 to 2018).**



Source: Allied Health Sciences Division, MOH

**Image 5.9**

**Meeting with Dean/Head of Allied Health Sciences Programme Higher Education Institution**



Source: Allied Health Sciences Division, MOH

*e Penempatan Pelajar* (e-PP) System is another initiative by AHSD to facilitate the student placement application by Higher Education Institution at MOH facilities according to the Memorandum of Agreement (MoA). Final acceptance test (FAT) and a briefing on the use of the system was given to all State Health Departments, 78 universities and certain selected MOH facilities on 4 to 5 April 2018 and 13 to 15 August 2018 (Image 5.10).

e-PP phase 1, which covers the universities application module and MoA application has been launched on 15 October 2015. This online application will be opened four (4) times a year - January, April, July and October. As for the e-PP Phase 2 that consists of modules student quota and verification of student placement are expected to be available in 2019.

**Image 5.10**  
**Briefing on e-Penempatan Pelajar**



Source: Allied Health Sciences Division, MOH

### COMPETENCY EVALUATION PROGRAMME FOR AHPs

The newly appointed AHPs will be trained in an orientation course and then followed by a clinical/technical placement (competency) at their profession's respective fields. **Table 5.40** shows the number of competence certificates issued by AHSD from year 2014 to 2018.

**Table 5.40**  
**Number of Competence Certificates Issued to Newly Appointed AHPs by Years**

No.	Profession	Years Of Certificate Issued				
		2014	2015	2016	2017	2018
1.	Physicist	-	-	-	-	-
2.	Microbiologist	-	-	34	4	-
3.	Biochemist	-	-	-	-	-
4.	Entomologist	-	-	-	-	-
5.	Forensic Science Officer	-	-	-	-	-
6.	Nutritionist	-	-	17	3	-
7.	Embryologist	-	-	-	-	-
8.	Biomedical Scientist	-	-	-	-	-
9.	Geneticist	-	-	-	-	-
10.	Dietitian	-	-	-	-	18
11.	Optometrist	7	-	20	1	-
12.	Physiotherapist (Degree Holder)	-	-	35	4	-
13.	Physiotherapist (Diploma Holder)	-	-	140	15	24
14.	Occupational Therapist (Degree Holder)	-	-	-	-	-
15.	Occupational Therapist (Diploma Holder)	-	114	-	-	-
16.	Speech-Language Therapist	-	-	22	-	14
17.	Audiologist	-	18	21	-	21

No.	Profession	Years Of Certificate Issued				
		2014	2015	2016	2017	2018
18.	Counselling Psychologist	58	-	-	7	-
19.	Clinical Psychologist	3	-	2	-	-
20.	Medical Social Officer	-	-	-	12	-
21.	Diagnostic Radiographer (Degree Holder)	-	-	24	-	2
22.	Diagnostic Radiographer (Diploma Holder)	-	-	-	5	-
23.	Radiation Therapist (Degree Holder)	-	-	-	12	-
24.	Radiation Therapist (Diploma Holder)	-	-	-	-	-
25.	Food Service Officer (Degree Holder)	-	-	-	-	-
26.	Food Service Officer (Diploma Holder)	-	-	-	-	-
27.	Medical Record Officer (Degree Holder)	-	-	-	-	-
28.	Medical Record Officer (Diploma Holder)	-	-	-	-	-
29.	Environmental Health Officer (Degree Holder)	-	-	-	-	-
30.	Environmental Health Officer (Diploma Holder)	-	-	-	-	-
31.	Food Technologist	-	-	-	-	-
<b>TOTAL (657)</b>		<b>68</b>	<b>132</b>	<b>315</b>	<b>63</b>	<b>79</b>

Source: Allied Health Sciences Division, MOH

## INNOVATION TRAINING FOR ALLIED HEALTH PROFESSIONALS

The Innovation Training Workshop for AHPs was held from 2 to 4 May at the *Institut Latihan Kesejahteraan Bandar, Perumahan dan Kerajaan Tempatan (I-KPKT)*, Bukit Tinggi, Pahang. The workshop was attended by 49 representatives from the AHPs of various professions. The objectives of this workshop were to provide knowledge and skills in implementing innovation projects for the AHPs services (**Image 5.11**).

**Image 5.11**  
Innovation Training Workshop for AHPs



Source: Allied Health Sciences Division, MoH

## 12<sup>TH</sup> ALLIED HEALTH SCIENTIFIC CONFERENCE (AHSC)

The Allied Health Scientific Conference is held every two years. In 2018, The 12<sup>th</sup> Allied Health Scientific Conference (AHSC), jointly organized by the Association of Allied Health Sciences and Allied Health Sciences Division was held on 4 to 5 September 2018 at Tenera Hotel, Bandar Baru Bangi, Selangor. The conference was open to all healthcare practitioners and approximately 350 people were in attendance. With the theme “Moving Healthcare Forward”, the speakers shared opinions, thoughts and suggestions that can be delivered by AHPs in line with the implementation of Act 774. YB. Datuk Seri Dr. Haji Dzulkefly bin Ahmad, The Minister of Health was present to officiate the conference. The keynote speaker was YB Datuk Dr Noor Hisham bin Abdullah, the Director General of MOH. He delivered his speech entitled Shaping Future of Malaysia Healthcare System: The Way Forward. A total of 33 poster presentations, 12 free-paper presenters, six (6) plenary sessions and 16 symposia took place (Image 5.12).

Image 5.12  
12<sup>th</sup> Allied Health Scientific Conference (AHSC)



Source: Allied Health Sciences Division, MoH

## DEVELOPMENT OF ALLIED HEALTH PROFESSIONALS TRAINING

AHSD acts to plan and conduct generic and functional courses to help in improving the competencies of the (AHPs). With objectives to increase skills, attitudes and knowledge, AHSD has planned and implemented several courses throughout 2018 based on the Training Road Map for AHPs. Below are the lists of training that have been conducted in 2018:

- i. Introduction to Coaching and Mentoring Skills for Allied Health Professionals, 5 to 6 February 2018.
- ii. Regulatory Impact Analysis (RIA) Course, 27 to 28 February 2018.
- iii. Future Thinking Scenario Planning (FTSP) Course, 23 to 25 April 2018.
- iv. *Asas Kaunseling bagi Kumpulan Klinik Course*, 25 to 27 September 2018.

A visit to Allied Health Centre of Excellence Centre (AHCoE), Pulau Pinang was held on 15 October, 2018. AHCoE is a non-profit-based training and simulation centre established with funds from the federal government in March 2010. Since the establishment of the AHCoE, the centre is actively organizing courses that suit the AHPs need as well as possessing complete equipment to hold various courses. This collaborative plan shall be refined to ensure that the human capital produced will benefit the development of the AHPs in the Ministry of Health (Image 5.13).



Image 5.13  
Visit to AHCoE on 15 October 2018



Source: Allied Health Sciences Division, MOH

## WAY FORWARD

To ensure that the people receive the best health services, Allied Health Sciences Division (AHSD) is committed to provide competent and expert AHPs. The framework of the AHPs expertise recognition will be developed and streamlined according to the requirements of Act 774. Recognition in relevant to fields and sub-fields is to take into account the appropriate training to meet the competency levels comparable to international standards. At the same time, existing training plans will be reviewed and subsequently action plans will be set up to meet the development needs of AHPs expertise/specialty fields. To ensure AHPs practitioners in both public and private levels have a high level of competency, AHSD shall work hand in hand with academics, associations and AHPs professional bodies in the planning of service delivery in Malaysia.

New directions will be determined, in the development and monitoring of AHPs key performance indicator in line with the requirements of Sustainable Development Goals (SDG) and Universal Health Coverage (UHC) which has been set up by World Health Organization (WHO). In general, AHSD is committed to further enhancing service delivery and increase the quality of AHPs health services to the people.

## NURSING

Nursing Division is divided into two (2) main branches which are Policy and Nursing Practice and Regulatory. These branches are then divided into 6 sectors as follows:

- i. Nursing Practice Sector (Hospital and Public Health)
- ii. Quality and Training Sector
- iii. Registration and Enforcement Sector
- iv. Standard and Accreditation Sector
- v. Corporate Management Sector
- vi. Secretariat (Nursing and Midwifery Board)

Nurses are the backbone of the healthcare system in Malaysia. **The table 5.41 and 5.42** shown below is the total strength of the work force in 2018.

**Table 5.41**  
**Statistic of MoH Nurses, 2018**

No	Particulars	Total
1.	Overall Total of Nurses	88,033
2.	Nurses with Post Basic Education	33,190
3.	Nurses with Degree	3,363
4.	Nurses with Master /PhD	87/2

Source: Nursing Division, MoH

**Table 5.42**  
**Number of Nurses with Specialization Courses, 2018**

No	Specialization Courses	Total
1.	Midwifery Advanced Diploma	12,418
2.	Public Health Nursing	2,492
3.	Gerontology Care	194
4.	Coronary Care	876
5.	Neonatology Care	1,105
6.	Oncology Care	382
7.	Orthopedic Care	920
8.	Pediatric Care	1,565
9.	Psychiatry Care	340
10.	Renal Care	1,333

No	Specialization Courses	Total
11.	Sports Care	22
12.	Forensic Care	13
13.	Diabetic Care	833
14.	Otorhinolaryngology Care	200
15.	Primary Healthcare	47
16.	Health Personal Management	284
17.	Ophthalmic Care	378
18.	Perioperative Care	1,530
19.	Intensive Care	1,524
20.	Emergency	809
21.	Paranesthesia Care	518
22.	Neuroscience Care	235
23.	Infection Control	725
24.	Rehabilitative Care	226
25.	HIV/AIDS Counselling	142
26.	Gastrointestinal Endoscopy	204
27.	Occupational Health and Safety	15
28.	Palliative care	21
<b>Total</b>		<b>29,351</b>

Source: Nursing Division, MoH

## ACTIVITIES AND ACHIEVEMENTS

### NURSING PRACTICE SECTOR

Nursing Practice Sector has started on the Nursing Lean Health Care Project in the beginning of the year 2018. The purpose of the project is to transform ordinary work to become more efficient. This project is a collaboration of Nursing Division with the Medical Development Division. The focus of the project is to reduce waiting times and congestion at the hospital, optimizing the use of bedding and speed up the discharging process. The Nursing Lean Project has been focusing on Bed Watcher application, allowing real-time monitoring of admission and discharge volumes hospital wide including assigning bed to patient, bed booking and patient tracking.

### OVERSEAS SHORT COURSE ON DISASTER RESPONSE AWARENESS TRAINING PROGRAM

Nursing personnel from Nursing Division had the privilege to be part in short course in Japan with the objective to enhance the understanding of participants to develop post-disaster mental health services in Malaysia. This approach will prepare the nurses ready to assist children, adolescents, adults and families in the immediate aftermath of disaster or crisis events. Furthermore, nurses can use this knowledge and skill to help the survivors to reduce

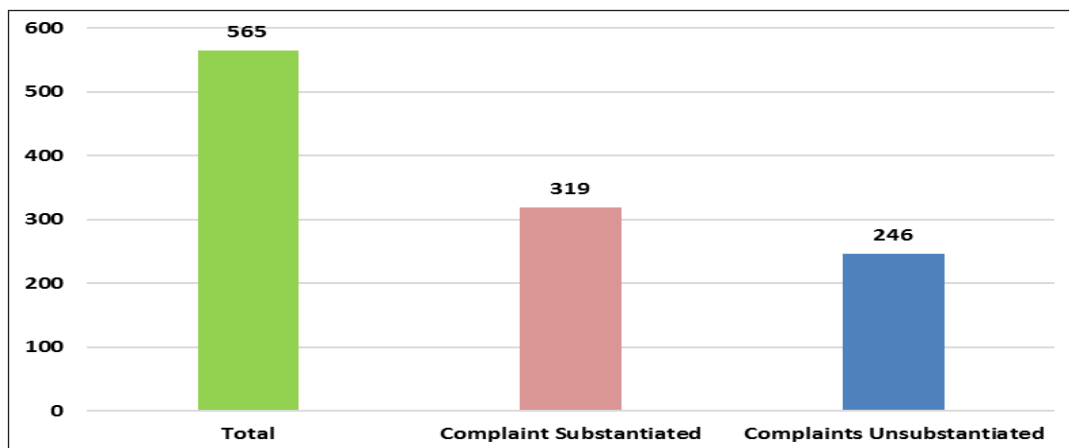
anxiety, promote positive coping skills and develop a more positive attitude toward them, which may prevent long-term problems and promote healing.

## QUALITY DEVELOPMENT

### i. MANAGING CUSTOMER SATISFACTION

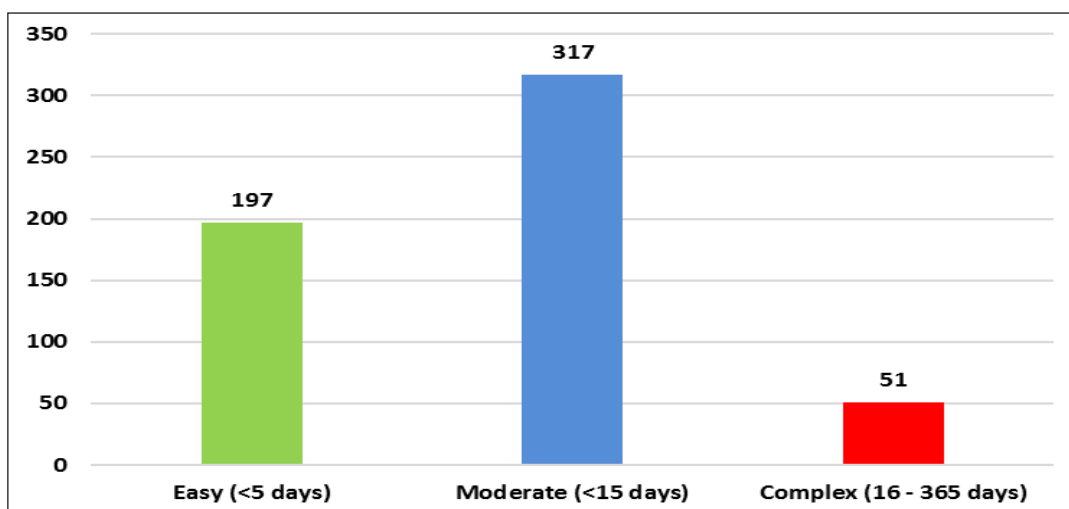
A total of 565 complaints received. Out of which only 319 were substantiated and Nursing Division manage to solve them within the stipulated time (**Figure 5.22** and **5.23**).

**Figure 5.22**  
**Number of Complaints Received 2018**



Source: Nursing Division, MOH

**Figure 5.23**  
**Number of Days the Complaints Being Resolved, 2018**



Source: Nursing Division, MOH

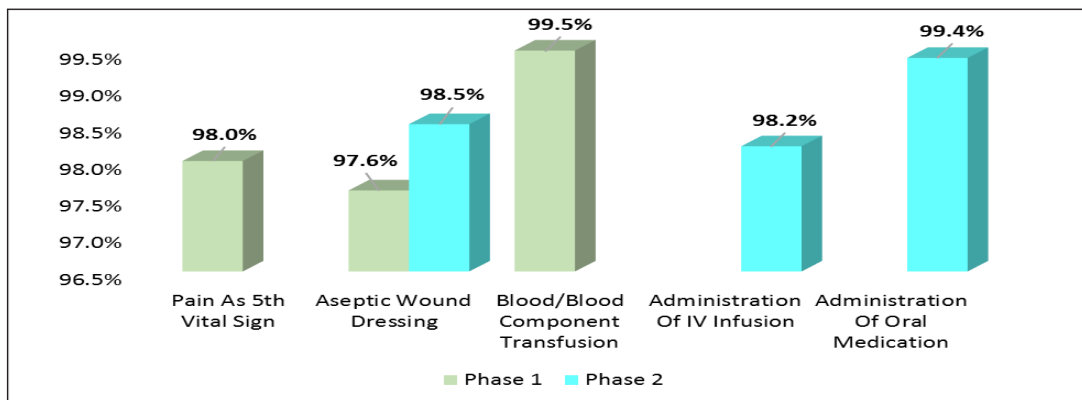
## ii. NATIONAL NURSING AUDIT (NNA)

These are the activities to maintain the quality and competency of nurses in the clinical field.

### A. NATIONAL NURSING AUDIT (NNA) (HOSPITAL)

Figure 5.24 shows the National Nursing Audit result from all state for year 2018 and will be sent the Nursing Division for compilation and analysis. The reports will be presented at the National Administrative Nursing Technical Meeting. Health Facilities that did not achieve the standard level are required to do root cause analysis on the shortfall and to come up with strategies for corrective actions.

**Figure 5.24**  
National Nursing Audit Results from All State, 2018

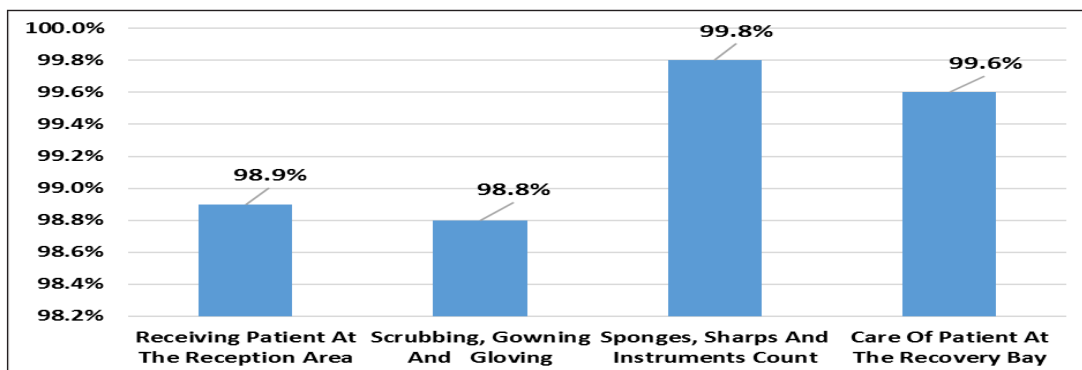


Source: Nursing Division, MOH

### B. NATIONAL OPERATING ROOM NURSING AUDIT (NORNA)

The National Operating Room Nursing Audit (NORNA) results for 2018 are shown in Figure 5.25 below:

**Figure 5.25**  
Audit Results of NORNA, 2018

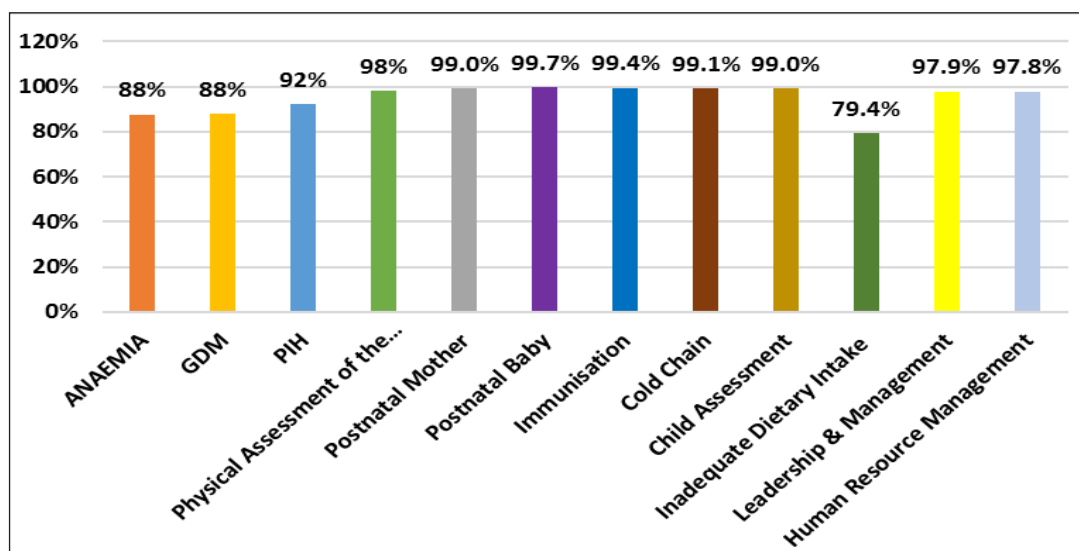


Source: Nursing Division, MOH

## D. NATIONAL NURSING AUDIT (NNA) (PUBLIC HEALTH)

The National Nursing Audit for Public Health has at present four (4) elements with 12 Indicators. Out of the 12 indicators, nine (9) of the indicators achieved the set standards whereas three (3) did not reached the set standards. The indicators that failed to achieve the standards are as such: - Giving Immunization via injection (Target 100 per cent); management of Cold Chain system (Target 100 per cent) and Management of inadequate dietary intake among babies and children below 6 months till 6 years old (Target 80 per cent) (**Figure 5.26**).

Figure 5.26  
Audit results of NNA (Public Health), 2018



Source: Nursing Division, MOH

## E. NATIONAL INDICATOR APPROACH (NIA)

There are three (3) indicators under the NIA that are monitored by the Nursing Division, Ministry of Health Malaysia. These activities are also to maintain the quality and competency of nurses in the clinical field. The three (3) indicators are:

- i. Incidence of Thrombophlebitis
- ii. Incidence of Pressure Ulcer
- iii. Incidence of Patient Fall

There was no Shortfall in Quality (SIQ) noted for the year 2018.

## NURSING RESEARCH UNIT

Table 5.43 shows the nursing research for year 2018:

**Table 5.43**  
Nursing Research, 2018

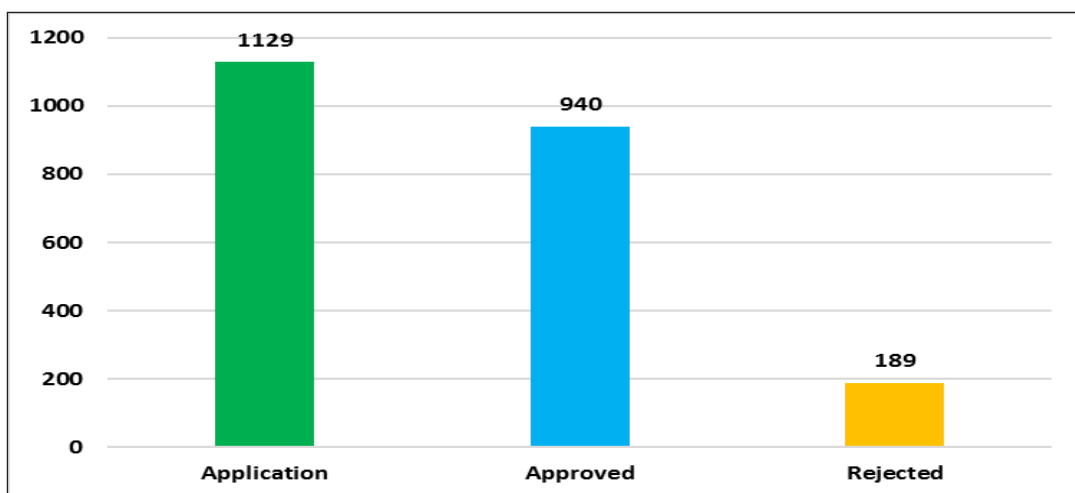
No	Topic	Achievement
1.	The Quality of Nurse Report Writing in Public Hospitals in Malaysia (MNRR: NMRR-16-1548-32375)	Nursing Division has embarked into a study using SBARe technique to improve nursing documentation (SBARe PHASE 2)
2.	Statistical Process Control Tools for National Indicator Approach: Pressure Ulcers (NMRR NO: NMRR-18-1868-43410)	A study to improve standard of the nursing indicators (pressure injury) using international statistical approach (still in progress)
3.	23 <sup>rd</sup> Joint Malaysia-Singapore Nursing Conference	Total of 32 oral presentations shared among nurses in the ASEAN region.

Source: Nursing Division, MOH

## CONTINUOUS PROFESSIONAL DEVELOPMENT (CPD) UNIT

This unit is responsible in developing the plan, coordinate and prepare the schedule of courses to all nurses. It is to ensure the nurses able to obtain latest and adequate knowledge by attending the courses /workshops /seminar and to process the application for CPD point from the provider in organizing education program related to nurses in private sectors. Out of the 1129 applications, 189 were rejected due to incompleteness and non-compliance to the guidelines (Figure 5.27).

**Figure 5.27**  
CPD Points Application, 2018

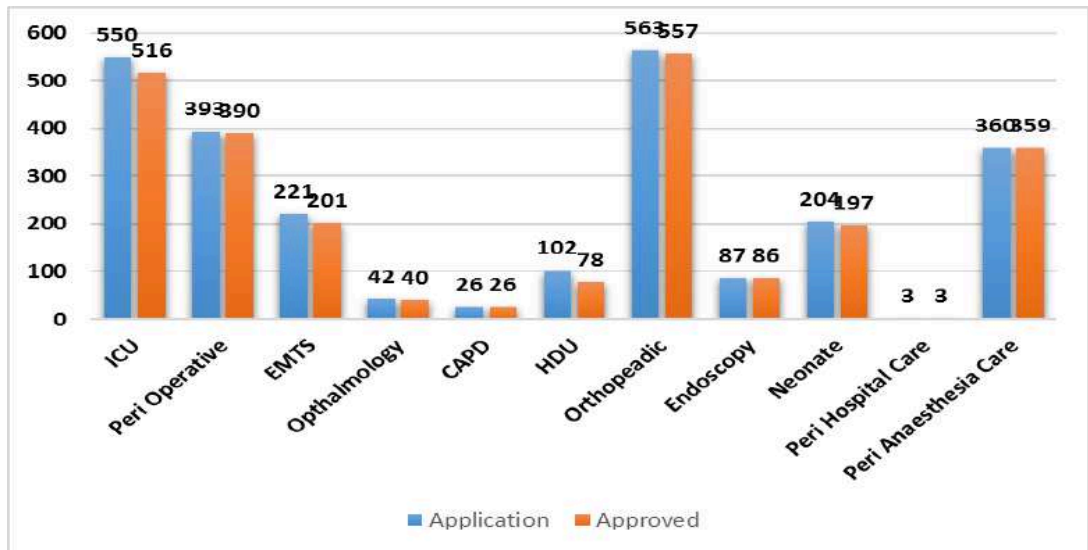


Source: Nursing Division, MOH

## CREDENTIALING & PRIVILEGING

Credentialing & Privileging Unit is under the Sector Quality and Training Division of Nursing Division, Ministry of Health Malaysia. The Credentialing & Privileging Unit (C&P) in Nursing Division collaborated with the Medical Assistant Board and the Allied Health Professional under the MOH Medical Program in the National Credentialing Committee (NCC), Ministry of Health Malaysia. **Figure 5.28** shows the new application of credentialing according to disciplines for year 2018

**Figure 5.28**  
Summary of New Application for Credentialing, 2018



Source: Nursing Division, MOH

## INTERNATIONAL NURSING RELATION UNIT

**Table 5.44** shows the International Nursing Relation Unit Report for year 2018:

**Table 5.44**  
International Nursing Relation Unit Report, 2018

No.	Title	Date	Remarks
1.	<b>Involvement of Nursing Officers to attend International Meetings / Conferences</b>		
a.	26 <sup>th</sup> Asean Joint Coordinating Committee on Nursing (AJCCN) & 89 <sup>th</sup> Asean Coordinating Committee on Service (CCS).	a. 15 to 17/01/2018 at Bangkok, Thailand	Core Competency was discussed during the meeting. In the curriculum of Bachelor in Nursing, students need to introduce, emphasise, master and asses in order for them to be competent.
b.	27 <sup>th</sup> Asean Joint Coordinating Committee on Nursing (AJCCN) & 90 <sup>th</sup> Asean Coordinating Committee on Service (CCS).	b. 05 to 07/11/2018 at Nay Pyi Taw, Myanmar	



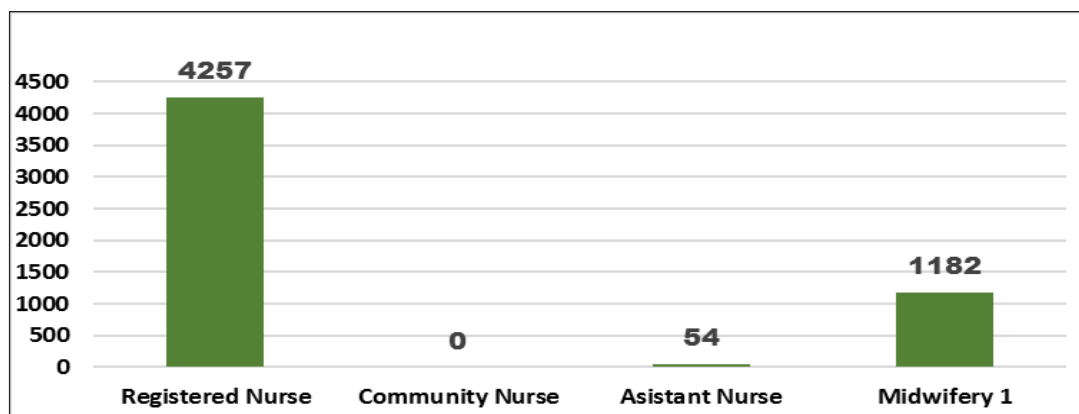
No.	Title	Date	Remarks
2.	<b>23<sup>rd</sup> Joint Malaysia Singapore Nursing Conference 2018</b> <b>Theme - Soaring Together: Corroborating Academic and Practice in Nurturing Excellent Nursing Care</b>	05 to 07/09/2018 at Equatorial Hotel, Melaka	An effort in bridging nursing clinicians and academics to share ideas and learning new approaches in nursing. It is a platform for the sharing of knowledge, experiences and best practices as it propagate cross fertilization of ideas on academic and clinical practice among the participants from neighboring countries.

Source: Nursing Division, MOH

## REGISTRATION

This unit responsible in handling the registration process for nurses from Ministry of Health Colleges, Public Private Universities and Colleges who have passed the Nursing Board Malaysia (NBM) and Midwifery Board Malaysia (MBM) examination. Total of 5493 nurses have been registered in the year of 2018, which consists of 4,257 Registered Nurses, 54 Assistant Nurse, 1182 Midwifery Part 1 but no Community Nurse (**Figure 5.29**).

**Figure 5.29**  
**Statistics of Nurses Registered under the Nursing Board Malaysia (NBM) and Midwifery Board Malaysia (MBM), 2018**

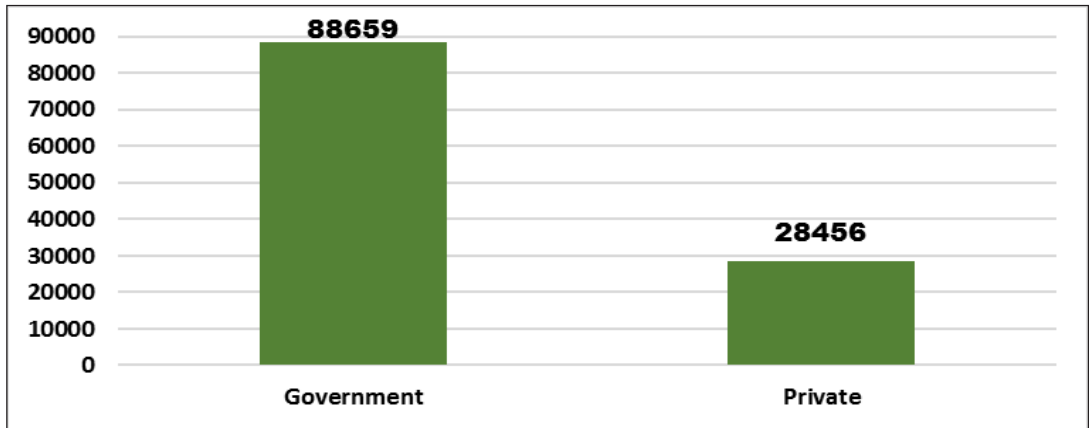


Source: Nursing Division, MoH

## ANNUAL PRACTICING CERTIFICATE (APC)

Annual Practicing Certificate (APC) is issued to all nurses which would carry out Nursing Practice in all hospitals/Institution in the public and the private sectors that have registered with the Nursing Board Malaysia (NBM) and work with Malaysia employers only. In 2018 a total of 117,115 Annual Practicing Certificate (APC) has been issued, 88,659 APC for Government Nurses and 28,456 for Private Nurses (**Figure 5.30**)

**Figure 5.30**  
**No of Nursing Annual Practicing Certificate (APC) Issued, 2018**

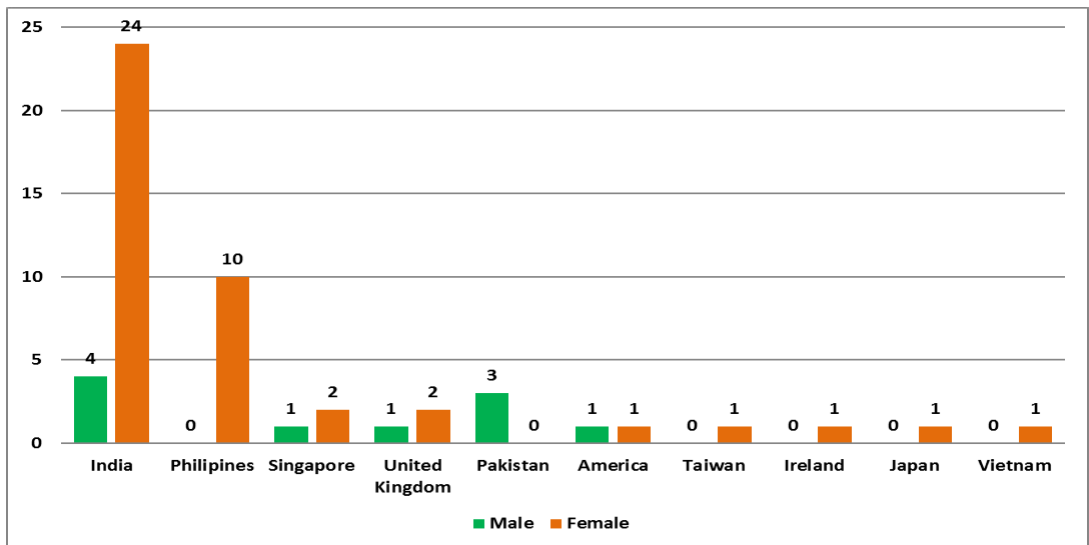


Source: Nursing Division, MoH

### TEMPORARY PRACTICE CERTIFICATE (TPC)

Temporary Practice Certificate (TPC) is issued to all the foreign nurses serving in Malaysia and Figure 5.31 shown the number of foreign nurses serving in Malaysia for year 2018 as below:

**Figure 5.31**  
**Number of Foreign Nurses Serving in Malaysia, 2018**



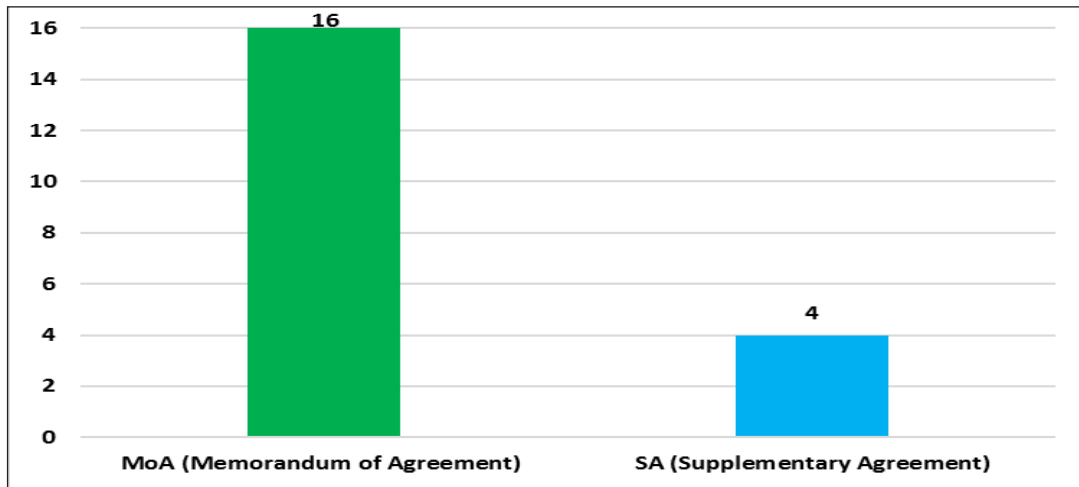
Source: Nursing Division, MoH

### PRIVATE PRACTICES AND FACILITIES

The main function of this unit is to facilitate and to manage applications and the Memorandum of Agreement is in place for the usage of Ministry of Health facilities by the institutions that run their approved nursing programs and to evaluate as well as endorse the applications of

teaching permit for lecturers and clinical instructors from the institutions of higher learning in collaboration with the Ministry of Education. This unit is involved in drafting the Memorandum of Agreement (MoA) as well as Supplementary Agreement (SA). In the year 2017, a total of 20 MoA was signed, 16 for Renewal MoA and four (4) Supplementary (SA) (Figure 5.32).

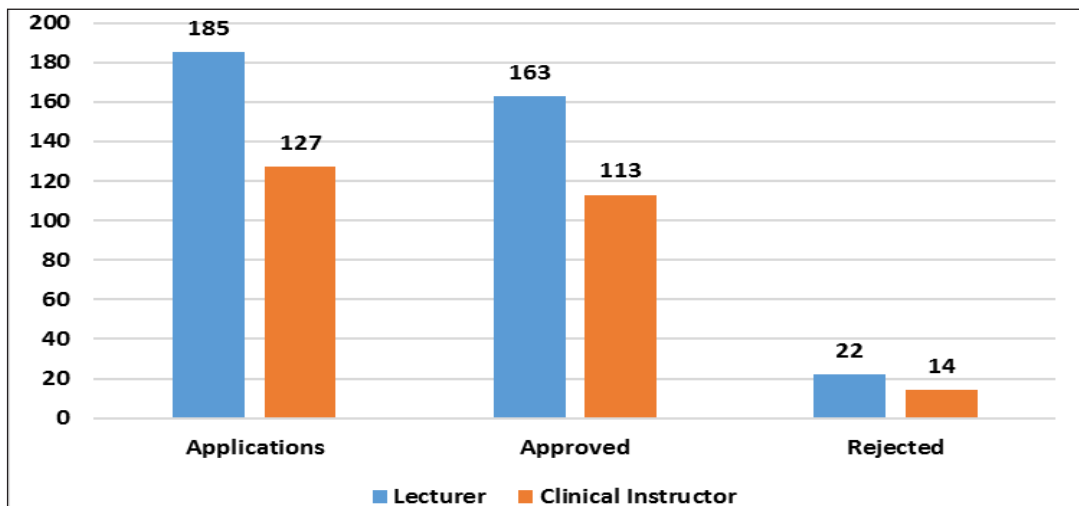
**Figure 5.32**  
**Statistics of Provision on MoA, 2018**



Source: Nursing Division, MOH

Figure 5.33 shows the number of approved teaching permit application for 163 out of 185 lectures and 113 out of 127 clinical instructors for year 2018

**Figure 5.33**  
**Teaching Permit Application for Lecturers and Clinical Instructors, 2018**

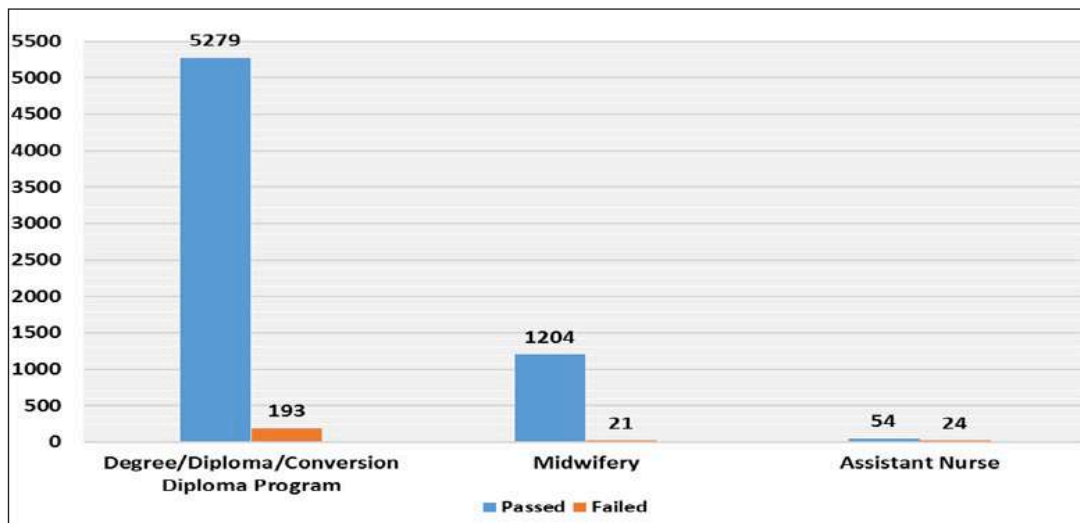


Source: Nursing Division, MOH

## EXAMINATION

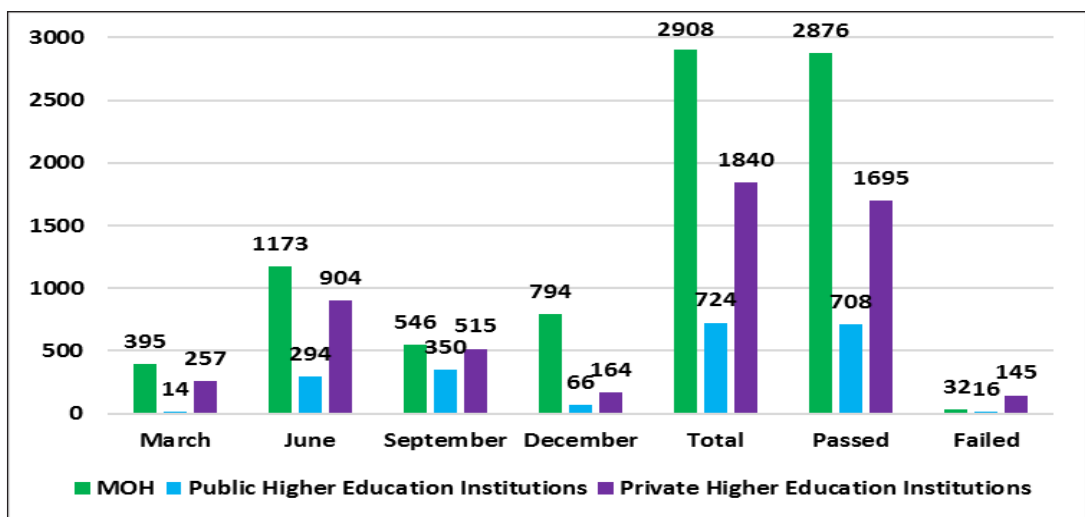
Examination Unit is under the Regulatory Section of Nursing Division. This is universally recognized nursing professional body responsible for registry examinations/regulating licensure for all nurses in accordance to the General Registry, Nurses Act 1950 and Midwifery Act 1966. This unit had established condition and guideline in implementation of Registry Examination for Malaysian Nurses and foreign Nurses. **Figure 5.34** and **5.35** show the the results of Nursing Board and Midwifery Board Examination for year 2018

**Figure 5.34**  
Nursing Board and Midwifery Board Examination, 2018



Source: Nursing Division, MOH

**Figure 5.35**  
Nursing Registry Examination Results, 2018



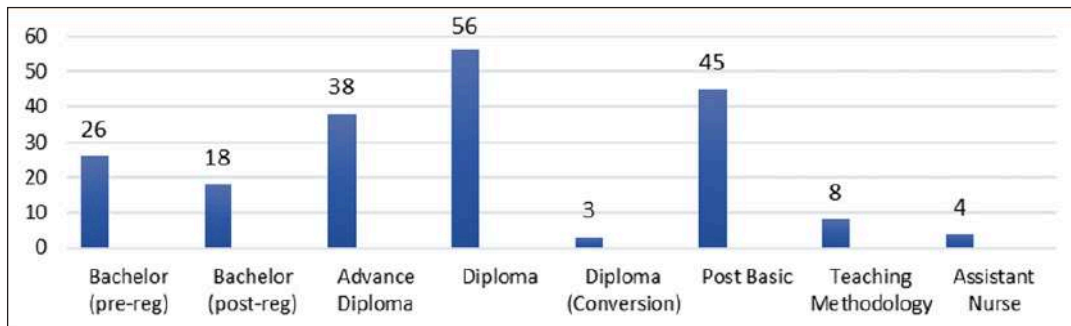
Source: Nursing Division, MOH

## CURRICULUM

The Division is also responsible for quality control of nursing education. Its fundamental functions are to evaluate and approve all nursing curriculum in local institutions offering nursing program, and to recommend to MoA or approval of all nursing educational programs.

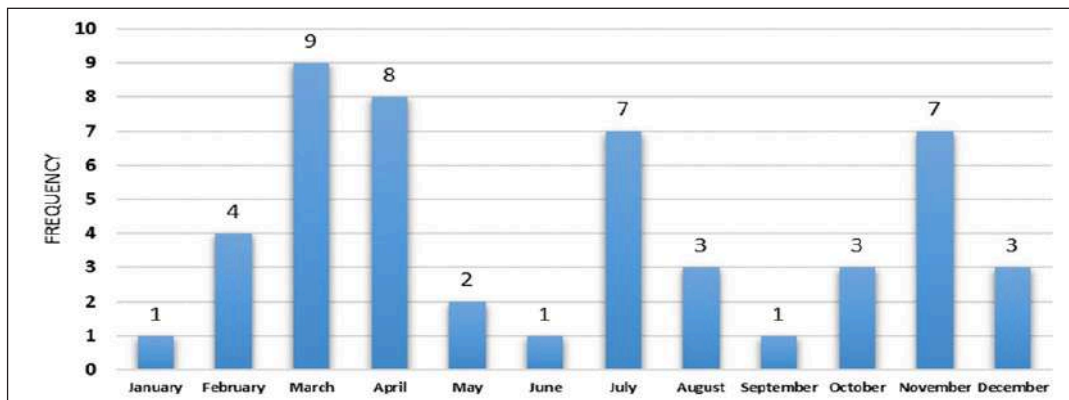
**Figure 5.36** shows number of nursing program in Malaysia and **Figure 5.37** shows the total no of facilities assessed for year 2018

**Figure 5.36**  
Nursing Program in Malaysia, 2018



Source: Nursing Division, MOH

**Figure 5.37**  
Total No of Facilities Assessed, 2018



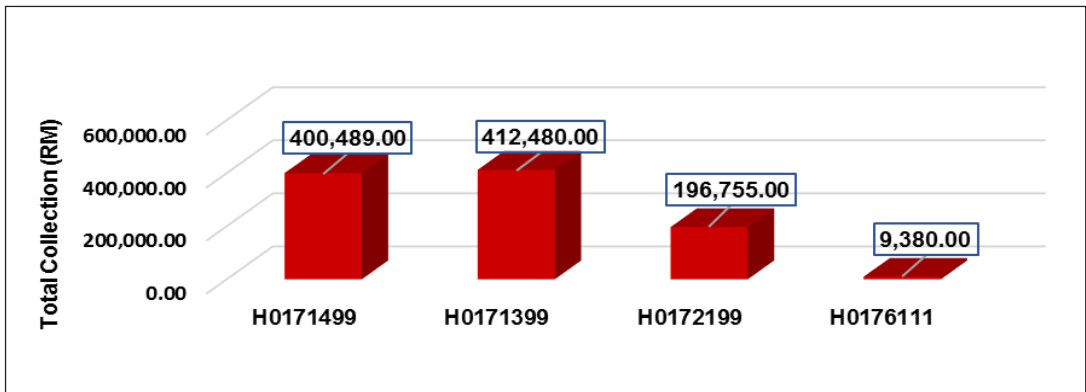
Source: Nursing Division, MOH

## CORPORATE MANAGEMENT SECTOR

### REVENUE FOR THE FINANCIAL YEAR ENDING FOR NURSING DIVISION 2018

Revenue for the financial year ending for nursing division 2018 was RM1,019,104.00 with financial receipt 38E were 24,839 sheets (**Figure 5.38**) and **Table 5.45** is Account Code for references.

**Figure 5.38**  
**Revenue Collected for year 2018**



Source: Nursing Division, MoH

**Table 5.45**  
**Account Code**

Account Code	Description
71399	Registration Fee
	Registration of Name (RON)
	Verification of Registration (VOR)
	Verification of Transcript (VOT)
	Duplicate Badge
	Certificate of Registration
71499	Application Fee for Annual Practicing Certificate (APC)
	Application Fee for Temporary Practicing Certificate (TPC)
72199	Examination Fee
76111	Late fee

Source: Nursing Division, MoH

## WAY FORWARD

The Nursing Division will continue to further improve the human capital/nurses to ensure sufficient supply of competent and skilled health care personnel to meet the changing climate in our healthcare system. We will continue to strive to achieve the highest level of excellence in fulfilling our responsibilities and to deliver the trust that has been entrusted to us.

## TRADITIONAL AND COMPLEMENTARY MEDICINE PRACTICE DIVISION (T&CMD)

Traditional and Complementary Medicine Division (T&CMD) is one of the divisions under medical program. T&CMD undertakes the development and regulatory stewardship of Traditional and Complementary Medicine (T&CM) practice and practitioner in Malaysia.

### MAIN ACTIVITIES

#### 1. DESIGNATED PRACTITIONERS BODIES AND RECOGNISED PRACTICE AREA

The T&CM (Recognised Practice Area) Order 2017 and the T&CM (Designation of Practitioner Body) Order 2017 were gazetted and published on 28 July 2017 under T&CM Act 2016 (Act 775). Both orders come into operation on 1 August 2017 while designated practitioner bodies effective for the period from 1 August 2017 to 31 July 2019. Gazettement of the orders is a form of phased approach to introduce statutory regulation of T&CM practitioners. **Table 5.46** shows recognised practice area and designated practitioner bodies.

**Table 5.46**  
**Recognised Practice Area and Designated Practitioners Bodies**

Recognised Practice Area	Designated Practitioner Bodies
Traditional Malay Medicine	Gabungan Pertubuhan Pengamal Perubatan Tradisional Melayu Malaysia
Traditional Chinese Medicine	Malaysian Chinese Medical Association
Traditional Indian Medicine	Malaysia Association of Traditional Indian Medicine
Chiropractic	Federation of Complementary and Natural Medical Association, Malaysia
Osteopathy	
Homeopathy	Malaysian Medical Homeopathic Council
Islamic Medical Practice	Persatuan Perubatan, Pengubatan dan Kebajikan Islam Malaysia

Source: T&CM (Recognised Practice Area) Order and T&CM (Designation of Practitioner Body) Order, 28 July 2017

#### 2. PREPARATION FOR T&CM PRACTITIONERS REGISTRATION

In the year 2018, a great amount of effort has been made to facilitate registration of T&CM practitioners. Engagement with relevant parties and stakeholders have to lead to several positive outcomes listed below:

- i. Development of an online registration system, *e-Pengamal*.  
*e-Pengamal* is an online registration system for T&CM practitioner. Training sessions have been conducted regularly for all staffs to enhance the competency in handling the system.
- ii. Development of Capacity Building Module  
The module is developed to assist local practitioners without basic registrable qualifications but who possess years of practising experience to register as T&CM practitioners under the T&CM Act 2016. Currently, modules developed are Traditional Malay Medicine, Traditional Chinese Medicine, Traditional Indian Medicine (Ayurveda and Siddha) and Homeopathy.

- iii. Establishment of the joint technical committee (JTC)  
The function of committee is to provide recommendations to the T&CM council regarding accreditation of T&CM programmes and matters related to it. In the year 2018, JTC committee has provided a recommendation to T&CM Council on the way forward for accreditation application of T&CM education programmes that do not meet basic registrable criteria set by the T&CM Council for registration in recognised practice areas (**Image 5.14**).
- iv. Development of i-Syifa' screening method T&CMD has collaborated with the Islamic Development Department of Malaysia (JAKIM) to develop i-Syifa' screening method for the regulation of Islamic Medicine practitioners.
- v. Online public engagement on Code of Professional Conduct (COC) For T&CM practitioner  
This platform has been created for interested parties to evaluate objectives and provide suggestions to further improve the CPC draft.
- vi. Collaboration with T&CM regulatory agencies abroad T&CMD has collaborated with regulatory agencies abroad to determine basic registrable qualifications, institutions recognised by regulatory agencies abroad. Main countries engaged with T&CMD are China, Taiwan, India and Australia.

**Image 5.14**  
**Members of the Joint Technical Committee (JTC) for Accreditation Assessment of T&CM Programmes**



*Source: Traditional & Complementary Medicine Division (T&CM), MOH*

### **3. T&CM PRACTITIONERS AND CONSUMERS EDUCATION**

#### **i. DISCOURSE ON T&CM ACT 2016 AND RESPONSIBILITIES OF REGISTERED PRACTITIONER**

T&CMD has organised the discourse since year 2017 and it is still conducted regularly nowadays. It aims to ensure the practitioners fully understand their responsibilities, obligations and prohibitions as stated under T&CM Act 2016 before full enforcement of the act. Attendance to this discourse is determined by the T&CM Council as one of the criteria for registration under the act when registration starts. **Table 5.47** shows the attendance of Discourse on T&CM Act 2016 and Responsibilities of Registered Practitioners in all states in year 2018.



**Table 5.47**  
**Attendance of Discourse on T&CM Act 2016 Responsibilities of Registered Practitioners in Malaysia Year 2018**

State	Total number of attendees	Responsible zone
Kuala Lumpur	1980	T&CMD
Selangor	823	
Negeri Sembilan	331	
Penang	1073	Penang Branch Office
Perak	473	Perak Branch Office
Malacca	123	Johor Branch Office
Johor	694	
Kelantan	259	Terengganu Branch Office
Pahang	201	
Terengganu	136	
Sabah	606	Sabah Branch Office
Sarawak	517	Sarawak Branch Office
<b>Total</b>	<b>7216</b>	

Source: Traditional & Complementary Medicine Division (T&CM), MOH

## ii. DEVELOPMENT OF CONSUMER GUIDELINE FOR PROPER USE OF T&CM SERVICES

T&CMD is working to develop a Consumer Guideline For Proper Use of T&CM Services with assistance from WHO consultant (**Image 5.15**). Representatives from government agencies, private sector as well as T&CM practitioners have invited to provide their inputs according to the discussion topics. The objective of this guideline is to improve the public knowledge and provide relevant information to consumers on the proper use of T&CM services.

**Image 5.15**  
**TCMD Director, WHO Consultant, Organising Committee and Participants of the Workshop**



Source: Traditional & Complementary Medicine Division (T&CM), MOH

#### 4. T&CM BLUEPRINT AND TRANSFORMATION PLAN

##### i. T&CM BLUEPRINT 2018 to 2027 (HEALTH CARE)

MOH Malaysia has undertaken the relevant engagements with stakeholders to develop the T&CM Blueprint 2018 to 2027 (Health Care). The Blueprint had successfully launched on the 13 Mac 2018 (**Image 5.16**). Objective of the blueprint is to facilitate the regulation, integration and development of T&CM industry in Malaysia to achieve optimum national health care.

**Image 5.16**  
**T&CM Blueprint 2018 to 2027 (Health Care)**



T&CM Blueprint 2018 to 2027

Launching of the T&CM Blueprint 2018 to 2027 (Health Care)

Source: Traditional & Complementary Medicine Division (T&CM), MOH

After discussions with stakeholders, T&CMD has identified six (6) general directions and strategies to deal with the challenges faced by the T&CM industry in Malaysia. Four (4) areas have been identified as priorities, namely practice, education and training, medicinal materials and products, and research (**Table 5.48**).

**Table 5.48**  
**The 6 general directions which will guide the development of T&CM industry in Malaysia for the coming 10 years**

No	T&CM Blueprint 2018 to 2027
<b>Practice</b>	
1.	• Professionalise the practices and practitioners of T&CM for the attainment of health care, economic and socio-cultural goals
2.	• To optimise the integration of T&CM practices into the Malaysian health care system for the attainment of health care, economic & socio-cultural goals
3.	• To optimise the T&CM health care delivery structure
<b>Education and Training</b>	
4.	• Professionalise T&CM education and training for all stakeholders
<b>Medicinal Materials and Products</b>	
5.	• Appropriate regulation of T&CM medicinal materials for the attainment of health care goals
<b>Research</b>	
6.	• To optimise the contribution to T&CM R&D towards health care goals

Source: T&CM Blueprint 2018-2027 (Health Care)

A meeting on the implementation of the Blueprint was held on 9 August 2018, headed by the Deputy Director General of Health (Medical) MOH. This meeting allows delegates to aware functions and responsibilities of each organization to ensure the action plan implemented successfully

## ii. TRADITIONAL POSTNATAL CARE (TPC) TRANSFORMATION PLAN

TPC service was introduced as a pilot project at primary health care level since 2012 (Johor) and 2014 (Kelantan). This project is aligning with WHO's vision and MOH's initiative to transform and strengthen TPC service delivery at Primary Health Care level. The overall result of this pilot project is satisfying, and up to 2018, a total of 83 health clinics are offering TPC service in all Kelantan districts.

This effort was further enhanced with the introduction of the TPC Transformation Plan in 2018 with the aim to transform the provision of TPC service from 10 public hospitals to primary health care setting in phases across all states in Malaysia in the year 2019.

## OTHER COLLABORATIVE ACTIVITIES

### 1. 5<sup>TH</sup> BILATERAL TECHNICAL MEETING ON COOPERATION IN THE FIELD OF TRADITIONAL SYSTEMS OF MEDICINE BETWEEN THE GOVERNMENT OF INDIA AND MALAYSIA

The 5<sup>th</sup> Bilateral Technical Meeting on Cooperation in the Field of Traditional Systems of Medicine between the Government of India and Malaysia was held on 10 January 2018 at New Delhi, India. The Malaysian delegation was led by former Deputy Director General (Medical), MOH (**Image 5.17**).

**Image 5.17**  
**Presenting Souvenir to the Secretary and Deputy Secretary of the Ministry of AYUSH during 5<sup>th</sup> Bilateral Technical Meeting**



*Source: Traditional & Complementary Medicine Division (T&CM), MOH*

The issues discussed are:

- i. Extending the deputation of traditional Indian medicine (TIM) practitioners from India to Malaysia via the ITEC scheme

- ii. Recognition of TIM practitioners working in Malaysia
- iii. Establishment of AYUSH Academic Chair in a Malaysian institution of higher education
- iv. Registration of TIM imported to Malaysia
- v. Assessing the safety and effectiveness of combinatory formulations used in TIM by conducting clinical studies
- vi. Registration of homeopathy practitioners and the development of homeopathic practitioner capacity building module in Malaysia
- vii. Panchakarma Certification training opportunities in India.

### **“USE OF T&CM HERBAL AMONG TYPE 2 DIABETES MELLITUS (T2DM) PATIENTS IN NEGERI SEMBILAN” - COOPERATION BETWEEN T&CMD WITH INSTITUTE FOR HEALTH BEHAVIOURAL RESEARCH**

Research collaboration was initiated to study “Use of T&CM Herbal among T2DM Patients in Negeri Sembilan”. The main objective was to explore the perception of T2DM patients and allopathic health care providers (AHCPs) towards the use of T&CM herbal in the management of T2DM.

Findings from this study suggested that while many patients use herbal T&CM concurrently with modern medical treatment for the management of T2DM, most of them do not inform their AHCPs. In addition, findings show that most AHCPs had discouraged patients from using T&CM herbal due to insufficient knowledge or information regarding herbal T&CM.

### **DEVELOPMENT OF GUIDELINE FOR EVALUATION OF T&CM PRACTICES**

T&CMD had conducted a workshop on Development of Criteria for Evaluation of T&CM Practices in collaboration with WHO from 28 to 30 November 2018. This workshop had gathered input from various stakeholders to finalise the draft (**Image 5.18**). This Guideline will guide healthcare authorities and policymakers to evaluate T&CM practices before it is recognised under T&CM Act 2016.

**Image 5.18**  
**Director of T&CMD Presenting Souvenir to WHO**  
**Consultant on This Project**



*Source: Traditional & Complementary  
Medicine Division (T&CM), MOH*

## THE WORKING GROUP MEETING ON BENCHMARK FOR CUPPING THERAPY PRACTICE

Dr Goh Cheng Soon had attended a meeting to give input on the WHO Benchmark draft on Practice of Cupping Therapy held from 3 to 5 July 2018 at China. Objectives of this meeting are to identify the main challenges and key technical issues of cupping therapy, to specify scope and objectives, to define outline and synopsis, to evaluate methodology and evidence, to review formats and content of the document and to identify further information needed.

WHO Benchmark on Practice of Cupping Therapy draft was completed in June 2018 and will be circulated for global peer review after the concerns and feedback are addressed. WHO informed that the benchmark would become a stepping-stone for the development of cupping therapy in future.

## WHO WORKING GROUP MEETING TO DEVELOP BENCHMARK FOR PRACTICE IN AYURVEDA, PANCHAKARMA AND UNANI

Dr Goh Cheng Soon was invited to attend the working group meeting from 17 to 19 September 2018 at Jaipur, India. The objective of this meeting was to review the Zero Draft of the WHO benchmark for practice in Ayurveda, Unani and Panchakarma. The outcome of the discussion had been presented to WHO for further consideration to improve the Draft (**Image 5.19**).

Image 5.19

Country Members for the WHO Working Group Meeting in Developing Benchmark for Practice in Ayurveda, Panchakarma and Unani



Source: Traditional & Complementary Medicine Division, MOH

## WAY FORWARD

In the year 2018, activities conducted are focusing on development of T&CM industry, especially in preparation for T&CM practitioner registration. T&CMD will continue to strive and ensure a smooth implementation of T&CM development and regulation, according to strategies and action plans.

## CONCLUSION

In striving to provide better health service to the community, the Medical Programme faces challenges of rapid advancement in medical and information technology, higher patient expectations, epidemiological and socio-demographic shifts towards an aging population and changing attitudes towards lifestyle. Greater expectations and demands are the natural evolution of better education, higher income and more access to information. Changing trends in socio-demographic and disease patterns present a major challenges in the containment of health care cost.

Understanding these issues, the Programme needs to constantly revise on the planning, implementation, coordination, monitoring of the existing system to ensure smooth interphasing of medical care and to overcome obstacles in the provision of medical services to the population. Despite the challenges, the Medical Programme will remain steadfast to ensure quality and safe are to our clients.



# 6

## Research and Technical Support





## INTRODUCTION

The Research and Technical Support (R&TS) Program, headed by the Deputy Director General of Health (R&TS), carries out activities that are aimed at providing technical and support services to the other Programs within the Ministry of Health (MOH). R&TS Program consists of the following Divisions: Planning, Engineering Services, The Medical Radiation Surveillance Division (MRSD) and six (6) research institutes under the National Institutes of Health (NIH).

## ACTIVITIES AND ACHIEVEMENTS

### PLANNING DIVISION

The Planning Division focuses on several crucial activities such as the formulation of the Health Sector Transformation Plan, improving the quality of health data, setting up the Health Informatics Standards for Malaysia, and planning, development, monitoring and evaluation of programs and projects as planned in the Eleventh Malaysian Plan (11MP). Previously known as the Planning and Development Division, the two (2) components were separated on 1 September 2012 to enhance each respective branch's functions. There is six (6) sections in the Planning Division:

- i. Health Policy and Plan Planning
- ii. National Health Financing (NHF)
- iii. Malaysia National Health Accounts (MNHA)
- iv. Health Informatics Center
- v. Health Facility Planning
- vi. eHealth Strategic Planning

### HEALTH POLICY AND PLAN PLANNING SECTION

Health Policy and Plan planning involves the activities of planning, monitoring and evaluating the health sector plans.

### MID-TERM REVIEW OF ELEVENTH MALAYSIA PLAN (MTR 11MP)

The preparation of MTR 11MP for the health sector was triggered by the circular from the Chief Secretary of the Government of Malaysia dated 22 June 2017 (Ref: UPE(S)SPW.100-23/2/2 (16)). Technical Working Group (TWG) meeting was held on 26 to 27 October 2017 to initiate the preparation process of MTR 11MP. It was then followed by a series of briefing to the Deputy Director-General of Health (Research & Technical Support), the Director-General of Health, and Secretary General of the Ministry of Health (MOH). The sessions were conducted in early November 2017. The preliminary draft of MTR 11MP was tabled in *Jawatankuasa Pemandu Perancangan Kementerian Kesihatan (JPPKK)* meeting on 22 November 2017 and *Mesyuarat Khas KPK* on 5 December 2017. After that, it was presented to the Minister of Health on January 2018.

- There are two (2) main findings on situational analysis of health based on MTR 11MP as below:
- All activity/program which already achieved its target shall be improvised and continued.
  - Activities/programs which have not achieved its target due to implementation issues, should be revised; or to suggest new activity/ program.

After the formation of the Pakatan Harapan government in May 2018, the MTR 11MP document has been revised by taking into account the progress status of strategies and initiatives implemented in 2016 to 2017, as well as revised socioeconomic targets for the 2018-2020 period. It is also taking into account the priority & the new emphasis of the 11MP, which has been aligned with the new Government's commitment. The official document of MTR 11MP has been tabled in Parliament by YAB Prime Minister on 18 October 2018 (Figure 6.1).

Figure 6.1  
Mid-Term Review of Eleventh Malaysia Plan (MTR 11MP): Revised



Source: Health Policy And Plan Planning Section, Planning Division, MOH

Under the new direction 2018 to 2020, there are six (6) Policy Pillars and the specific Health-related strategy is under Pillar 2: Enhancing Inclusive Development and Wellbeing. The Health-Specific Strategy is Strategy B3: Enhancing Health Care System Delivery System. Under this strategy there are four (4) main initiatives as follows:

- Creating a sustainable healthcare system
- Optimising financial resources for healthcare
- Strengthen population health
- Pursuing greater collaboration among stakeholders

The Planning Division has conducted several briefings on the MTR11MP as follows:

- Ministry of Health Planning Steering Committee meeting on 9 November 2018
- Director General of Health Special Meeting on 3 December 2018
- Briefing on MTR 11MP, Policy Implementation Plan and Action Plan on 11 December 2018 at the National Cancer Institute. The briefing was attended by officials from all MOH Divisions and Institutions as well as State Health Departments (Image 6.1)

Image 6.1

Briefing on MTR 11MP, Policy Implementation Plan and Action Plan on 11 December 2018 at the National Cancer Institute



Source: Health Policy And Plan Planning Section, Planning Division, MOH

## HUMAN RESOURCES FOR HEALTH (HRH) PLANNING

In 2018, the Health Policy and Planning Section have conducted several activities involving the planning of Malaysia Human Resource for Health (HRH). These activities are a continuation from the past year's activities, such as:

**i. Data on Malaysia Human Resource for Health from year 2000 to 2017**

This document contains compilation of published data on HRH from year 2000 to 2017. The data covers number and distribution of Doctor, Dentist, Pharmacist, Nurse, Assistant Medical Officer as well as few other professions as available in the Health Indicators, which is an annual publication by Health Informatics Centre. The document is an initiative that adapts Organization for Economic Cooperation and Development (OECD) approach which documents and shares series of data on few categories of HRH available in each of the OECD countries. The data can be accessed by public at the publication section in Ministry of Health Official Portal.

**ii. Projection on Human Resources for Health (HRH)**

The HRH Projection is based on population healthcare need has been finalized. The study uses the system dynamic methodology, has been able to estimate the requirements of the the requirements for medical doctors, dentists, pharmacists, nurses and Assistant Medical Officers in Malaysia based on the needs of Malaysia population. In 2018, activities to disseminate the research findings in the form of reports and presentations at conferences and seminars were accomplished.

**iii. Malaysia Human Resource for Health Master Plan**

The Malaysia Human Resource for Health Master Plan is a long-term planning document for HRH in Malaysia. The draft document together with its strategies was presented to the Honorable Health Minister Datuk Seri Dr. S. Subramaniam on 9 January, 2018. However, the implementation of the Master Plan was postponed indefinitely based on the decision of a follow-up meeting with the Secretary-General of the Ministry of Health Malaysia on 24 January 2018. This meeting was also attended by relevant stakeholders.

## MALAYSIA NATIONAL HEALTH POLICY (MNHP)

Malaysia currently has multiple, specific national health policies which may run independently according to their own objectives and directions. There are also national health policies, strategies and action plans which are incorporated under medium/short term plans such as the 5-year Malaysia Development Plan, Health Services Transformation Plan and Ministry of Health (MOH) Strategic Plans. Health and health related policies are also visualized in the Vision for Health and Missions of the MOH. Malaysian health policies and plans are aligned with international resolutions and commitment such as Sustainable Development Goals, Universal Health Coverage and World Health Assembly resolutions.

The ultimate aim is to align all these policies under one umbrella policy. Since Malaysia has yet to develop a comprehensive national health policy that comprises all those relevant policies, inputs from relevant stakeholders in health are required to ensure this MNHP has objectives and strategic directions for the future health of Malaysia.

A total of 7 discussions, meetings and workshops were held with stakeholders within the MOH to formulate and prepare a draft of the Malaysia National Health Policy (**Table 6.1**).

**Table 6.1**  
**List of discussions, meetings and workshops were held with stakeholders within the MOH**

No	Date	Program
1.	9 January 2018	The presentation of the MNHP framework to the Minister of Health Malaysia, the Secretary-General of MOH and the Director-General of Health Malaysia
2.	13 February 2018 (Institute of Health Management)	The Stage Session with Senior Management, Head of Clinical Services, Medical Officers, Housemen, Nurses, Assistant Medical Officers and others chaired by Health Minister and Director General of Health Malaysia
3.	10 to 12 August 2018 (Holiday Inn Hotel Glenmarie Shah Alam)	Minister's Retreat
4.	August to October 2018	3 Discussion sessions with Dr Azman (moderator)
5.	9 November 2018	<i>Jawatankuasa Pemandu Perancangan Kementerian Kesihatan</i> (JPPKK) Meeting chaired by the Ministry of Health Secretary-General and Director-General of Health Malaysia
6.	3 December 2018	<i>Ketua Pengarah Kesihatan Khas</i> Meeting
7.	11 December 2018 (National Cancer Institute)	Briefing on Malaysia National Health Policy and Mid term Review of the 11th Malaysia Plan to all Divisions, Units, Institutions and State Health Departments (JKN)

Source: Health Policy and Plan Planning Section, Planning Division, MOH  
"DKN Document is a "living" document and can be reviewed as needed."

## THE MINISTRY OF HEALTH PLANNING STEERING COMMITTEE (JPPKK)

The Ministry of Health Planning Steering Committee (JPPKK) is the highest body in the Ministry of Health in making holistic policy, planning and development decisions in MOH and in line with national policies and policies.

JPPKK met once in 2018 and a total of 5 Paper policies were tabled in the following sections (Table 6.2):

**Table 6.2**  
List of 5 Paper policies tabled in JPPKK

No	Policy	Status	Programme/Activity
<b>JPPKK BIL 1/2018 (9 November 2018)</b>			
1.	The Ministry of Health Planning Steering Committee Working Paper (JPPKK) on the proposed establishment of the new 4 District Health Office (PKD) in Sarawak: <ul style="list-style-type: none"> <li>• PKD Bukit Mabong (Kapit),</li> <li>• PKD Beluru/Telang Usan (Miri),</li> <li>• PKD Tanjung Manis (Mukah) and</li> <li>• PKD Selangau (Sibu)</li> </ul>	The meeting agreed in principle with the proposed establishment of the 4 PKD's but was made in phases	Sarawak State Health Department
2.	Notification Paper on Health Sector Business Reference Model	Approved	Planning Division (eHealth Planning Section)
3.	Notification Paper on Online Health Services Regulatory Framework	Approved	Planning Division (eHealth Planning Section)
4.	Notification Paper on Status of National Health Policy Formulation / Healthy Malaysia	Approved	Planning Division (Policy Planning & Health Plan Section)
5.	Notification Paper on Status of Mid-Term Review 11th Malaysia Plan	Approved	Planning Division (Policy Planning & Health Plan Section)

Source: Health Policy and Plan Planning Section, Planning Division, MOH

## SUSTAINABLE DEVELOPMENT GOALS AND UNIVERSAL HEALTH COVERAGE

The Sustainable Development Goals (2016 to 2030) which consists of 17 goals and 169 targets was launched by the United Nation (UN) in January 2016. It is the continuation from the Millennium Development Goals (MDG) which has ended in 2015. The Economic Planning Unit of The Prime Minister Office (EPU) was appointed as the secretariat of SDG at the national level, while the Malaysia's Department of Statistic (DOSM) as the focal point for data collection and information on SDG. The Planning Division of the Ministry of Health was assigned as the secretariat for goals related to health for the health sector at the ministry level.

2018 has been a productive year for SDGs Secretariat at Ministry of Health. Following the meeting of Technical Committee in November 2018, series of meeting has been conducted to analyse gaps and identify priorities that are relevant to MOH. The Secretariat had also ascertained responsible Divisions for each of the SDGs indicators.

In further effort to achieve the SDGs and its values, “Sustainable Development Goals and Universal Health Coverage Workshop” was held on 31 October to 1 November 2018. Among the objectives of the workshop are:

- i. to identify issues of data collection for each SDG and UHC indicators and their solutions,
- ii. to discuss on detail suggestion for data flow in M&E process of SDG and UHC in health sector,
- iii. to propose stratifies for each indicators of SDG and UHC, and
- iv. to propose reporting mechanism for SDG and UHC in health sector

This workshop was attended by total of 51 participants from various Divisions within MOH and also representatives from Department of Statistics Malaysia. The World Health Organization (WHO) Representative to Malaysia, Brunei and Singapore also attended and delivered a short briefing on “Regional Monitoring Framework for SDGs and UHC”. After identifying issues related to data collection for SDGs and UHC indicators, the Secretariat subsequently invited WHO Western Pacific Regional Office Coordinator for Health Intelligence and Innovation on 12 to 14 December 2018 for a better in-depth discussion with respective Divisions related to data collection.

## **NATIONAL HEALTH FINANCING SECTION**

National Health Financing (NHF) is a section under the Planning Division which is responsible for studying, designing and implementing health system transformation plans for Malaysia that are related to health system financing. In 2018, NHF carried out many activities such as the establishment of the *Peduli Kesihatan B40* health scheme (PeKa B40), continuation of the Malaysia Health Systems Research, acting as secretariat for the Health Cluster of National Action Council on Cost of Living (NACCOL) and collaboration with the Joint Learning Network (JLN) and World Health Organization (WHO).

## **MALAYSIA HEALTH SYSTEM RESEARCH (MHSR)**

The Malaysia Health System Research (MHSR) began on 15 December 2014 was brought to a close on 14 June 2018. It is a collaboration between the Government of Malaysia and Harvard University to produce a comprehensive, rigorous and evidence based analysis of the Malaysia health system and to recommend policy changes for improvements i.e. in improving health outcomes, financial risk protection and user satisfaction. The MHSR was overseen by a Steering Committee (SC) and was officially brought to a close by the Minister of Health, the chairman of the committee, during the Malaysia Health Systems Research Steering Committee (MHSR-SC) Meeting, Ref. 1/2018 that was held on 17 December 2018. During this meeting, the achievements of MHSR were discussed and dissolution of the steering committee was finalized (**Image 6.2**).

Image 6.2

Malaysia Health Systems Research Steering Committee (MHSR-SC) Meeting, Ref. 1/2018



Source: National Health Financing Section, MOH

Three (3) strategic recommendations were proposed by the MHSR study:

- i. Reform of service delivery with the development of Enhanced Primary Health Care (EnPHC)
- ii. Development of Non- Profit Voluntary Health Insurance (VHI) as an initial step in the long term strategy towards Social Health Insurance (SHI)
- iii. Organizational transformation of the Ministry of Health (MOH), to support the implementation of recommendations (a) and (b)

NHF is responsible for activities related to the development of VHI, which lays the groundwork for transforming the financing of Malaysia's health system. The VHI plan recommends the initial introduction of VHI to a limited population in order to build a foundation for future expansion. NHF led the efforts to establish ProtectHealth Corporation (PHCorp), a non-profit entity, wholly owned by MOH, and designated as the organization responsible for operating VHI. In May 2018, the development of VHI had been put on hold, following changes in policy direction by the Government. However, MOH's long term goal of providing equitable access to quality health services in a sustainable manner remains unchanged.

#### **PEDULI KESIHATAN B40 HEALTH SCHEME (PeKa B40)**

*Peduli Kesihatan B40* (PeKa B40) is a new health scheme introduced by the Ministry of Health Malaysia for the bottom 40 percent of households by income. It is in line with the Government's manifesto to expand the *Peduli Sihat Selangor* health scheme nationwide. However, PeKa B40 is a paradigm shift and an innovation which is different from previously-offered health packages. PeKa B40 was approved by Cabinet on 23 November 2018 and a RM100 million budget was announced for this scheme during *Belanjawan 2019*.

PeKa B40 was introduced to tackle the high prevalence of non-communicable diseases, to improve access to health services especially for those in rural areas and to promote early detection and treatment of cancer among the B40 population. The four (4) benefits offered

are Health Screening, Health Aids, Completing Cancer Treatment Incentive and Transport Incentive

ProtectHealth Corporation Sdn Bhd (PHCorp) is responsible for the implementation of PeKa B40, which is scheduled to begin in quarter 2 (Q2) 2019 as a pilot project among B40s aged 50 years and above. The media launch of PeKa B40 will be held by MOH Malaysia and PHCorp on 28 January 2019 and the grand launch of PeKa B40 is expected to be in April 2019.

## COLLABORATION WITH JOINT LEARNING NETWORK (JLN)

Joint Learning Network (JLN) is an innovative, country-driven network of practitioners and policymakers from around the world who co-develop global knowledge products that help bridge the gap between theory and practice to extend coverage to more than 3 billion people. JLN facilitates collaborative learning around five (5) technical areas namely population coverage, primary health care (PHC), provider payment, information technology and quality of care.

Planning Division through National Health Financing (NHF) section has become the secretariat for the JLN Country-Core Group (CCG) for Malaysia which handles the local arrangement and coordination of JLN activities since 2012. The JLN CCG is led by the Director of Planning Division while the Steering Group (SG) representative for Malaysia is our Senior Deputy Director of Planning Division who has served as JLN Convenor from July 2015 until June 2018. Malaysia has been part of SG members since 2011 to 2018.

In 2018, through engagement with JLN, NHF officers had organized various country specific activities such as adaptation workshops on Medical Audit. The JLN CCG has managed to bring colleagues from Health Insurance Review Assessment (HIRA), South Korea and PhilHealth, Philippines on 22 to 25 May and 18 to 20 December 2018, respectively (**Image 6.3**). The main objective of both workshops is to share Korea and Philippines's country experiences pertaining to medical audit activities. Besides learning from other countries, MOH officers also shared our country experience with other JLN countries.

**Image 6.3**  
**Medical Audit Workshop**



Medical Audit Workshop with HIRA, South Korea



Medical Audit Workshop with PhilHealth, Philippines

Source: National Health Financing Section, MOH



In addition, NHF officers had been involved in other international JLN activities including;

- i. JLN 2<sup>nd</sup> In-Person Meeting on Domestic Resource Mobilization (DRM) Collaborative and 3<sup>rd</sup> Annual Universal Health Coverage (UHC) Financing Forum in Washington DC, United States of America (16 to 20 April 2018). In this meeting, participants continued discussions on DRM as well as sharing experiences on communication challenges between each country's Ministry of Health and Ministry of Finance in prioritising health through allocating resources for the country. The forum focused on mobilizing and shaping health financing to achieve equity and access to services, where 400 experts on public finance, health finance and service delivery participated.
- ii. 2018 HIRA Global UHC Campus International symposium on "How to price new drugs and new health technologies?": sharing practices and building a purchasing network among ASEAN, GCC, and other nations" in Wonju, Korea (24 to 26 October 2018). In this symposium the participants share their experiences and insights on sustainable healthcare financing, specifically on strategies to appropriately evaluate and price new drugs and new technologies (**Image 6.4**).

**Image 6.4**  
**2018 HIRA Global UHC Campus International Symposium**



*Source: National Health Financing Section, MOH*

- iii. JLN workshop on Primary Healthcare Financing and Payment Collaborative workshop "Making provider payment mechanisms more strategic: Removing the roadblocks to implementation" in Nairobi, Kenya (27 to 29 November 2018). The objective of this workshop is to discuss on Strategic Purchasing issues in depth as well as sharing each participant's country experiences pertaining to the issue. Malaysia's representatives include one of NHF officer, presented a poster on 'Making Provider Payment Mechanisms More Strategic: Removing the Roadblocks to Implementation'.

## **COLLABORATION WITH WORLD HEALTH ORGANIZATION (WHO)**

Through the bi-annual World Health Organization (WHO) Programme Budget, in 2018, NHF has organized a Strategic Communication Workshop on 25 to 26 July 2018, conducted by Mr Hans Olsen, an international consultant with vast experience in strategic communications (**Image 6.5**). It was held in Putrajaya and the participants were from various sections of the Planning Division and other divisions in Ministry of Health (MOH) Malaysia. The objective

of this workshop is to develop the strategic communications plan for the implementation of *Peduli Kesehatan B40* (PeKa B40) and the outcomes of this workshop included identifying internal and external stakeholders, crafting specific message to specific audiences according to the Single Overarching Communication Outcome (SOCO) and identifying the appropriate channels to deliver the message on PeKa B40 to the targeted audience. The knowledge and experience gained from this workshop will assist the officers during the implementation of PeKa B40, especially during town hall and roadshow sessions.

**Image 6.5**  
**WHO-NHF Strategic Communication Workshop, 25 to 26 July 2018**



*Source: National Health Financing Section, MOH*

In 27 June 2018, an officer from NHF had the honour of giving a presentation as Malaysia's representative in the Third WHO Bi-regional Workshop on Health Financing Policy for Universal Health Coverage in Asia. This workshop was held in Ho Chi Minh, Vietnam from 25 to 28 June 2018. The topic of the presentation is Plenary Discussion: Pharmaceuticals in the Health System of Malaysia. Through this workshop, Malaysia gained knowledge regarding the experiences of other countries when dealing with strategic purchasing issues, on how to improve intersectoral alignment of budget to priorities, financing of primary and specialized care to support the continuum of care, contracting with health providers, and monitoring and evaluation of payment systems.

In addition, an NHF officer also had the opportunity to represent Malaysia in WHO's Third Meeting Of The Technical Advisory Group On The Western Pacific Region that was held in Manila, Phillipines on 13 to 15 November 2018. WHO Regional Office for the Western Pacific (WPRO) established the Universal Health Coverage Technical Advisory Group (UHC TAG) in 2016, to provide advice to WHO and Member States on how to accelerate achievement of UHC in the Region. The third UHC TAG meeting discussed country progress on UHC and highlighted the facilitators and barriers, shared lessons and identified further actions to advance UHC and identify the priority areas for development in the Western Pacific Region for year 2019 (**Image 6.6**).

During this event, Malaysia's representatives presented a poster titled 'Malaysia snapshot: Advancing UHC in Malaysia', which focused on Malaysia's progress and action taken since the last TAG meeting, a summary on action taken to strengthen health equity in advancing UHC and SDG. Malaysia is currently on track in the implementation of UHC where we have

achieved UHC based on comprehensive health services available to all, at minimal cost in the public sector. However the rising prevalence of NCDs and the sustainability of health financing pose significant challenges to Malaysia. One of Malaysia's key initiatives to improve access to health services is the *Peduli Kesihatan* B40 health scheme (PeKa B40).

**Image 6.6**  
**Presentation by MOH Malaysia's Representative at the Third Meeting of The Technical Advisory Group on The Western Pacific Region**



*Source: National Health Financing Section, MOH*

### **NATIONAL ACTION COUNCIL ON COST OF LIVING (NACCOL)**

On 7 February 2018, Cabinet approved the establishment of National Action Council on Cost of Living (NACCOL) with the Ministry of Domestic Trade and Consumer Affairs (KPDNHEP) as the secretariat. The purpose of NACCOL is to address issues and challenges related to the rising cost of living affecting the well-being of the population. There are three (3) levels in this council; the High Level (chaired by the honourable Deputy Prime Minister Malaysia), Executive Level and the Cluster Working Groups which consists of the Housing, Education, Transport, Utility, Food and Health clusters. The Health Cluster was established on 31 October 2018 and co-chaired by the Secretary General of MOH Malaysia and Director General of Health Malaysia. NHF was appointed as secretariat for the Health Cluster and its first meeting was held on 7 November 2018 (**Image 6.7**)

**Image 6.7**  
**National Action Council on Cost of Living Health Cluster Meeting. Ref. 1/ 2018**



*Source: National Health Financing Section, MOH*

## MALAYSIA NATIONAL HEALTH ACCOUNTS (MNHA) SECTION

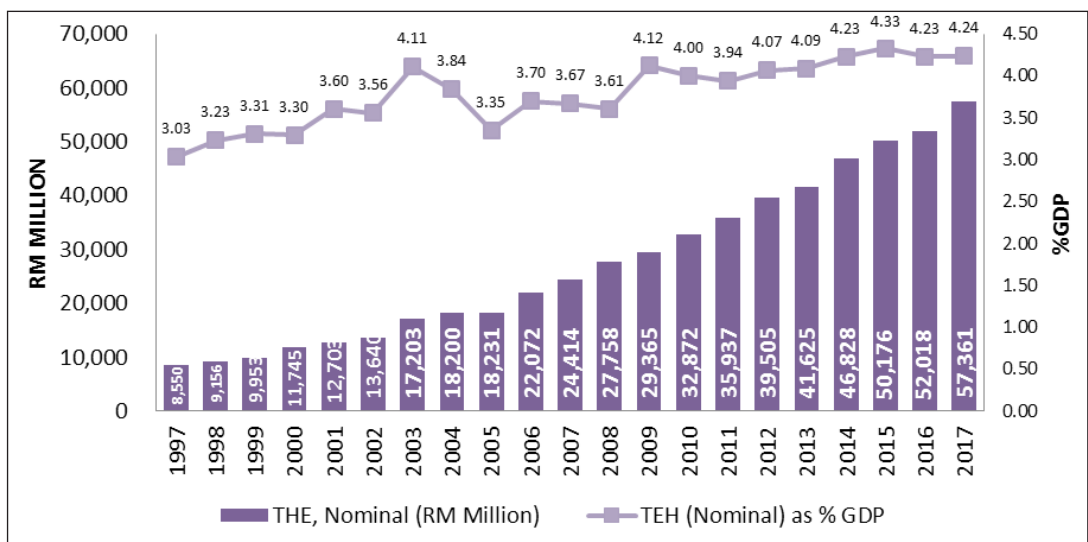
In 2001 Ministry of Health (MOH), Malaysia embarked on a journey to produce quality national health accounts information that led to development and institutionalization of Malaysian National Health Accounts Unit. Since its establishment, Malaysian National Health Accounts Unit strives to provide policy makers with quality information for development of evidence-based health policies. The Malaysia National Health Accounts data provides a wealth of useful macro-level health expenditure information to assist not only policy makers, but also various researchers and other stakeholders.

### MNHA HEALTH EXPENDITURE REPORT 1997 TO 2017

In 2018, MNHA produced Malaysia National Health Accounts Health Expenditure time series report from 1997 to 2017. This time series report captures and reports data for 21 years, describing key trends of both public and private sectors spending for health based on internationally standardized National Health Accounts (NHA) methodology. The chapters in this publication covers some general expenditure overviews followed by expenditure reports using the standard NHA framework, which is, expenditures by sources of funding, expenditures by providers of health services & products, and expenditures by functions of health services and products.

Malaysia's total expenditure on health (TEH) ranged from RM8,550 million in 1997 to RM57,361 million in 2017. This expenditure as a ratio to Gross Domestic Product (GDP) for the same period ranged from 3.03 per cent to 4.24 per cent (**Figure 6.2**). The Total General Government Health Expenditure (GGHE) as percentage of General Government Expenditure (GGE), increased from RM4,360 million in 1997 to RM29,338 million in 2017 or an increase from 4.84 per cent to 7.34 per cent.

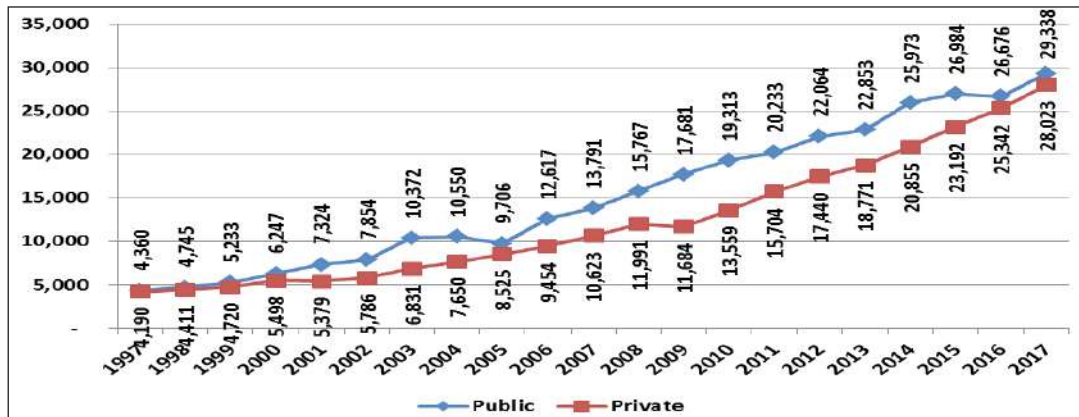
**Figure 6.2**  
Total National Health Expenditure, 1997 to 2017 (RM Million & %GDP)



Source: MNHA Section, Planning Division, MOH

Various sources of financing for health care services and products are identified and categorized as either public sector or private sector agencies. Throughout the 1997 to 2017 time series, both the public and private sector spending shows an upward trend with the public sector health spending remaining higher than the private (Figure 6.3). During the same time period MOH was identified as the highest financier followed by private household Out-of-Pocket (OOP).

**Figure 6.3**  
**Total Health Expenditure by Sources of Financing (Public Vs. Private), 1997 to 2017**



Source: MNHA Section, Planning Division, MOH

The providers of health care services and products include hospitals, nursing and residential care facility providers, ambulatory health care providers, retail sale and medical goods providers and public health program providers. Over the span of 21 years from 1997 to 2017, highest expenditure for health was at hospitals as providers of health care services followed by providers of ambulatory health care.

Functions of health services based on NHA includes core functions of health care (e.g. curative care, rehabilitative care, long term nursing care, ancillary services, out-patient medical goods, public health services, health administration and health insurance) and health related functions (e.g. education, training of health personnel, research and development). When exploring 1997 to 2017 time series TEH by functions/services/medical goods purchased, curative care remain the highest health services expenditure ranging between 56.89 to 70.02 percent. This is followed by expenditure for Health program administration and health insurance which ranged between 7.24 to 11.26 percent of TEH.

The TEH is disaggregated to show 13 states and three (3) Federal Territories, health expenditure. Selangor and Kuala Lumpur are the two (2) locations with highest health expenditure. In 2017, Selangor's health expenditure was RM10,020 million and in Kuala Lumpur the health expenditure was RM8,653.

OOP health expenditures are attained through a complex method called the integrative method whereby the gross level of direct spending from consumption, provision and financing perspective is collated followed by a deduction of third party financial reimbursements by various agencies to avoid double counting. The 1997 to 2017 time series data shows that the

household OOP health expenditure remains the largest single source of funding in the private sector amounting to an average of 74.68 percent of this sector spending which is equivalent to about 28.72 to 37.61 percent of total health expenditure. The OOP health expenditure from 1997 to 2017 has increased from RM3,166 million to RM21,513 million.

The annual publication of NHA technical report provides valuable information for various health transformation endeavors and assists to better understand the national trends in health expenditure. It provides a clearer picture of funding, distribution and types of healthcare services within the country.

## **NATIONAL AND INTERNATIONAL COLLABORATIONS**

On behalf of the Planning Division, MNHA continued to be involved with many National and International projects/programmes. MNHA played an important role in analysing and extracting data to assist in several National Projects such as MOH's publication: Health Facts, data requests in preparation for Healthcare Sector Transformation activities, and also for ad hoc requests relating to national health expenditure from national agencies and local universities as well as in preparation for top level management speeches.

At international level, MNHA actively participated and continue to be involved in international collaborations and data submissions. NHA time series national health expenditure estimation by MNHA Unit was submitted to several international agencies such as WHO Geneva for World Health Statistics, Global Health Expenditure Database (GHED) and Health at a Glance (HAG).

As mentioned in earlier MOH reports, MNHA already began to work towards using the revised version of System of Health Accounts (SHA 2011). With the guidance from consultant appointed by WHO, MNHA has progressed in developing the methodology to map and create MNHA 2 classifications/framework. This MNHA 2 classification will be in line with MNHA 1 classifications and local policy needs, while still based on the new international SHA 2011 framework. For this year (2018), a pilot project of producing health expenditure data using SHA 2011 Framework for 3 years (2015 to 2017) has been conducted and several macro data had been presented during MNHA Steering Meeting 2018. MNHA's work and contribution adds value to many financial policy decisions at national, regional and international levels.

## **HEALTH INFORMATICS CENTRE**

### **MALAYSIAN HEALTH DATA WAREHOUSE (MyHDW)**

The Malaysian Health Data Warehouse (MyHDW) development started in 2015 based on a blueprint that was produced in 2011-2013. MyHDW is a trusted source of truth of comprehensive healthcare data structured for query and analysis purposes. MyHDW works as a platform that coordinates and integrates health data from various data sources to meet the various needs of health information in a timely manner.

The first phase of MyHDW development involved the collection of data from the patient's visit to healthcare facilities which include all Ministry of Health (MOH) Hospitals, Private Hospital, University Hospital, and Army Hospital. The next phase is the expansion of this service to all

other facilities e.g Outpatient Clinic, Specialist Clinic, Emergency and Trauma Department, Day Care Centre, Procedure Room, Traditional and Complementary Centre, Clinical Support Services which consists of Physiotherapy, Occupational Therapy, Speech Therapy, Audiology, Dietetics, Medical Social, Pathology, Nuclear Medicine, Forensic, and Radiology, and all other public and private facilities.

## TRAINING OF MyHDW

The MyHDW system training session was held from January to May 2019 at MIMOS Berhad, Kuala Lumpur. A total of 18 sessions were conducted for the *Sistem Maklumat Rawatan Pelanggan* (SMRP) covering the Outpatient Module, Clinical Support, Procedures and Traditional and Complementary Medicine. For Patient Registry Information System (PRIS), 17 sessions were conducted including 15 Cancer Registry submodules, Obstetric Registry submodule and Non-Infectious Disease Registry submodule. The approach adopted is to train champions representing the State Health Department and selected health facilities. This will then implement echo-training to deliver next training to consumers at state level and their respective facilities.

Participants have been exposed to the procedure of activating user accounts, accessing the system and then using the system in their daily tasks. In addition to training data entry into the system, participants are also trained for reporting purposes.

**Image 6.8**  
**Training of MyHDW, 2018**



Source: Health Informatics Centre, Planning Division, MOH

## HEALTH INFORMATICS STANDARDS UNIT

The unit was actively involved in several interagency meetings focused mainly on informatics standards and harmonisation of master data. The unit had also organised several workshops throughout the year to equip hospital personnel who are involved in data collection with necessary professional skills. One of these training sessions included certification exercise to measure one's competency in assigning ICD-10 code to diagnosis given to patients at discharge from care. The list of standard unit activities for 2018 is laid out in **Table 6.3** These activities ensure data quality and consistency for more accurate statistical reporting for the Ministry of Health.

**Table 6.3**  
**List of Standards Unit Activities in 2018**

No.	Activity	Date	Details
1.	MyHRDM 1.0 book publication	January 2018	
2.	Meeting with Dr Steeve Ebener of Health Geolab Collaborative, Manila, The Philippines – Disease Control Division, MOH	29 March 2018	The unit was introduced to the Common Georegistry guidance, which is a tool that can be used to aid the unit to effectively host, maintain, update and openly share the master lists and geographic relationships core to public health
3.	Attended SNOMED CT Business Meeting London 2018	8 to 11 April 2018	2 representatives from Malaysia; Dr Md Khadzir attended the General Assembly while Dr Kamarulariffin attended the Forum Member
4.	<i>Bengkel Evaluasi Dokumentasi Diagnosis Zon Pantai Timur dan Zon Utara Bil 1/2018</i> , Royal Hotel, Kuala Lumpur	24 to 26 April 2018	To monitor the quality of diagnostic documentation and strengthen documentation techniques among medical personnel. The workshops were held in stages according to the zone.
5.	<i>Bengkel Evaluasi Dokumentasi Diagnosis (Sabah) Bil 2/2018</i> , Ming Garden Hotel, Kota Kinabalu	26 to 28 June 2018	To monitor the quality of diagnostic documentation and strengthen documentation techniques among medical personnel. The workshops were held in stages according to the zone
6.	<i>Kursus Certification of Coder (COC) ICD-10 KKM Bil 1/2018</i> , Avillion Hotel, Melaka	1 to 6 July 2018	Activities to improve the quality of ICD-10 coding by training and evaluating coders through Level 1, Level 2, and Level 3 examination.



No.	Activity	Date	Details
7.	<i>Bengkel Evaluasi Dokumentasi Diagnosis (Sarawak) Bil 3/2018</i> , Grand Dormani Hotel, Kuching, Sarawak	17 to 19 October 2018	To monitor the quality of diagnostic documentation and strengthen documentation techniques among medical personnel. The workshops were held in stages according to the zone
8.	Attended SNOMED CT Business Meeting & Expo 2018 Vancouver	14 to 19 October 2018	Malaysia sent 2 representatives; Dr Md Khadzir attended the General Assembly while Mr. Muhamad Fareed attended the Forum Member
9.	<i>Kursus Certification of Coder (COC) ICD-10 KKM Bil 2/2018</i> , Dormani Rajah Court Hotel, Kuching, Sarawak	21 to 26 October 2018	Activities to improve the quality of ICD-10 coding by training and evaluating coders through Level 1, Level 2, and Level 3 examination
10.	Attended <i>Mesyuarat Pemurnian Dokumen Malaysian Standard</i> for Geographic Information/ Geomatics - Feature and Attribute codes at MaCGDI, Putrajaya	1 November 2018	The meeting was focused on the refinement MS1759:2015 which describes the encoding of the real world in terms of features and attributes to enable information exchange between agencies.
11.	<i>Kursus Penyelidikan Certification of Coder (COC) ICD-10 Intensive (KKM) Bil 1/2018</i> , Hotel Seri Pacific Kuala Lumpur	12 to 16 November 2018	Activities to improve the quality of ICD-10 coding by training and evaluating coders through Level 1, Level 2, and Level 3 examination

Source: Health Informatics Centre, Planning Division, MOH

**Image 6.9**  
**Standards Unit Activities in 2018**



Source: Health Informatics Centre, Planning Division, MOH

## HEALTH FACILITY PLANNING SECTION

The Health Facility Planning Section continues to embark in providing input for health facility development within the Ministry of Health. In the year 2018, the Ministry of Health was allocated RM 1,660,487,896 for the development of 418 projects; of which 33 are new projects and 385 are committed/ongoing projects.

Among the highlights for the year 2018 is the proposed development of the National Centre for Disease Control (CDC) in Nilai, Negeri Sembilan and the National Institute of Forensic Medicine (NIFM), both of which are currently in planning phase.

The CDC shall be a one-off facility which shall accommodate a Public Health Reference Laboratory and a Disaster, Outbreak, Crisis and Emergency Centre.

The NIFM, which is proposed to be located in within Hospital Kuala Lumpur, shall be the nation's first standalone facility that is dedicated to Forensic Medicine, aimed to replace the current one that is operating in the Pathology Wing of Hospital Kuala Lumpur. It shall offer full-fledged Forensic Medicine services, which, among others, includes Forensic Pathology, Clinical Forensic Medicine and Forensic Odontology.

## ACTIVITIES AND ACHIEVEMENTS

In the year 2018, this Section produced a total of three (3) Medical Brief of Requirements (MBoR) documents for the development of health facility projects, including *Blok Pergigian Bukit Changgang, Selangor, Klinik Kesihatan Dato' Keramat, Kuala Lumpur* and *Klinik Kesihatan Taman Ibu Kota, Kuala Lumpur*. The MBoR is a pertinent document which specifies the background and scope of a health facility project from the medical perspective.

This Section also successfully concluded a total of seven (7) Value Management workshops in collaboration with the Economic Planning Unit. The year 2018 also witnessed the execution of Tender Evaluation workshops for a total of ten (10) health facility projects such as the Upgrading of Hospital Tawau and a new Women and Children Block for Kajang Hospital.

Design development was carried out throughout the year 2018 for various ongoing projects. This is the most time-consuming process in the development of a health facility, and requires active involvement from this Section, whereby detailed planning is done through intensive interaction with the presence of representatives from the Public Works Department and End-Users.

A total of 203 Technical Specifications Adherence packages from four (4) projects; Hospital Cyberjaya, Hospital Dungun, Hospital Putrajaya (Endocrine), WCC Hospital Raja Permaisuri Bainun, Ipoh and Hospital Umum Sarawak were received and analysed and endorsed in the year 2018.

Pre-handing over inspection sessions of ten (10) projects were successfully conducted in 2018, most notably being the Obstetrics Complex Hospital Klang and the Women and Children Hospital Kuala Lumpur, both of which were handed over to the Ministry of Health in the same year.

This Section also puts emphasis in the training of staff. In October 2018, Dr. Siti Sarah binti Mohd Shukor was selected for the Overseas Training Programme which took place in Melbourne, Australia. This training programme focuses in health facility planning, specifically in the planning and development of Women and Children Hospitals. Dr. Siti Sarah was attached to Silver Thomas Hanley Ptd Ltd, a medical planning consultation company, during the two-week training programme.

In November 2018, this section held a four-day workshop in Melaka for the development of the Medical Planning Guideline for Hospital Development.

Following the Section's way forward in previous year to address issues of land constraint, collaboration with the Public Works Department had taken place in 2018 to develop Pre-Approved Plans (PAP) for Compact Design Type 2 and Type 3 Health Clinics. These designs shall be employed in the development of health clinics in highly dense, urban areas to optimize land utilization. In addition, this Section had also collaborated with the Public Works Department for the development of standard room data requirements of 55 rooms for Ministry of Health hospitals.

## **WAY FORWARD**

This section is committed to pursue cost-effective and timely project implementation to address issues of congestion in health facilities and to achieve the targeted Bed per Population Ratio (BPR) of 2.0 by the end of year 2020 as indicated in the 11<sup>th</sup> Malaysian Plan.

## **eHEALTH STRATEGIC PLANNING UNIT**

### **TELECONSULTATION SERVICES (TC) 2.0 STUDY REPORT**

Operation of Teleconsultation (TC) system commenced in 2000 covering 44 Ministry of Health (MOH) hospitals to cater services for four (4) disciplines namely Neurosurgery, Radiology, Cardiology and Dermatology. However, study conducted in 2016 has found that obsolete infrastructure and technology leading to frequent service disruption as well as user preference in using more user-friendly mobile TC via social media platform result in reduction in TC utilization. Subsequent to this, the Telehealth Steering Committee in its meeting on 2 November 2016 and Technical ICT Steering Committee in its meeting on 25 May 2018 had instructed eHealth Section to identify long-term solution and way forward for MOH TC service.

Two (2) workshops were held in 2018 involving service owners namely Medical Development Division, Family Health Development Division and Dental Health Program; Subject Matter Expert (SME) consisting of TC users including identified National Heads of Services or representatives; information technology officers from hospital, State Health Department and head office Ministry of Health; as well as Engineering Division. The purpose of the workshop is to assess the need, to identify the purpose and technical requirements of TC services. The details of the workshop are as the following (**Image 6.10**):

- i. **Workshop on Preparation of Business Consultancy Services Architecture (TC) 2.0 MOH** was held on 30 July to 1 August 2018 involving 58 participants;

- ii. **Workshop on Teleconsultation Service (TC) 2.0 MOH: Technical Requirements & Infrastructure** was held on 5 to 6 September 2018 involving 52 participants.

The findings of the workshop together with recommendations and way forward proposal to be presented to MOH top management in 2019 for further action.

**Image 6.10**  
**Teleconsultation Services (TC) Workshop in Year 2018**



Source: eHealth Strategic Planning Unit, Planning Division, MOH

## **THE DEVELOPMENT OF A REGULATORY FRAMEWORK FOR ONLINE HEALTHCARE SERVICES (OHS)**

From March to July 2017, three (3) companies offering Online Healthcare Services(OHS) which are Doctor2U, DoctorOnCall and 24 Angels Homecare have met eHealth Planning Section to enquire regarding regulatory issues of their service. Subsequently, a situational analysis done by eHealth Section had found that the current laws are inadequate to regulate OHS. In October 2017, the Director-General of Health has instructed eHealth Section to facilitate the development of a regulatory framework for OHS. Activities in 2018 are a continuation of the activities from the previous year following the DG's instructions. Among the activities done in 2018 are as follows:

- i. Gap analysis of the current laws to regulate OHS from March to October 2018
- ii. Risk analysis from March to October 2018. This is done as healthcare-related services delivered online are diverse in discipline and variable for different providers. Development of a regulatory framework should prioritize services with the highest risk in the initial phase and those with lower risk on subsequent phases

- iii. OHS Workshop No.1/2018 was held on 3 to 4 October 2018 with the objective of finalizing the gap and risk analysis of current law relevant to OHS with the involvement of representatives from regulatory bodies, service owners in MOH, central agencies and the Malaysian Medical Association (**Image 6.11**)
- iv. Online public survey was done from November to December 2018 to assess public awareness, utilization, and concerns on OHS
- v. OHS regulatory framework was selected as one of the pioneer projects for National Regulatory Sandbox (NRS) organized by Malaysian Global Innovation & Creativity Centre (MaGIC). Preliminary activities were done from February until May 2018. However, this project is put on hold following restructurization of MaGIC post-GE14
- vi. Development of a regulatory framework for OHS was presented during YBMK's retreat session with MOH's top management on 10 to 12 August 2018. It has been selected as one of the projects under YBMK's Retreat Initiative
- vii. Proposal Paper for Development of OHS regulatory framework has been presented during *Jawatankuasa Pemandu Perancangan Kementerian Kesihatan Malaysia* (JPPKK) Meeting on 9 November 2018.

**Image 6.11**  
**Workshop on Online Health Services 1/2018**



Source: eHealth Strategic Planning Unit, Planning Division, MOH

## **PROJECT MALAYSIA HEALTH INFORMATION EXCHANGE (MyHIX) 2.0**

The Malaysia Health Information Exchange (MyHIX) is a system that enables online individual health care information sharing between health care facilities. It forms a fundamental aspects to the creation of the Lifetime Health Record (LHR) for every individual who seek health/ medical care at health care facilities.

In general, all lifelong health activities from all points of care location can be recorded, stored and shared through the MyHIX system. The patient's medical records stored in the MyHIX repository accessible by medical practitioners at any time subject to the existing laws and policies as well as the consent of the individuals involved. The MyHIX project started in 2009 allowing the sharing of patient health information and demographic information through the Discharge Summary document.

In 2018, the system is deployed at 11 locations:

- i. Hospital Putrajaya
- ii. Hospital Tunku Jaafar Seremban, Negeri Sembilan
- iii. Hospital Port Dickson, Negeri Sembilan
- iv. Klinik Kesihatan Putrajaya Presint 9
- v. Hospital Sultanah Nur Zahirah (HSNZ), Terengganu
- vi. Hospital Bentong, Pahang
- vii. Hospital Raja Perempuan Zainab II (HRPZ ), Kelantan
- viii. Hospital Sultan Haji Ahmad Shah, Temerloh, Pahang
- ix. Institut Kanser Negara
- x. Hospital Shah Alam
- xi. Women and Children Hospital Kuala Lumpur

Works to enhance and upgrade the MyHIX system has started since 2015 based on the service requirements. The Enhancement Project involves implementation of the Integration Profile (IP) following the international standards of the Integrated Health Enterprise (IHE) such as e-referrals, upgrading the MyHIX central engine repository involving the addition of new modules based on the current needs and expanding central server capacity and development of Profiles (IP) i.e IP Radiology and IP Laboratory Report.

Awareness Workshops for MyHIX 2.0 for Ministry of Health Malaysia Facilities (Central Zone) was held on 28 August 2018 at the Putrajaya International Convention Center (PICC). This workshop is one of the Change Management activities attended by representatives of the Ministry of Health facilities (Central Zone) who as change agents and responsible for their respective facilities. The facilities involved in this workshop were the National Cancer Institute, Shah Alam Hospital, Sultan Haji Ahmad Shah Hospital and Bentong Hospital (**Image 6.12**). The contract of MyHIX 2.0 System Enhancement Project was officially completed on 26 November 2018 and under way to develop and upgrade for MyHIX 3.0.

**Image 6.12**  
**Awareness Workshop for Malaysian Health Information Exchange System (MyHIX) 2.0 for Ministry of Health Malaysia (Central Zone)**



Source: eHealth Strategic Planning Unit, Planning Division, MOH

## TELEMEDICINE DEVELOPMENT GROUP

The Telemedicine Development Group (TDG) idea was officially announced by Director General of Health Malaysia, Datuk Dr Noor Hisham Abdullah during the 2<sup>nd</sup> Telemedicine Conference 2016. This is the platform where multi stakeholders of public and private entities collaborate to support the development, research and innovation of digital health initiatives in Malaysia. Co-chaired by Datuk Dr Noor Hisham Abdullah, and Tan Sri Dr Halim Shafie, Chairman, of Malaysian Communication & Multimedia Commission (MCMC); TDG visualizes a vibrant, collaborative and innovative telemedicine ecosystem for Malaysia health services.

Its mission is to nurture Malaysia's digital health ecosystem and facilitate collaboration between stakeholders (policy makers, academia, industry and regulators etc.) with objectives to:

- i. Promote awareness and knowledge dissemination in digital health in Malaysia
- ii. Facilitate telemedicine innovation, e-health clinical trials and R&D
- iii. Advise on policy and legislation matters pertaining to telemedicine
- iv. Support and complement National Healthcare Transformation
- v. Develop digital health services ecosystem through collaborative partnerships
- vi. Enhance Rakyat's trust & confidence in digital health services

TDG has four (4) Special Interests Group (SIG) namely:-

- i. (SIG1) - Policy & Regulatory
- ii. (SIG2) - Knowledge Dissemination / Networking
- iii. (SIG3) - R&D and Clinical Trials
- iv. (SIG4) - Certifications, Go-to market & Manufacturing

The SIGs was launched by Datuk Dr Noor Hisham Abdullah at MCMC on 18 March 2018 and registered a total of 65 members from the Governments, Academia and the Industries. TDG was renamed as Digital Health Malaysia, when the new government was formed and held a few activities as below (**Image 6.13**):

- i. Launching and formation of 4 SIG Group - 15 March 2018
- ii. Series of SIGs Leads Meeting - 20 April 2018, 25 May 2018 and 8 August 2018
- iii. Digital Health Forum - 6 December 2018
- iv. Digital Health Malaysia Steering Meeting - 13 December 2018

**Image 6.13**  
**TDG activities throughout year 2018**



Source: eHealth Strategic Planning Unit, Planning Division, MOH

## ENGINEERING SERVICES DIVISION

The Engineering Services Division (ESD) comprises of:

- i. Services Branch - Project Implementation Section, Hospital Operations Section, Clinic Operations Section and Biomedical Operations Section.
- ii. Regulatory Branch - Environmental Health Control Section and NEHAP Section.
- iii. Planning Branch - Technical Unit, Environmental Health Engineering Unit, Private Healthcare Facilities and Services Unit and Facility Management Unit.

ESD provides:

- i. Engineering and technical support services for medical & health programs,
- ii. Preventive health programs to ensure all public water supply is safe and protect public health from adverse air quality and indoor environment conditions,
- iii. Environmental Health Engineering programs to improve environmental sanitation, proper management of solid, clinical and toxic waste and proper wastewater management systems,
- iv. Healthcare Facility and Biomedical Engineering support for effective & proper functioning of building, medical equipment & engineering system,
- v. Engineering support for proper maintenance for healthcare facilities to ensure reliability & efficiency of engineering installation facilities,
- vi. Project implementation of new or upgrading healthcare facilities and engineering system replacement in healthcare facilities,

### PROJECT IMPLEMENTATION

In 2018, Ministry of Health through ESD continues implementing various categories of physical projects under the 10<sup>th</sup> (continuance) and 11<sup>th</sup> Malaysian Plan (10<sup>th</sup> and 11<sup>th</sup> MP). The projects implemented involve the construction of new facility (hospitals, clinic and quarters), upgrading of hospitals and clinics, renovation and refurbishment of hospitals and also upgrading and replacing engineering systems in healthcare facilities.

As of 2018, there were **204** projects implemented by ESD, including 39 new projects received in 2018. **134** projects have been completed which were in various completion stage either in Defect Liability Period (DLP) or Final Account. Apart from 134 projects, 17 projects were completed in 2018. Beside the completed projects, **25** projects are in progress while **45** projects are in planning phase.

Further to the above projects, there are also special or complex projects managed by ESD namely the construction of *Klinik Kesihatan Kuala Lumpur* (KKKL) which have been completed, National Institutes of Health (NIH) and Quarters for Bahagian Pengurusan Hartanah (BPH), JPM. **Table 6.4** shows various projects that have been managed and also completed.

In implementing all the projects, ESD also has to manage 203 consultant firms from various field including architecture, civil and structure, mechanical, electrical and quantity surveyor. These consultants were appointed to do all the design and supervision for various projects. In terms of budget, ESD have spent about RM2.673 billion in implementing these various projects.



**Table 6.4**  
**List of Some Projects Implemented in 2018**

Type of projects implemented	Year 2018		
	No. Of Projects	CPC issued in 2018	Status
<b>i. Kesihatan Awam (BP 200)</b>			
a. <i>Projek sambungan</i>	42	2	37 projects completed 2 projects in progress 3 projects in planning phase
b. <i>Projek baharu</i>	4	-	4 projects in planning phase
<b>ii. Kemudahan Hospital (BP 300)</b>			
a. <i>Projek sambungan</i>	41	1	33 projects completed 5 projects in progress 3 projects in planning phase
b. <i>Projek baharu</i>	31	-	31 projects in planning phase
<b>iii. Kemudahan Anggota/Kuarters (BP 900)</b>			
a. <i>Projek sambungan</i>	5	-	3 projects completed 2 projects in progress
b. <i>Projek baharu</i>	-	-	
<b>iv. Projek Naiktaraf/ubahsuai Sistem Kejuruteraan (BP 600)</b>			
a. <i>Projek sambungan</i>	28	2	23 projects completed 2 projects in progress 3 projects in planning phase
b. <i>Projek baharu</i>	7	1	3 project in progress 4 projects in planning phase
<b>v. Peralatan dan Kenderaan (BP 1100)</b>			
a. <i>Projek sambungan</i>	2	1	1 project completed 1 project in progress
b. <i>Projek baharu</i>	-	-	
<b>vi. Sinking Fund</b>			
a. <i>Projek sambungan</i>	44	10	36 projects completed 8 projects in progress
b. <i>Projek baharu</i>	-	-	
<b>vii. Projek Khas</b>			
a. <i>Pembinaan Klinik Kesihatan Kuala Lumpur (Sambungan)</i>	1	-	1 project completed
b. <i>Pembinaan Institut Penyelidikan Kesihatan Bersepadu (IPKB) Setia Alam (Sambungan)</i>	1	-	1 project in progress

Type of projects implemented	Year 2018		
	No. Of Projects	CPC issued in 2018	Status
c. <i>Pembinaan Kuarters BPH di Jalan Bangsar, Kuala Lumpur (Baru)</i>	1	-	1 project in progress
<b>Jumlah Projek Sambungan</b>	<b>165</b>	<b>16</b>	
<b>Jumlah Projek Baru</b>	<b>39</b>	<b>1</b>	
<b>TOTAL</b>	<b>204</b>	<b>17</b>	134 Projects completed 25 projects in progress 45 projects in planning phase

Source: Engineering Services Division, MOH

### HOSPITAL SUPPORT SERVICES (HSS)

The idea of outsourcing the public healthcare of Malaysian Ministry of Health (MOH) was raised in 1996 by the Government while announcing the Seventh Malaysia Plan in which to increase the efficiency of services and to retain its own qualified and experienced manpower. The Privatised Hospital Support Services (HSS) consists of five (5) services that are:

- i. Facility Engineering Management Services (FEMS) - the Company are required to operate and maintain all installed plants and systems, maintain all assets (non-biomedical), including carry out pest control activities and maintain the grounds and landscapes.
- ii. Biomedical Engineering Management Services (BEMS) - services at the Contract Hospital is aimed to ensure biomedical equipment are available, safe, and ready for use at any point of time.
- iii. Clinical Waste Management Services (CWMS) - Services regulate the collection, storage, transportation, treatment and disposal of Clinical Waste produced by the Contract Hospital.
- iv. Cleansing Services (CLS) - Provide the Cleansing Services (CLS) and required to develop appropriate programs within industry standards, which not only comply with various regulations and guidelines of the Government, but also incorporate proper and effective procedures to carry out cleansing activities.
- v. Linen and Laundry Services (LLS) - A proper program for the delivery of adequate clean linen to the Contract Hospital and removal of soiled linen, which is to be processed at Concession's Laundry Facilities.

By 2018, the number of contract hospitals and institutions having HSS were increased to 148 from 127 hospitals and institutions in 1997 (year of implementation). The previous statistics (1997 to 2017) of the number of hospitals and institutions by concession companies are shown in **Table 6.5**. Meanwhile **Table 6.6** shows the current statistics of number hospitals and institution based on new contract. **Table 6.7** shows the comparison of asset numbers of HSS between 1997, 2015 till 2018.

**Table 6.5**  
**Number of Hospitals and Institutions by Concession Companies (1997 to 2017)**

Concession Company	Numbers of Hospitals and Institutions							
	1997	...2009	2010	2011	2012	2013	2014	...2017
Edgenta Mediserve Sdn Bhd	71	79	79	79	80	80	80	32
Radicare Malaysia Sdn Bhd	37	46	46	46	46	46	46	46
Medivest Sdn Bhd	19	22	22	22	22	22	22	22
Sedafiat Sdn Bhd	-	-	-	-	-	-	-	26
One Medicare Sdn Bhd	-	-	-	-	-	-	-	22
<b>Total</b>	<b>127</b>	<b>147</b>	<b>147</b>	<b>147</b>	<b>148</b>	<b>148</b>	<b>148</b>	<b>148</b>

Source: Engineering Services Division, MOH

The new contract takes into effort of 1 April 2015 with improvement to its key services; FEMS, BEMS, CLS and LLS. In addition, CWMS has been expanding its scope of services becoming HWMS to cater all the healthcare waste in healthcare facilities. As assurance of good governance, Facility management Services (FMS) has been introduced to ensure the coordination and effectiveness of the delivering off all related services.

Furthermore, to uphold the new policy set by the Ministry towards “Green Healthcare Facilities” Concession Company are required to implement a Sustainability Programme which includes Indoor Air Quality, Energy Management and 3R (Reduce, Reuse and Recycle) at the respective Contract Hospital in accordance with the requirements.

**Table 6.6**  
**Number of Hospital and Institutions by Concession Companies (2018)**

Concession Company	Numbers of Hospital and Institutions
Edgenta Mediserve Sdn Bhd	32
Radicare Malaysia Sdn. Bhd.	46
Medivest Sdn Bhd	22
Sedafiat Sdn Bhd	26
One Medicare Sdn Bhd	22
<b>Total</b>	<b>148</b>

Source: Engineering Services Division, MOH

**Table 6.7**  
**Number of Assets for HSS 1997 to 2018**

ITEM	1997	...2015	2016	2017	2018
Number of Hospital & Institution	127	148	148	148	148
Floor Area (m2)	4,297,523	6,111,210	6,111,210	6,111,210	18,278,987
FEMS Assets	Est. 250,000	441,620	492,493	592,378	701,841
BEMS Assets	81,254	266,697	278,032	277,380	201,795

Source: Engineering Services Division, MOH

- **Quality Assurance Program (QAP)**

In year 2002, two (2) services were incorporated under Quality Assurance Programs (QAP) namely FEMS and BEMS. Subsequently three other services namely CWMS, CLS and LLS were included since October 2006. This QAP is such that the plan and management of quality control could be under taken for all services. So that, the quality of all services could be improve continuously with the help of monitoring tools such as Asset & Services Information System (ASIS) at all level be it at hospital, state, consortia or national level. The QAP report is assessed and analysed yearly and presented to the MOH Quality Assurance Committee yearly.

- **Contractor's Performance Assessment (CPA)**

The performance of the Concession Company in delivering the services will be assessed and reported quarterly (3 monthly) bases by the State Operation Engineer in the CPA Report. **Table 6.8** shows the Contractor's Performance Assessment (CPA).

**Table 6.8**  
**Contractor Performance Assessment (CPA) 2018**

Concession Company	CPA Marks (%)		
	2016	2017	2018
Radicare Malaysia Sdn Bhd	89	88	90
Edgenta Mediserve Sdn Bhd	93	92	94
Medivest Sdn Bhd	80	73	78
Sedafiat Sdn Bhd	95	96	97
One Medicare Sdn Bhd	90	93	92

Source: Engineering Services Division, MOH

- **Key Performance Indicator (KPI)**

Hospital Operation Section also develop a KPI which are referring to percentage of equipment, systems, facilities to achieve uptime for Facilities Engineering Maintenance Services (FEMS) and Biomedical Engineering Maintenance Services (BEMS).

Medical equipment and systems, and facilities at the hospital should be ensured to be functional and can be used in the delivery of effective health services. In line with the motto of the "People First, Performance Now", it is important for the maximum level to prevent the delivery of services to patients and consumers affected.

Achieving maximum uptime of equipment, systems and facilities for the year of 2018 is 98.91 per cent where 92.00 per cent is acceptable for equipment, systems and facilities being monitored. Not achieving the uptime target due to ageing factor, major repairs and other reasonable causes of breakdown. **Table 6.9** shows “Equipment to Achieve the Specified Uptime for Each Equipment for 2013 to 2018”.

**Table 6.9**  
**Equipment to Achieve the Specified Uptime for Each Equipment for 2013 to 2018**

Items	2013	2014	2015	2016	2017	2018
Number of equipment/systems / facilities achieve uptime	442,695	461,352	417,498	430,595	434,677	419,820
The total number of equipment/systems/facilities that are monitored in the QAP PSH	477,235	510,752	428,909	438,972	440,972	424,464
Per cent of equipment/systems / facilities to achieve uptime	92.76 per cent	90.33 per cent	97.34 per cent	98.09 per cent	98.75 per cent	98.91 per cent
Target per cent e of equipment/systems /facilities to achieve uptime	92.00 per cent	92.00 per cent	92.00 per cent	92.00 per cent	92.00 per cent	92.00 per cent

Source: Engineering Services Division, MOH

### CLINICS SUPPORT SERVICES (CSS)

Engineering Services Division (ESD) has implemented a CSS project at the selected health clinics throughout the country for 14 states. The project consists of four (4) services that are Facility Engineering Maintenance Services (FEMS), Biomedical Engineering Maintenance Services (BEMS), Cleansing Services (CLS) and Clinical Waste Management Services (CWMS). The scope of the projects involves the implementation of Planned Preventive Maintenance (PPM) and Corrective Maintenance (CM) works. **Table 6.10** provides summary information on the above projects. Facility engineering management is used for the development, implementation and monitoring of CSS activities as well as upgrading of health clinics facilities to ensure that health facilities work in good and safe condition.

**Table 6.10**  
**Summary of Clinics Support Services**

State	Scope Of Services	Contract Period	No. Of Selected Clinics
Pahang	FEMS, BEMS, CWMS & CLS	1 February 2016 to 31 December 2018	10
Sarawak	FEMS, BEMS, CWMS & CLS	1 December 2016 to 30 November 2019	21
Sabah	FEMS, BEMS, CWMS & CLS	15 April 2016 to 14 April 2017	20

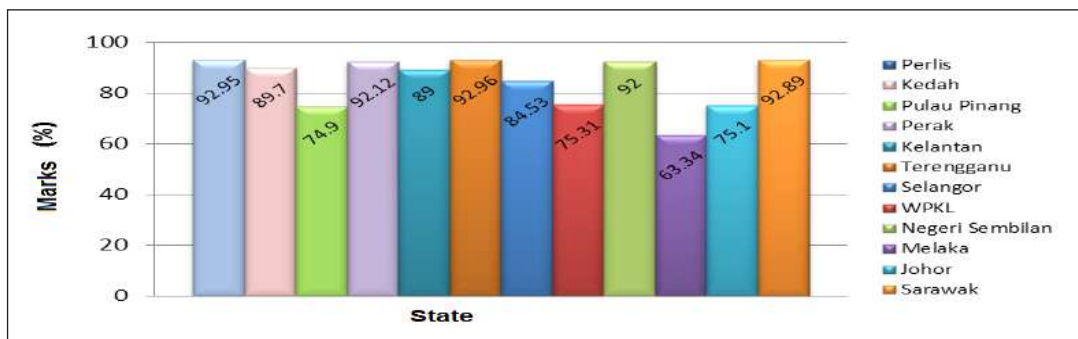
State	Scope Of Services	Contract Period	No. Of Selected Clinics
Perlis, Kedah, Penang, Perak, Selangor, W.P Kuala Lumpur, Terengganu, Kelantan, Johor, Malacca and Negeri Sembilan	FEMS, CWMS & CLS	1 July 2015 to 30 June 2018	118
Perlis, Kedah, Perak, Selangor, W.P Kuala Lumpur, Terengganu, Kelantan Dan Negeri Sembilan	FEMS, CWMS & CLS	1 July to 30 October 2018	95
Penang	FEMS, CWMS & CLS	1 July to 30 October 2018	9

Source: Engineering Services Division, MOH

- **Contractor's Performance Assessment (CPA)**

The performance of the Contractors in delivering the services is assessed and reported every six month basis by the State Operation Engineer in the CPA report. **Figure 6.4** shows the semi annual CPA for 2018. The CPA scoring is based on the total work order been carried out under PPM, the planning and percentage of implemented Corrective Maintenance works and the Customer Satisfaction Survey.

**Figure 6.4**  
**Contractor Performance Assessment (January to June 2018)**



Source: Engineering Services Division, MOH

- **Repair and Maintenance Works for KKM Quarters**

The National Blue Ocean Strategy (NBOS) initiative for quarters repair work has had a huge impact on the service delivered to the community. In 2018 two (2) projects were completed through the NBOS KKM initiative with an average cost savings of 72.5 per cent. In May 2018, this initiative was re-branding using the name Strategic Collaboration Program with the same implementation method. **Table 6.11** shows list of quarters involved in repairing works under the NBOS KKM/ strategic collaboration programme.

In addition, RM1,876,300.00 has been allocated for MOH by the Ministry of Urban Wellbeing, Housing and Local Government (KPKT) to carry out quarters repair works as a collaboration program under My Beautiful Malaysia Initiative (MyBM) involving 143 quarters. **Table 6.12** shows no. of quarters involved in repair work under MyBM – KPKT programme.

**Table 6.11**  
**List of Quarters under Strategic Collaboration Programme**

State	List
Pahang	<ul style="list-style-type: none"> <li>• 2 units</li> <li>• <i>Kuarters Klinik Kesihatan Pelangai</i></li> <li>• Saving: 80 per cent</li> </ul>
Terengganu	<ul style="list-style-type: none"> <li>• 1 unit</li> <li>• <i>Kuarters Klinik Desa Pengadang Baru, Kuala Terengganu</i></li> <li>• Saving: 80 per cent</li> </ul>

Source: Engineering Services Division, MOH

**Table 6.12**  
**No. of Quarters involved in repair work under MyBM-KPT Programme**

State	No. of Quarters
Johor	21
Kedah	16
Penang	24
Sabah	84

Source: Engineering Services Division, MOH

- **Upgrading and minor Works of Health Clinics**

The continuous planning and implementation of upgrading of building and engineering system in health facilities throughout the country has been carried out in 2018. A total of 212 projects amounted about RM 7.28mil are completed in order to enhance the safety and functionality of the health clinics in delivering services to the people.

## **MEDICAL EQUIPMENT ENHANCEMENT TENURE (MEET) PROGRAMME**

- **Implementation of MEET Programme**

In Engineering Services Division, this program is closely monitored by Section of Biomedical Operation. There are several activities organized throughout the year of 2018. Those activities are:

- Monthly meeting with other division in MOH and Concession Company to resolve operation issues.
- Technical Evaluation Committee to evaluate e-tender documents for GAP equipment supply to Government clinics.
- Auditing program at these selected clinics in each state to observe the effectiveness of program implementation at adalah KK/KP Seri Kembangan (Selangor), KK Gedong

- (Sarawak), KK/KP Air Hitam (Pulau Pinang), KD/KK/KP Renggam (Johor), KK/KP Rembau (Negeri Sembilan), KK/KP Bagan Serai (Perak), KK/KP Kuala Lumpur (WPKL), KK/KP Ayer Keroh (Melaka), dan KK/KP Panampang (Sabah).
- iv. Project Monitoring Committee (PMC) to resolve operation issues which require decision making from top management of MOH.
- v. Workshop on MEET Competency on program implementation and establishing awareness to State Engineers and Assistant Engineers who are involved in the program
  - Module 1: Executing the MEET Program Implementation Workshop No. 1/2018
  - Module 2: Development and Validation Standards Operation Procedure (SOP) and MEET Guidelines
- vi. Site visit to clinics involved in renovation works.

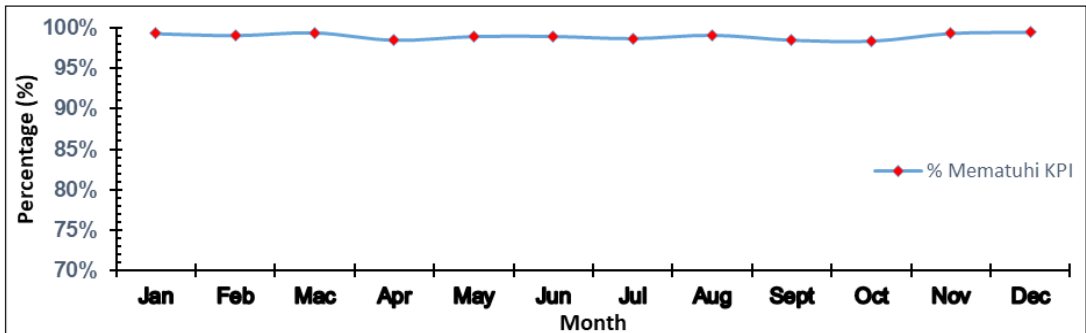
• **Concession Performance Assessment (CPA)**

To ensure that the maintenance of biomedical equipment is being carried out properly, Quantum Medical Solution Solutions Sdn. Bhd. (QMS) has to adhere to four (4) agreed Key Performance Indicators (KPI) which are Response Time, Repair Time, Scheduled Maintenance and Uptime Guarantee.

i. **KPI Response Time**

Throughout the year 2018, total of 22,707 work requests were made by the clinics listed under MEET program and total of 27,418 (99 per cent) of the work request were comply with response time KPI. These achievements are achieved the target set which is above 95 percent. **Figure 6.5** shows the response time statistics comply with the KPI for the year of 2018.

**Figure 6.5**  
Response Time Statistic Comply with KPI for the Year of 2018



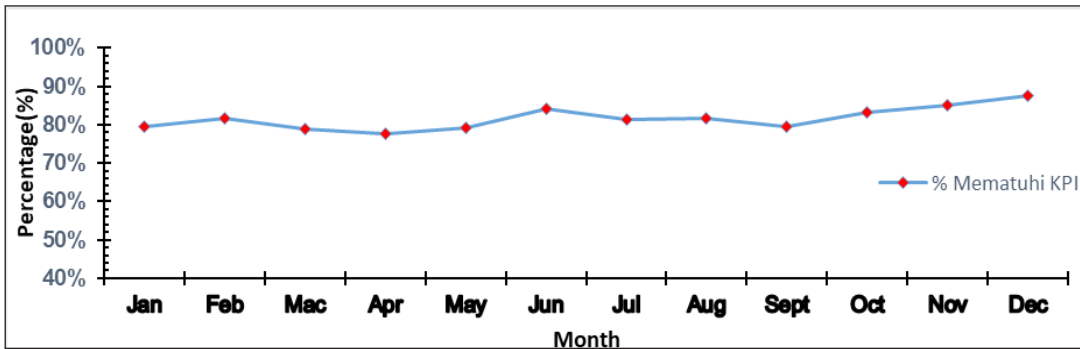
Source: Engineering Services Division, MOH

ii. **KPI Repair Time**

Throughout the year 2018, total of 27,707 work requests were made by the clinics listed under MEET program and total of 22,611 (81.6 per cent) of the work request were comply with repair time KPI. These achievements are still below the KPI target set at 90 per cent. **Figure 6.6** shows the repair time statistics comply with the KPI for the year of 2018.



Figure 6.6  
Repair Time Statistic Comply with KPI for the Year of 2018

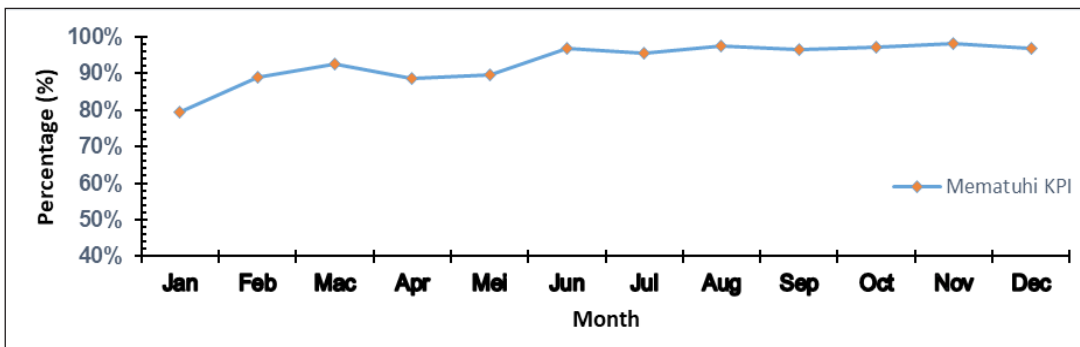


Source: Engineering Services Division, MOH

### iii. KPI Schedule Maintenance

Scheduled maintenance (PPM) is the maintenance activities carried out in accordance with a predetermined frequency of maintenance to ensure biomedical equipment is functioning at an optimal level and safe to use. Total of 82,353 scheduled maintenance has been scheduled in year 2018. A total of 77,071 (93.59 per cent) work orders for scheduled maintenance was successfully completed in the same month which comply with the KPI target (completed within the scheduled month). **Figure 6.7** shows the scheduled maintenance activity comply with KPI for year of 2018.

Figure 6.7  
Schedule Maintenance Activity Comply with KPI for the Year of 2018



Source: Engineering Services Division, MOH

### iv. KPI Uptime Guarantee

Uptime analysis and calculation is performed based on total of 56,456 equipments after excluding equipment beyond 15 years of age. A total of 54,868 (97 per cent) equipment are comply with 1<sup>st</sup> uptime and 55,869 (99 per cent) comply with 2<sup>nd</sup> uptime. **Table 6.13** shows the percentage of achievement (per cent) complies with KPI Uptime, 1st Level and 2nd Level by equipment group and age of the equipment for 2018.

**Table 6.13**  
**Uptime Status for Year 2018**

BE Category	BE Age (year)	Total BE	Comply KPI Uptime 1st Level		Comply KPI Uptime 2nd Level	
			No. of BE	per cent	No. of BE	per cent
BA	0 to 5	5,955	5,936	99.68	13,028	99.89
	6 to 10	2,274	2,272	99.91		
	10 to 15	4,813	4,808	99.90		
CR	0 to 5	1,967	1,891	96.14	2,868	98.59
	6 to 10	333	318	95.50		
	10 to 15	609	573	94.09		
PS	0 to 5	16,971	16,483	97.12	39,973	98.69
	6 to 10	9,678	9,393	97.06		
	10 to 15	13,856	13,194	95.22		
<b>TOTAL BE</b>		<b>56,456</b>				

Source: Engineering Services Division, MOH

- GAP Equipment Supply Status**

Under the agreement, QMS is also responsible to supply, deliver, install, testing and commissioning of GAP equipment. The procurement of the GAP equipment is divided into two (2) types, which are New Biomedical Equipment (NBE) and Purchased Biomedical Equipment (PBE). For NBE, the equipment will be leased out to the Government for a period of 8 years after which the equipment ownership is belonging to the Government. For PBE, the Government will own the equipment after it has been supplied. All of the equipment will be supplied in 12 batches within a 3 years period.

The supply of GAP equipment for Batch 1 to Batch 5 has been fully completed. **Table 6.14** shows the number of equipment supplied to government clinics in Batch 6 to Batch 10. Data is up to February 21, 2019.

**Table 6.14**  
**The supply of GAP equipment for Batch 6 to 10**

Supply Period	Batches	Supplied	Total Approved by Jawatankuasa ROP	Per cent Supply
Dec 2017 to Feb 2018	Batch 6	4,238	4,460	95
March to May 2018	Batch 7	4,265	4,780	89
June to August 2018	Batch 8	3,170	3,923	81
Sept to Nov 2018	Batch 9	2,134	2,516	85
Dec 2018 to Feb 2019	Batch 10	489	2,430	20

Source: Engineering Services Division, MOH

## ENVIRONMENTAL CONTROL SECTION

- **Rural Environmental Sanitation Program (RESP)**

This program is the oldest program in Engineering Services Division where it adopts simple technology principles in the design, construction and maintenance of alternative water supply and sanitation systems in rural areas. The provided water supply systems should be able to supply sufficient water quantity and the basic sanitation system should function properly, so that the basic health and hygiene requirements of the rural population can be practiced at a minimal cost. However, for water supply, residents are still advised to boil their water before drinking and for food preparation.

The Development of RESP or *Program Bekalan Air dan Alam Sekeliling* (BAKAS) is based on a five-year Malaysian Development Plan. The type of systems provided under this programme in rural areas are, for water supply; gravity feed system, sanitary wells, with or without home-connections, rainwater harvesting system and connection to the local public water supply system (if any). For sanitary systems, it involves sanitary toilet, Solid Waste Management System (SPSP) and Sullage Disposal Management System (SPAL).

In 2018, a total of 128 water supply systems were built which supplied clean water to 1,078 houses. While 623 houses received individual sanitary toilet systems, 393 houses for SPSP and 327 houses for SPAL.

- **National Drinking Water Quality Surveillance Programme (NDWQS)**

The guidelines for the effective, systematic and comprehensive National Drinking Water Quality Surveillance Programme (NDWQS) or *Kawalan Mutu Air Minum* (KMAM) was formulated in collaboration between agencies such as the World Health Organization (WHO), the Ministry of Health, the Public Works Department, the Department of Chemistry and the Department of Environment in the early years 1980s.

The main objective of KMAM is to improve public health standards by ensuring the safety and acceptance of drinking water provided to consumers by reducing the incidence of water borne diseases or other effects associated with contamination to public water supplies through effective surveillance activities. Relevant governmental agencies and water supply purveyors will be notified immediately if the quality of drinking water is declining, in order to allow precautionary or recovery measures to be taken before any epidemic or poisoning can occur. This involves taking and analysing water samples of more than 500 water treatment plants and 546 water supply networks nationwide. A total of 186,876 water samples were taken for testing which included physical, microbiological, chemical, heavy metals and pesticide parameters in 2018. In addition, to improve the effectiveness of the program, KMAM launched the Quality Assurance Program (QAP) in December 1992 and implemented nationwide in January 1993.

- **Sanitation Monitoring of Centres in Tourism**

The tourism industry in Malaysia has grown rapidly and has attracted many tourists to come and visit interesting places of interest throughout the country. With this development, the Ministry of Health Malaysia (MOH) is of the view that it is necessary to ensure that hygiene and sanitation levels in these places are addressed through routine monitoring of issues relating to public health and the environment. Through this monitoring activity, appropriate action

can be taken to improve and ensure the health of the public who visit these places and help boost the country's tourism industry and generates the country's economy.

Sanitation monitoring at these tourist centers is based on evaluating four (4) scopes of sanitation facilities provided by the tourism center operators concerned. These four (4) scopes are based on their solid waste management facilities, water drainage, sewage management and toilets. A grade is provided to the facility based on the terms and requirements of these scopes set by the MOH. In 2018, monitoring on 175 centers was successfully carried out nationwide.

## NATIONAL ENVIRONMENTAL HEALTH ACTION PLAN (NEHAP)

ESD served as the secretariat for the National Environmental Health Action Plan (NEHAP) to monitor NEHAP Action Plans, which has been developed by 11 NEHAP's Thematic Working Group (TWG). The Action Plans comprised strategies on how to improve national environmental health issues and problems. Highlights of NEHAP Malaysia activities in 2018 are as follows in **Table 6.15**:

**Table 6.15**  
**Summary of Activities and Achievement for NEHAP Malaysia 2018**

No.	Aktiviti	Achievement
1.	<b>NEHAP Malaysia Steering Committee Meeting</b> , convened twice a year, chaired by Deputy Director General (P&ST) and Director General, respectively. <b>No. 1/2018:</b> 19 April 2018 <b>No. 2/2018:</b> 18 October 2018	<ol style="list-style-type: none"> <li><b>Endorsement of TWG 10 and TWG 11 Action Plans.</b></li> <li><b>Presentation of deliverable:</b> <ul style="list-style-type: none"> <li><b>TWG 3:</b> <i>Garis Panduan Pengurusan Pembuangan Sisa Pepejal Tidak Sempurna Di Negeri-Negeri Yang Tidak Menerima Akta Pengurusan Sisa Pepejal Dan Pembersihan Awam (Akta 672)</i>; and</li> <li><b>TWG 10:</b> Priority List of Environmental Health Issues for Malaysia.</li> </ul> </li> </ol>
2.	<b>NEHAP Malaysia Steering Committee Meeting</b> , convened twice a year, chaired by Director of Engineering Services Division (ESD). <b>No. 1/2018:</b> 29 March 2018 <b>No. 2/2018:</b> 2 August 2018	
3.	<b>Meeting on Compilation of Action Plans and Working Plans for NEHAP's Thematic Working Group</b> , convened on 1 August 2018.	Draft Compilation of 30 Action Plans from 11 TWG.
4.	<b>5<sup>th</sup> National Environmental Health Action Plan (NEHAP) Malaysia Conference 2018</b> , with theme of "Chemical Pollution: Understanding Its Environmental Health Impact". A total of 165 participants attended the conference with; <ul style="list-style-type: none"> <li>Two (2) general papers presented by Institute of Islamic Understanding Malaysia (IKIM) and National Poison Centre</li> <li>Eight (8) technical papers</li> <li>Eight (8) posters presentation</li> </ul>	Convened on 25 September 2018, with joined collaboration with Malaysia Public Health Engineering (MyPHE)

Source: Engineering Service Division, MOH

- **State Environmental Health Action Plan (SEHAP)**

NEHAP has been expanded to state-level implementation, in line with the decision of the Steering Committee Meeting No. 1/2017 on April 17, 2017, to address local environmental health issues. By the end of 2018, ESD has briefed on NEHAP and SEHAP to all 13 States and three (3) Federal Territories. **Table 6.16** represents eight (8) SEHAP implementation stages of SEHAP and State's progress.

**Table 6.16**  
**SEHAP Implementation Stage and State Implementation Progress**

No.	SEHAP Implementation Stage	State
1.	NEHAP / SEHAP Briefing	-
2.	Proposal Preparation	Negeri Sembilan, Perlis, Pahang dan Federal Territories (Kuala Lumpur, Putrajaya and Labuan)
3.	State Government Approval	Terengganu, Johor, Penang and Kelantan
4.	Establishment of Committees	-
5.	Preparation of Action Plans	Malacca, Kedah, Selangor and Sarawak
6.	Approval of Committees	-
7.	Implementation of Actions Plans	-
8.	Monitoring of Actions Plans	Perak and Sabah

Source: Engineering Service Division, MOH

- **Risk Management/Hazardous Waste Unit**

In 2018, the Environmental Health Protection Program (PEKA) has focused on implementation of Module 2 - Environmental Health Risk Assessment and the development of Environmental Health Risk Inventory (EHRI) Application in collaboration with Information Management Division (BPM), MOH and Remote Sensing Malaysia Agency (ARSM). Summary of activities and achievements of PEKA Program in 2018 are as follows in **Table 6.17**:

**Table 6.17**  
**Summary of PEKA Activities and Achievements in 2018**

Main Activities	Description of Activities	Achievement
<b>Briefing on Implementation of Module 2 - Environmental Health Risk Assessment</b>	Aims to provide an understanding of the environmental health risk assessment methodology. A total of 247 participants from all over the country have been present comprising Public Health Engineers, Medical Officers, Science Officers, Environmental Health Officers, Environmental Health Assistant Officers and Public Health Assistants.	6 briefing by zone was held as follows: - <ul style="list-style-type: none"> <li>• Central Zone (2 to 3 May)</li> <li>• East Zone (3 to 4 July)</li> <li>• North Zone (11 to 12 July)</li> <li>• South Zone (25 to 26 July)</li> <li>• Sabah &amp; Labuan Zone (13 to 16 August)</li> <li>• Sarawak Zone (4 to 6 December)</li> </ul>

Main Activities	Description of Activities	Achievement
<b>Development of EHRI Application</b>	Preparation of Application Papers to MOH ICT Technical Committee (JTI)	Approval of ICT Technical Committee (JTI) KKM (29 March)
	Organized series of Technical Meetings & Discussions (July to October)	1 document of User requirement Specification (URS) was developed
	Screen Design Development for EHRI Application Module 1 & 2 (November to December)	50 per cent screen design was developed
<b>Development of Manual PEKA-EHRI</b>	Development process (February to June) & Printing process (July to October)	1 manual document was developed
<b>Development of PEKA Masterplan for Langat Basin</b>	Briefing on Risk Assessment Methodology (3 to 5 April)	EHRI data collection and risk assessment were provided (May-December)

Source: Engineering Service Division, MOH

In addition, the Unit is also responsible in providing technical reviews on environmental health engineering for Environmental Impact Assessment (EIA) report. In 2018, the Unit received ten (10) EIA Reports and submitted the written review to the Department of Environment (DOE) for EIA approval. All the reports are evaluated in accordance with the requirements of the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 2015.

- **Air Quality Unit**

Indoor air quality (IAQ) monitoring is carried out under the Indoor Air Quality Unit, Section NEHAP and was started in the year 2014 includes monitoring of 13 parameters referring to the Industrial Code of Practice, IAQ 2010 guideline issued by the Department of Occupational Safety and Health (DOSH).

In 2018, the monitoring of indoor air quality (IAQ) was held successfully at 18 premises such as 13 State Health Department (JKN), five (5) blocks in the headquarters of the Ministry of Health (IPKKM). Overall the status of the air quality of the 18 premises was good.

IAQ Manual Roadshow was held at five (5) premises as training for the staff at the JKN to monitor the air quality. Roadshows were held at JKN Melaka (Southern Zone), JKN Terengganu (East Zone), JKN Pulau Pinang (North Zone), JKN Sarawak (Sabah & Sarawak Zone) and JKN Negeri Sembilan (Central Zone). The roadshows involve 78 officers consist of 41 Engineer, 21 Assistant Engineer, four (4) Scientist and 12 Environmental Health Officer Assistant.

A total of eight (8) officers from JKN and Engineering Services Division (ESD) attended the IAQ Assessor Competency Course in NIOSH to meet the conditions for becoming a certified IAQ assessor.

## PLANNING BRANCH

- **Facility Management Unit (UPF)**

One (1) of the activities of the Planning Branch is MOH Immovable Asset Management under the UPF. UPF is responsible to manage and coordinate the implementation of the Immovable Asset Management at the Ministry of Health (MOH).

Amongst the activities of Immovable Asset Management are asset registration and disposal and also new Asset Premise Registration (DPA). DPA is an identity registration for the existing premises or a new premise. For a new premise, DPA registration is done after the Completion Practical Certificate (CPC) is approved. **Table 6.18** shows the list of new asset premise registration (DPA) in 2018.

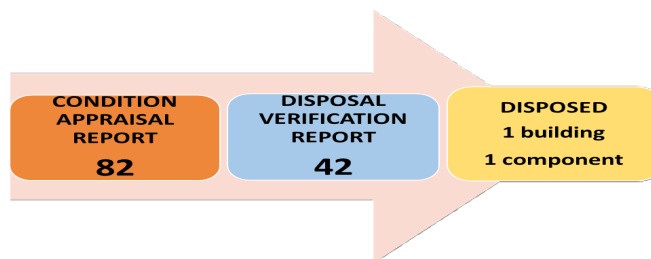
**Table 6.18**  
**List of New Asset Premise Registration (DPA), 2018**

No	State	Project Name
1.	Kedah	<i>Klinik Pakar Pergigian Kota Setar, Kedah</i>
2.	Perak	<i>Klinik Desa 2G, Ayer Tawar, Daerah Manjung, Perak Darul Ridzuan</i>
3.	Kelantan	<i>Hospital Kuala Krai, Kelantan</i>

Source: Engineering Services Division MoH

**Figure 6.8** shows the status of asset disposal for year 2018. A total of 82 condition appraisal (CA) reports were received in year 2018. 40 of these assets are in the process of inspection by Disposal Inspection Board while for the other 42 assets, the verification reports have been approved by the *Pegawai Pengawal* for disposal. Out of those 42 assets, 2 assets have been disposed and the remaining 40 assets are in the disposal process.

**Image 6.8**  
**Disposable Asset Report for Year 2018**



Source: Engineering Services Division MOH

## WAY FORWARD

The prominent roles and responsibilities of engineers in the Engineering Services Division synergized with the medical teams, scientists and expertise eventually catalyzing the vision of the Ministry of Health, to provide healthcare services to the patients and public in

protecting all involved. There is a need for a continuously long-term apprenticeship for the personnel to improve and upgrade their knowledge, skills and competencies in accordance to global standards and practices. An efficient and effective delivery and processing system for information and services is obligatory in order the Division to fully optimised available infrastructure, equipment and technology in its daily work processes.

As a major provider of Engineering and Technical Services to the Medical and Health Programs of the Ministry of Health, the Engineering Service Division will continue to plan, implement, monitor and coordinate preventive health programs through the application of public health engineering principles and methods. The Division is committed to provide engineering support for the effective and proper functioning of buildings, equipment and engineering systems, ensure reliability and efficiency of engineering installations and ensure all healthcare facilities are well maintained o appropriate standard.

## **MEDICAL RADIATION SURVEILLANCE DIVISION (MRSD)**

The Medical Radiation Surveillance Division (MRSD) is a secretariat to the Director General of Health that responsible for regulating the use of ionizing radiation in medicine under the Atomic Energy Licensing Act (Act 304). The main role of MRSD involves a wide range of regulatory activities including licensing, monitoring, enforcement and development of legal and non-legal document.

MRSD also plays a role in providing medical physics services, particularly to the hospitals and clinics under the Ministry of Health (MOH). This activity includes technical advice such as preparation of technical specification for medical equipment procurement, testing and commissioning, X-ray room shielding verification and radiation survey. MRSD also involved in monitoring the implementation of the Radiation Protection Programme (RPP), Quality Assurance Program (QAP) and Radiation Quality Audit Management in radiology, radiotherapy and nuclear medicine at the national level.

MRSD also focuses on promoting and enhancing the radiation safety program to minimize the risk of radiation hazards to patients, workers and public and to ensure that the practices in this country are in line with current international standards. In addition, MRSD is also involved in addressing to public health issues resulting from the use of non-ionizing radiation in telecommunication systems, high voltage cables, electrical substations and home appliances.

### **ACTIVITIES AND ACHIEVEMENTS**

#### **LICENSING UNDER THE ATOMIC ENERGY LICENSING ACT (ACT 304)**

A total of 1,439 licenses were issued to private medical institutions in 2018. These included 219 new licenses and 1,220 renewal of license. Overall, there are 4,200 public and private medical institutions that have irradiating apparatus as shown in **Table 6.19**. It consists of 936 public hospitals/clinics and 3,364 private medical institutions respectively.

Meanwhile, there were a total of 8,105 registered or licensed irradiating apparatus in both government and private sectors. The number of irradiating apparatus by type of modality is



shown in **Table 6.20**. Besides irradiating apparatus, radioactive materials were also used in medicine. A total of 999 radioactive sources consist of 870 sealed sources and 129 unsealed sources were registered or licensed in public and private medical institutions as shown in **Table 6.21**

**Table 6.19**  
**Number of Licensed/Registered Medical Institutions with Medical Radiation Sources**

Type of Premises	No. of Premises		Total
	Public	Private	
Dental Clinic	487	1,596	2,083
General Practitioner Clinic	NA	1,257	1,257
Hospital (Radiology)	150	131	281
Health Clinic	228	NA	228
Veterinary Clinic	5	93	98
Non X-Ray Specialist Clinic	NA	71	71
Radiology Clinic	NA	41	41
Army Hospital/ Clinic	48	NA	48
Nuclear Medicine Centre	6	27	33
Radiotherapy Centre	6	29	35
Blood Irradiator Centre	4	5	9
Consultant Medical Physics Company (H Class)	NA	8	8
Mobile X-Ray Services Clinic	2	6	8
<b>Total</b>	<b>936</b>	<b>3,364</b>	<b>4,200</b>

\*NA: Not Applicable

Source: Medical Radiation Surveillance Division, MOH

**Table 6.20**  
**The Number of Registered/Licensed Irradiating Apparatus**

Type of Irradiating Apparatus	No. of Irradiating Apparatus		Total
	Government	Private	
General X-Ray, Mobile X-Ray, Veterinary	1,309	1,962	3,271
Dental (Intra Oral/OPG/CBCT)	796	2,406	3,202
Fluoroscopy (Static /mobile)	338	370	708
Angiography	29	106	135
CT Scanner	74	171	245
Mammography	55	183	238
Lithotripter	10	13	23
Bone Densitometer	21	92	113
Linear Accelerator	18	41	59
Linac kV Imaging	13	23	36

Type of Irradiating Apparatus	No. of Irradiating Apparatus		Total
	Government	Private	
Intraoperative Radiotherapy (IORT)	0	7	7
Simulator	3	6	9
CT Simulator	9	14	23
Tomotherapy	1	4	5
PET-CT/ SPECT-CT	7	21	28
Medical Cyclotron	1	2	3
<b>TOTAL</b>	<b>2,684</b>	<b>5,421</b>	<b>8,105</b>

Source: Medical Radiation Surveillance Division, MOH

**Table 6.21**  
**The Number of Registered/Licensed Radioactive Materials**

Type of Radioactive Sources	Services	No. of Sources		Total	
		Government	Private		
Sealed Sources	Radiotherapy	28	443	471	<b>870</b>
	Nuclear Medicine	147	243	390	
	Blood Irradiator	5	4	9	
Unsealed Sources	Nuclear Medicine	37	92	129	<b>129</b>
<b>TOTAL</b>		<b>217</b>	<b>782</b>	<b>999</b>	

Source: Medical Radiation Surveillance Division, MOH

## MONITORING AND ENFORCEMENT ACTIVITIES UNDER ACT 304

A total of 1,398 medical institutions were inspected including 224 in government clinics/hospitals while the other 1,174 in private establishments in year 2018. A total of 1,030 (73.70 per cent) medical institutions were fully complied with the regulatory requirements while 368 (26.30 per cent) medical institutions did not comply at the time of inspection. Follow-up actions were taken to ensure all medical institutions adhered to regulatory requirements.

## MEDICAL PHYSICS SERVICES

In 2018, a total of 428 technical advices pertaining to Ionizing Radiation (IR)/ Non Ionizing Radiation (NIR) activities were provided to the MOH hospitals and clinics. The details are as listed in **Table 6.22**

**Table 6.22**  
**Technical Advice on Ionizing Radiation (IR) and Non Ionizing Radiation (NIR)**

Type of Activities	Total
Provision and assessment specifications modality of IR/NIR & associated facilities	54
Site visit, technical advice and commissioning & acceptance testing (T&C) *Review of Technical Specification Adhere (TSA) *Projects progress meeting / site visits /T&C *Shielding verification & shielding integrity test	97
Assessment of the plan and radiation protection for new public clinic/hospital projects	50
Verification of irradiating apparatus QC report	191
Random repeat test to verify QC report provided by the consultant Class H.	36
<b>Total</b>	<b>428</b>

Source: Medical Radiation Surveillance Division, MOH

In 2018, MRSD managed to issue and circulate ten (10) legal and non-legal documents related to the use of ionising and non-ionising radiation. The list is as follow:

- i. *Tatacara Pelupusan Radas Penyinaran dan Peranti yang Menggunakan Bahan Radioaktif Selaras dengan Ketetapan di Bawah Akta Perlesenan Tenaga Atom 1984 (AKTA 304)*
- ii. *Pekeliling Ketua Pengarah Kesihatan Malaysia Bil.5 Tahun 2018: Keperluan Regulatori di Bawah Akta Perlesenan Tenaga Atom 1984 (AKta 304) bagi Fasiliti Perubatan Kementerian Kesihatan Malaysia*
- iii. *Pekeliling Ketua Pengarah Kesihatan Malaysia Bil.6 Tahun 2018: Pewujudan Jawatankuasa Perlindungan Sinaran (JPS) di Peringkat Jabatan Kesihatan Negeri (JKN)*
- iv. Pamphlet *Sinaran Radiofrekuensi (RF) dan Kesihatan*
- v. Pamphlet *Radiofrequency (RF) Radiation and Our Health*
- vi. Pamphlet *“Medan Elektrik dan Medan Magnet Berfrekuensi Lampau Rendah (ELF-EMFs) dan Kesihatan”*
- vii. Pamphlet *“Extremely Low Frequency Electric and Magnetic Fields (ELF-EMFs) and Our Health”*
- viii. Poster *“Permanent Seed Implant/Particle Knife Therapy”*
- ix. *Buku Log bagi Pengendali Radas Mamografi di bawah Akta 304*
- x. *Buku log bagi Pengendali Radas CT Scan di bawah Akta 304*

## INTER-AGENCY TECHNICAL COOPERATION

Technical cooperation activities with national and international agencies such as International Atomic Energy Agency (IAEA) and Office of Radiological Security, US Department of Energy (ORS) include peer review mission, physical protection and security of radioactive sources and training programs. Below is a summary of activities conducted with external agencies throughout the year 2018:

- i. Meeting to discuss Implementation of the National Level Quality Assurance Audit for Diagnostic Radiology Improvement And Learning (QUAADRIL) Program was held on 5 February 2018
- ii. Meeting with ORS representatives to discuss alternative technologies to replace radioactive sources as a irradiator and Technical Assessment Visit to National Blood Center and Pathology Department, Ampang Hospital on 7 to 8 February 2018
- iii. Occupational Radiation Protection Appraisal Services (ORPAS) Auditing Appraisal Services Meeting (ORPAS) No. 1/2018 with National Project Counterpart (NPC) from the Malaysian Nuclear Agency was held on 26 April 2018.
- iv. Technical Assessment Visit with ORS representative in Securities Protection Aspect for Installation of Blood Irradiator in Pathology Department, Women and Children's Hospital Kuala Lumpur on 23 April, 2018
- v. IAEA Expert Mission- Technical Evaluation Securities System Visits on Facilities of Radioactive Material for Medical Facilities Program under Integrated Nuclear Security Support Plan (INSSP) Malaysia on 24 to 26 July 2018
- vi. Workshop on Introduction Program Quality Assurance Audit For Diagnostic Radiology Improvement And Learning (QUAADRIL) on 18 to 19 September 2018
- vii. Cooperation with ORS to held International Response Training Course on 17 to 20 December 2018

## WAY FORWARD

Medical radiation safety is becoming increasingly important since it will be one of the contributing factors to enhance quality use in irradiating apparatus and radioactive substances. MRSD will provide the expertise, technical capability and information technology related to ionising radiation and non-ionising radiation for better radiation protection to the patients, workers and the public.

The establishment of MRSD is to strengthen and expand the existing medical radiation safety activities in complying with all the standards and current regulation requirements related to safety, security and safeguard for the needs of KKM services. MRSD will continue to provide an effective and efficient control in the use of ionizing radiation in medical to ensure the safety and health of patient, worker and public through transformation, technology, innovation and quality approach.

In addition, existing activities and programs will be expanded in line with technological developments involving the use of radiation modalities to meet the complex medical needs while complying with current standards and regulations. These include efforts to expand the scope of activities related to security, safeguards and public engagement in order to support the Ministry of Health to address issues related to the effects of radiation on public health.

## NATIONAL INSTITUTES OF HEALTH

National Institutes of Health (NIH) was started in seventh Malaysian Plan (7MP). NIH consists of Institute for Medical Research (IMR), Institute for Public Health (IPH), Clinical Research Center (CRC), Institute for Health Management (IHM), Institute for Health Systems Research (IHSR), Institute for Health Behavioural Research (IHBR) and NIH Secretariat. NIH were responsible to conduct health related research for the Ministry of Health (MoH) and provide evidence to improve health delivery. NIH also monitor MoH research activities from setting up health research priority until translation of research output (change of policy, improvement of clinical practice guideline, effective health management and health promotion, enhancing service delivery through technological innovation).

### INSTITUTE FOR MEDICAL RESEARCH

The Institute for Medical Research (IMR) is the research arm of the Ministry of Health and its main function is to carry out research to identify, elucidate, control and prevent diseases and health problems in the country. Another significant contribution of IMR is conducting specialised diagnostic tests to support the diagnostics role of all healthcare facilities in Malaysia. Other services provided by IMR are consultative services as well as scientific and technical training programmes.

### RESEARCH

Research in IMR is categorized into four (4) clusters and there are 82 research projects which are new or continuation were carried out with an allocation of RM8.68 million under the Ministry of Health Research Grant (**Table 6.23**). There are two (2) international projects under the extramural collaboration namely “Wolbachia based control of virus transmission by the mosquito *Aedes albopictus*” under the Wellcome Trust and “Genetic, lipid and other risk factor in early-onset acute myocardial infarction in Malaysia” under the Newton-Ungku Omar Fund. IMR staffs published 124 scientific papers and were involved in 257 scientific presentations that are 182 at local conferences and 75 at international level.

**Table 6.23**  
**Breakdown of Research Projects Based on Research Cluster under the MOH Research Grant Allocation**

Research Cluster	Burden of Disease (BOD)	Non-Communicable Disease (NCD)	Sustainable Environment and Climate Change (SECC)	Biomedical	Total
Number of projects	39	3	13	27	82
Allocation (RM)	3,146,398	282,600	1,332,124	3,915,966	<b>8,677,088</b>

Source: Institute for Medical Research (IMR), MOH

## DIAGNOSTIC SERVICES

IMR provides specialised and referral diagnostic tests which are not done in other laboratories. In 2018, IMR provided about 450 different tests conducted by 30 different units/laboratories. Most units in IMR also serve as referral centers for MOH laboratories throughout the country. The main diagnostic laboratory in IMR is the Specialized Diagnostic Centre and the five (5) most important tests with regards to the numbers of samples are Inborn Errors of Metabolism (IEM), Plasma Amino Acids, Urine Organic Acids tests which are for screening of newborn; Fragile-X Syndrome test for molecular genetic screening and Serum Protein Electrophoresis (SPE) for identification of Multiple Myelomas.

## CONSULTATIVE SERVICES

IMR staff provides advisory and consultative services to the MOH, other government departments, as well as international organizations. Throughout the year, IMR staffs were involved in 410 consultative services at the national level, while 63 staff members provided such services at the regional /international level.

## SCIENTIFIC AND TECHNICAL TRAINING PROGRAMMES

Training activities comprised of regular courses offered annually including the Southeast Asian Ministers of Education Organization - Tropical Medicine and Public Health Network (SEAMEO-TROPMED) postgraduate courses namely, the Diploma in Applied Parasitology and Entomology (DAP&E) and the Diploma in Medical Microbiology (DMM). IMR provided training opportunities such as *ad hoc* training programmes and attachments for 702 scientists, medical doctors and allied personnel from other departments, local and foreign institutes as listed in **Table 6. 24**:

**Table 6.24**  
**Training programmes provided by IMR for year 2018**

No	Training programmes by IMR	Numbers Trained
1	Industrial Training (2 - 6 months)	12
2.	Summer Internship (4 - 6 weeks work experience placement)	11
3.	Masters of Pathology training	97
4.	Educational visit with Laboratory Practical	24
5.	Educational visit	556
6.	Competency-Based Training	3
<b>Total</b>		<b>702</b>

Source: Institute for Medical Research (IMR), MOH

Image 6.14  
Significant Activities of IMR in Year 2018



Source: Institute for Medical Research (IMR), MOH

## INSTITUTE FOR PUBLIC HEALTH

Institute for Public Health (IPH), under National Institutes of Health, Ministry of Health, focuses on public health research. In line with the restructuring of health care system of Malaysia, IPH will strengthen its research capacity to support the Ministry of Health in the planning of the health care delivery for the country. The main activities of the IPH consist of:

- i. Research
- ii. Research Publications
- iii. Expert Consultations
- iv. Database Development
- v. Depository Library for WHO Publications
- vi. Conferences, Seminars and Workshops

## RESEARCH ACTIVITY

IPH has conducted a total of 33 research projects which include a total of 12 population/community-based research/surveys, a total of ten (10) collaborative research projects with other agencies, and a total of 11 systematic/scoping review research activities. National Health and Morbidity Survey (NHMS) 2018: Elderly Health is one of the major research projects in 2018 besides other projects been conducted as shown in **Table 6.25** dan **Table 6.26**.

**Table 6.25**  
**Research Activities in IPH**

No.	Title of Research Project	NMRR ID.	Principal Investigator
<b>Research Activities at community/ population/ Survey level</b>			
1.	Evaluation of Enhanced Primary Health Care (EnPHC): Population Based Survey	NMRR-17-268-34770	Dr Muhammad Fadhli / Dr Maria Safura
2.	<i>Kajian bebanan penyakit typhoid di Lembah Klang, Malaysia 2011 hingga 2015</i>	NMRR-16-2042-31954	Tee Guat Hiong/Pn Eida Nurhadzira
3.	Population-based salt intake survey to support the national salt reduction programme for Malaysia 2017 – 2018 (Malaysian Community Salt Study – MyCoSS)	NMRR-17-423-34969	Rashidah Ambak
4.	NHMS 2018: Elderly Health	NMRR-17-2655-39047	Dr. Rajini Sooryanarayana
5.	Urinary minerals excretion and association with dietary mineral intake among adults in Malaysia	NMRR-18-308-40320	Dr Noor Safiza Mohamad Nor
6.	Prevalence of Hepatitis B and C in Malaysia 2018	NMRR-18-434-40096	Dr Rimah Melati Ab Ghani
7.	Iodine deficiency disorders (IDD) still a challenge in Sarawak: an evaluation after ten years of universal salt iodisation	NMRR-17-2931-39285	Lim Kuang Kuay
8.	Pregnant Women in Sarawak are at Risk of Iodine Deficiency: Cross Sectional Study	NMRR-17-2932-39316	Lim Kuang Kuay
9.	Mobile Health for Child Injury Prevention in Malaysia (M-CHILD)	NMRR-16-1480-31431	Dr Nur Liana Abd Majid/ Hamizatul Akmal Abdul Hamid
10.	Tuberculosis Contact Investigations	Research ID: 42027	Dr. Noor Aliza Lodz
11.	Case Control Study for Malnutrition Among Children under 5 years old in Putrajaya	NMRR-18-847-41455	Nor Azian Mohd Zaki/ Mohamad Hasnan Ahmad
12.	Malaysian Burden of Disease and Injury Study 2015-2016	NMRR-18-609-41165	Mohamad Fuad Mohamad Anuar
<b>Research Activities: Systematic/ Scoping Review</b>			
1.	A systematic review on effect of kiddie/small cigarette pack on smoking	NMRR-18-452-40306	Dr Halizah Mat Rifin



No.	Title of Research Project	NMRR ID.	Principal Investigator
2.	The effectiveness of vaccination and good hygiene practice among food handlers in prevention of typhoid fever: A Systematic Review	NMRR-18-955-41181	Eida Nurhadzira Muhammad
3.	Stevia for hypertension. Cochrane systematic review	NMRR-13-602-16768	Dr Nor Asiah Muhamad
4.	Knowledge, attitude and behaviour among food handlers for prevention of typhoid disease	NMRR-18-814-41552	Dr Nor Asiah Muhamad
5.	Workplace intervention for preventing work-related rhinitis and rhinosinusitis	NMRR-18-591-41138	Dr Nor Asiah Muhamad
6.	Workplace intervention for treating work-related rhinitis and rhinosinusitis	NMRR-18-592-41139	Dr Nor Asiah Muhamad
7.	Massage Therapy for Improving Functional Activity after Stroke	NMRR-18-434-40096	Dr Rimah Melati Ab Ghani
8.	A scoping review on salt reduction intervention	NMRR-18-1010-41127	Lalitha Palaniveloo
9.	Environmental Risk Factors of Leptospirosis in Urban Settings: A systematic review	NMRR-18-198-40328	Mohd Hatta Abdul Mutalip
10.	Effectiveness of home visiting to improve social isolation among older people in the community: A systematic review	NMRR-17-3301-38379	Noraida Mohamad Kasim
11.	Prevalence and aetiology of hearing loss among primary school children in Malaysia: a scoping review	NMRR-18-2976-41893	Dr Tan Lee Ann

Source: Institute for Public Health, MOH

**Table 6.26**  
**Research Activities at Collaborative Level in IPH**

No.	Title of Research Project	NMRR ID.	Principal Investigator	Collaborator
Research Activities at collaborative level				
1.	Does System Based Intervention Reduce the progression of Diabetes in Women with History of Gestational Diabetes (SBI-GDM)? - A Prospective, Randomized Controlled Study	NMRR-15-2000-28718	Dr Mohd Azahadi	FMS Selangor

No.	Title of Research Project	NMRR ID.	Principal Investigator	Collaborator
<b>Research Activities at collaborative level</b>				
2.	Retrospective cohort study among retroviral disease patients in primary health care clinics in Selangor	NMRR-17-1782-35308	Dr Mohd Azahadi	FMS Selangor
3	Biomonitoring of urinary metals	NMRR-18-204-39712	Rashidah Ambak & Dr Thamil Arasu	IMR
4.	Relationship of Dietary Salt and Aldosterone in a General Population Cohort	NMRR-17-2797-38196	Rashidah Ambak, Dr Thamil Arasu, Fatimah Othman	HUKM
5.	Research on Trust in Healthcare	-	Dr Noor Safiza	IMU
6.	Content Analysis on Students' Reflective Reports	-	Dr Noor Safiza	IMU
7.	Correlational Study between Vitamin D Level, Inflammatory Status and Metabolic Syndrome Risk in Adolescents	NMRR-15-937-26235	Mohamad Hasnan Ahmad & Dr. Tahir Aris	IMR & HUSM
8.	Level of knowledge, attitude, health seeking behaviour and practice of rabies prevention among adolescent students in Sarawak	Reasearch ID: 42716	Dr Nor Asiah Muhamad	JKN Sarawak
9.	A Community Survey on Batang Padang FELDAs Elderly Health 2018	NMRR-18-1792-42486	Dr Noor Ani Ahmad	PKD Batang Padang
10.	Adolescent Sexual and Reproductive Health in Malaysia: a scoping review	NMRR-18-840-40524	Dr Noor Ani Ahmad	Institute for Health Behavioural Research

Source: Institute for Public Health MOH

## RESEARCH PUBLICATIONS

There are 56 research publications at various local and international journals in 2018. A total of 44 publications were under category Impact Factor 0.6 or higher while a total of 12 publications under Impact Factor less than 0.6.

## PRESENTATIONS

IPH's technical officers presented a total of 19 plenaries or symposium presentations, 11 free paper presentations and 88 poster presentations at various national and international conferences. There was a total of 11 oral and poster presenters were received the award for best oral/poster presentation.

## CONSULTATIONS

A total of 108 consultations/technical support or advice been provided to MOH staffs or other agencies in various research expertise.

## WAY FORWARD

IPH are determined and hard work on realising our vision to be the authority and leader in epidemiological survey research on public health, and translate our findings into evidence-based policy making information to stakeholders and policy makers.

## CLINICAL RESEARCH CENTRE

Clinical Research Centre (CRC) is one of the six (6) research institutes under the umbrella of the National Institutes of Health (NIH), Ministry of Health Malaysia (MOH) and has been operational since August 2000. CRC functions as the clinical research arm of MOH and CRC network presently comprises the National CRC and 33 CRC Hospitals in charge of strengthening the capacity of clinical research at all health facilities in MOH. The main function of the CRC is to manage, provide guidance and conduct high-impact clinical research activities that will improve the quality of Malaysian healthcare.

## ACTIVITIES AND ACHIEVEMENTS

### 12<sup>TH</sup> NATIONAL CONFERENCE FOR CLINICAL RESEARCH (NCCR)

The 12<sup>th</sup> NCCR with the theme “Patient Centered Research: Digital Health” brings clinical researchers, stakeholders and enthusiasts, timely topics within the field of patient centric research. The bridge between patient care and the advancements of digitalisation in healthcare is continuously being improved, leading to an era of medicine that far surpasses the boundaries of traditional patient centric care.

Disruptive innovation theory was first developed in 1995. From its original meaning, the words “disruptive innovation” has morphed into a “buzz word” in the field of business and technology to mean innovative ideas that successfully develop into models that overturn existing and well-established norms. For more than a decade, digitalization has been making waves in the healthcare industry with innovations that have challenged and changed the delivery of patient care, placing patients’ needs fully within its core.

With medical technology, large and creative strides to bring new ways of doing things must be based on evidence. Evidence based medicine that is peer-reviewed is the foundation in which delivery of healthcare rests upon. Therefore, clinical research must embark into gathering evidence to ensure that the practical applications of digitalized healthcare provide relevant, effective and safe patient care.

Y.B. Dr. Lee Boon Chye, Deputy Minister of Health Malaysia, officiated the 12<sup>th</sup> NCCR on 24 to 25 September 2018 at Istana Hotel, Kuala Lumpur. Video recordings of speeches delivered by Y.B. Dr. Lee Boon Chye, Y.Bhg. Datuk Dr. Noor Hisham Abdullah, Director General of Health

Malaysia and Y.Bhg. Dato' Dr. Amar Singh HSS can be accessed in this link -> <https://www.facebook.com/CRCMalaysia> (Image 6.15).

**Image 6.15**  
**12<sup>th</sup> National Conference for Clinical Research (NCCR)**



Dr. Lee Boon Chye Officiating The 12<sup>th</sup> NCCR



12<sup>th</sup> NCCR 2018 Group Photo

Source: Clinical Research Centre, MOH

### **CRC NETWORK MEETING**

CRC Network Meeting for 2018 was held on 10 July 2018 at Cheras Rehabilitation Hospital in conjunction with retirement for Dato' Dr. Amar Singh HSS and Dr. Maria Lee Hooi Sean. In this meeting Dato' Dr. Goh Pik Pin (Director, CRC) congratulated all CRC Hospitals on their 2017 achievements and iterated to all staff to continue their commitments in providing research consultations and trainings to investigators in addition to conducting impactful clinical research (Image 6.16).

**Image 6.16**  
**CRC Network Meeting on 10 July 2018, Cheras Rehabilitation Hospital**



Source: Clinical Research Centre, MOH

In 2018, a total of 184 articles were published in scientific journals; while 955 abstracts were presented. CRC assists, conducts and promotes industry sponsored research (ISR). ISR is one of the entry point project (EPP) in National Key Economic Area (NKEA) and CRC together with Clinical Research Malaysia (CRM) are tasked to drive Malaysia as a preferred global destination for ISR as well to enable and facilitate clinical trials. In 2018, a total of 168 ISRs were approved by MREC as shown in **Table 6.27** and this is in line to achieve 1000 ongoing trials in Malaysia by 2020. In addition, CRC received a total of MYR1,386,184.60 extramural grant with 85 per cent funded by international sponsors (**Table 6.27**) and United State-National Institute of Health (US-NIH) is the largest grant provider for malaria research.

**Table 6.27**  
**Research Activities by CRC Network in 2018**

No.	Research Activities	Achievements
1.	<b>Publications (articles)</b>	184
2.	<b>Presentations (abstracts)</b>	
	Local	781
	International	174
3.	<b>Consultations (Services)</b>	
	Local	390
	International	20
4.	<b>Industry Sponsored Research (ISR)</b>	
	New Studies Approved by MREC	168
	On-Going Studies Conducted in MOH Facilities	119
5.	<b>Extramural grants (RM)</b>	
	Local	207,691.00
	International	1,178,493.60

Source: Clinical Research Centre, MOH

## CONCLUSION

The year 2018 has been one of hard work and fulfilment. Overall, the strategies initiated by CRC from its inception in 2000 have been very encouraging and CRC has always achieved its key performance indicators. Moving forward, CRC plans to (i) establish more local and international strategic linkages; (ii) secure more competitive extramural research grants; and (iii) actively involves in the translation and dissemination of research findings, especially into policy and everyday clinical practise. Positioning Malaysia as a preferred global destination for research and taking Malaysia closer to become a leading clinical research organization in Asia.

## INSTITUTE FOR HEALTH MANAGEMENT

### IHM: 7 YEARS IMPLEMENTATIONS OF HOSPITAL CLUSTER

Institute for Health Management (IHM) has been involved in the Cluster Hospital initiative since 2012. IHM has been playing an active and direct role in introducing the concept of Action

Research (AR) approach which is applied by each and every hospital involves in the Cluster Hospital initiative during the planning, action and evaluation phase. This method was chosen as it was flexible and could cater to the vastly different scenarios in each cluster.

The AR approach for the Cluster Hospital constituted the situational strategic analysis, issues identification and stakeholder engagement pre-implementation of the Cluster Hospital project. Hence, it promotes bottom-up approach and stakeholders' ownership of the project. Hospital Clusters is a concept that all nearby government hospitals share and expand their medical resources, services and expertise, including paediatric and surgical services.

Cluster Hospital initiative started off with three (3) pilot projects (**Image 6.17**) in Temerloh (Jengka and Jerantut), Malacca (Jasin and Alor Gajah) and Tawau (Kunak and Semporna) and various achievements have been observed. Waiting time for surgery and procedures has been shortened due to better utilisation of resources and facilities. Specialist care has been brought closer to home for patients living in the outskirts. Even the competency level of healthcare staff especially in district hospitals has seen improvement. Currently, in 2018, it has been expanded to three (3) more clusters in Kelantan, Johor, and Negeri Sembilan which make up 13 clusters altogether nationwide and more hospitals will be involved in the future.

**Image 6.17**  
**The Cluster Project Implementation**



Token of Appreciation to Datin Dr. Noriah Bidin For Her Contribution Towards The Cluster Project Implementation



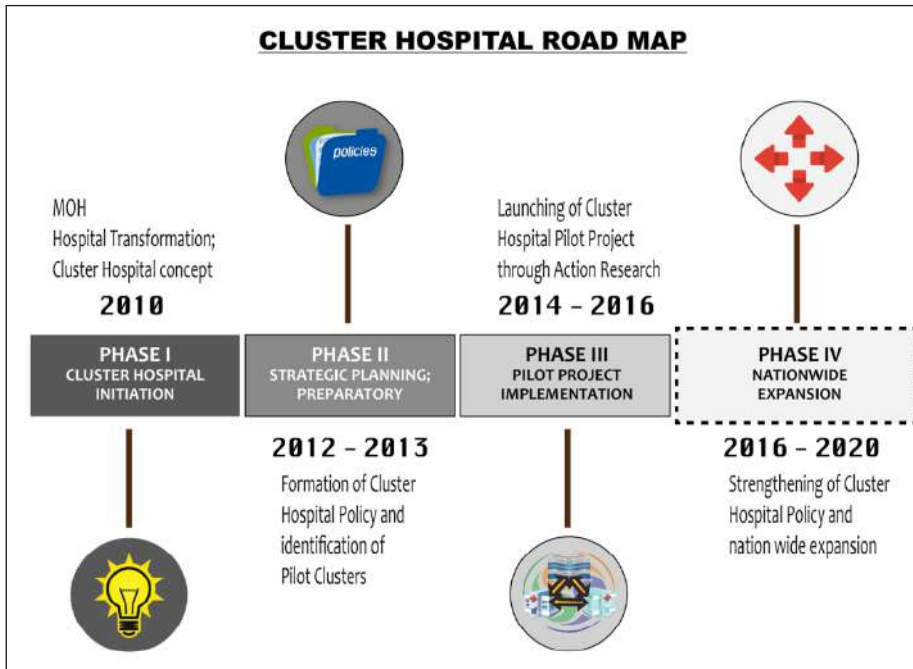
Launching of New Cluster Hospital

*Source: Institute for Health Management, MOH*

Apart from the contribution in terms of training, IHM is tasked for the publication aspect related to Cluster Hospital initiative. We are publishing this Compilation Reports of the Cluster Hospital Implementation in order to share the latest achievements, results and performances of the Kedah Utara, Seberang Perai, Kelantan Utara and Hospital Tuanku Ampuan Najihah (HTAN) Clusters. As compared to the previous two editions of the compilation reports of

the Cluster Hospital pilot projects, we would like to showcase the newer Clusters which had shown high level of dedication, endurance and excellent achievement since their inception. **Figure 6.9** shows the road map for the Cluster Hospital Implementation in MOH

**Figure 6.9**  
**Cluster Hospital Road Map**



Source: Institute for Health Management, MOH

In addition, IHM is responsible to conduct research related to Cluster Hospital implementation. To date, IHM has completed three (3) research projects:

- i. Cost Effectiveness of Cluster Hospital Pilot Projects,
- ii. Patients' Experience On Cluster Hospital Implementation and Exploring Barriers and
- iii. Boosters towards Cluster Hospital Sustainability among Healthcare Providers.

Through the findings of these researches, we aim to contribute in improving and fine-tuning the Cluster Hospital implementation. By using the evidenced-based approach, policy makers could utilise the research findings so that the Cluster Hospital implementation could be more objective, impartial and realistic. As a matter of fact, Cluster Hospital is the long-term initiative of the Ministry of Health. Hence, IHM aspires in being part of the Cluster Hospital implementation team and assists in expanding the Cluster Hospital initiative nationwide.

### **INSTITUTE FOR HEALTH SYSTEMS RESEARCH**

Institute for Health Systems Research (IHSR) is to conduct Health Policy and Systems Research (HPSR) to produce reliable and rigorous scientific evidence and promote the use of evidence to inform national health policy and reforms in health care. The research areas covered at IHSR are based on the World Health Organisation (WHO) Health Systems Framework<sup>1</sup> that

describes health systems in terms of core components or building blocks. These research areas include leadership or governance; health information and technology; health economics and financing; and service delivery.

IHSR is designated as a WHO Collaborating Centre for Health Systems Research and Quality Improvement. IHSR works with the WHO and its network of institutions for the development of Health Systems Research and Quality Assurance and Improvement in Malaysia and globally. IHSR is also recognised as the national Quality Assurance (QA) Secretariat that acts as the coordinating centre for training and development of QA Programmes within the MOH.

The major activities of IHSR include research, consultation and training with the main objective of improving and strengthening the health care system, in accordance with global health targets such as the Sustainable Development Goals (SDGs) for health, Universal Health Coverage, the 11<sup>th</sup> Malaysia Plan and Healthcare Transformation objectives.

## RESEARCH

In 2018, IHSR conducted HPSR-related research projects that have potential to inform health policy. Three (3) projects were collaborative studies with local and international organisations. Projects that have been completed in 2018 as well as on-going projects are listed in **Table 6.28**.

IHSR research findings were published in six (6) articles within international journals in 2018. In addition, the Institute has produced 28 publications in the form of research highlights, technical reports, policy briefs, executive summaries, fact sheets and others. As for presentation of research findings, IHSR had participated in 71 presentations within Malaysia (6 poster and 65 oral presentations) and 31 presentations internationally.

**Table 6.28**  
**IHSR Research Projects, 2018**

No.	Project title	Year
1.	The Jom Mama Trial: Pre-Pregnancy Intervention to Reduce the Risk of Diabetes and Pre-diabetes NMRR-14-904-21963	2014 to 2018
2.	Process Evaluation of A Pre-Pregnancy Intervention to Reduce the Risk of Diabetes & Pre-Diabetes NMRR-16-387-29002	2016 to 2018
3.	Complex Community Intervention Programme: an Economic Evaluation (EECCIP) NMRR-15-2333-28679	2015 to 2018
4.	Revision of Healthcare Demand Questionnaire for NHMS 2019 NMRR-17-905-35933	2017 to 2018
5.	Enhanced Primary Healthcare - Process Evaluation (EnPHC PE) NMRR-17-295-34771	2017 to 2018



No.	Project title	Year
6.	Cost Benefit Analysis of Pneumococcal Vaccination Among Malaysian Hajj Pilgrims NMRR-17-471-34944	2017 to 2018
7.	Evaluation of Full Paying Patient (FPP) Services: Implication on Equity NMRR-17-575-35270	2017 to 2018
8.	Pilot Costing of Pregnancy Care Services in Selected Primary Healthcare Facilities in Negeri Sembilan NMRR-17-788-34998	2017 to Aug 2019 (on-going)
9.	Primary Care Systems for Person Centred Provider Practices NMRR-18-309-40447	2018 to (on-going)
10.	Rising Healthcare Costs: A Review NMRR-18-1021-40745	Jun 2018 to (on-going)
11.	Prevention & Control of Hypertension: A Policy Evaluation NMRR-18-968-41433	2018 to (on-going)

Source: Institute for Health Systems Research, MOH

## TRAINING

In 2018, IHSR has organised training programmes and workshops that were associated with HPSR, as listed in **Table 6.29**. A total of 1226 staffs from IHSR and other NIH institutes participated in these programmes.

**Table 6.29**  
**IHSR Training, 2018**

Division	Training	Date
Health Economics Research	Healthcare Costing Methodology Workshop	12 to 13 Feb 2018
	Economic Evaluation in Healthcare Workshop	19 to 20 Feb 2018
	The Application of Econometrics in Health Economics	22 to 25 Jun 2018
	Data Envelopment Analysis	30 to 31 Jul 2018
Health Care Quality Research	Lean Data Management and Analysis Workshop	23 to 26 Jan 2018
	Quality Manager for Lean Healthcare Initiative	23 to 24 Feb 2018
	<i>Bengkel Latihan Lean Awareness Untuk Jabatan Ortopedik Dan Oftalmologi</i>	13 to 15 Mar 2018
	Clinic Lean Healthcare Workshop	6 to 8 Mar, 13 to 15 Mar 2018
	Writing For Q Bulletin: Polish & Publish Workshop	27 to 29 Aug, 1 Nov 2018
Quality Assurance (QA) Secretariat	QA Workshop: Implementing Quality: From Zero To Champion	17 to 19 Jul 2018
	QA Workshop Comment & Critique	31 Oct, 1 Nov 2018

Division	Training	Date
Health Policy Studies and Analysis	Knowledge Translation Workshop	24 Oct 2018
Medical Statistics, Data Management & ICT	Introduction Of Statistical Process Control Tools For Improving Outcomes In Healthcare	10 to 12 Oct 2018
	Microsoft Access Course	19 to 20 Sep 2018
Healthcare Services Research	Research Methodology - Qualitative Methods for Health Systems Improvement	9 Feb 2018
	Qualitative Data Collection Workshop	19 Apr 2018
	Questionnaire Development Workshop	21 to 22 Mei 2018
	“Questionnaire Reliability and Validity Testing” Workshop	1 Aug 2018
	<i>Bengkel Susulan Penyelidikan Primary Care Systems for Person Centred Provider Practices</i>	25 Oct 2018
	<i>Latihan Penyediaan “Research Highlight” untuk warga Institut Penyelidikan Sistem Kesihatan</i>	12 to 13 Nov 18
Health Outcomes Research	Health Outcomes Research Methodology	12to 13 Feb 18
	Health Outcomes Research Methodology For Nurses	26 to 28 Feb 18
	Maera In Country Training Workshop	31 Oct to 2 Nov 18

Source: Institute for Health Systems Research, MOH

## CONSULTATION

IHSR provided a total of 98 consultation services in 2018; 86 of these involved consultations with MOH agencies, six (6) consultations with non-MOH organisations and six (6) consultations at international level. Consultations were associated with HPSR.

## WAY FORWARD

IHSR aspires to strengthen its capacity as a research institute to improve the health care system in the country through HPSR, in line with other research conducted within the National Institutes of Health (NIH).

## INSTITUTE FOR HEALTH BEHAVIOURAL RESEARCH

The Institute for Health Behavioural Research (IHBR) was established in 2006 and the main function of this Institute is to carry out research, training as well as consultancy in the field of health behaviour. Among the specific areas of research carried out includes behavioral determinant factors, health risk behaviors, program evaluation, instrument development and health communication.

## ACTIVITIES IN 2018

### RESEARCH

For the year 2018, five (5) research activities were carried out as follows:

- i. **Evaluation for Child Safe Application (M-Child) (International Collaboration with John Hopkins University)** – This is a collaborative study between the Institute for Public Health (IKU) and John Hopkins University. The study objective was to investigate the effectiveness of the Child safe mobile application in aiding assessment of dangers at home and prevention of child injury. The qualitative component of this research was conducted by IPTK and aimed to obtain feedback on this application among users.
- ii. **Adolescents Sexual And Reproductive Health In Malaysia: A Scoping Review** – The objective of this study were to identify the evidence from past studies related to the sexual and reproductive health issues of teenagers in Malaysia, particularly in terms of knowledge, attitudes and practices, past interventions and factors related to sexual and reproductive health of adolescents.
- iii. **Kajian Adaptasi Instrumen Literasi Kesihatan dalam Konteks Malaysia** – This is a collaborative study with the Health Education Division and National University of Malaysia. The objective of this study was to simplify and adapt the HLS-Q47 questionnaire in the context of Malaysian society. The result of this study was development of HLS - Q18 questionnaire which will be used to measure the level of health literacy among community in the National Morbidity Health Survey 2019.
- iv. **Kajian Penggunaan Perubatan Herba dan Tradisional dalam Kalangan Pesakit Diabetes Jenis 2 di Negeri Sembilan (Continuation of Phase 2)** – The main objective of this study was to explore the practice of using herbal and traditional medicine among diabetic patients in the localities of Negeri Sembilan.
- v. **Kajian Enhanced Primary Health Care: Process Evaluation (Continuation of Phase 3)** - This qualitative study is a collaboration between IHBR and the Institute of Health Systems Research (IHSR) and aimed to assess the level of readiness and acceptance of EnPHC intervention among health professionals in the participating clinic. Phase 3 of the study assessed the level of acceptance among patients and health personnel on EnPHC's intervention in health facilities involved.

### PUBLICATION (SCIENTIFIC PAPER)

In 2018, 10 scientific papers were published, 8 published in international journal and 2 published locally as shown in **Table 6.30**.

**Table 6.30**  
**IHBR 2018 Publication (Scientific Paper)**

Published in International Journal		
No	Title of Article	Status of Journal/ Impact Factor (IF)
1.	<b>Norbaidurah Ithnain, Shazli Ezzat Ghazali, Norrafizah Jaafar.</b> Relationship between smartphone addiction with anxiety and depression among undergraduate students in Malaysia. Int J Health Sci Res. 2018; 8(1):163-171.	3.56

Published in International Journal		
No	Title of Article	Status of Journal/ Impact Factor (IF)
2.	Nor Asiah Muhamad, <b>Norazilah Mohd Roslan, Aziman Mahdi, Norbaidurah Ithnain</b> , Normi Mustapha, Noor Aliza L, Rimah Melati AG & Suraiya SM. Association between Health Risk Behavior and Suicidal Ideation, Continuous Sadness and Depression among Malaysian Youth Global Journal of Health Science. 2018; 10(1):11-17.	1.29
3.	<b>Albeny Joslyn Panting</b> , Haslinda Abdullah, Ismi Ariff Ismail, Samsilah Roslan. Information- Seeking Behaviour on Sexual and Reproductive Health among Rural Adolescents in Sarawak Malaysia. International Journal of Public Health and Clinical Sciences. Vol.5:No. 1 January/ February 2018 (En. Albeny PHD Paper)	International, double-blind, peer-reviewed and open-access ejournal.
4.	Wan Mohd Zahiruddin, Wan Nor Arifin, Shafei Mohd-Nazri, Surianti Sukeri, <b>Idris Zawaha, Rahman Abu Bakar</b> , Rukman Awang Hamat, Osman Malina, Tengku Zetty Maztura Tengku Jamaludin, Arumugam Pathman, Ab Rahman Mas-Harithulfadhli-Agus, Idris Norazlin, Samsudin Suhailah, Siti Nor Sakinah Saudi, Nurul Munirah Abdullah, Noramira Nozmi, Abdul Wahab Zainuddin and Daud Aziah. (2018). Development and validation of a new knowledge, attitude, belief and practice questionnaire on leptospirosis in Malaysia. BMC Public Health. 18. 10.1186/s12889-018-5234-y.	2.814
5.	<b>Albeny Joslyn Panting, Zaikiah Mohd Zin, Norrafizah Jaafar, Komathi Perialathan, Sheikh Shafizal Sheikh Iلمان, Muhd Ridwan Zakaria</b> . 2018. Potential Factors Contributing to Vaccine Hesitancy among Parents in Malaysia: An Overview. International Journal of Health Sciences & Research (www.ijhsr.org) 360 Vol.8; Issue: 7; July 2018	3.56
6.	<b>Albeny JP</b> , Haslinda A, Ismi AI & Samsilah R. 2018. Contributing social factors for teenage pregnancy in Sarawak: A Review. Pertanika Journal of Social Science and Humanities. Accepted December 2018	SCOPUS/Q3/IF: 0.2.
7.	<b>Komathi Perialathan, Abu B. Rahman</b> , Kuang H. Lim, Yusoff Adon, <b>Azman Ahmad, Nurashma Juatan, Norrafizah Jaafar</b> Prevalence and Associated Factors with Electronic Cigarettes Vaping: Findings from Hospitals and Health Clinics Based Study in Malaysia. Tob. Induc. Dis. 2018;16(November):55 DOI: <a href="https://doi.org/10.18332/tid/99258">https://doi.org/10.18332/tid/99258</a>	2.092
8.	<b>Siti Nur Farhana Harun</b> , Mazrura Sahani & <b>Mohammad Zabri Johari</b> . Factors Affecting the Decision Making of HPV Vaccination Uptake Among Female Youth in Klang Valley (Influencing Factors): A Qualitative Study. Global Journal of Health Science; Vol. 11, No. 1; 2018. Online Published: December 13, 2018 doi:10.5539/gjhs.v11n1p36	h-index (June 2018): 32

Published in International Journal		
No	Title of Article	Status of Journal/ Impact Factor (IF)
Published in Local Journal		
9.	<b>Norbaidurah Ithnain</b> , Dr Shazli Ezzat Ghazali & <b>Norrafizah Jaafar</b> . <i>Ketagihan Telefon Pintar dalam Kalangan Mahasiswa</i> . Published Malaysian Journal of Youth Studies (MYJS) VOL.18 June 2018	
10.	<b>Albeny Joslyn Panting</b> , Haslinda Abdullah, Ismi Ariff Ismail, Samsilah Roslan. 2018. <i>Tingkahlaku pencarian maklumat kesihatan reproduktif dan seksual dalam kalangan remaja Sarawak</i> . Published Malaysian Journal of Youth Studies (MYJS) VOL.18 June 2018	

Source: KPI (Key Performance Indicator) Report 2018, Institute for Health Behavioural Research, MoH

## 2018 PRESENTATION (POSTER & ORAL)

### a. Poster Presentation

A total of 15 poster presentations were presented at local conferences. Three (3) posters with the following titles were awarded:

- i. **Knowledge VS Altruism: Towards Organ Donation among Final Year Students, Faculty of Medicine, UKM Kuala Lumpur.** *Saini N & Normawati A* - **Awarded Best 6 Poster at 21<sup>st</sup> Scientific Meeting Malaysia Society of Transplantation**, 4to 5 May 2018, Hotel Renaissance, Kuala Lumpur
- ii. **Unraveling the Hidden Evidence: Sexual Behavior among Adolescents in Sarawak, Malaysia** *Albeny Joslyn Panting, Dr. Haslinda Abdullah, Dr. Samsilah Roslan, Pises Busu, Teresa Yong Sui Mien* - **Awarded 2nd Best Poster Award (Public Health) at 10<sup>th</sup> Sarawak State Health Department Research Day 2018**, 13 to 14 September 2018, CRC Auditorium, Sarawak General Hospital, Kuching
- iii. **Knowledge And Attitude Ageing Generation: Online Health Seeking Behavior in Malaysia** *Masitah A., Normawati A., Teresa Yong, Komathi P, Nurashma J & MZ Johari* - **Awarded Best 3 Poster at 4th Health Promotion Conference**, 3 to 4 October 2018, Hotel Premiera, Kuala Lumpur

### b. Oral Presentation

A total 12 oral presentations were presented at local conferences. Three (3) oral presentations were presented internationally and the details are as below:

- i. **Characteristics of Female Shisha Smokers : A Qualitative Exploration presented by Nurashma Juatan** at Kuala Lumpur Nicotine Addition International Conference, 10 to 11 July 2018
- ii. **Health Information Seeking Behavior among Elderly Who Use Internet in Malaysia presented by Dr. Normawati Ahmad** at International Public Health Conference 2018, Bangkok Thailand, 15 to 17 July 2018
- iii. **Sex in the City ; Sexual Behavior among Adolescents in Kuching, Sibul and Miri presented by Albeny Joslyn Panting** at Alliance for Healthy Cities Global

## **OTHER PUBLICATIONS**

One (1) technical report was produced by IHBR in year 2018:

- i. Awareness, Perception and Behaviors Towards Electronic Cigarette (E-cig) in Malaysia  
*Norrafizah Jaafar, Komathi Perialathan, Abu Bakar Rahman, Norazilah Md. Roslan, Zaikiah Mohd Zin, Azman Ahmad*

## **CONCLUSION**

The Research & Technical Program will continue to support all programs and activities within the MOH and other sectors towards achieving the best in all health-related endeavors and play an important role in ensuring that MOH activities are geared towards achieving national objectives. Research activities will continue to support the other programmes, provide evidence for policy making and improve public health services and health delivery system.



# 7

## Oral Health

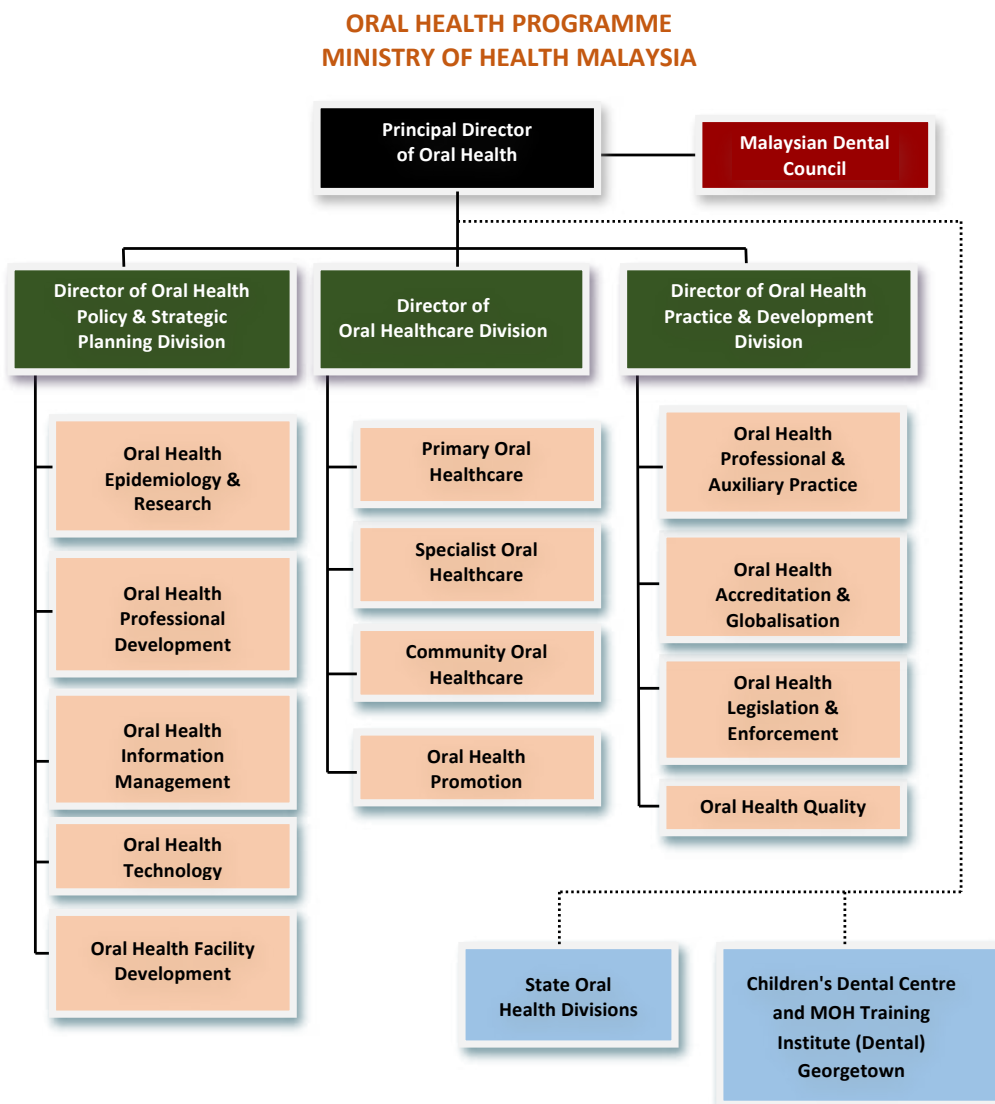




## INTRODUCTION

The Oral Health Programme Ministry of Health (OHP MOH) plays a major role in the stewardship and governance for oral health care services in the country. This includes the development of oral health policies and strategic planning, management of oral health programs and activities, legislation and regulations pertaining to the practice of dentistry with the aim to sustain good oral health among Malaysians. The OHP management structure is as below (Figure 7.1).

Figure 7.1  
Organisation Structure of OHP MOH, 2018



Source: OHP MOH, 2018.

In 2018, the total operating expenditure for the OHP was RM929,898,860.01 under the following activity code as in **Table 7.1**.

**Table 7.1**  
**Total Operating Expenditure of OHP, 2018**

Activities and Code	Expenditure (RM)
Management (030100)	83,864,604.38
Primary Oral Healthcare (030200)	646,928,552.64
Community Oral Healthcare (030300)	50,201,965.13
Specialist Oral Healthcare (030400)	148,903,737.86
<b>Total</b>	<b>929,898,860.01</b>

Source: OHP MOH, 2018

## ORAL HEALTH EPIDEMIOLOGY AND RESEARCH

Oral health research activities were carried out to support oral health evidence-based policy making. Dissemination of findings of national research projects to stakeholders were carried out through various platforms. Throughout 2018, the following research projects were undertaken in collaboration with various agencies within and outside MOH.

### NATIONAL LEVEL RESEARCH PROJECTS AND INITIATIVES

- i. National Health & Morbidity Survey 2017 (NHMS 2017): Adolescent Health Survey 2017. Poster presentation entitled “Personal Hygiene among Adolescents in Malaysia” was presented at the International Association for Dental Research (IADR) Vietnam, from 11 to 14 September 2018.
- ii. National Health & Morbidity Survey 2018 (NHMS 2018): Elderly Health led by the Institute for Public Health (IPH), MOH. For oral health module, dummy table was prepared, data entry was verified, and report write-up were undertaken.
- iii. National Health and Morbidity Survey 2019 (NHMS 2019): Healthcare Demand-led by the Institute for Health Systems Research (IHSR), MOH. Preparation of questionnaire items for oral health module finalized.

### RESEARCH PROJECTS AT PROGRAMME LEVEL

- i. NHMS 2017: National Oral Health Survey of Schoolchildren (NOHSS 2017). Poster presentation entitled Oral Health Status of Schoolchildren-NHMS 2017: NOHSS 2017 Survey findings were presented at the 14<sup>th</sup> National Symposium on Adolescent Health (NSOAH) at Institute of Leadership and Development, UiTM Bandar Enstek, Nilai Negeri Sembilan from 20 to 21 April 2018.
- ii. National Health and Morbidity Survey 2020: National Oral Health Survey of Adults 2020 (NHMS 2020: NOHSA 2020).

The 4<sup>th</sup> National Oral Health Survey of Adults is under the purview of IPH, MOH. Among the activities conducted in 2018 include:

- i. The scope of oral health survey for adults was prepared and presented at the first meeting of the Technical Advisory Team NHMS 2020: NOHSA 2020 on 23 July 2018 and was accepted by the committee members.
- ii. Benchmark & gold standard examiners were appointed by the Principal Director of Oral Health.
- iii. The Analysis Core Team were identified and appointed by the Principal Director of Oral Health and Syntax for data analysis was also developed.
- iv. The proposal paper was presented to JPP-NIH on 18 December 2018.

## **OTHER ORAL HEALTH RESEARCH ACTIVITIES**

Other oral health research activities conducted in 2018 were as follows:

- i. Health System Research (HSR). The annual meeting for HSR State Coordinators was conducted on 28 August 2018. It provides a platform for coordinators to discuss on issues faced by implementers at the state level. Presentation of achievement at the state level, application for approval for the conduct of new research projects, application for presentation and publication were also delivered.
- ii. Oral Health Research Day 2018. The event was conducted on the 3 October 2018 at Putrajaya Convention Centre. The event was officiated by the Director General of Health, MOH. A total of 14 oral presentations and 15 poster presentations participated in the event. Presentations were selected based on thesis project during their postgraduate study.
- iii. Review of applications from other agencies for the conduct of research at MOH dental facilities was undertaken.
- iv. The signing of Memorandum of Agreement for collaborative studies between OHP MOH and UKM for two (2) research projects:
  - The heritability of palatal arch dimensions and palatal-rugae morphology in full siblings: a 3-dimensional approach
  - Comparison of relapse of arch width in modified vacuum formed retainers covering the palate vs Hawley retainer: A prospective RCT
- v. Monitoring states HSR, compilation and preparation for publication of the Compendium of Abstracts 2017 and 2018
- vi. Review oral health research manuscripts for publication and abstracts for presentation of research findings in the MOH.
- vii. Ethical review of oral health research proposals under the Medical Ethics Committee at the Faculty of Dentistry, University Malaya where the OHP MOH is a permanent member of this Committee.

## **ORAL HEALTH PROFESSIONAL DEVELOPMENT**

### **DENTAL SPECIALITY TRAINING**

The Post-Graduate Program in Dentistry produces dental specialists covering nine (9) recognized dental specialties. In line with the Government Policy, the training of dental specialists is conducted locally to save on training costs, except for Forensic Odontology and

Special Needs Dentistry which are not offered by any university in the country. However, the capacity of the public universities is limited thus not able to maximize the production of Dental Specialist. In 2018, Dental Post-Graduate programs were offered in five (5) local public universities.

Every year, the federal scholarship slots for dental specialists are limited to 45 slots only whereas the number of applications received increases every year. In addition, the lack of training capacity resulted in specialist training courses conducted in alternate years.

In mid-2017, efforts were intensified to increase training capacity in dental specialities in line with the development of talented health workforce by producing more experts to meet the country's need for dental specialists, especially in the MOH. The OHP began working closely with the Dental Faculty, University Malaya in 2018 towards increasing the capacity of dental specialists training, particularly Oral and Maxillofacial Surgery and Orthodontic. Training slots for these two (2) areas of specialities will be increased in 2019 and the OHP is responsible for providing the attachment site and Dental Specialists as supervisor to monitor training requirements. It is hoped that this collaboration will contribute to improve the capacity of post-graduate training for dental officers in MOH and further strengthen the field of dental specialities in the country.

## ORAL HEALTH FACILITY DEVELOPMENT AND MANAGEMENT

### DEVELOPMENT PROJECT UNDER 11<sup>th</sup> MALAYSIA PLAN

In the year 2018, 12 dedicated dental development projects were approved under the third Rolling Plan (RP3). These projects were a continuation of RMK-10 projects and from Rolling Plan 1. The projects are as follows:

- i. Standalone Dental Clinics:
  - *Klinik Pergigian Bukit Selambau, Kedah*
  - *Klinik Pergigian Kluang, Johor*
  - *Klinik Pergigian Tanjung Karang, Kuala Selangor, Selangor*
  - *Blok Pergigian in Sg. Tekam Utara, Jerantut, Pahang*
  - *Klinik Pergigian Daro, Mukah, Sarawak*
  - *Klinik Pergigian Pasir Akar, Besut, Terengganu*
  - *Klinik Pergigian Tronoh, Kinta, Perak*
- ii. *Klinik Pakar Pergigian Kota Setar, Kedah*
- iii. *Klinik Kesihatan (Type3) & Pusat Pakar Pergigian Presint 6, Putrajaya*
- iv. *Non-Hospital Based Dental Specialist Centre, Kota Kinabalu, Sabah*
- v. *Kuarters Klinik Pergigian Chiku 3, Gua Musang, Kelantan*
- vi. *Naiktaraf Jabatan Pergigian Pediatrik, Hospital Melaka, Melaka*

Two (2) projects, *Blok Pergigian Sg. Tekam Utara, Jerantut, Pahang* and *Klinik Pakar Pergigian Kota Setar, Kedah* were completed in 2018 and began providing dental services to the community.

## NORMS AND GUIDELINES FOR NEW FACILITIES

The Operational Policy and Oral Health Facility Planning, MOH (2019 to 2025) was developed and distributed to the states as a guide for planning of dental facilities. Medical Brief of Requirements (MBoR), Standard Equipment List and Specifications of Equipment for new dental facilities were reviewed and updated as below:

Medical Brief of Requirement;

- *Klinik Pergigian di KK Jenis 3, Precinct 6, WPKL & Putrajaya*
- *Pusat Pakar Pergigian Cahaya Suria Sinar Kota, WPKL & Putrajaya*

Standard list of Equipment;

- Mobile Dental Team
- Mobile Dental Clinic

Specifications of Equipment for;

- Heavy Equipment (List 1 – for Dental Facilities)
- Dental Laboratory Equipment

## PRIVATISATION OF CLINIC SUPPORT SERVICES

The privatisation of clinic support services for management of biomedical equipment services under Medical Equipment Enhancement Tenure (MEET) is delivered by Quantum Medical Solutions (QMS). In 2018, continuous monitoring of MEET program at *Klinik Kesihatan* and *Klinik Pergigian* via Technical Audit by Engineering Services Division, MOH covers the following clinics:

- Klinik Kesihatan dan Klinik Pergigian Kuala Lumpur, WPKL & Putrajaya*
- Klinik Kesihatan dan Klinik Pergigian Seri Kembangan, Selangor*
- Klinik Kesihatan dan Klinik Pergigian Rembau, Negeri Sembilan*
- Klinik Kesihatan dan Klinik Pergigian Sandakan, Sabah*

Similarly, the Internal Audit Section, MOH had also conducted an audit on MEET program management at *Klinik Pergigian Miri, Sarawak* and *Klinik Pergigian Jalan Perak, Pulau Pinang*.

The expansion of Clinical Support Services/*Perkhidmatan Sokongan Klinikal* (PSK) for new facilities under the PSK Project Expansion Plan in 11 states were conducted while PSK in the state of Pahang was not approved. Continuous monitoring of PSK project at existing *Klinik Kesihatan* and *Klinik Pergigian* was conducted via Technical Audit. In 2018, the National Audit team audited the technical and documentation of PSK project at *Klinik Kesihatan dan Klinik Pergigian Kepala Batas*. The activity was coordinated by the Clinic Operation Section, Engineering Services Division, MOH and involved the participation of the clinic's representative from the state.

The OHP is a member of the technical specification committee in preparation for PSK tender document of the new contract as the current contract end in 2018. It involves 11 states, including Pahang and Sabah. The Clinic Operation Section, Engineering Services Division,

coordinated the development of an application known as Clinic Asset and Services Information System (CASIS) for PSK contract management in Sarawak under ADL System Sdn. Bhd.

## TRAINING

The Oral Health Facility Development collaborated with the Management Section and MOH Dental Technicians in conducting a course on managing dental health facilities and assets during natural disaster at Straits Hotel & Suites from 27 to 29 June 2018. The aim was to develop a standard procedure to manage assets, especially when dealing with natural disasters such as floods.

## ORAL HEALTH TECHNOLOGY

### CLINICAL PRACTICE GUIDELINES

There are 13 Clinical Practice Guidelines (CPG) published by the OHP. As of December 2018, ten (10) CPGs are currently less than 5 years while three (3) CPGs underwent review as in **Table 7.2**.

**Table 7.2**  
**Reviewed CPGs as of 31 December 2018**

Title of CPG	Publication (Year)	Edition	Status
Management of Condylar Fracture of the Mandible	2005	1 <sup>st</sup> edition	Review in Progress
Management of Unerupted and Impacted Third Molar	2005	1 <sup>st</sup> edition	Review in Progress
Management of Avulsed Permanent Anterior Teeth in Children	2010	2 <sup>nd</sup> edition	Review in Progress

Source: OHP MOH, 2018

### APPROVED PURCHASE PRICE LIST (APPL)

Activities in 2018 include attending meetings by the Procurement and Privatisation Division MOH. This division provided input in finalising lists of products and price negotiations for APPL 2017 to 2019 with tendering companies. This division continues to monitor issues on APPL including penalty on late delivery and product complaints.

### MANAGING ENQUIRIES RELATED TO DENTAL TECHNOLOGY

Literature search for scientific papers was conducted on related topics as below:

- *Pandangan Berkenaan Penggunaan Racun Local Anaesthetics di bawah Akta Racun 1952*
- Nickel-chromium alloys for crown restoration
- *Pengambilan X-ray IOPA dan Oklusal oleh Pembantu Pembedahan Pergigian*
- Oral Dental Probiotics

## ORAL HEALTH INFORMATION MANAGEMENT

### TELEPRIMARY CARE - ORAL HEALTH CLINICAL INFORMATION SYSTEM (TPC-OHCIS)

TPC-OHCIS is a digital version of the paper-based medical and dental record for an individual. The system went live at 13 pilot sites (6 Health Clinics and 7 Dental Clinics) in Negeri Sembilan starting 1 June 2017. In addition to existing 7 piloted dental clinics, it was successfully deployed at three (3) other dental clinics, namely, Sendayan Dental Clinic, Rantau Dental Clinic and Quarters KLIA Dental Clinic. It made up TPC-OHCIS piloted sites to 10 dental clinics (**Image 7.1**).

**Image 7.1**  
**Deployment of TPC-OHCIS System at Sendayan Dental Clinic and Quarters KLIA Dental Clinic**



Source: OHP MOH

Recognizing that TPC-OHCIS would potentially be deployed nationwide, the maintenance of TPC-OHCIS system deserves an equal attention. In this light, Proof of Concept (POC) of Cloud Computing Based was carried out in November 2018 at KK Sikamat, Negeri Sembilan whereby an existing TPC-OHCIS cloud architecture with local Facility Agent at sites, would be changed into full cloud-based architecture. Generally, the POC was successful as the new cloud architecture had functioned smoothly during the testing period from 12 to 16 November, 2018 (**Image 7.2**).

**Image 7.2**  
**POC of Cloud Computing Based at KK Sikamat, Negeri Sembilan**



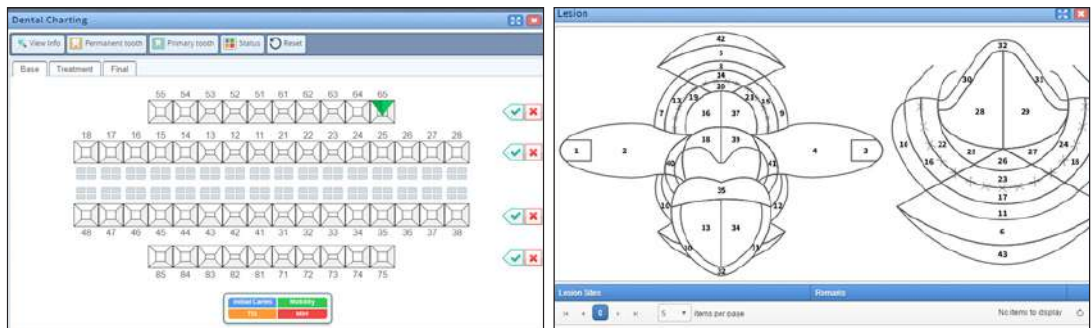
Source: OHP MOH

MOH has developed the core ICT support towards the establishment of Lifetime Health Record (LHR) in line with the ICT Strategic Plan, MOH (ISPMOH) 2016 to 2020. The OHP supports the efforts by ensuring the use of standard Dental Charting Module in different systems developed by MOH.

Dental Charting Module in TPC-OHCIS was used as a prototype in Clinical Documentation (CD) for *Sistem Pengurusan Pesakit (SPP)* and the Operating Theatre Management System (OTMS) for HIS@MOH Phase 1 System. The CD SPP and OTMS teams collaborated with TPC-OHCIS team towards the development of the Module which consists of Dental Charting, Intraoral Examination and Lesion sub-module.

For CD, the development of Dental Charting Module began since 2017. The project is still in the development phase and to be piloted at Hospital Raja Perempuan Bainun, Ipoh in 2019. Similarly, Dental Charting Module by OTMS is also ongoing and the project will be implemented in Hospital Tuanku Jaafar, Seremban in year 2019 (**Image 7.3**).

**Image 7.3**  
**Dental Charting Modules**



Source: OHP MOH

## EXPANSION OF OHCIS

The funding of RM13.3 million was allocated by the Economic Planning Unit (EPU) in 2015 to prepare for the implementation of TPC-OHCIS system at identified dental facilities in the state of Johor, Selangor, Negeri Sembilan and Federal Territories of Kuala Lumpur and Putrajaya. Upgrading of ICT infrastructure at 20 facilities with OHCIS system and installation of hardware at 54 dental clinics without OHCIS system was completed in January 2018. However, limited resources had delayed the expansion of TPC-OHCIS system at these clinics. Efforts will continue into 2019 under TPC-OHCIS project under RMK11- RP4 in collaboration with Family Health Development Division and Management System Division, MOH.

## ORAL HEALTH PROMOTION

### ***IKON GIGI (iGG) CONVENTION***

This convention aims to empower volunteers from the community who will act as facilitators in providing oral health awareness to the public. It was conducted from 11 to 12 August 2018 at Sri Tanjung Hall, Education Department of Kelantan where a total 300 iGG and facilitators participated in this convention (**Image 7.4**)



**Image 7.4**  
***Ikon Gigi (iGG) Convention at Education Department of Kelantan***



Source: OHP MOH

### ***KESIHATAN ORAL TANPA ASAP ROKOK (KOTAK)***

This course aims to improve the knowledge and skills of Dental Officers and Dental Therapist regarding tobacco (Image 7.5).

**Image 7.5**  
***KOTAK Programme at Avillion Cove, Port Dickson***



Source: OHP MOH

### ***ORAL HEALTH PROMOTION WEEK***

Aims to promote dental health awareness to the community with the theme: “*Kesihatan Gusi Tanggungjawab Bersama*” (Image 7.6).

**Image 7.6**  
***Oral Health Promotion week at Kuala Lumpur City Hall***



Source: OHP MOH

## LAUNCH OF MOBILE APPLICATION & VIDEO- DENTISTRY GOING DIGITAL: CONNECTING THE COMMUNITY

Aims to transform the method of information delivery and dental health education utilizing digital technology methods (**Image 7.7**).

**Image 7.7**  
**Dentistry Going Digital at Monthly Assembly Level 8 Block E7, MOH Putrajaya**



Source: OHP MOH

## PRIMARY ORAL HEALTHCARE

### EXPANSION AND CONSOLIDATION OF PRIMARY ORAL HEALTHCARE DELIVERY

The MOH Malaysia has been the lead agency in providing oral healthcare to the population, and continues giving priority to certain target groups; toddlers (0 to 4 years), pre-school children (5 to 6 years), schoolchildren (7 to 17 years), children with special needs, antenatal mothers, adults and the elderly.

The young adults are the latest addition to the target groups this year. Guidelines on “Oral Healthcare for Young Adults in Malaysia” was developed aimed to increase accessibility of this group to oral healthcare while at the same time providing comprehensive dental treatment for those in need. The guideline was approved by the *Jawatankuasa Dasar & Perancangan Kesihatan Pergigian* (JDPKP) committee in November 2018 and will be implemented in phases next year. For a start, the focus will be given to form six students in school followed by community college students and later to other young adult groups.

The standard operating procedure (SOP) on “Management of periodontal conditions at primary oral healthcare clinics” was developed with the aim to provide a guide in periodontal health screening, management of non-surgical cases and referral of complex cases in a systematic manner. Training session for state facilitators was conducted in August 2018. The SOP will be implemented in January 2019 and issues arising will be monitored, discussed and problem-solving will be undertaken by the elected committee.

In the year 2018, several meetings were undertaken toward improving data collection system and data reliability. The collaboration between the OHP, Health Information Management System (HIMS) and MIMOS Sdn Bhd. had developed new business architecture for data

management. The development of reference set will continue into next year. Endodontic services at primary care were further strengthened with the inclusion of “Restorative Dentistry Index of Treatment Needs (RDITN)” as referral criteria. Activities under KOSPEN Plus at the workplace was also undertaken which includes screening for risk factors for non-communicable disease, health education, physical activities and referrals of personnel who requires further management.

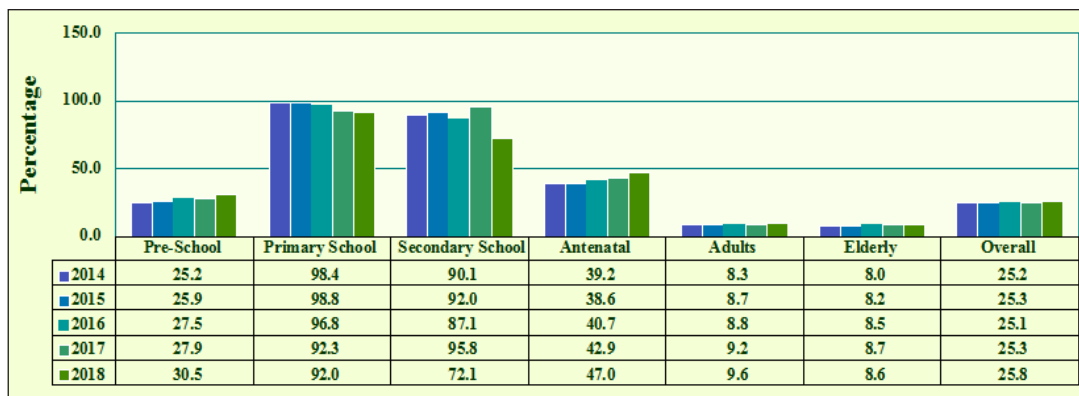
The outpatient dental services have been expanded in the following aspects:

- i. The number of dental clinics with daily outpatient services increases from 523 (2017) to 553 (2018).
- ii. Delivery time for the issue of dentures to the public and elderly patients has also improved. The percentage of denture patient receiving dentures within 3 months has increased from 83.1 per cent (2017) to 85.2 per cent (2018).
- iii. Percentage of denture patients aged  $\geq 60$  years old receiving dentures within 8 weeks also increased from 63.9 per cent (2017) to 67.3 per cent (2018).

### MONITORING AND EVALUATION OF PRIMARY ORAL HEALTHCARE

The performances were monitored quarterly and reports presented at Technical and *Jawatankuasa Dasar & Perancangan Kesihatan Pergigian* (JDPKP) meetings once a year. The overall utilisation of primary oral healthcare in the MOH has increased from 25.3 per cent in 2017 to 25.8 per cent in 2018 (Figure 7.2).

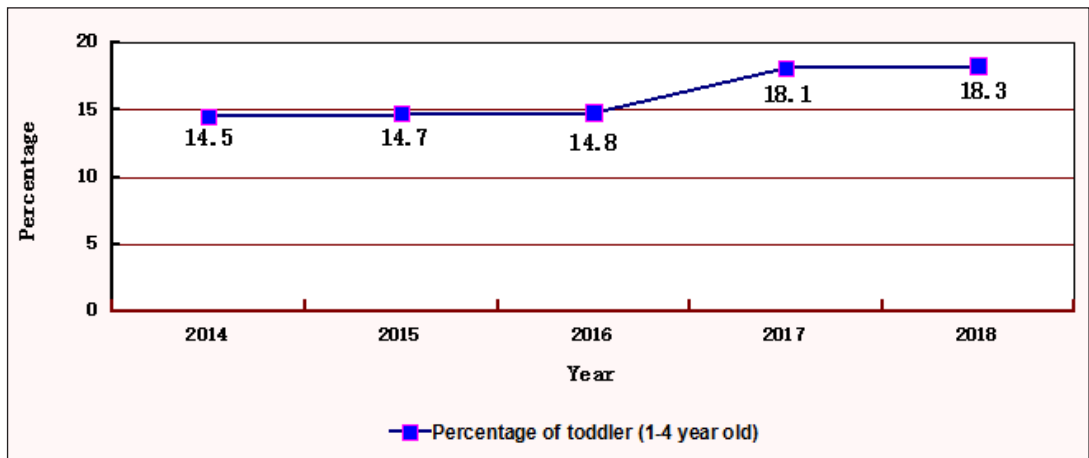
Figure 7.2  
Coverage of Primary Oral Healthcare by Patient Category (2014 to 2018)



Source: Health Informatics Centre, MOH 2018

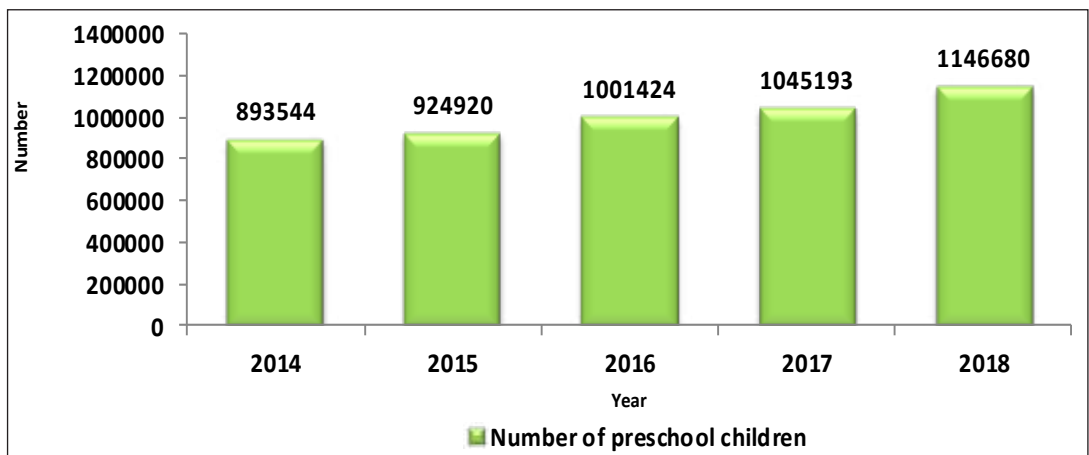
There is an increase in the coverage of toddler population from 18.1 per cent (2017) to 18.3 per cent (2018) (Figure 7.3). A cursory examination of the oral cavity of toddlers - ‘lift-the-lip’ - is done in settings such as in childcare centers or Maternal and Child Health Clinics. Clinical preventive measures, such as fluoride varnish are instituted where required. As for preschool children, the number of children receiving care increased from 1,045,193 (2017) to 1,146,680 (2018) (Figure 7.4).

**Figure 7.3**  
**Percentage of Toddlers Receiving Primary Oral Healthcare, 2014 to 2018**



Source: Health Informatics Centre, MOH 2018

**Figure 7.4**  
**Number of Preschool Children Receiving Primary Oral Healthcare 2014 to 2018**

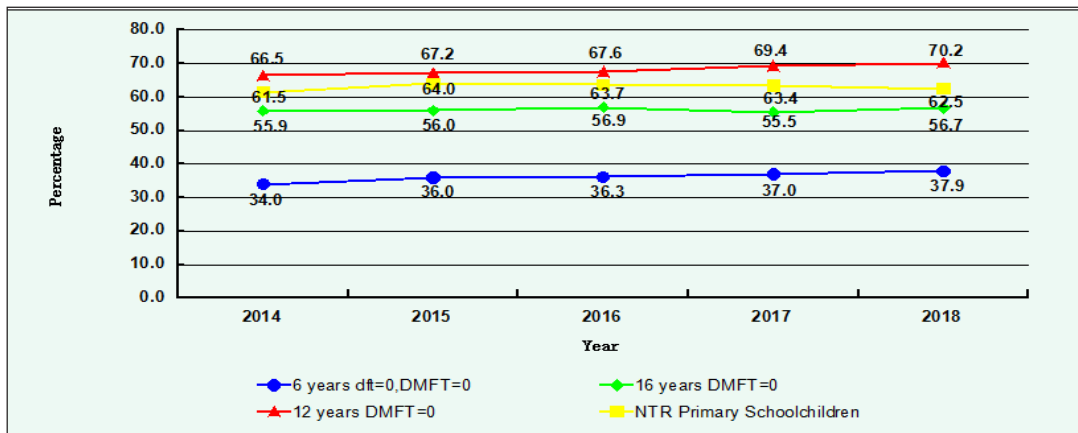


Source: Health Informatics Centre, MOH 2018

Impact indicators for school dental service were also monitored. There was a slight increase in caries-free status for 6, 12 and 16 year-olds, whilst a decrease was noted for "No Treatment Required (NTR)" among primary schoolchildren as compared to 2017 (**Figure 7.5**).

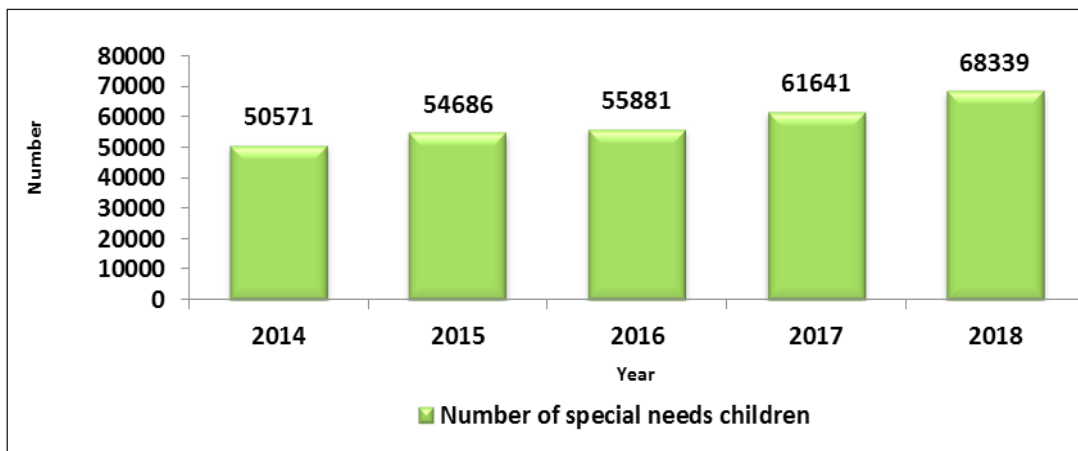
The number of children with special needs receiving primary oral healthcare services has increased steadily over the years. In 2018, a total of 68,339 special needs children received oral healthcare services (**Figure 7.6**).

**Figure 7.5**  
Impact Indicators for School Dental Service 2014 to 2018



Source: Health Informatics Centre, MOH 2018

**Figure 7.6**  
Children with Special Needs Receiving Primary Oral Healthcare, 2014 to 2018

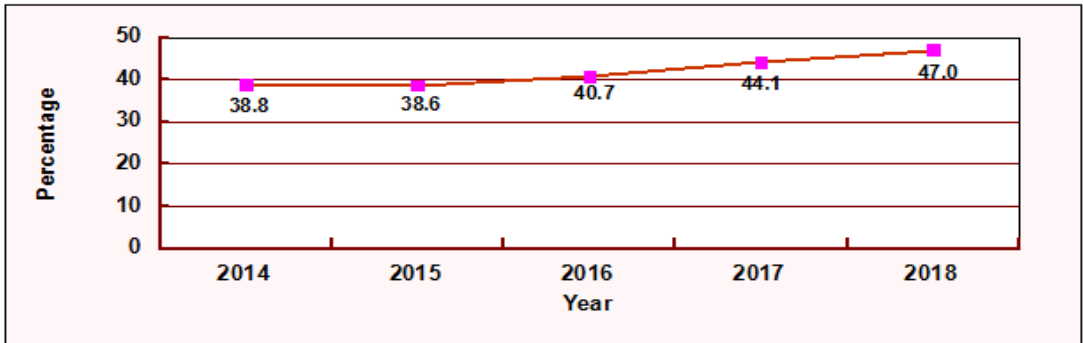


Source: Health Informatics Centre, MOH 2018

Efforts have been made to increase the attendance of antenatal mothers at dental clinics which include referrals from Maternal and Child Health Clinics as part of routine antenatal checkup. The coverage of antenatal mothers increases from 44.1 per cent in 2017 to 47.0 per cent in 2018 (**Figure 7.7**).

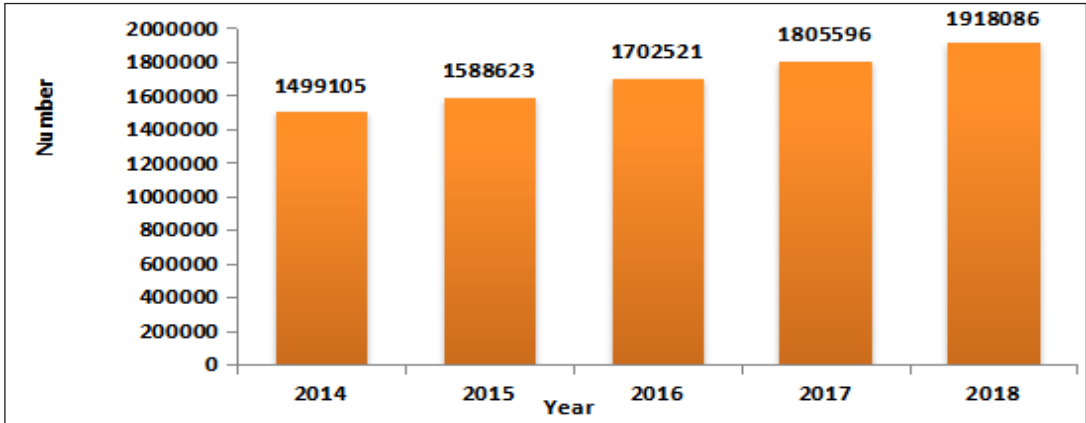
The provision of oral healthcare for adults is provided through various dental facilities and outreach services which include the Urban Transformation Centres (UTC), Rural Transformation Centres (RTC) and the increasing number of dental clinics providing daily outpatient services. Thus, there are an increasing number of adults receiving primary oral health care in 2018 while a reducing number of elderly receiving primary oral health care in 2018 was noted (**Figure 7.8** and **Figure 7.9**).

**Figure 7.7**  
Coverage of Antenatal Mothers, 2014 to 2018



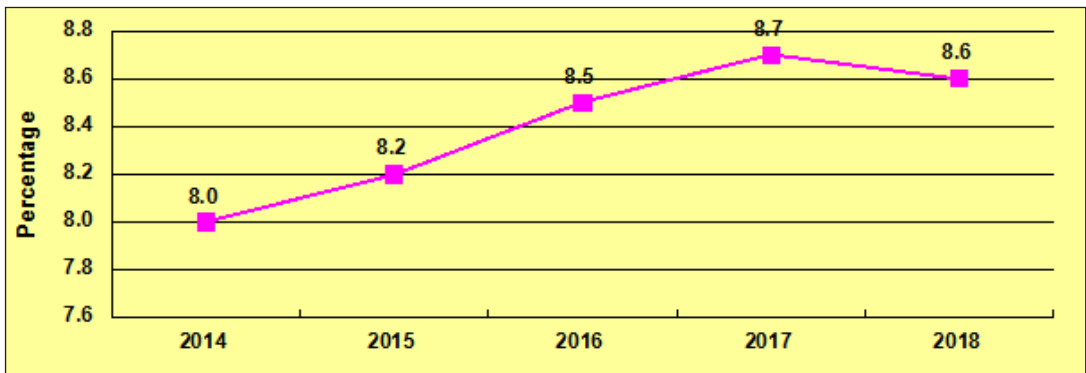
Source: Health Informatics Centre, MOH 2018

**Figure 7.8**  
Adults Population Receiving Primary Oral Healthcare, 2014 to 2018



Source: Health Informatics Centre, MOH 2018

**Figure 7.9**  
Percentage of Elderly Population Receiving Primary Oral Healthcare 2014 to 2018



Source: Health Informatics Centre, MOH 2018

## SPECIALIST ORAL HEALTHCARE

The 9 dental specialties in the MOH are Oral Surgery & Maxillofacial, Orthodontics, Paediatric Dentistry, Periodontics, Oral Pathology & Oral Medicine, Restorative Dentistry, Special Needs Dentistry, Forensic Dentistry and Dental Public Health. In 2018, there are 289 clinical dental specialists in MOH.

**Table 7.3**  
Gazetted Clinical Dental Specialists in MOH, 2013 to 2018

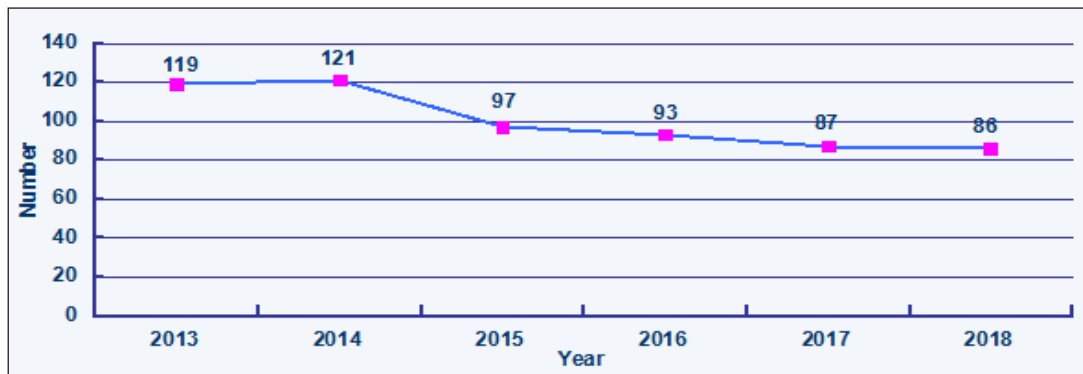
Year	Discipline	2013	2014	2015	2016	2017	2018
	Oral Surgery & Maxillofacial	55	56	60	64	75	77
	Orthodontics	46	48	47	52	64	70
	Paediatric Dentistry	33	35	39	38	38	45
	Periodontics	24	29	34	24	36	41
	Oral Pathology/ Medicine	9	10	11	11	15	15
	Restorative Dentistry	20	20	20	24	28	34
	Special Needs Dentistry	2	3	3	4	4	6
	Forensic Dentistry	1	1	1	1	1	1
	<b>Total Clinical Specialist</b>	<b>190</b>	<b>202</b>	<b>215</b>	<b>218</b>	<b>261</b>	<b>289</b>

(Not Inclusive of specialist undergoing gazettement and contract dental specialist).

Source: OHP MOH, 2018

In addition, there are 86 Dental Public Health Specialists in MOH (**Figure 7.10**). Mapping of specialists services was done to ensure appropriate distribution of existing specialists based on need and also to identify future training requirements for all specialties. The establishment of five (5) new dental specialist services was undertaken in nine (9) dental facilities in 2018 (**Table 7.4**).

**Figure 7.10**  
Dental Public Health Specialists in MOH, 2013 to 2018



Source: OHP MOH, 2018

**Table 7.4**  
**New Specialty Services Established in 2018**

Specialty	Hospital / Dental Facility
Oral Surgery & Maxillofacial	<i>Hospital Tuanku Fauziah, Hospital Tuanku Jaafar, Hospital Sultan Abdul Halim</i>
Paediatric Dentistry	<i>Hospital Tengku Ampuan Rahimah, Hospital Raja Perempuan Zainab II</i>
Orthodontics	<i>KP Sungai Chua</i>
Restorative Dentistry	<i>Pusat Pakar Pergigian Jalan Zaaba</i>
Periodontics	<i>KP Cahaya Suria, KP Presint 18</i>

Source: OHP MOH, 2018.

Service data are collected through the HIMS e-reporting system. The workload of dental specialists as reflected by the ratio of specialist to patients (**Table 7.5**).

**Table 7.5**  
**The workload of Dental Specialists by Disciplines, 2014 to 2018**

Specialty	Specialist: No. of patients seen				
	2014	2015	2016	2017	2018
Oral Surgery & Maxillofacial	1:3,843	1:3,823	1: 3,954	1:3,358	1:3,817
Orthodontics	1:3,689	1: 4,083	1: 4,055	1:3,554	1:3,424
Paediatric Dentistry	1:2,676	1:2,427	1: 2,730	1:3,005	1:3,743
Periodontics	1:1,368	1:1,312	1: 1,491	1:1,466	1:1352
Oral Pathology & Oral Medicine	1:848	1:744	1: 869	1:833	1:953
Restorative Dentistry	1:1,658	1:1,732	1: 1,439	1:1,294	1:1321

Source: Health Informatic System, MOH 2018

## COMMUNITY ORAL HEALTHCARE

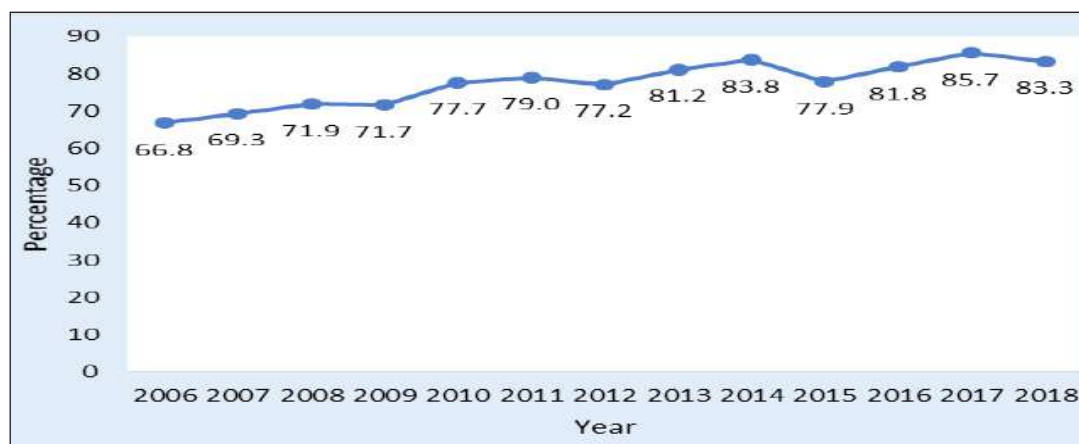
### WATER FLUORIDATION PROGRAMME

There is a total of 501 Water Treatment Plants (WTP) in Malaysia. Majority WTPs were fully privatized except for those in Perak, Sabah, Sarawak and Federal Territory Labuan. Out of 309 WTPs (61.7 per cent) installed with fluoride feeders, 249 (80.6 per cent) were active while 60 (19.4 per cent) were inactive due to lack of resources to purchase fluoride compound or had technical problems that require fluoride feeder to be repaired or replaced.

In 2018, an estimate of 74.1 per cent of the population received fluoridated water. However, fluoridation coverage in Pahang has decreased from 1.4 percent (2017) to 0.9 per cent (2018). Less than 50 per cent of water treatment plants in Sarawak, Sabah, Kelantan and Pahang produce fluoridated water. At reticulation points, 83.3 percent of readings taken conformed to the recommended range (**Figure 7.11**).



**Figure 7.11**  
**Conformance of Fluoride Level in Public Water Supplies to the Recommended Range**  
**(0.4-0.6PPM), 2006 to 2018**



Source: OHP MOH, 2018.

## PRIMARY PREVENTION AND EARLY DETECTION OF ORAL POTENTIALLY MALIGNANT DISORDERS AND ORAL CANCERS

A total of 194 new and 16 repeats high-risk *kampung*/estates/communities were visited and 4,149 residents aged 20 years and above were screened for oral lesions. Under the opportunistic screening, a total of 115,479 walk-in patients were screened at the dental clinics/communities. Among those screened, 1,234 patients had oral lesions. A total of 366 referred patients were seen by Oral & Maxillofacial Surgeons/Oral Pathology & Oral Medicine specialists for further investigation and management of which 24 percent of the 366 patients were found with malignant lesions.

## PROFESSIONAL & AUXILIARY ORAL HEALTH PRACTICE

### CAREER PATHWAY AND WELFARE

- Rebranding the specialty from Oral Surgery to Oral Surgery & Maxillofacial. The new nomenclature reflects the competency and in line with the qualification awarded by higher institutions. It will also standardize the nomenclature used in MOH, Malaysia and internationally.
- Approval to New Dental Officer UG41 appointed on a contract basis to do LOCUM after the Compulsory Service. This will provide an opportunity for these officers to experience working in the private sector and helps in making a decision before venturing into the private sector.
- 310 Technologist Dental has been selected to attend the *5th Malaysian Dental Technologist Conference and Trade Exhibition 2018* on 21-23 April 2017: *Dental Technologist – Forging Towards Global Professional Excellence*.
-

## HUMAN RESOURCE MANAGEMENT

- Outfit of Staffing Needs to be reviewed (draft 8) taking into account the need for manpower according to function and activities at the OHP MOH.
- Lean Civil Service Policy remains in force and no new posts were created. Appointment of Dental Officer Grade UG41 is on contract basis begun on 9 January 2017 for a maximum period of three years. A total of 1,125 were appointed in 2018, making a total of 2,454 contract Dental Officers in MOH.

## ACCREDITATION AND GLOBALISATION

### ACCREDITATION OF UNDERGRADUATE DENTAL DEGREE PROGRAMME

All accreditation guidelines have been fully revised and compiled with the Rating System into one document known as '*Code of Practice for Programme Accreditation - Undergraduate Dental Degree, 2019*' [COPPA (Dental), 2019]. During the 124<sup>th</sup> Meeting on 26 July 2018, the Malaysian Dental Council (MDC) agreed that the document will be used for accreditation of undergraduate dental degree programmes effective 1 January 2019.

### SEMINAR ON COPPA (DENTAL), 2019 AND RATING SYSTEM

Together with the Malaysian Qualifications Agency, an awareness seminar on COPPA (Dental) 2019 and Rating System was held at Mercuri MQA, Cyberjaya on 20 August 2018. A total of 34 participants consisted of a panel of assessors, deans and representatives of the dental faculties, as well as representatives from the Higher Education Department, attended the one-day seminar.

### MORATORIUM ON UNDERGRADUATE DENTAL DEGREE PROGRAMME

On June 2018, the Ministry of Education distributed the draft of the cabinet memorandum on Dental Moratorium to related ministries for their feedback. Subsequently, a meeting between the Health Minister and the Education Minister with relevant stakeholders was arranged on 19 November 2018 at the Parliament building but due to unforeseen circumstances, the meeting was canceled.

### EVALUATION OF UNDERGRADUATE DENTAL DEGREE PROGRAMME

- IIUM: Evaluation visit was conducted on 23 to 25 January 2018. Based on the panel's findings, the BDS programme was given full accreditation for a period of 3 years from 16 April 2018 to 15 April 2021.
- UiTM: Evaluation visit was conducted from 25 to 27 July 2018. Based on the panel's findings, the BDS programme was given full accreditation for a period of 5 years from 1 November 2018 to 31 October 2023.
- PIDC: Evaluation visit was conducted on 19 to 20 April 2018 Salem campus, India and 23 until 24 April 2018 to PIDC Butterworth campus, Penang. Based on the panel's findings, the BDS (VMRF) programme was given full accreditation for a period of 3 years from 1 November 2018 to 31 October 2021.

- **MMMC:** Evaluation visit was conducted on 4 September 2018 Melaka campus. Based on panel's findings, MMMC was required by MDC to comply with the standard on clinical academic staff to student ratio (taking into consideration the local) failing which their student intake quota will be reduced according to their existing staff capacity.
- **LUC:** Evaluation visit was conducted on 21 to 2 May 2018. Based on panel's findings, LUC was required by MDC to take actions on the areas of concern raised in the panel's report as well as comply with the standard on clinical academic staff to student ratio failing which their students' intake can be suspended.

## **EVALUATION FOR INCREASE STUDENT INTAKE**

- **IMU:** Evaluation visit was conducted on 26 until 27 February 2018. Based on the panel's finding and JTAC recommendation, MDC agreed that IMU has the capacity and can be allowed to take an additional 25 international students per year for the BDS programme (Partner Dental School track).
- **SEGi:** Evaluation visit was conducted on 28 February and 1 March 2018. Based on the panel's finding and JTAC recommendation, MDC agreed that SEGi has the capacity and can be allowed to take an additional 15 international students per year for its BDS programme.
- **UM:** Evaluation visit was conducted on 5 November 2018. Based on the panel's finding and JTAC recommendation, MDC agreed that UM has the capacity and can be allowed to take an additional 6 international students per year for its BDS programme.

## **MAHSA UNIVERSITY - PENANG INTERNATIONAL DENTAL COLLEGE (PIDC) COLLABORATION**

Subsequent to PIDC application to the Ministry of Higher Education to change its pre-clinical training location from Salem, India to MAHSA University, an evaluation visit was conducted on 4 to 5 January 2018 to MAHSA University. Based on the panel's finding and JTAC recommendation, MDC agreed that MAHSA University has the capacity and can be allowed to undertake PIDC BDS pre-clinical training with one intake per year.

## **GLOBALISATION AND LIBERALISATION OF HEALTHCARE SERVICES**

### **JOINT COORDINATING COMMITTEE DENTAL PRACTITIONERS (AJCCD) MEETINGS**

Two meeting was held in 2018:

- 21<sup>st</sup> AJCCD Meeting - 15 to 16 January 2018 in Bangkok, Thailand
- 22<sup>nd</sup> AJCCD Meeting - 6 November 2018 in Nay Pyi Taw, Myanmar.

Technical input was given on the following matters:

- ASEAN Minimum Common Competency Standards for Dental Undergraduate Education and Scope of Performing Abilities
- ASEAN Dental Practice Standards
- Mechanism to enhance the mobility of ASEAN dentists
- Country database on practitioners from ASEAN countries

## ASEAN FRAMEWORK AGREEMENT ON SERVICES (AFAS) PACKAGE

Feedback was also given on Malaysia - Schedule of Specific Commitments for the 10<sup>th</sup> Package of Commitments under AFAS for dental services.

## OTHER BILATERAL/MULTILATERAL NEGOTIATIONS BETWEEN MALAYSIA AND OTHER COUNTRIES

Technical input/ feedback was given on:

- i. Regional Comprehensive Economic Partnership (RCEP) Agreement: Malaysia's Revised Reservation Lists for Investment and Trade in Services"
- ii. Proposed Offer List for Services Under Malaysia -Turkey Free Trade Agreement

## ORAL HEALTH LEGISLATION & ENFORCEMENT

### REGISTRATION OF NEW DENTAL CLINIC

In 2018, there were a total of 290 applications for registration of private dental clinic out of which 201 complied with the Private Healthcare Facilities & Services Act 1998 requirements. Recommendations for registration of these dental clinics were made to the Evaluation of Applications for Licensing and Registration of Private Healthcare Facilities and Services Committee (**Figure 7.12**).

**Figure 7.12**  
Registration of New Dental Clinics, 2006 to 2018



Source: OHP MOH, 2018.

A pre-registration inspection followed by post-registration inspections for compliance of registered dental clinics were also undertaken. Surveillance was conducted on dental clinics which did not comply with the registration requirements (**Figure 7.13**).

**Figure 7.13**  
**Inspection for Compliance and Surveillance, 2009 to 2018**



Source: OHP MOH, 2018.

## DENTAL ACT 2018

The 2<sup>nd</sup> and 3<sup>rd</sup> reading of the Dental Bill was tabled in Parliament on 2 April, 2018 for debate and approval and has been tabled in the House of Senate on 4 April, 2018. On 26 June, 2018, the bill was gazetted and named the Dental Act 2018 [Act 804].

## ENFORCEMENT OF PROVISIONS IN DENTAL BILL

There is ongoing training for enforcement officers to carry out enforcement provisions of the Dental Act 2018. Appointment of the authorized officer under this Act will also be made as soon as the Act is enacted.

## DENTAL REGULATIONS

The Dental Regulations were completed in June 2014 and was upgraded in accordance with the provisions of the Dental Act 2018. The draft was tabled and approved by the Dental Council of Malaysia on 29 November 2018. The draft was submitted to the Legal Adviser MOH on 28 December 2018 for revision before sending it to the Drafting Division, Attorney General's Chambers.

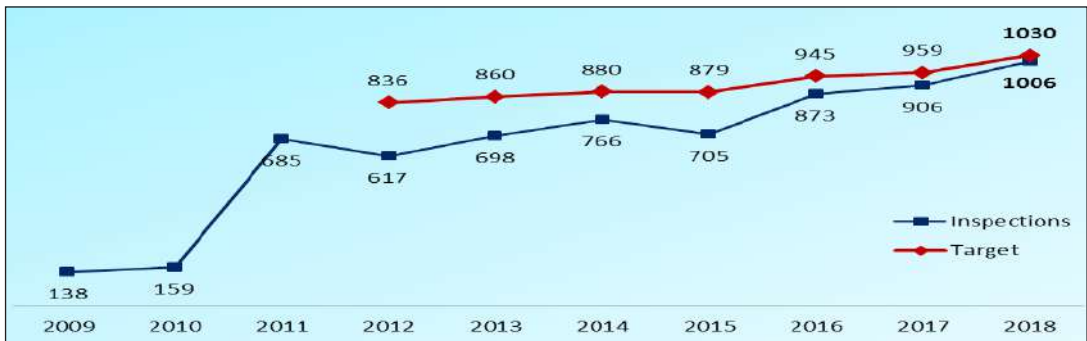
## INVESTIGATION ON COMPLAINTS

In 2018, a total of 141 complaints were received of which 120 complaints are regarding illegal dentistry. These complaints were channeled to the respective state for investigation. In 2018, a total of 30 enforcement activities, including 15 raids, were carried out.

## INSPECTION OF PRIVATE DENTAL CLINICS

In 2018, a total of 1,006 (48.6 per cent) registered dental clinics in all states were inspected, which was 97.7 per cent of the target (**Figure 7.14**).

**Figure 14**  
**Inspection of Private Dental Clinics, 2009 to 2018**



Source: OHP MOH, 2018.

## SAFETY AND HEALTH AUDIT IN GOVERNMENT DENTAL CLINICS

Safety and health audits for 1,136 government dental clinics were carried out throughout 2018.

## MEETING OF ENFORCEMENT OFFICERS

Enforcement Officers' meeting was held from 5 to 6 July 2018. The areas discussed were:

- Enforcement Report and Achievement of 2017
- Plan of Action and Targets for 2018
- Cross-border activities
- Issues in the implementation of the new Dental Act
- Illegal practitioners and practises
- Work scope of enforcement officers
- Draft of Standards Operational Procedure (SOP) for complaints and enforcement

## ORAL HEALTH QUALITY

### QUALITY ASSURANCE PROGRAMME (QAP)

The Quality Assurance Programme (QAP) is intended to improve the quality, efficiency and effectiveness of health service delivery including oral health. The QAP also facilitates the planned and systematic evaluation of the quality of services delivered. The goal of the QAP is to ensure that within the constraints of resources the 'optimum achievable benefit' is delivered.

### NATIONAL INDICATOR APPROACH (NIA)

The National Indicator Approach (NIA) with the District/Hospital Specific Approach (DSA/HSA) has been used under the QAP of the MOH. At the national level, the achievements of these indicators are monitored twice a year. The indicators are periodically reviewed to ensure relevance and appropriateness. In 2018, four (4) indicators under the NIA were monitored to measure the achievement of primary care and public health aspects. This year's achievements were as below (**Table 7.6**).

**Table 7.6**  
**Oral Health Indicators NIA, January to December 2018**

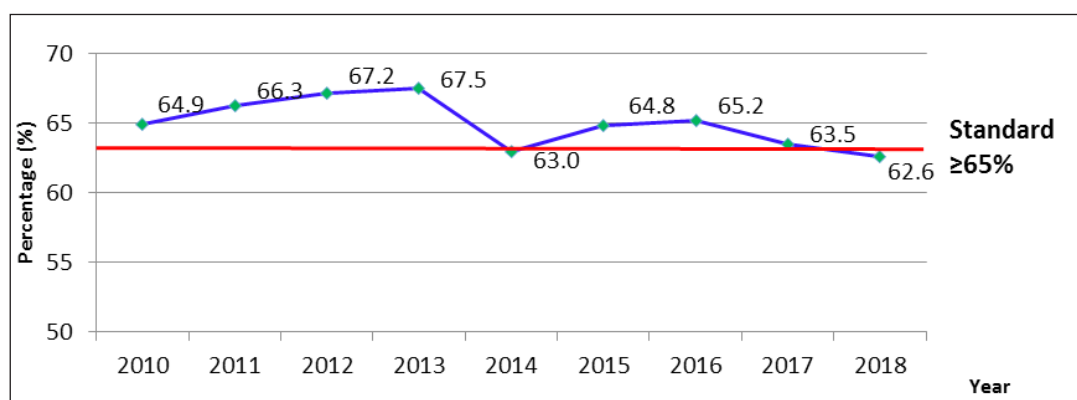
No.	Indicators	Standard (%)	Achievements (%)	SIQ Yes/No
1.	Percentage of primary schoolchildren maintaining the orally-fit status	≥ 65	62.6	Yes
2.	Percentage of secondary schoolchildren maintaining the orally-fit status	≥ 80	67.7	Yes
3.	Percentage of non-conformance of fluoride level at reticulation points (Level < 0.4ppm)	≤ 25	16.6	No
4.	Percentage of non-conformance of fluoride level at reticulation points (Level > 0.6ppm)	≤ 7	0.5	No

Source: OHP MoH, 2018

In 2018, the “Percentage of non-conformance of fluoride levels at reticulation points (Level <0.4ppm) has seen an increase over the previous year. Nevertheless, the achievement of the fluoride level requires careful monitoring to ensure maximum effectiveness.

The achievement of primary schoolchildren maintaining orally-fit status is increasing from the year 2010 to 2013. However, there is a drop in 2014 due to the introduction of the Gingival Index Status (GIS) for schoolchildren. The target was achieved in the year 2016 but has dropped to 62.6 per cent in 2018 (**Figure 7.15**).

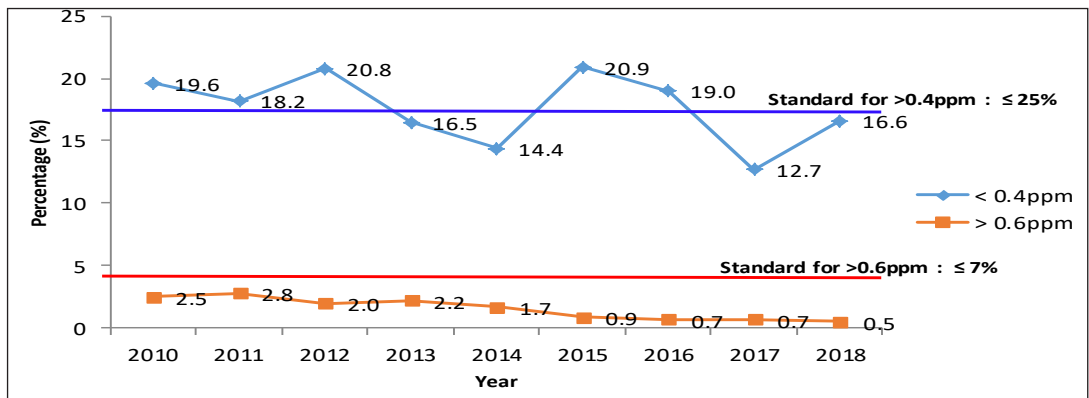
**Figure 7.15**  
**Analysis of Percentage of Primary Schoolchildren Maintaining Orally-fit Status 2010 to 2018**



Source: OHP MOH, 2018

The percentage of secondary schoolchildren maintaining orally-fit status from 2010 to 2013 was increasing from year to year. The decline in achievement took place when the GIS was introduced in 2014. The achievement further declined in 2018 (**Figure 7.16**).

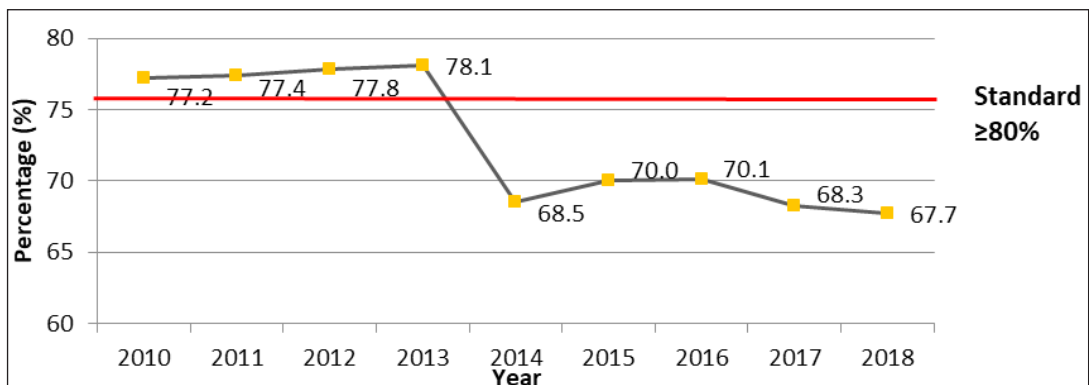
**Figure 7.16**  
**Percentage of Secondary Schoolchildren Maintaining Orally-fit Status 2010 to 2018**



Source: OHP MOH, 2018

The percentage of non-conformance fluoride level <0.4 ppm has fluctuated from 19.6 per cent (2010) to 16.6 percent in 2018 which is the best achievement during the 7 years. The percentage of non-compliance of optimum fluoride levels for > 0.6 ppm for 2018 is at 0.5 per cent is also one of the best achievements so far (**Figure 7.17**).

**Figure 7.17**  
**Percentage of Non-Conformance of Optimal Fluoride Level at Reticulation Points (Level<0.4ppm, Level>0.6ppm) 2010 to 2018**



Source: OHP MOH, 2018

### CERTIFICATION STATUS

Nationwide, out of 669 dental clinics with primary oral healthcare, 495 dental clinics (74.0 per cent) are ISO-certified. States without MS ISO 9001:2015 certification are Pulau Pinang, Pahang and Sarawak, while Perak and Sabah still in the process to include all MOH dental facilities in the state with a current and updated version of certification.



## NATIONAL INNOVATION AWARDS MOH 2018

The organizing of this award is a collaboration of the OHP MOH as the Secretariat with the Management Services Division, Family Health Development Division, International Policy & International Division and MOH Information Management Division. The Opening Ceremony of AIKKM 2018 was officiated by the Principal Director of OHP cum Chairman of Ministry of Health Innovation Award Committee on 24 October 2018 at Hotel Summit USJ Subang Jaya. The award presentation and consolation sessions were officiated by YB Deputy Minister of Health during the MOH Innovation Day 2018 which was held on 14 December 2018.

The objectives of the programme are to:

- i. recognize the results of innovation presented by the MOH personnel
- ii. nurture and foster a creative and innovative culture in the way work is practiced
- iii. introduce and disseminate the results of innovation for mutual benefit
- iv. contribute to improving the quality of customer service delivery

The following list of winners by categories of projects on Ministry of Health Innovation Award 2018 (**Table 7.7**).

**Table 7.7**  
**1<sup>st</sup> Prize Winners of Ministry of Health Innovation Award 2018**

Innovation	Project	Organization	State
Product	Smart Magic Pen	Disease Control Division (TB/ Kusta)	Selangor
Service	Blind and Visually Impaired Registry	Ophtalmology Clinic, Miri Hospital	Sarawak
Technology	Suction Tube Soaker	Sibu Hospital	Sarawak

Source: OHP MOH, 2018

## CHALLENGES AND WAY FORWARD

The standard operating procedure (SOP) in conducting periodontal health screening was developed this year and screening will be conducted at primary oral healthcare clinics next year. However, noting that the public knowledge on periodontal health is limited, it will affect the implementation process in terms of their readiness to be screened. Thus, the need to spread more Information on periodontal health and made more available using commonly used media. Continuous efforts towards strengthening the capacity and capability of personnel to deliver periodontal health messages are much needed.

In 2018, a revised guideline on Primary Prevention and Early Detection of Oral Potentially Malignant Disorders and Oral Cancers was developed with two (2) new SOPs on Management of Patients with high-risk habits and with oral lesions to strengthen the Oral Cancer Programme. Over the years, issues such as low compliance of referred patients to seek specialist care and need for intervention for patients with risk factors were highlighted. Through the implementation of these guidelines and SOPs, efforts are being taken to strengthen the referral mechanism for patients with risk factors and patients with oral potentially malignant disorders.

With the move towards electronic medical record system (EMR), focus are needed in developing subject matter expected in health IT and more allocation is needed to enhance the readiness of dental facilities in the use of OHCIS and TPC-OHCIS. Currently, dental clinics in the state of Selangor, Johor, Negeri Sembilan and WPKL/Putrajaya are using this system. EMR will be an effective data collection tool and data are more readily available.



# 8

# Pharmacy



## INTRODUCTION

Pharmaceutical Services Programme, Ministry of Health Malaysia is the lead agency that ensures pharmaceutical products marketed in the country comply with the standards, safe, efficacious and of good quality. This agency plays a role to protect the nation through enforcement of relevant pharmaceutical law and legislation and ensuring rational use of medicines by both healthcare providers and consumers. The Programme consists of five (5) main divisions headed by a Senior Director of Pharmaceutical Services and each main division plays an important role in different aspects but towards the same objectives to provide the best professional pharmacy services to the nation (**Figure 8.1**).

**Figure 8.1**  
Divisions of Pharmacy Services Programme

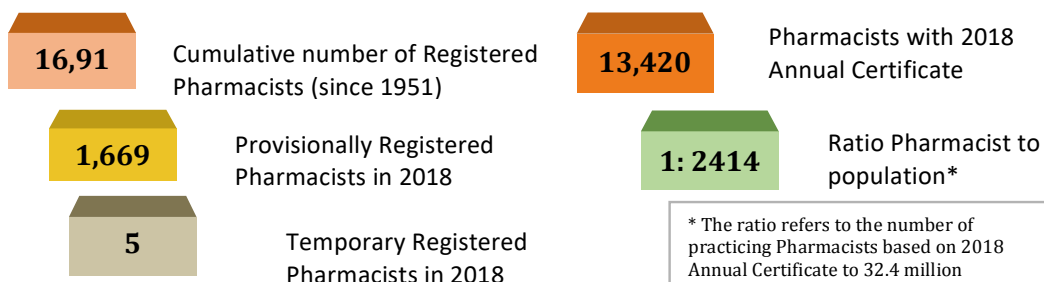


Source: Pharmacy Policy and Strategic Planning Division, MOH

## ACTIVITIES AND ACHIEVEMENTS

**Figure 8.2** showed Type and Number of Pharmacist Registered With Pharmacy Board Malaysia

**Figure 8.2**  
Type and Number of Pharmacist Registered With Pharmacy Board Malaysia



Source: Pharmacy Board Malaysia

### Medicines Procurement and Expenditure in Ministry of Health Malaysia

The total cost of medicines procured in 2018 for all MOH hospitals, institutions and health clinics was RM2,324.25 million. The expenditure decreased by 2.45 percent as compared to 2017. The value of closing stock for medicines in December 2018 was RM277,558,270.40, which is approximately 1.35 (median) months of stock holding (**Table 8.1**).

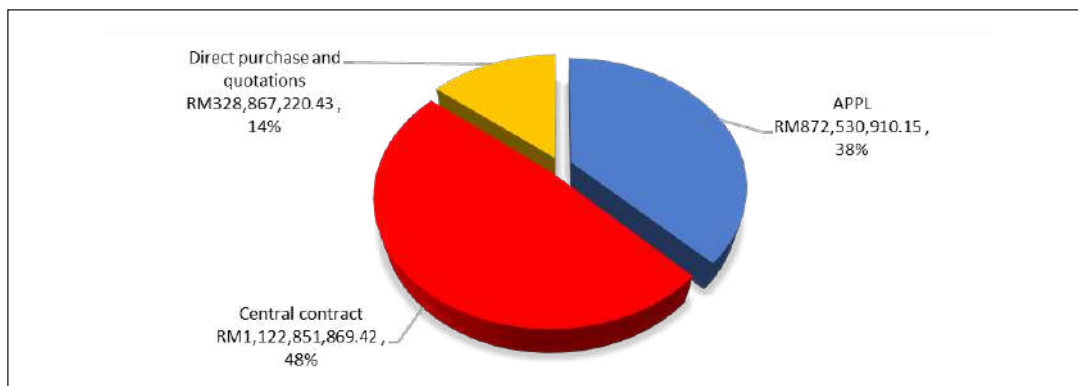
**Table 8.1**  
MOH Medicines Expenditure, 2012 to 2018

Year	Total Expenditure (RM million)	Percentage increment over the previous year (%)
2012	1,983.51	12.21
2013	2,200.43	10.94
2014	2,384.64	8.37
2015	2,323.12	-2.58
2016	2,107.61	-9.28
2017	2,382.55	13.05
2018	2,324.25	-2.45

Source: Pharmacy Practice and Development Division, MOH

Medicines were purchased through the concessionaire company (APPL), central contract, and direct purchase and quotations as follows (**Figure 8.3**):

**Figure 8.3**  
Types of Medicines Procurement in 2018



Source: Pharmacy Practice and Development Division, MOH

### Dispensing of Medicines in MOH Hospitals and Health Clinics

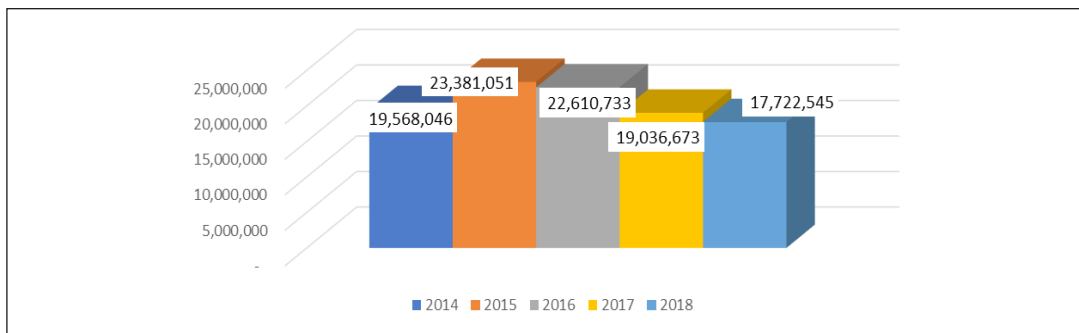
In 2018, there was an increase of 2.4 per cent for the number of outpatient prescriptions received in hospitals and health clinics compared to the previous year. The number of prescriptions received at public health facilities was 60.2 million, of which 38.4 million prescriptions were received in health clinics (KK), and 21.8 million prescriptions were in hospitals (**Figure 8.4**). There was a drop of 6.9 per cent for the number of inpatient prescriptions received at the hospital where the total was 17.7 million prescriptions (**Figure 8.5**).

**Figure 8.4**  
**Number of Outpatient Prescriptions Received, 2015 to 2018**



Source: Pharmacy Practice and Development Division, MOH

**Figure 8.5**  
**Number of Inpatient Prescriptions Received, 2014 to 2018**

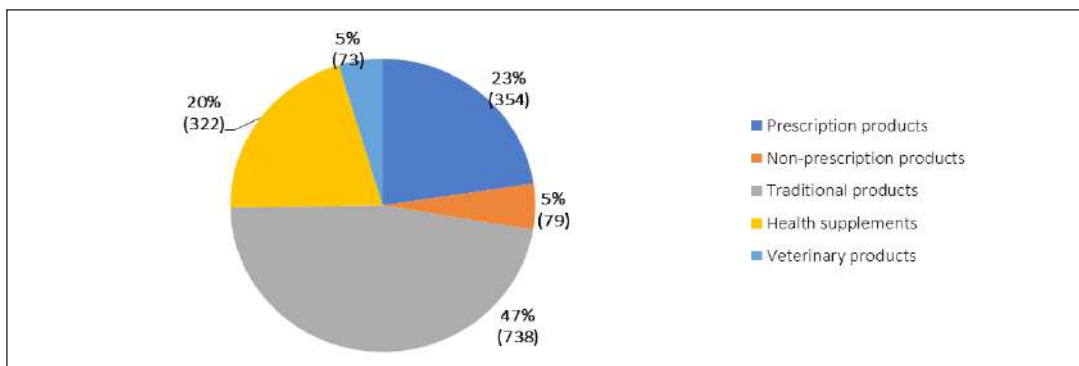


Source: Pharmacy Practice and Development Division, MOH

### Product Registration

In 2018, a total of 1,566 products were registered (Figure 8.6) with 55 per cent of local products and 45 per cent of imported products. The cumulative number of registered products up to 31 December 2018 was 24,052 products.

**Figure 8.6**  
**Percentage of Products Registered in 2018**

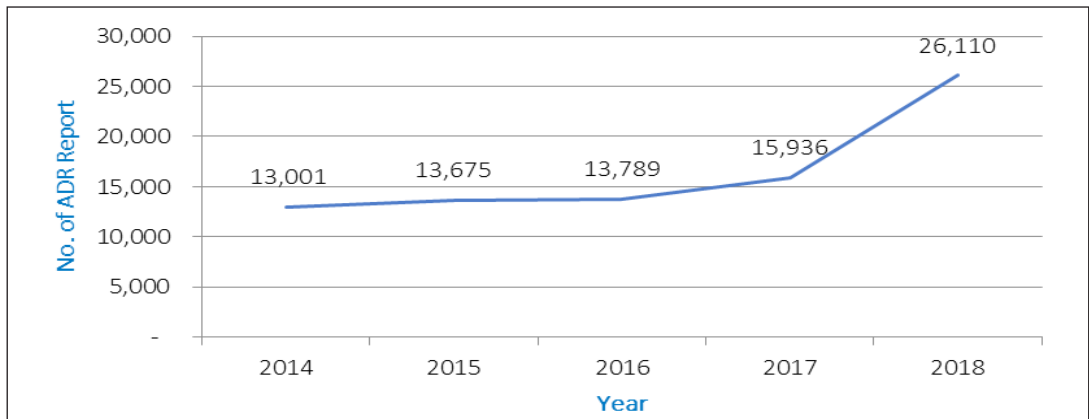


Source: National Pharmaceutical Regulatory Agency

### Post Product Registration

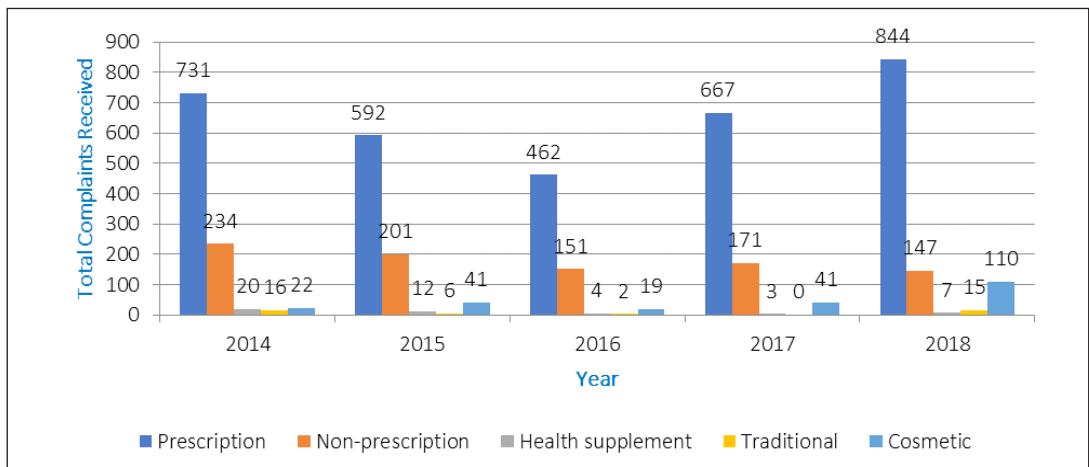
Post-marketing surveillance activities are crucial in overcoming issues of counterfeit, adulterated and substandard pharmaceutical products in the Malaysian market. In 2018, the Malaysian Adverse Drug Reaction (ADR) Monitoring Programme received a total of 26,110 reports, about 63.8 per cent higher compared to the year before (15,936 reports) (Figure 8.7). A total of 1,123 complaints were received in 2018 of which 75.2 per cent involved prescription products. Product complaints received were evaluated, investigated, and necessary actions were taken based on the findings (Figure 8.8).

**Figure 8.7**  
Number of Adverse Drug Reaction Reports, 2014 to 2018



Source: National Pharmaceutical Regulatory Agency

**Figure 8.8**  
Total Complaints Received, 2014 to 2018



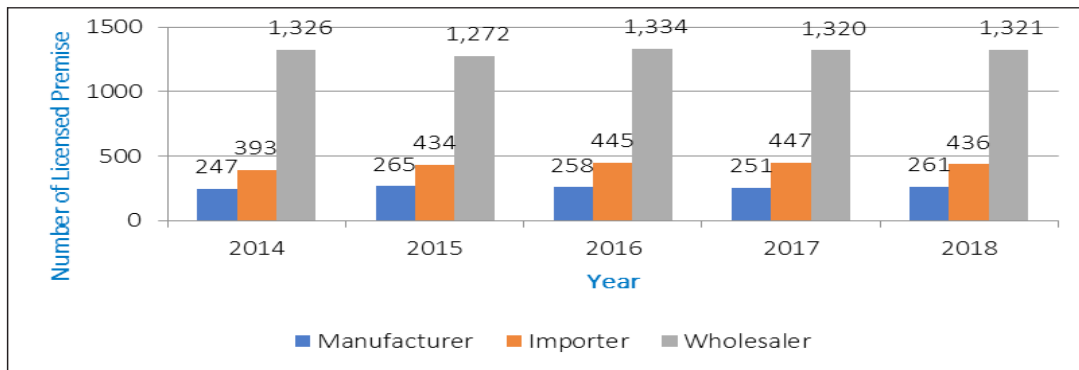
Source: National Pharmaceutical Regulatory Agency



## Compliance and Licensing

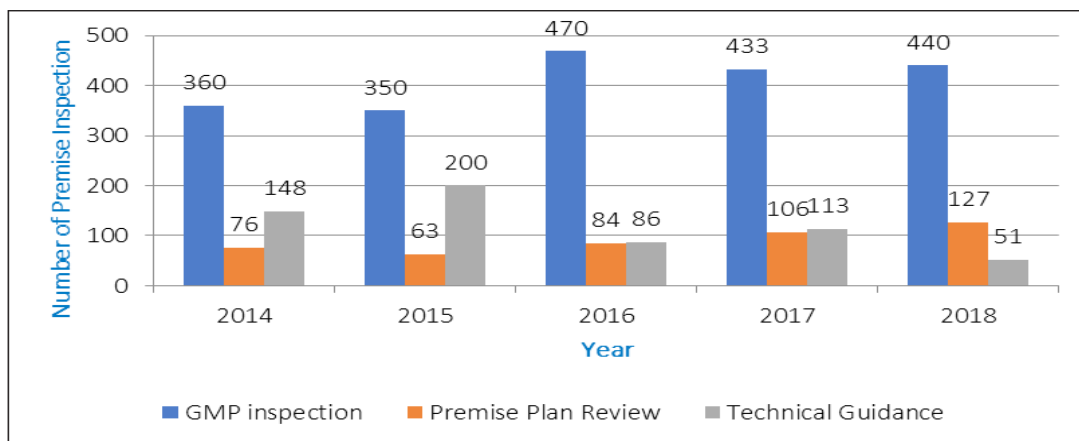
A total of 2,018 licensed premises comprising of manufacturers (excluding manufacturers of cosmetic products), importers and wholesalers were identified for 2018 (**Figure 8.9**). 440 Good Manufacturing Practice (GMP) examinations were conducted on the premise of manufacturing pharmaceuticals, traditional/health supplements, cosmetics and other premises in Malaysia and abroad (**Figure 8.10**).

**Figure 8.9**  
Number of Licensed Premises, 2014 to 2018



Source: National Pharmaceutical Regulatory Agency

**Figure 8.10**  
Number of Premise Inspections, 2014 to 2018

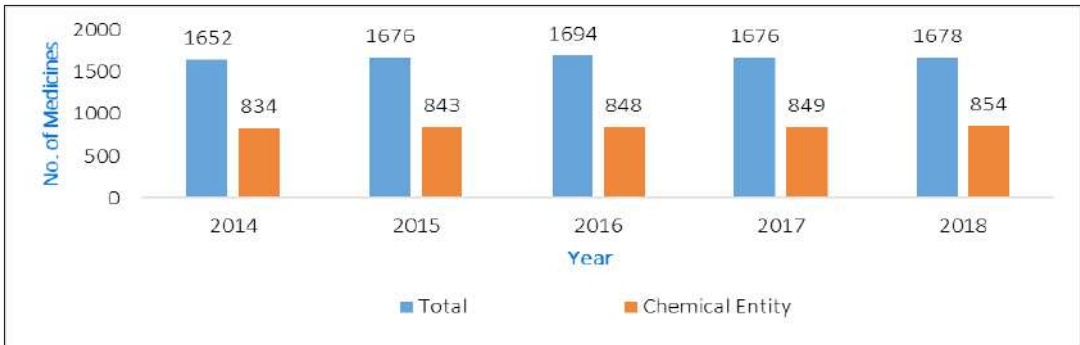


Source: National Pharmaceutical Regulatory Agency

## Ministry of Health Medicine Formulary

By the end of 2018, there are a total of 1,678 preparations comprising of 854 chemical entities in the MOH Medicine Formulary (MOHMF) (**Figure 8.11**).

**Figure 8.11**  
**Number of Drugs Listed in the MOHMF, 2014 to 2018**

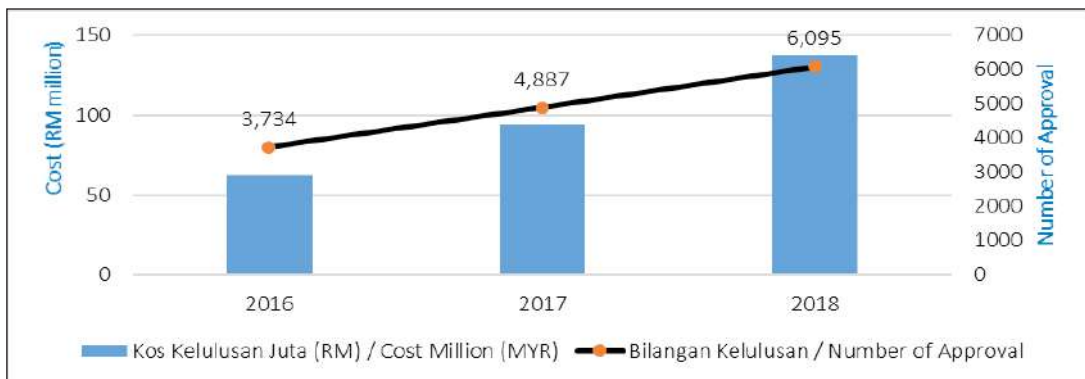


Source: Pharmacy Practice and Development Division, MOH

### Special Approval Drugs by the Director General of Health or Senior Director of Pharmaceutical Services

Special approval from the Director General of Health (KPK)/ Senior Director of Pharmaceutical Services (PKPF) is required when using the drugs which are not listed in MOHMF including registered drugs or unregistered drugs. The application for this special approval is only considered as the final alternative treatment after all options available in the MOHMF has been exhausted. Throughout 2018, there were 6,506 applications received from MOH's facilities with an increment of 21.0 per cent compared to 2017 (5,375 applications). Overall, 93.7 per cent (6,095 applications) were approved with an estimated cost of RM137.5 million. Based on the Anatomical Therapeutic Chemical Classification System (ATC), the highest applications for special approval involves drugs belonging to the therapeutic group of Anti-Neoplastic and Immunomodulating Agents and Anti-Infective for Systemic Use for both registered drugs and unregistered drugs (Figure 8.12).

**Figure 8.12**  
**Special Drug Approval in MOH Facilities, 2016 to 2018**



Source: Pharmacy Practice and Development Division, MOH

## World Pharmacists' Day 2018

Pharmaceutical Services Programme of the Ministry of Health with the collaboration of the Ministry of Defence, Ministry of Education, Malaysian Pharmaceutical Society (MPS), Malaysian Community Pharmacy Guild (MCPG), Pharmaceutical Association of Malaysia (PhAMA), Malaysian Organization of Pharmaceutical Industries (MOPI), and Malaysian Association of Pharmaceutical Suppliers (MAPS) successfully organised the World Pharmacists' Day (WPD) 2018 at MyTown Shopping Centre, Kuala Lumpur on the 20 to 21 October 2018. The theme for the event was 'Pharmacists: Your Medicines Experts'. The objectives of the event were:

- i. Sharing on the diverse roles of pharmacists who are serving in the various sectors, i.e. public, education, military and private health systems/ institutions
- ii. Increasing the knowledge and awareness of the use of quality and safe medicines among the general population
- iii. Strengthening the relationships between the pharmacists and consumers/ stakeholders through interactive activities, exhibitions and fun entertainment
- iv. Acknowledging the contribution of pharmacists in the Malaysian healthcare environment.

The event was officiated by the Minister of Health, Datuk Seri Dr. Haji Dzulkefly bin Ahmad who echoed on the roles and commitment of pharmacists in all areas and aspects to deliver the best health services to the patients. The two-day event was packed with professional talks, information booths, medical counselling services, health screening, physical exercises, educational forums and videos, games and quizzes. The event received overwhelming responses from the public. In summary, the event marked a historic moment as pharmacists from all sectors came together as a unified entity to celebrate and commemorate their contributions to the nation (**Image 8.1**).

**Image 8.1**  
**World Pharmacists' Day 2018**



Opening Ceremony was officiated by the Health Minister of Malaysia



Choral Speaking



Pharmacy 'Dikir'

Source: Pharmacy Policy and Strategic Planning Division, MOH

## 'Leadership Award in Intellectual Property and Access to Medicines'

17 January 2018, witnessed a historical moment where the Malaysian Government, particularly the Ministry of Health Malaysia has received the Leadership Award in Intellectual Property and Access to Medicines. Former Senior Director of Pharmaceutical Services, Dr

Salmah binti Bahri, received this recognition on behalf of the Government of Malaysia. Wame Mosime, the Director of Global Programs and Advocacy, International Treatment Preparedness Coalition (ITPC) presented this award during the Global Summit of Intellectual Property and Access to Medicines which took place in Marrakech, Morocco. Malaysia has been awarded this international recognition following Malaysia's successful steps towards issuing Compulsory Licensing in September 2017 to gain access to Hepatitis C drugs, Sofosbuvir. The Compulsory License opens the door to generic Sofosbuvir drugs for Malaysia at lower prices for the treatment of more than 450,000 Hepatitis C patients in Malaysia (**Image 8.2**).

**Image 8.2**  
**'Leadership Award in Intellectual Property and Access to Medicines' at Marrakech, Morocco**



*Source: Pharmacy Policy and Strategic Planning Division, MOH*

### **'Broken Windows' Project 2018**

The sale of online pharmaceutical products is a current trend. The user's access to new social media sites exposes them to the sale of unregistered products and adulterated products/cosmetics by irresponsible parties. The Broken Windows concept adopts a metaphor that stipulates; small crimes should be contained in order to prevent greater and more serious crimes. As such, the Pharmacy Enforcement Division, Ministry of Health has introduced this concept intending to reduce the activity of selling unregistered products and adulterated products/cosmetics by small retailers online, thereby obtaining major suppliers through the analysis of the seized digital devices.

In 2018, the Pharmacy Enforcement Division managed to conduct three (3) Broken Windows Operations; OPS BW1.0, OPS BW2.0 and OPS BW3.0. Through the operations, a total of 232 items was seized with a value of RM 168,214 and nine (9) digital devices seized had been recorded (**Image 8.3**).

### **Special Project Operation**

In 2018, the Pharmacy Enforcement Division, Ministry of Health conducted special enforcement operation focusing on cosmetics products that contain scheduled poisons, E-Liquid Vape products containing Nicotine and bodybuilding health products sold in the market including in the internet medium. Accordingly, enforcement actions have been taken against these products throughout the country. Total seizure value is estimated to exceed RM2 million (**Image 8.4**).

**Image 8.3**  
**'Broken Windows' Project 2018**



Seizure and Analysis of Digital Devices and Unregistered Products



Unregistered Vaccines and Unregistered and Adulterated Products Seized

Source: Pharmacy Enforcement Division, MOH

**Image 8.4**  
**Special Project Operation**



Source: Pharmacy Enforcement Division, MOH

## Pangea Operation XI

Pangea Operation XI was carried out from 9 to 16 October 2018. The Pharmacy Enforcement Division, Ministry of Health (MOH) along with other enforcement agencies from 116 countries around the world took part in this operation. A total of 403 websites and 723 media social accounts that were found selling illegal pharmaceutical products have been monitored, investigated and acted upon. A total of 339 traders on the e-commerce site found advertising pharmaceutical products which are unregistered, adulterated with poisons, as well as cosmetics containing poison were identified and acted upon.

A total of 1180 packages were inspected. From the total, 111 packages which contain 106,222 unregistered pharmaceutical products worth RM436,704.00 were also seized. Inspections were also conducted in all main entrance across the country including air cargos, airports, postal boundaries and ferry terminals. A total of 90,304 units of unregistered drugs worth RM1,309,332.00 were seized.

Raids were carried out on 34 unlicensed premises selling mostly pharmaceutical products online throughout the country. As a result, 55,256 pharmaceutical products were seized for further action. The value of the seizure was estimated to be RM1,074,704.00.

A total of 144 consumer awareness campaign was held during the period of Pangea Operation XI. Among the efforts were a radio interview session and announcements through the social media page of the State Pharmacy Enforcement Branch about the dangers of purchasing medications online. This year the Pharmacy Enforcement Division, Ministry of Health Malaysia has also been distributing "Guidance for Celebrity in Health Products Advertising" as a guide for celebrities who were involved in health products promotion.

## WAY FORWARD

As a way forward for the Pharmaceutical Services Programme in the upcoming year, we have identified five (5) new focuses that will serve as the foundation for pharmacy services. These initiatives are based on three main elements which are 'Change Agenda', 'Teamwork' and 'Further Innovation in Providing New Ideas'.



Change agenda



Teamwork



New ideas



#### **No Shortage, No Wastage**

Optimizing resources. Ensuring efficient delivery of pharmaceutical products and services



#### **Taking Healthcare to Home**

Delivering pharmacy services closer to patient at their home. Identifying medication-related problem, improving patient adherence, knowledge & experience.



#### **Competence Inspires Confidence**

Leaders create leaders. Creating foundation for the next generation of leaders in the pharmacy profession.



#### **Empowering Informal Caregiver**

Encourage responsible use of medicines, providing knowledge and support for those who give ongoing assistance to patient



#### **Safe & Secure**

All-inclusive approach of ensuring consumer safety

Five (5) main focus areas of the Pharmaceutical Services Programme for 2019 are:

#### **No Shortage, No Wastage**

Effective governance through optimising available resources and efficient management of the medicine supply chain are the primary focuses of the Pharmaceutical Services Programme. Among the key issues and challenges to achieve these focuses include allocation, work processes, human resource, infrastructure and supply chain. Various initiatives are in planned to be implemented such as improving medicine expenditure, medicine procurement process, medicine storage infrastructure and enhancing the efficiency of the supply chain management.

#### **Taking Healthcare to Home**

In conjunction with the rapid technological advancement in the Industrial Revolution 4.0 (IR 4.0), health services are subject to transformation. Pharmaceutical Services Programme responds to the call to innovate healthcare services in line with the concept of 'Uberisation in Healthcare'. 'Delivering Healthcare to the Community' can be a way to fulfil the concept by amending patients' tendency to receive health services straight from home. The planned initiatives to be implemented are the expansion of 'Home Medication Review' service and creative innovation of medicine delivery. With such efforts, problems related to adherence to medicines would be tackled hence enhancing patients' knowledge about the medications used.

### **Empowering Informal Caregiver**

The quality use of medicines is always the concern of the Programme to ensure treatments provided has a positive impact on the patients' health. The Pharmaceutical Services Programme will focus on implementing this initiative to women in view of their roles and responsibilities in family care. The 'National Survey on the Use of Medicines' (NSUM) by Malaysian Consumer 2015 showed that 60 per cent of medicine consumers were women. The International Pharmaceutical Federation (IFP) (2018) also reported that among informal caregivers, 75 per cent were women. This statistic indicated the significant role of women as informal caregivers in ensuring the optimum treatment to patients. Among the planned initiatives are to enhance the 'Know Your Medicines Ambassador Programme' and to collaborate with the Ministry of Women, Family and Community Development on health education.

### **Safe and Secure**

Pharmaceutical Services Programme always ensures all pharmaceutical, traditional and cosmetic products in the market are of quality, safety and efficacy. Issues regarding of products in the media becomes a major challenge to the Programme. Online purchasing of products exposes consumers to the risk of buying unregistered products which may affect their health. The initiative that could address this problem includes strengthening the monitoring of online sales and advertisement of these products. Additionally, to enhance consumers' confidence in traditional products, identification of these products through laboratory testing is being implemented to facilitate manufacturers to test their products at laboratories recognised by the National Pharmaceutical Regulatory Agency.

## **CONCLUSION**

As a summary, Pharmacy Services Programme in accordance with Ministry of Health Strategic Plan 2016-2020 as well as Malaysian National Medicines Policy and Health Transformation Plan has charted the way forward along the line as part of the team in Ministry of Health, Malaysia. Pharmacy Services Programme is committed to stay ahead and keep up with the changing times to support the national agenda in achieving better health for the nation.





# 9

## Food Safety and Quality

X-axis	Y-axis
1	1
2	5
3	3
4	6
5	9
6	11
7	8
8	12
9	14
10	10

6  
3

## INTRODUCTION

The Food Safety and Quality Program (FSQP), Ministry of Health (MOH) is established to strengthen the activities of planning, implementing, monitoring and evaluating the activities of food safety and quality to protect the public against health hazards and fraud in the storage, preparation, processing, packaging, transportation, sale and consumption of food and facilitate food trade. The mandate is provided under the Food Act 1983 and the relevant regulations.

In addition, the Food Analysts Act 2011 and the Food Analysts Regulations 2013 register food analysts and regulates the practice of food analysts. This act is also under the purview of the FSQP, MOH. In order to ensure national food control system for all food products marketed including those for export, a number of strategies have been formulated as follows:

- Formulating, reviewing and updating food legislation
- Delivering effective risk-based inspection and enforcement
- Surveillance, monitoring and assessment of food supply chain for risk-reduction and/or intervention strategies
- Establishing and strengthening food safety infrastructures including laboratory facilities
- Establishing effective and cooperative partnerships with relevant stakeholders including government agencies, food industry, consumer groups and academia
- Establishing scientific linkages with national and international organisations
- Developing human resource capabilities and competencies
- Educating consumers in making informed clean and safe food

The FSQP was certified to MS ISO 9001: 2015 effective from 4 May 2018 to 3 May 2021.

## ACTIVITIES AND ACHIEVEMENTS

### DOMESTIC COMPLIANCE ACTIVITIES

#### Food Premises Inspection

The MOH carries out routine inspection of food premises throughout the country apart from conducting scheduled "*Operasi Premis Makanan Bersih*" twice a month. In 2018, a total of 2,302 (1.8 per cent) food premises were closed under Section 11, Food Act 1983 from 126,896 food premises that were inspected. A total of 12,183 compounds were also issued to food premises operators and food handlers who failed to comply with the requirements of the Food Hygiene Regulations 2009 under Food Act 1983 (**Image 9.1**).

**Image 9.1**  
**Inspection of Food Premises**



*Source: Food Safety and Quality Program MOH*

### Registration of Food Premises

Regulation 3 of the Food Hygiene Regulations 2009 (FHR 2009), required food premises to be registered with the MOH are food factories, premises involved in food catering, food outlet premises including restaurants, stalls, canteens and so on as well as vehicles that used to sell ready to eat food. The registration of the food premises should be made by the premise owner through the online application <http://fosimdomestic.MOH.gov.my/>.

In 2018, 39,574 food premises have been registered. The total amount comprises 1,867 food factories, 4,183 food premises involved in food catering, 29,426 food outlet premises, 117 food-selling vehicles and 3,981 other food premises (**Table 9.1**).

**Table 9.1**  
**Registration of Food Premises 2013 to 2018**

Category	Year					
	2013	2014	2015	2016	2017	2018
Factories	3,071	1,843	1,932	1,114	1,840	1,867
Food Catering Premises	2,297	1,524	1,057	1,113	4,616	4,183
Food outlets	38,670	33,580	17,554	12,777	33,599	29,426
Vehicles selling ready-to-eat food	667	609	243	230	135	117
Other food premises	-	-	2479	477	4033	3,981
<b>TOTAL</b>	<b>44,705</b>	<b>37,556</b>	<b>23,265</b>	<b>15,711</b>	<b>44,223</b>	<b>39,574</b>

*Source: Food Safety and Quality Program MOH*

## Food sampling

Food sampling is conducted to ensure that food prepared or sold in Malaysia is in compliance with the requirements of the Food Act 1983 and the Food Regulations 1985.

In 2018, out of the 29,809 food samples taken and analysed, 1,497 (5.0 per cent) samples were found to have violated the provisions of the Food Act 1983 and the Food Regulations 1985. A total of 72 cases that have breached the provisions of the Food Act 1983 and the Food Regulations 1985 prescribed were brought to court with a total fine of RM109,635 (**Image 9.2**).

**Image 9.2**  
**Food Sampling Activity**



*Source: Food Safety and Quality Program MOH*

## FOOD IMPORT CONTROL ACTIVITIES

Food import control activities that are implemented at the entry point encompasses various aspects such as inspection and sampling of food consignments, enforcement activities involving detention, recall, re-exportation, rejection or destruction of food consignment that violated the law including relabelling, reprocessing and reconditioning processes.

Food import control activities are undertaken in all 47 entry point locations scattered throughout the country that is under the jurisdiction of the FSQP, MOH. In 2018, 262,347 food consignments were imported into Malaysia, of which 120,188 (46 per cent) consignments were inspected and 6,909 (5.7 per cent) consignments were sampled and analysed for various parameters. As a result, 74 (1 per cent) from the total food samples taken were found to contravened the food legislation.

## FOOD EXPORT CONTROL ACTIVITIES

### Compliance Listing

Compliance listing is one of the activities under the official control of the MOH. It is to ensure foods exported are in compliance with importing country requirements. Through the listing program, MOH is able to monitor the compliance of food facilities and food exported through the official control activities. Listing program involves certain countries and commodities (Table 9.2).

Table 9.2  
Number of Food Facilities Listed Under MOH until Year 2018

No	Country	Commodity	Food Facilities	Number
1.	European Country (EU)	Fish and Fishery Products	Export establishment	21
			Transport vehicle	40
			Source of ice	-
			Independent refrigerated store	1
			Source of semi-processed fishery products	2
			Sources of imported raw materials	86
2.	China	Fish and Fishery Products	Export establishment	78
			Cold store	2
		Milk and Dairy Products	Export establishment	5
		Edible Bird's Nests	Export establishment	48
		Frozen Durian (Pulp and Paste)	Export establishment	14
3.	Vietnam	Fish and Fishery Products	Export establishment	34
		Meat and Meat Products	Export establishment	5
4.	United States of America	Aquaculture shrimp and shrimp products	Export establishment	7
			Trader	1
			Middleman	2
5.	Singapore	Enhanced Regulated Source Program (ERSP)	Export establishment	152
		Minimally Processed Products	Export establishment	31

Source: Food Safety and Quality Program MOH

## Export Monitoring Program

Monitoring Program is one of the activities under the official control of the MOH. It is developed specifically by commodities and importing countries requirements (**Figure 9.1**).

**Figure 9.1**  
**Monitoring Program**



Source: Food Safety and Quality Program MOH

## USFDA Seafood HACCP Course

USFDA Seafood Course was held on 26 to 28 August 2018 at Ixora Hotel, Penang. This course was attended by auditors from State Health Departments and seafood industries especially those exporting seafood to the United States of America (US). The objective of this course is to guide the relevant stakeholders on the implementation of USFDA Seafood Regulations based on Code of Federal Regulations Chapter 21-Part 123 (21 CFR 123) Fish and Fishery Products "Mandatory Seafood HACCP Regulations". This is important in order to ensure seafood exported from Malaysia to the United States are safe and comply with the US HACCP Seafood requirements (**Image 9.3**).

**Image 9.3**  
**USFDA Seafood HACCP Course**



*Source: Food Safety and Quality Program MOH*

**Foreign Verification Audit Visit from Korea**

Ministry of Food and Drug Safety (MFDS), South Korea had conducted verification audit visit to five (5) export establishments which has been exported to Korea from 1 to 5 October 2018 (Image 9.4).

**Image 9.4**  
**Foreign Verification Audit Visit from Korea**



*Source: Food Safety and Quality Program MOH*

**Foreign Verification Audit Visit from Canada**

Canadian Food Inspection Agency (CFIA) had conducted verification audit visit to seven (7) export establishments in Malaysia which had exported products to Canada from 29 October to 9 November 2018 (Image 9.5).



**Image 9.5**  
**Foreign Verification Audit Visit from Canada**



*Source: Food Safety and Quality Program MOH*

## **PRE-MARKET APPROVAL ACTIVITIES**

### **HACCP (Hazard Analysis Critical Control Point) Certification**

As of December 2018, a total of 655 HACCP certificates have been issued to food manufacturing premises which have been certified under the HACCP Certification Scheme, MOH. This certification has greatly assisted the industry in meeting the needs of importing countries, especially the European Union (EU) and the United States of America for the export of fish and fish products (**Table 9.3**).

**Table 9.3**  
**Total cumulative of HACCP Certification by States in 2018**

State	2016	2017	2018
Johor	72	97	112
Kedah	21	25	28
Kelantan	7	7	9
Kuala Lumpur	16	19	19
Labuan	2	2	3
Malacca	11	13	15
Negeri Sembilan	8	13	16
Pahang	19	19	22
Perak	28	34	40
Perlis	2	3	3
Penang	38	60	67
Sabah	26	32	39
Sarawak	20	24	26
Selangor	165	213	251
Terengganu	0	1	5
<b>Total</b>	<b>435</b>	<b>562</b>	<b>655</b>

*Source: Food Safety and Quality Program MOH*

### **GMP (Good Manufacturing Practice) Certification**

A total of 701 GMP certificates have been issued to food manufacturers who have complied with all GMP requirements. This certification will enhance consumer confidence in products manufactured and assist the industry in expanding their market especially to countries that make GMP a requirement for importation (**Table 9.4**).

**Table 9.4**  
**Total cumulative of GMP Certification by States in 2018**

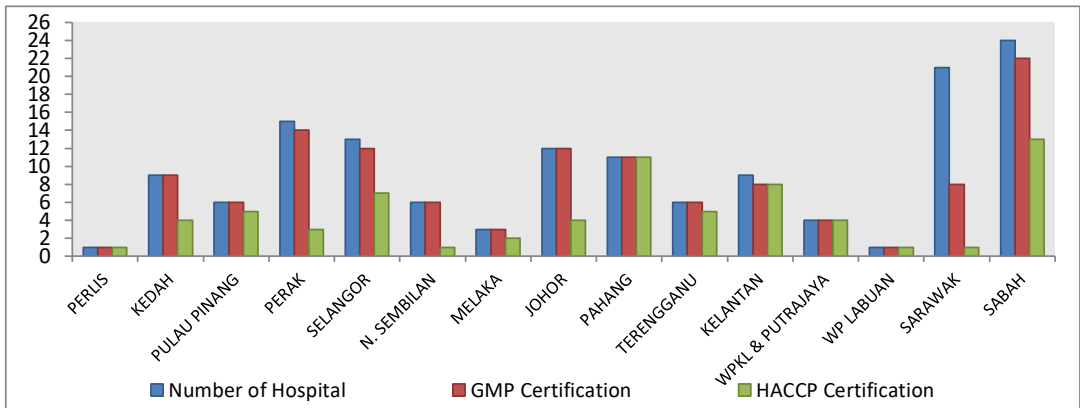
State	2016	2017	2018
Johor	41	76	107
Kedah	29	36	40
Kelantan	6	13	13
Kuala Lumpur	11	18	22
WLabuan	1	3	4
Malacca	12	19	21
Negeri Sembilan	12	17	22
Pahang	20	30	35
Perak	32	41	45
Perlis	1	2	3
Penang	31	62	60
Sabah	40	47	58
Sarawak	12	28	32
Selangor	90	183	229
Terengganu	6	9	10
<b>Total</b>	<b>344</b>	<b>585</b>	<b>701</b>

*Source: Food Safety and Quality Program MOH*

#### **HACCP and GMP Certification in Government Hospital's Kitchen**

HACCP and GMP certification have been issued to government hospital kitchens to ensure that cooked food supplied by government hospital kitchens is clean and safe for consumption (Figure 9.2).

**Figure 9.2**  
**HACCP and GMP Certification in Government Hospital's Kitchen**

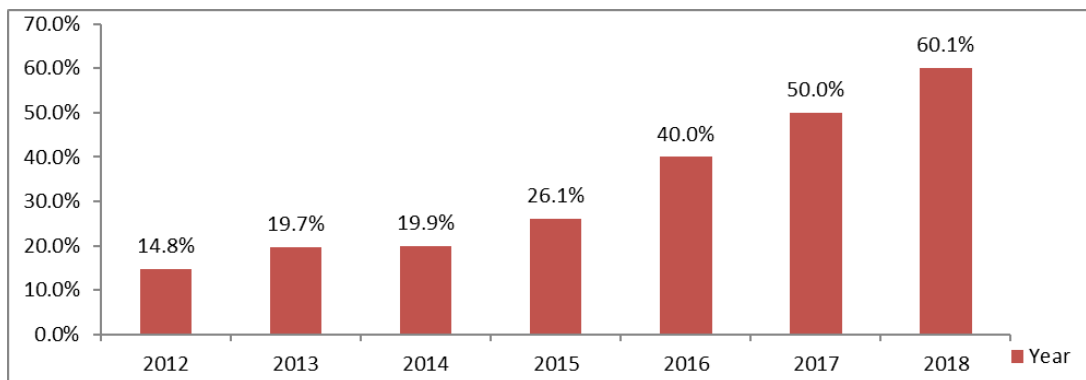


Source: Food Safety and Quality Program MOH

### **Makanan Selamat Tanggungjawab Industri (MeSTI) Certification**

In order to increase the number of food manufacturing premises certified with MeSTI, an inter-agency collaboration with various government agencies such as the Ministry of Domestic Trade and Consumer Affairs (KPDHEP), the Department of Agriculture, the Prisons Department, the Fisheries Development Authority of Malaysia (LKIM), the Institute of Agricultural Research and Development Malaysia (MARDI), higher education institutions, non-governmental organisations etc. had been run by this branch. As of 31 December 2018, 60 per cent (4,447) food manufacturing premises have obtained certification MeSTI (Figure 9.3).

**Figure 9.3**  
**Achievement of MeSTI Certification Scheme**



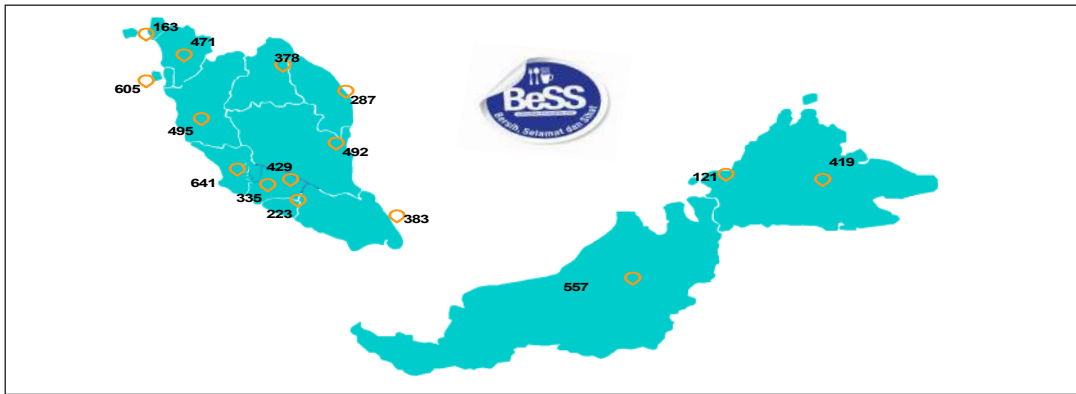
Source: Food Safety and Quality Program MOH

### **Recognition of Clean, Safe and Healthy (BeSS)**

BeSS is a recognition granted to the food premises to encourage the food operators to provide a safe and healthy food for consumers. BeSS recognition is a voluntary scheme under MOH. This recognition involves two (2) component which are cleanliness and food safety; and

nutritional components. Food premises must comply with the requirements set for both of components to obtain the recognition. Since 2013, 5,999 food premises such as school canteen, cafeteria, kiosk and food truck have been awarded with BeSS recognition (Image 9.6).

**Image 9.6:**  
**Numbers of BeSS Premises in Malaysia (2013 to 2018)**

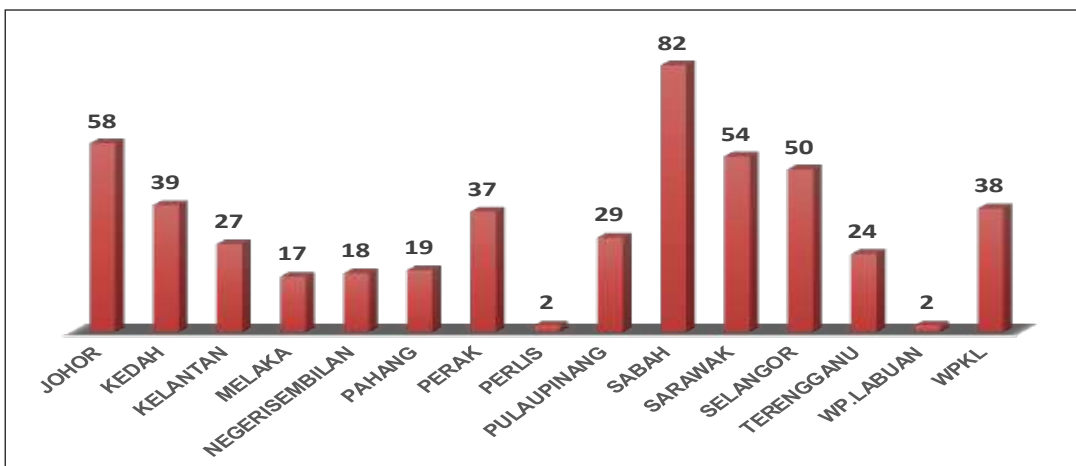


Source: Food Safety and Quality Program MOH

### Prevention of Food Poisoning

Total episode of Food Poisoning/*Keracunan Makanan* (KRM) shows an increase of 23.69 per cent (496 episodes in 2018 versus 401 episodes in the same week of year 2017) (Figure 9.4). The number of registered cases increased 9.21 per cent, which were 14732 cases in 2018 compared to 13490 cases in the same period of 2017. The KRM episodes in MOE schools involved canteens declined 8 per cent; while KRM in the hostel kitchen increased by 7.46 per cent.

**Figure 9.4**  
**Number of Food Poisoning Episodes by State Year 2018**



Source: Food Safety and Quality Program MOH

## FOOD POISONING PREVENTION ACTIVITIES

### Implementation of Good Manufacturing Practice (GMP) in Malaysia Ministry of Education (MOE) school hostel kitchen

- i. The pilot program involves two (2) schools, which are Sekolah Alam Shah (7 May 2018) and Sekolah Menengah Sains Kubang Pasu (2 October 2018) before expand to other schools throughout the country (**Image 9.7**).

**Image 9.7**  
**GMP Pilot Program**



*Source: Food Safety and Quality Program MOH*

- ii. The GMP Implementation Course involved School Divisions under MOE on 30 to 31 October 2018 (**Image 9.8**).

**Image 9.8**  
**GMP Implementation Course**



*Source: Food Safety and Quality Program MOH*

### Briefing on Food Safety

Series of collaborations with relevant agencies was carried out throughout 2018 with purpose to enhance the knowledge and understanding of the officer who's involved in monitoring activities regarding food safety in order to prevent food poisoning occurring (Image 9.9 and 9.10).

**Image 9.9**  
Briefing on Food Safety to MARA officers, teachers and warden from MARA Junior Science College (MRSM) (July - December)



Source: Food Safety Quality Program MOH

**Image 9.10**  
Briefing on Food Safety to officers from Department of Prisons Malaysia (August - September)



Source: Food Safety and Quality Program MOH

### Food Handlers' Training Program

A total of 165,173 food handlers have been trained throughout 2018, bringing the total trained food handlers to 2,004,591 since its inception in 1996. In the same year, 321 Food Handlers Training School and 118 trainers were endorsed. Concurrently, three (3) mandatory Training

the Trainer Courses were carried out on April, July and October 2018 with 94 participants passed the course examination (**Image 9.11**).

**Image 9.11**  
**Training the Trainer Mandatory Course**



Source: Food Safety and Quality Program MOH

## COMMUNICATIONS AND CONSUMER AFFAIRS ACTIVITIES

### BKKM HQ Official Facebook Page

The Official Facebook Page of FSQP (BKKM HQ) was recorded the highest second followers among the official Facebook within divisions in the MOH. As of November 1, 2018, the official Facebook Page of BKKM HQ reached 90,520 thousand followers (**Image 9.12**).

**Image 9.12**  
**Followers of Official Facebook BKKM HQ**



Source: Board of Portal Provider Content and Social Media Supervisor Meeting chaired by the Head of Public Relations, MOH (PROKKM).

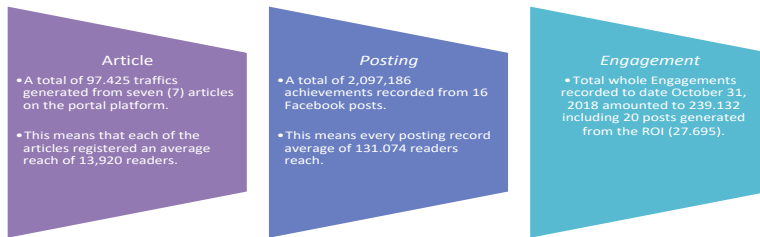
### Food Safety Campaign Advertisement Using Social Media

Food safety campaign using social media platforms have been implemented in selected with the highest number of followers on social media. The main objective of this campaign is to disseminate the information and improve level of knowledge and awareness among social media users. The feedback tools were used to evaluate the performance of the campaign. Engagements are the most appropriate metrics for measuring the success of the campaign because it involves a direct response user after receiving campaign materials (**Image 9.13 to 9.15**).



Image 9.13

Summary of the Influence of Food Safety Campaign



Source: Food Safety and Quality Program MOH

Image 9.14

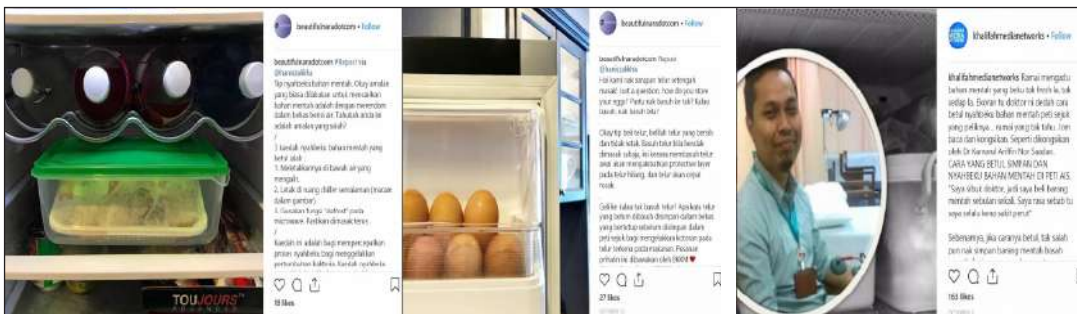
Food Safety Campaign on Facebook BKKM HQ



Source: Food Safety and Quality Program MOH

Image 9.15

Food Safety Campaign on Instagram



Source: Food Safety and Quality Program MOH

Food Safety Campaigns in Mass Media

Food Safety Campaigns in Mass Media as shown in Image 9.16

- Interview Session for nine (9) times on television stations such as TV 1, TV 3, TV AlHijrah and Astro Vaanavil.
- Interview Session at Putra FM Radio station for 12 times.
- Interview Session at Asyik FM and KL FM stations for two (2) times.

**Image 9.16**  
**Interview Session on Television and Radio Stations**



Source: Food Safety and Quality Program MOH

**Facebook Live**

Facebook Live is one of the interactive and interesting promotional materials produced to attract users to get food safety information quickly and easily in tandem with the rapid development of the digital world through social media. BKKM has partnered with the Corporate Communications Unit in the Facebook Live Show on September 7, 2018 at Prisma Tower, Presint 3, Putrajaya entitled Food Poisoning What Are Our Foods? (Image 9.17)

**Image 9.17**  
**Facebook Live Show**



Source: Food Safety and Quality Program MOH

## FOOD SAFETY EXHIBITION ACTIVITIES

Exhibition: Career and Entrepreneurship Expo Exhibition CEM, Universiti Putra Malaysia and Recognition Ceremony for Clean, Safe and Healthy (BeSS) Serdang Cendol

Date : 17 to 18 April 2018

Venue : Universiti Putra Malaysia (UPM) (Image 9.18)

Image 9.18

Career and Entrepreneurship Expo Exhibition CEM, Universiti Putra Malaysia and Recognition Ceremony for Clean, Safe and Healthy (BESS) Serdang Cendol



Source: Food Safety and Quality Program MOH

Exhibition : Walkabout Program Bazar Ramadan at Shah Alam with Master Students from UPM and Selangor Health Department

Date : 26 May, 2018

Venue : Bazaar Ramadhan at Shah Alam (Image 9.19)

Image 9.19

Walkabout Program Bazar Ramadan at Shah Alam with Master Students from UPM and Selangor Health Department



Source: Food Safety and Quality Program MOH

## INTERNATIONAL FOOD SAFETY TRAINING CENTRE (IFSTC) MALAYSIA ACTIVITIES

### IFSTC Malaysia Training

As in 2018, 12 training sessions had been conducted by IFSTC Malaysia. A total of 279 participants had been trained comprising of participants ranging from food industries, government agencies, academicians, private sector and officers from the FSQP representing both HQ and State Level (Table 9.5, Image 9.20 and 9.21).

**Table 9.5**  
**List of Training Conducted on 2018**

No.	Training	Date
1.	Product Labelling and Hands On	6 to 7 March 2018
2.	Food Safety Training for Auditor Under ACB-HACCP Scheme	20 to 22 March 2018
3.	Hazard Analysis Critical Control Point (HACCP)-Implementation	10 to 12 April 2018
4.	Food Act 1983 and its Regulations & Updates	24 to 25 April 2018
5.	Food Defense	8 to 9 May 2018
6.	Product Labelling and Hands On	3 to 4 July 2018
7.	Food Act 1983 and its Regulations & Updates	1 to 2 August 2018
8.	Food Safety Training for Auditor Under ACB-GMP Scheme	14 to 16 August 2018
9.	US Seafood HACCP	26 to 28 August 2018
10.	Product Labelling and Hands On	29 to 30 August 2018
11.	Food Safety Certification and Licensing	2 to 3 October 2018
12.	Food Safety Inspection Training	15 to 18 October 2018

Source: Food Safety and Quality Program MOH

**Image 9.20**  
**Product Labelling and Hands on 6 to 7 March 2018**



Source: Food Safety and Quality Program MOH

Image 9.21

**Hazard Analysis and Critical Control Point (HACCP) Implementation on 10 to 12 April 2018**



Source: Food Safety and Quality Program MOH

**National Food Export Seminar 2018**

IFSTC Malaysia in collaboration with Export Branch successfully organized the National Food Export Seminar held on 20 September 2018 at Hotel Bangi-Putrajaya. A total of 177 participants comprising exporters were present. This seminar aims to expose the relevant stakeholders especially industries and food exporters on the food export control requirements and export certificates such as health certificate in order to ensure the exported products meet the importing countries requirements (Image 9.22).

Image 9.22

**National Food Export Seminar**



Source: Food Safety and Quality Program MOH

## STANDARD DAN CODEX ACTIVITIES

### **Malaysia as National Focal Point for the ASEAN Consultative Committee on Standards and Quality Prepared Foodstuff Product Working Group (ACCSQ-PFPWG)**

Malaysia through the Food Safety and Quality Division, Ministry of Health Malaysia hosted the 26th ACCSQ-PFPWG which was held 24 to 30 April 2018 in Langkawi, Kedah. The meeting was attended by 42 delegations from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Viet Nam as well as representatives from the ASEAN Secretariat, ASEAN Regional Integration Support from EU (ARISE Plus), International Life Science Institute (ILSI) and the ASEAN *Food and Beverage Alliance* (AFBA) (Image 9.23).

**Image 9.23**

### **26th ASEAN Consultative Committee on Standards and Quality Prepared Foodstuff Product Working Group (ACCSQ-PFPWG)**



Source: Food Safety and Quality Program MOH

## WAY FORWARD

The Food Safety and Quality Program is committed to ensure food safety and uphold the nation's integrity in food safety and quality through shared responsibility and accountability on the basis of effective tripartite management system. The enforcement activities will continue to empower and strengthen at all levels to ensure the safety and quality of food products in the market are assured.



# 10

## Policy and International Relations





## INTRODUCTION

The Policy and International Relations Division (BDHA) is an organization that plays an important role in the formulation and implementation of policies besides acting as a focal point in international affairs and healthcare industries. The Division also plays an important role in coordinating international trade and liberalization issues and ensuring that Malaysia's health-related interests are diplomatically voiced and protected through the international legal instruments or various trade agreements. BDHA also plays an important role in coordinating the preparation of the Cabinet Paper as well as being responsible for the Secretariat's Post-Cabinet Meeting.

## ACTIVITIES AND ACHIEVEMENTS

Throughout 2018, BDHA has implemented and coordinated various activities at the division, ministry, national and international levels. Among the activities and achievements are:

### CABINET RELATED MATTERS

In 2018, BDHA prepared and coordinated 11 Cabinet Notes and 31 Memorandums for tabling at the Cabinet Meeting. BDHA also provided inputs and facilitated the preparation of 64 comments on Memorandums received from other ministries as well as 26 feedbacks to decisions made by the Cabinet throughout the year 2018.

### HIGH-LEVEL MEETINGS WITHIN MOH

BDHA also serves as the secretariat for three (3) high-level meetings in the Ministry. In 2018, 22 Post-Cabinet Meetings and five (5) Mini Post-Cabinet Meetings were held. Besides that, five (5) High Level Management Meetings and 19 Special Management Meetings were coordinated throughout the year. This meeting is a platform for all Under Secretaries/ Directors to thoroughly put forth, review and debate issues revolving management matters of the Ministry.

### YB MINISTER OF HEALTH INITIATIVE RETREAT

A Retreat session, chaired by the YB Minister of Health (YB MOH), was held from 8 to 12 August 2018 and was also attended by the Top Management and senior officers of MOH. BDHA has been entrusted as a secretariat responsible for monitoring new initiatives that have been developed and introduced through the Retreat Initiative of YB Minister of Health. This Retreat session is also a platform for design thinking and paradigm shifts to MOH. BDHA is responsible for monitoring the 12 initiatives that were introduced during the Retreat session (Image 10.1).

**Image 10.1**  
**Discussion Session during YB MOH Retreat Initiative**



*Source: Policy and International Relations Division, MOH*

### **MALAYSIA HEALTH SYSTEM RESEARCH (MHSR) ORGANIZATIONAL TRANSFORMATION (OT)**

BDHA is responsible for leading the Malaysia Health System Research (MHSR) Organizational Transformation (OT) in collaboration with Harvard University. MHSR OT is a collaborative learning of the MOH to formulate reconstruction and organizational change in the national health system, for example in the field of finance, strategic purchasing, regulation and delivery of health care services. Presentation of Final Report to YB MOH was held on 17 December 2018 after the research was completed on 21 June 2018.

### **COORDINATOR AND SECRETARIAT FOR MOH CORPORATE CULTURE**

BDHA serves as the Coordinator for the Corporate Culture Working Committee in MOH. The responsibilities include monitoring of course/training of Corporate Culture in MOH headquarters and at the State Health Department level. Besides that, BDHA is also involved in promotion and application of the Corporate Culture through posters, announcements, MOH portal and social media besides reviewing the effectiveness of the program and level of Corporate Culture practice by MOH.

In 2018, total number of courses/training conducted were 2,086 which involved 83,725 participants. 12 Corporate Culture posters, public address announcements were made via MOH's portal and social media. Among the theme promoted in the monthly poster were Honesty, Teamwork, Work-Life Balance, Corporate Image and Strategic Thinking.

## **INTERNATIONAL TRADE IN HEALTH SECRETARIAT**

Trade and liberalization in the field of health. Among others:

- i. Coordinating the World Trade Organization (WTO) trade related matters including countervailing measures, subsidy and investor-state dispute settlement (ISDS);
- ii. International trade related matters in the field of health for the Trans-Pacific Partnership Agreement (TPPA)/ Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), Negotiations on the Regional Comprehensive Economic Partnership Agreement (RCEP), ASEAN Seamless Trade Facilitation Indicators (ASTFI) General Agreement on Trade in Services (GATS), ASEAN Framework Agreement on Services (AFAS 10) and Trade Policy Review; and
- iii. FTA (Turkey, New Zealand, ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA) - Malaysia is an active member of these FTA and played vital role in ensuring the success of the signed agreement.

## **INTERNATIONAL RELATIONS**

### **WORLD HEALTH ORGANIZATION (WHO)**

Throughout 2018, BDHA has coordinated and processed applications from 71 participants comprising Malaysian professionals to attend 47 meetings/workshops/study visits overseas under the World Health Organization (WHO) sponsorship. BDHA also coordinated the participation of MOH delegation in WHO meetings:

- i. 71<sup>st</sup> World Health Assembly, 20 to 26 May 2018, Geneva, Switzerland;
- ii. 69<sup>th</sup> Session of the WHO Regional Committee for the Western Pacific, 8 to 12 October 2018, Manila, Philippines; and
- iii. 2018 Partners' Forum, 12 to 13 December 2018, New Delhi, India.

### **OTHER INTERNATIONAL BODIES**

In the year 2018, BDHA has coordinated MOH top management's participation in various meetings, amongst others, as follows:

- i. 89<sup>th</sup> ASEAN Coordinating Committee on Services (CCS), 15 to 18 January 2018, Bangkok, Thailand;
- ii. YBMK's Working Visit to India, 25 to 26 January 2018;
- iii. 30<sup>th</sup> Commonwealth Health Ministers Meeting, 20 May 2018, Geneva, Switzerland;
- iv. APEC Senior Officials' Meeting 3 2018 (SOM 3), 13 to 19 August 2019, Port Moresby, Papua New Guinea;
- v. 2<sup>nd</sup> China-ASEAN Forum on Health Cooperation: Towards A Health Silk Road, 18 to 21 September 2018, Nanning, China;

- vi. United Nations High Level Meeting on the Fight Against Tuberculosis and Third United Nations High Level Meeting on the Prevention and Control of Non-Communicable Disease, 24 to 27 September 2018, New York, USA;
- vii. 69<sup>th</sup> Session of the World Health Organization Regional Committee for the Western Pacific, 8 to 12 October 2018, Manila, Philippines;
- viii. The Second International Conference on Primary Health Care, 25 to 26 October 2018, Astana, Kazakhstan; and
- ix. 90<sup>th</sup> ASEAN Coordinating Committee on Services (CCS), 5 to 10 November 2018, Nay Pyi Taw, Myanmar.

#### **WORKING VISIT/ MEETING ON COOPERATION, SEMINAR/ FORUM**

- i. 9<sup>th</sup> Joint Seminar and 40<sup>th</sup> Public Service Games Programme for Malaysia and Singapore Public Sector Leaders 2018**  
This seminar was held in Malacca, Malaysia from 26 to 28 January 2018 and was attended by the Secretary General, Ministry of Health.
- ii. Official Visit of YAB Prime Minister of Malaysia in conjunction with ASEAN-India Summit Memorial**  
Honorable Minister of Health attended alongside YAB Prime Minister. This official visit was held in New Delhi, India from 25 to 26 January 2018.
- iii. HIMSS Eurasia Conference and Exhibition**  
This conference was held in Istanbul, Turkey from 25 to 27 October 2018 and the delegation was led by the Minister of Health with the participation of two (2) officers.
- iv. World Innovation Summit for Health (WISH) 2018**  
This Programme was held in Doha, Qatar from 13 to 14 November 2018.
- v. Ministerial Conference in Diabetes**  
This conference was held in Singapore from 26 to 27 November 2018 and the delegation was led by Minister of Health Malaysia with the participation of two (2) officers.

#### **COURTESY CALL**

BDHA has also been tasked with coordinating courtesy calls upon YB Minister of Health Malaysia by overseas delegates. BDHA has coordinated a total of 41 courtesy calls from 23 countries and two (2) International Bodies - WHO and WPRO Regional Committee. Among these countries are Norway, United States, British, Denmark, Japan and Brunei (**Image 10.2** and **Image 10.3**).

**Image 10.2**  
**Courtesy Call Upon Minister of Health Malaysia by**  
**H.E. Ambassador of Denmark to Malaysia**



*Source: Policy and International Relations Division, MOH*

**Image 10.3**  
**Courtesy Call Upon Minister of Health Malaysia by**  
**H.E. Ambassador of United States to Malaysia**



*Source: Policy and International Relations Division, MOH*

## OFFICIAL VISIT/ STUDY VISIT TO MINISTRY OF HEALTH MALAYSIA

In 2018, Bilateral Unit, Policy and International Relations Division coordinated official and study visits by foreign officials and delegation to the Ministry of Health Malaysia and its health facilities. The total of visitors received were 234 from nine (9) countries. The detail is as in **Table 10.1** below:

**Table 10.1**  
**Total Number of Visitors from 10 Countries Received by MOH for Year 2018**

No.	Country	Total Visitors /Person
1.	China	36
2.	Indonesia	63
3.	Japan	9
4.	Thailand	10
5.	United Kingdom	12
6.	Russia	60
7.	Kenya	26
8.	America	17
9.	Australia	1
<b>Total</b>		<b>234</b>

*Source: Policy and International Relations Division, MOH*

## COORDINATION OF ELECTIVE POSTINGS FOR OVERSEAS MEDICAL STUDENTS TO HEALTH FACILITIES UNDER MOH

In 2018, 293 applications for medical elective posting for foreign medical students to health facilities under MOH were coordinated. Details of the applications are as below (**Table 10.2**):

**Table 10.2**  
**Total Applications for Elective Postings of Overseas Medical Students to Health Facilities under**  
**MOH for Year 2018**

No.	Institution	Total Applications
	<b>United Kingdom</b>	
	- King's College London Medical School	20
	- University of Oxford	30
	- University College London	40
	- University of Leicester	40
	- Warwick Medical School	2
	- Cardiff University	9
	- University of Manchester	12
	- Barts and the London School of Medicine	22
	- University of Leeds	12
	- University of Exeter Medical School	6
	- Keele University School of Medical	10
	- University of Birmingham	31
	- University of Nottingham	5
	- University of Bristol	2
	- Imperial College London	11
	- University of Southampton	3
	- Brighton and Sussex Medical School	4
	- Newcastle University	3
	- University of London	2
	- University of Plymouth	2
	- University of Cambridge	1
	- University of Sheffield	3
	<b>German</b>	
	- University of Cologne	1
	- RWTH Aachen University	2
	- Charite Universitaetsmedizin Berlin	2
	- University of Wurzburg	1
	- Universitat Erlangen-Nurnberg	3
	- Paracelsus Medical University	1
	- Otto Vonguericle Universitat Magdeburg	1
	- Frieddrich Schiller Universitat Jena	1
	- University of Greifswald	2
	<b>USA</b>	
	- University of Kansas	1
	<b>Australia</b>	
	- University of New South Wales	2
	- Deakin University	1
	- Western Sydney University	1
	<b>Gambia</b>	
	- University of the Gambia	1

No.	Institution	Total Applications
	<b>New Zealand</b> - University of Otago	1
	<b>Singapore</b> - National University of Singapore	1
<b>TOTAL</b>		<b>293</b>

Source: Policy and International Relations Division, MOH

## EXPORT GROWTH OF MEDICAL DEVICES AND PHARMACEUTICAL PRODUCTS

BDHA has been entrusted to monitor the export growth of medical devices and pharmaceutical products. Target is set based on global pharmaceutical industry growth forecasts of between 8 to 10 per cent annually.

### Medical Devices

Target 2018 : RM12.291 billion (8.6 per cent growth compared to 2017)

Achieved 2018 : RM 12.628 billion (11.6 per cent)

### Pharmaceutical Products

Target 2018 : RM1.013 billion (8.0 per cent growth compared to 2017)

Achieved 2018 : RM0.912 billion (0.3 per cent decline)

## INDUSTRY 4WARD (MITI)

In 2018, BDHA's involvement in Industry 4WARD was in the High-Level Task Force meetings conducted by Ministry of International Trade and Industry (MITI). Issues discussed were on the Internet of Things (IOT) and Data Storage (Cloud and Block Chain) together with Malaysia Digital Economy Corporations (MDEC) as well as connectivity improvement.

## SECRETARIAT

The Secretariat Unit is responsible for coordinating High-Level Management Meeting of MOH and the High-Level Special Management Meeting of the Ministry as well as coordinating the administrative matters of BDHA pertaining to human resource and financial management.

In the year 2018, the Secretariat Unit planned and executed various activities involving the competence development of officers and staffs of BDHA through Knowledge Sharing Sessions, skill trainings, workshops, relevant human resource development courses, and in-house training for efficient service delivery and team building activities to foster bond between members of BDHA.



In addition, the Secretariat Unit is also the backbone in substantiating the Ministry's programs/initiatives that are entrusted upon BDHA, mainly the National Transformation Dialogue Session 2050 (TN50) of Chief Secretary to the Government with National Medical and Health Services Scheme, The Journey of Healthcare Program, Dialogue Session of YB Deputy Minister of Health With *Bumiputera* Entrepreneurs under *Himpunan Usahawan Bumiputera* Program, Briefing Session to the new YB Minister of Health and Special Briefing Session on the Implementation of Sales and Service Tax (SST), MOH (Image 10.4 to 10.6).

**Image 10.4**  
**Engagement Session between Secretary General Ministry of Health with Policy and International Relations Division, Ministry of Health Malaysia on 11 January 2018**



Source: Policy and International Relations Division, MOH

**Image 10.5**  
**X-Break in High Level Special Management Meeting, Ministry of Health Malaysia No.19/2018 on 13 December 2018**



Source: Policy and International Relations Division, MOH

Image 10.6

**National Transformation 2050 (TN50) Dialogue Session between Chief Secretary to the Government with Medical and Health Services Scheme, MOH on 10 April 2018**



*Source: Policy and International Relations Division, MOH*

## **CONCLUSION**

BDHA has successfully implemented the functions entrusted throughout the year 2018. In effort to ensure the continuity of quality services and creating a more dynamic organization while further strengthening the implementation of functions and planning in 2019, BDHA will streamline the organizational structure at the Division level to become capable and successful organization hence continue to be relevant in the ministry level.



# 11

## Development



## INTRODUCTION

Development Division, MOH responsible to manage activities related to management, planning, implementation, regulation, monitoring and evaluation of programs and projects implemented in the development of health facilities by the Ministry of Health. In addition, the Division is also involved in managing the financial resources, land and information on government health facilities development projects.

## ACTIVITIES/ACHIEVEMENTS

### LAND MANAGEMENT AND MONITORING

The Development Division is also responsible for administering the management and acquisition of land and buildings in accordance with the National Land Code 1965, Land Acquisition Act 1960 and P.2.1: Government Procurement Method for the development of health facilities. All land acquisition processes throughout the country for the purpose of development of the MOH health facilities shall be through the approval of the Land Management and Monitoring Committee (JKPPT) chaired by the Ministry's Secretary General. A total of 75 judgmental papers were presented at the Land Management and Land Affairs Meeting (JKPPT) in 2018. List of organizing Committee Meeting on Land Management and Monitoring (JKPPT), MOH in 2018 as in **Table 11.1**:

**Table 11.1**  
**The Implementation of the Land Management and Monitoring Committee (JKPPT),**  
**MOH in 2018**

No.	Meetings	Date
1.	MJKPPT No. 1/2018	9 February 2018
2.	MJKPPT No. 2/2018	20 April 2018
3.	MJKPPT No. 3/2018	28 June 2018
4.	MJKPPT No. 4/2018	3 September 2018
5.	MJKPPT No. 5/2018	23 October 2018
6.	MJKPPT No. 6/2018	20 December 2018

*Source: Development Division, MOH*

Several programs and site visits were held by the Land Unit, Development Division in 2018 as shown in **Image 11.1** to **11.5**:

**Image 11.1**  
**Ground Management Briefing Course and KKM Building Space Rental Use (Premises)**  
**on 5 to 7 August 2018**



*Source: Development Division, MOH*

**Image 11.2**  
**Visits to the Proposed Metalun Health Clinic Site and Tegulang Health Clinic, Murum, Belaga,**  
**Kapit, Sarawak on 22 to 24 October 2018**



*Source: Development Division, MOH*

**Image 11.3**  
**Visitation to the Proposed Abok Health Clinic Site, Sri Aman, Sarawak on 14 May, 2018**



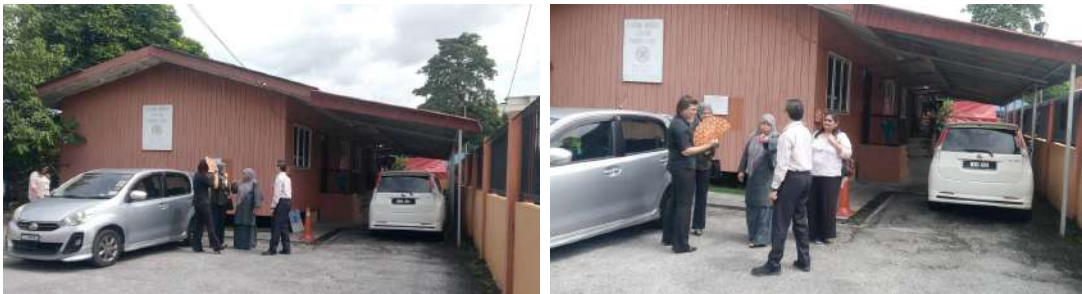
*Source: Development Division, MOH*

**Image 11.4**  
**Visitation to the Proposed Kuala Petri Hospital Integration Quarters Site on 9 November , 2018**



*Source: Development Division, MOH*

**Image 11.5**  
**Visitation to Selayang Rural Clinic Quarters Site on 23 November 2018**



*Source: Development Division, MOH*

## ORGANIZING THE VALUE MANAGEMENT OF THE MOH DEVELOPMENT PROJECT

To address the inherent weaknesses, the National Development Planning Committee (NRD) on 24 November 2009 has decided that Value Management be implemented in the planning and implementation of Government programs and projects. Value Management seeks to identify, provide options and produce components and costs that do not contribute to the value of services, systems and projects without compromising the objectives and functions set.

Value Management is a systematic and innovative multi-disciplinary approach that reviews the needs of functions of design, product, service, project, facility and system to achieve better value and optimal cost without affecting program performance and project performance. Generally, the Value Management is implemented as soon as the concept design is provided. For complex projects such as hospitals, it needs to be implemented in the initial stage (pre-design) and at the concept design stage. The following is a list of organizing the Value Management Workshop (VM) coordinated by the Development Division, MOH as in **Table 11.2** and **Image 11.6**:

**Table 11.2**  
**List of VM Implementation in 2018**

No.	VM Implementation	Date
1.	<i>Projek Hospital Padang Besar, Perlis</i>	16 to 19 April 2018
2.	<i>Projek Institut Perubatan Forensik Negara Hospital Kuala Lumpur</i>	14 to 18 May 2018
3.	<i>Projek Kuarters Hospital Pulau Pinang</i>	3 to 7 December 2018

Source: Development Division, MOH

**Image 11.6**  
**Value Management Workshop for the National Institute of Forensic Medicine Project, Kuala Lumpur Hospital on 14 to 18 May, 2018**



Source: Development Division, MOH

## SUBMISSION OF MOH HEALTH FACILITIES DEVELOPMENT PROJECT IN 2018

The process of submission of health facilities development project is made through joint examinations with end users, JKR and contractors involved. Once the health facility building is received, the key will be handed over to the end user through the Ministry/State JKN.



The following are some of the MoH development projects that have been completed and submitted in 2018 (Table 11.3 and Image 11.7 to 11.9).

**Table 11.3**  
**Total Numbers of MOH Development Projects Completed and Delivered in 2018**

No.	Projects Completed and Delivered	Date
1.	Klinik Kesihatan (Jenis 3) Bandar Tun Hussien Onn, Cheras	23 February 2018
2.	Kuarters Integrasi Hospital Tengku Ampuan Rahimah, Klang	5 June 2018
3.	Kompleks Obstetrik Hospital Tengku Ampuan Rahimah, Klang	7 December 2018
4.	Klinik Pakar Pergigian Kota Setar, Kedah	6 August 2018
5.	Klinik Desa dengan Kuarters Air Tawar, Perak	20 July 2018
6.	Klinik Pergigian Kesihatan Sg. Tekam Utara, Jerantut	20 July 2018

Source: Development Division, MOH

**Image 11.7**  
**Session Submission of the Construction Project of Tengku Ampuan Rahimah Hospital Obstetric Complex, Klang on 7 December 2018**



Source: Development Division, MOH

**Image 11.8**  
**Project Submission Session Builds and Prepares Rural Clinic with Air Tawar Quarters, Perak by Manjung District Engineer to MOH on 20 July, 2018**



Source: Development Division, MOH

**Image 11.9**  
**Session Submission Session of the Dental Health Dental Clinic North Tekam, Jerantut, Pahang on 20 July, 2018**



Source: Development Division, MOH

### **COORDINATION OF BILATERAL MEETING BETWEEN YB MINISTER OF HEALTH AND YB MINISTER OF WORKS IN 2018**

Bilateral Meeting of YB Minister of Health and YB Minister of Works was held to discuss the implementation status of the MOH development project for 2018. A total of RM1.845 billion allocated for MOH for 2018 involved 360 projects under Rolling Plan 3, 11th Malaysia Plan. A total of 322 physical projects and 38 non-physical projects for the year 2018 implemented through the appointed agency (**Image 11.10**).

**Image 11.10**  
**Bilateral Meeting YB Minister of Health and YB Minister of Works on 28 August 2018 at the Ministry of Works**



Source: Development Division, MOH



# 12

## Health Legislation

Point	Value
1	1
2	5
3	3
4	6
5	9
6	11
7	8
8	12
9	14
10	10
11	13
12	10

## INTRODUCTION

The Legal Advisor's Office ("Office") of the Ministry of Health ("Ministry") is responsible to give efficient and quality legal advice in accordance to the law in a fair and just manner

## FUNCTIONS

The functions of Legal Advisor's Office ("Office") of the Ministry of Health ("Ministry") are as below:

- i. Source of reference and legal advice pertaining law or Acts under Ministry of Health and international law.
- ii. To determine type of offences and compound, to conduct prosecution case or revision in Courts relating to cases under Private Healthcare Facilities and Services 1998 [Act 586].
- iii. To draft and vet agreement, memorandum of understanding between Ministry of Health and interested parties.
- iv. To draft and vet Bills and regulations related to Ministry of Health for tabling in Parliament or Minister's approval.
- v. To plan, coordinate or to conduct skill training, courses and lectures relating to health law.
- vi. To carry out audit on prosecution cases, compound, management and disposal of exhibits and Investigation Papers.
- vii. To take part in any programs which related to health legal aspects.

## STATISTICS OF LEGAL ADVISOR'S WORKS IN 2018

**Table 12.1** showed the statistics of Legal Advisor's works in year 2018

**Table 12.1**  
**Statistics of Legal Advisor's Works in 2018**

List of Works	Total of works
Vet Agreement/Legal Document	948
Legal Advice	1698
Drafting of Acts and Subsidiary Legislation	38
Civil Cases	331
Prosecution Cases	4592
Lecture and Training	35

Source: Legal Advisor Office, MOH

# 13

## Corporate Communications Unit



## INTRODUCTION

The Corporate Communications Unit was established with the objective of enhancing the image of the ministry, promoting the policies and programs of the ministry through an organized and effective public relations strategy. In addition, Corporate Communications Unit acts as the frontline in managing customer service and public complaints. This unit is divided into five (5) sections:

- i. Complaint Management Section
- ii. Corporate Affairs Section
- iii. Media Section
- iv. Strategic Communications Section
- v. Customer Service Section

## ACTIVITIES AND ACHIEVEMENTS

### COMPLAINT MANAGEMENT SECTION

The Ministry of Health Malaysia (MOH) has received a total number of 9,836 complaints in 2018 based on the categories listed in **Table 13.1**:

**Table 13.1**  
Number of Complaints Received by Categories in Year 2018

No.	Complaints Period	Duration of Complaint Completion	Total Amount
1.	Simple	5 Working Days	427
2.	Moderate	12 Working Days	6,995
3.	Complex	>16 – 365 Days	2,414
<b>Total</b>			<b>9,836</b>

Source : Complaint Management Section, UKK, MOH

Overall, the Ministry has achieved 94.9 per cent in resolving complaints received. As for the simple and moderate categories, a total of 6,524 (87.9 per cent) have been resolved as shown **Table 13.2**:

**Table 13.2**  
Number of Acceptance and Settlement Complaints in 2018

No.	Complaints Period	Complaint Received	Complaint Resolved	Complaint Resolved within 12 Days
1.	Simple	427	427	415
2.	Moderate	6,995	6,873	6,109
3.	Complex	2,414	2,039	-
<b>Total</b>		<b>9,836</b>	<b>9,339 (94.9%)</b>	

Source : Complaint Management Section, UKK, MOH

The MOH also analyzes the complaints in accordance with the 14 categories of complaints set out in the *Sistem Aduan Pengurusan Aduan Awam* ( SiSPAA) as shown in **Table 13.3**:

**Table 13.3**  
**Percentage of Complaints Received Base on Issued for the Year 2018**

No.	Issue Category	Percentage (100%)
1.	Quality of Services Including Over The Counter and Telephone	28.1
2.	Food Safety and Quality	18.4
3.	Failure of Communication	8.1
4.	Misconduct of Civil Servants	4.9
5.	Delay or No Action	7.8
6.	Failure to Adhere to Set Procedures	5.8
7.	Failure of Enforcement	3.9
8.	Unfair Action	1.3
9.	Lack of Public Amenities	5.4
10.	Abuse of Power	0.9
11.	Inadequacies of Policy Implementation and Law	0.2
12.	Safety	0.8
13.	Miscellaneous Complaints	4.8
14.	Others	9.6

Source : Complaint Management Section, UKK, MOH

Aside from complaints, the Section also responsible in managing queries and feedback received via email (pro.kkm@moh.gov.my) and other channels.

## CORPORATE AFFAIRS SECTION

### Publication of MOH's Booklet *Sihat Negaraku*

The booklet *Sihat Negaraku* was published as a source of reference for MOH Staff and public with regards to the healthcare services offered by the government.

**Image 13.1**  
**Publication of MOH's Booklet *Sihat Negaraku***



Source : Corporate Affairs Section, UKK, MOH



## Publication of MOH's E-Bulletin

This section has also published several MOH's E- Bulletin in 2018 as shown in **Image 13.2**

**Image 13.2**

### Publication of MOH's E-Bulletin May to December 2018



Source : Corporate Affairs Section, UKK, MOH

## Malaysia Health and Wellness Brand Awards 2018

The Malaysia Health and Wellness Brand Awards 2018 awards ceremony was officiated by YB Dr. Lee Boon Chye, Deputy Health Minister on 22 March 2019 at One World Hotel, Petaling Jaya. The Malaysia Health and Wellness Brand Awards 2018 programme is a collaborative program between the MOH and the Sin Chew Media Corporation Berhad. The programme covers health talks and competition of various health categories. Dato' Seri Dr. Chen Chaw Min, the Secretary-General Ministry of Health has been appointed as the Chief Judge for the Malaysia Health and Wellness Brand Awards 2018. A total of 122 entries were received for the award competition (**Image 13.3**).

**Image 13.3**  
**Malaysia Health and Wellness Brand Awards 2018**



Source : Corporate Affairs Section, UKK, MOH

## MEDIA SECTION

Table 13.4 showed Media Section Activities in year 2018

**Table 13.4**  
**Media Section Activities in 2018**

No	Activities
1.	Visit to Karangraf Sdn Bhd on 5 March 2018
2.	Visit to ASTRO Media Agency on 10 October 2018
3.	MOH Iftar session with Media at Wow Kuala Lumpur Restaurant on 5 June 2018
4.	Public Sector Strategic Communications Workshop at RHR @ Uniten Kajang Hotel on 20 March 2018
5.	Public Relations Seminar at Leadership & Development Institute, UiTM Bandar Enstek, Nilai on 28 to 29 November 2018.
6.	Meeting with MOH Public Relations Officers held at Information Department, Federal Territory KL, Wisma Sime Darby.
7.	A total of 24 official working visits by Health Minister, Deputy Minister, Secretary General and Director-General of Health were covered from January 2018 to December 2018.
8.	A total of 125 TV Talk show slots from January to December 2018
9.	A total of 57 radio slot managed from January to December 2018

Source : Mass Media Section, UKK, MOH

YB Datuk Seri Dr. Dzulkefly Ahmad, Minister of Health attended the “The Breakfast Grille Show” on Radio BFM MHz 89.9 where he shared his views and visions for the public healthcare in Malaysia (Image 13.4).

**Image 13.4**  
**The Breakfast Grilled Show Interview on Radio BFM**



Source : Mass Media Section, UKK, MOH

YB Datuk Seri Dr. Dzulkefly Ahmad, the Health Minister attended the Iftar session with Media at Wow Kuala Lumpur Restaurant on 5 June 2018. More than 200 journalists from the print media and electronic attended the function. The event was aimed to strengthen the relationship between the media practitioners and MOH officials.

Also present were Dato' Seri Dr. Chen Chaw Min, MOH Secretary-General, Datuk Dr. Noor Hisham Abdullah, Director-General of Health, Dato' Hj. Hasnol Zam Zam Ahmad, MOH Deputy Secretary General (Management), and Dato' Dr. Azman Abu Bakar, Deputy Director-General of Health (**Image 13.5**).

**Image 13.5**  
**Iftar Session with Media**



Source : Mass Media Section, UKK, MOH

## STRATEGIC COMMUNICATIONS SECTION

This section manages MOH social media platform and number of followers for MOH Social Media Platform Year 2018 as shown in **Table 13.5**.

**Table 13.5**  
**Number of Followers in MOH Media Platforms Year 2018**

No.	MOH Media Social	Target Followers	Followers Achieved
1.	Facebook	900,000 <i>followers</i>	990,000 <i>followers</i>
2.	Twitter	28,000 <i>followers</i>	30,000 <i>followers</i>
3.	Instagram	90,000 <i>followers</i>	100,000 <i>followers</i>
4.	You tube	1,800 <i>subscribers</i>	2,000 <i>subscribers</i>

Source : Strategic Communications Section, UKK, MOH

Informal meeting between Dato' Hj. Hasnol Zam Zam Bin Hj. Ahmad, MOH Deputy Secretary-General (Management) and MOH Social Media Practitioner at the Auditorium Hall, Kolej Sains Bersekutu Sungai Buloh on 9 March, 2018 (**Image 13.6**).

**Image 13.6**  
**MOH Deputy Secretary-General (Management) and MOH Social Media Practitioner Meeting**



Source : Strategic Communications Section, UKK, MOH

MOH's Corporate Communications Unit familiarization visit to Thinker Studios, Bukit Jalil on 10 October, 2018. The purpose of this visit is to increase quality, produce more interesting and informative video for viewers besides sharing experiences and opinions with the Thinker Studio staff. About 8 officers and supporting staff attended this visit (**Image 13.7**).

**Image 13.7**  
**MOH Corporate Communications Unit Visit to Thinker Studio**



Source : Strategic Communications Section, UKK, MOH

## CUSTOMER SERVICE SECTION

**Table 13.6** shows an increase in the number of incoming and outgoing phone calls in MOH in 2017 and 2018:

**Table 13.6**  
**Number of Calls Received by the Customer Service Centre**

No.	Activities	2017	2018
1.	January	2,000	3,000
2.	February	2,010	3,020
3.	Mac	4,000	5,315
4.	April	4,000	5,798
5.	May	3,000	4,481
6.	Jun	3,500	4,415
7.	July	3,560	5,755
8.	August	3,200	4,729
9.	September	3,800	4,399
10.	October	5,000	6,283
11.	November	4,000	4,802
12.	December	4,000	4,852
<b>Total</b>		<b>42,070</b>	<b>56,849</b>

Source : Customer Service Section, UKK, MOH

# 14

## Parliament Unit



## INTRODUCTION

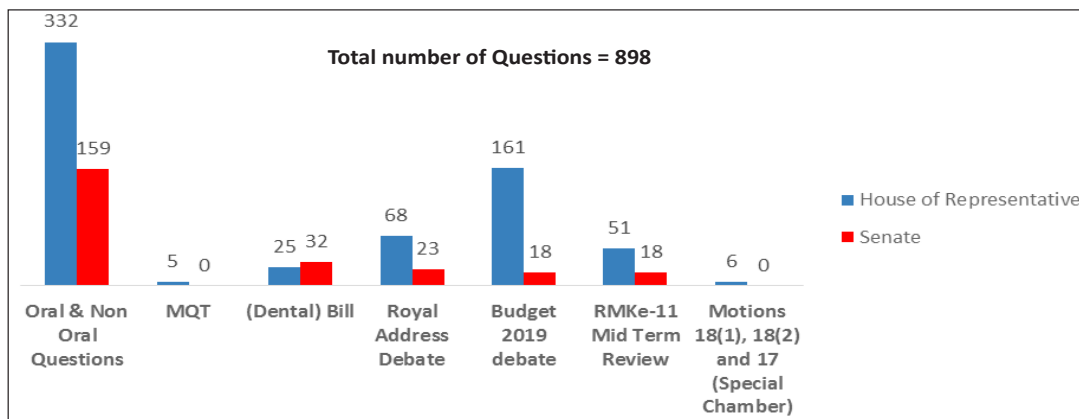
The Malaysian Parliamentary seating session for 2018 was conducted for **103 days** through **three (3) meetings**:

- i. First Meeting, Sixth Session, Thirteenth Parliament, convened from 5 March to 5 April 2018 (**30 days**);
- ii. First Meeting, First Session, Fourteenth Parliament, convened from 16 July to 12 September 2018 (**31 days**); and
- iii. Second Meeting, First Session, Fourteenth Parliament, convened from 15 October to 20 December 2018 (**42 days**).

## ACTIVITIES AND ACHIEVEMENTS

Throughout the year 2018, MOH had received a total of **898** Oral Questions, Non-Oral Questions, Issues and Motions. The breakdown of the total number of questions from the House of Representatives and the Senate during 2018 are summarized by categories as in the following **Figure 14.1**:

**Figure 14.1**  
Number of Oral Questions, Non-Oral Questions, Issues and Motions Related to MOH throughout the Year 2018



Source : Parliament Unit MOH

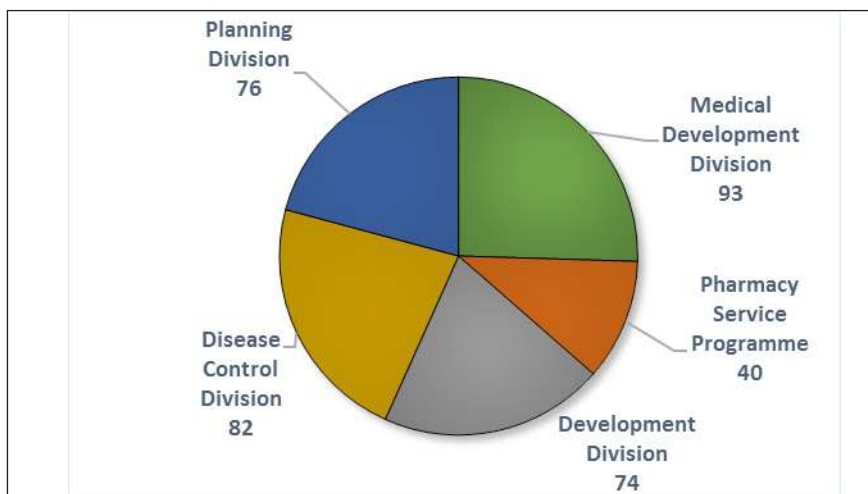
### ORAL & NON ORAL QUESTIONS AND MINISTER'S QUESTION TIME (MQT)

For the year 2018, the divisions that handle the highest number of inputs for Oral, Non-Oral Questions and Minister's Question Time are as shown in **Figure 14.2**:

- i. Medical Development Division – 93 questions;
- ii. Disease Control Division – 82 questions;
- iii. Planning Division – 76 questions;

- iv. Development Division – 74 questions; and
- v. Pharmacy Service Programme – 40 questions.

**Figure 14.2**  
**Divisions that Handle the Highest Number of Inputs for Oral, Non-Oral Questions and Minister’s Question Time**



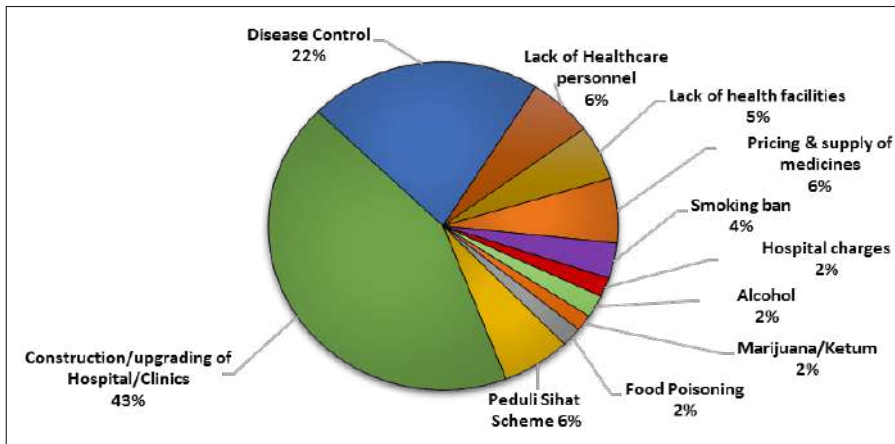
Source : Parliament Unit MOH

The most frequently asked questions for MOH through Oral Questions, Non-Oral Question and Minister’s Question Time are as shown in **Figure 14.3**:

- i. Construction and upgrading of Hospitals/Clinics – 43 per cent;
- ii. Disease control – 22 per cent;
- iii. Lack of healthcare personnel – 6 per cent;
- iv. Pricing and supply of medicines – 6 per cent;
- v. Peduli Sihat Health Care Scheme (also known as PEKA B40) – 6 per cent;
- vi. Lack of health facilities – 5 per cent;
- vii. Smoking ban issue – 4 per cent;
- viii. Government/Private hospital charges – 2 per cent;
- ix. Issues related to alcohol – 2 per cent;
- x. Marijuana/Ketum issues – 2 per cent; and
- xi. Food poisoning – 2 per cent.



**Figure 14.3**  
**Frequently Asked Questions for MOH Through Oral Questions, Non-Oral Question and Minister's Question Time**



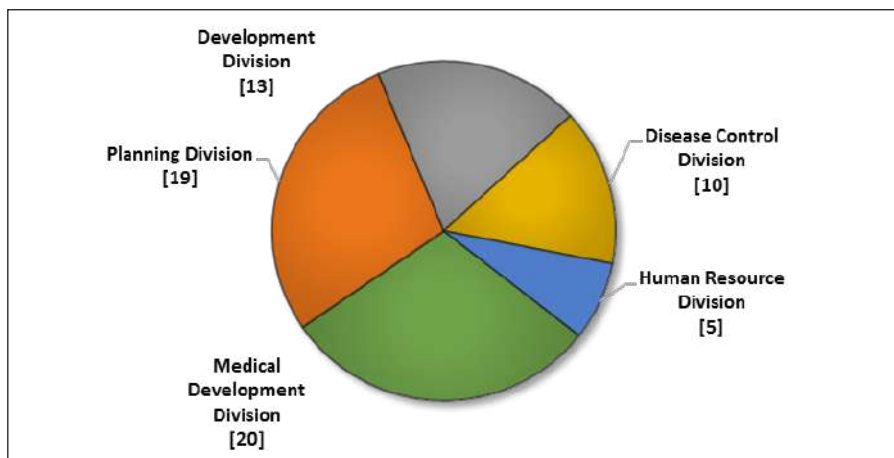
Source : Parliament Unit MOH

### DEBATE ON THE 11TH MALAYSIA PLAN MID TERM REVIEW (KSP RMKE-11)

For the year 2018, the divisions handling the highest input volume during the Mid-Term Review of the 11th Malaysia Plan (KSP RMKe-11) debate are as shown in **Figure 14.4**:

- i. Medical Development Division – 20 questions;
- ii. Planning Division – 19 questions;
- iii. Development Division – 13 questions;
- iv. Disease Control Division – 10 questions; and
- iv. Human Resource Division – 5 questions.

**Figure 14.4**  
**Divisions Handling the Highest Input Volume during the Mid-Term Review of the 11th Malaysia Plan (KSP RMKe-11) Debate**

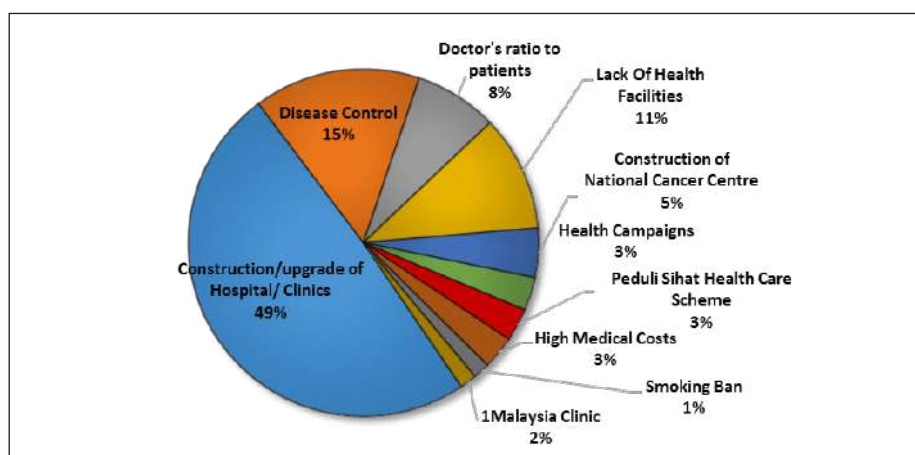


Source : Parliament Unit MOH

The most frequently received questions by the MOH during the debate for Mid-Term Review of the 11th Malaysia Plan (KSP RMKE-11) are as shown in **Figure 14.5**:

- i. Construction and upgrading of Hospital/Clinics – 49 per cent;
- ii. Disease Control – 15 per cent;
- iii. Lack of health facilities – 11 per cent;
- iv. Doctor’s ratio to patients – 8 per cent;
- v. Construction of the National Cancer Center – 5 per cent;
- vi. Health campaigns – 3 per cent;
- vii. Peduli Sihat Health Care Scheme (also known as PEKA B40) – 3 per cent;
- viii. High medical costs – 3 per cent;
- ix. 1Malaysia Clinic – 2 per cent; and
- x. Smoking ban – 1 per cent.

**Figure 14.5**  
Frequently Received Questions by MOH During The Debate for Mid-Term Review of the 11th Malaysia Plan (KSP RMKe-11)



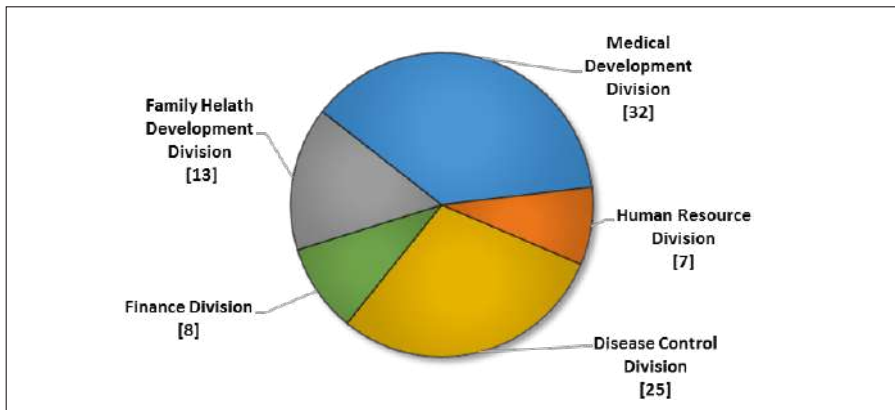
Source : Parliament Unit MOH

## BUDGET 2019 DEBATE

For the year 2018, the divisions handling the highest input volume during the debate for Budget 2019 are as shown in **Figure 14.6**:

- i. Medical Development Division – 32 questions;
- ii. Disease Control Division – 25 questions;
- iii. Family Health Development Division – 13 questions;
- iv. Finance Division – 8 questions; and
- v. Human Resource Division – 7 questions.

**Figure 14.6**  
**Divisions Handling the Highest Input Volume during the Debate for Budget 2019**

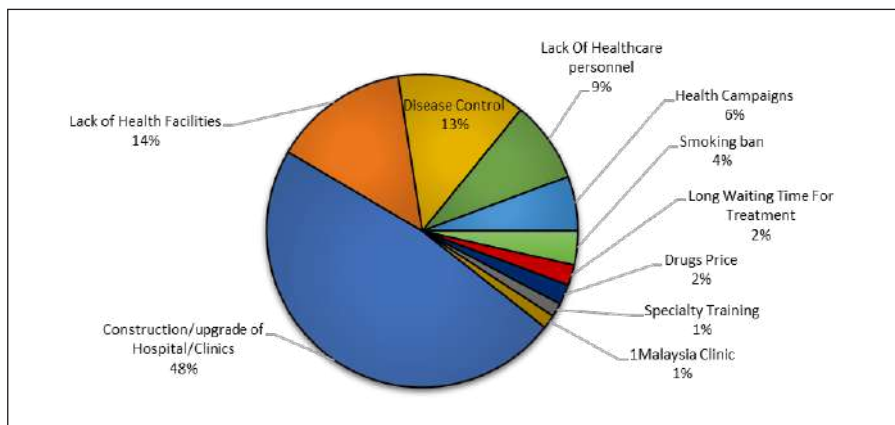


Source : Parliament Unit MOH

The most frequently received questions by MOH during Budget 2019 debate are as shown in **Figure 14.7**:

- i. Construction and upgrading of Hospital/Clinics – 48 per cent;
- ii. Lack of health facilities – 14 per cent;
- iii. Disease Control – 13 per cent;
- iv. Lack of healthcare personnel – 9 per cent;
- v. Health campaigns – 6 per cent;
- vi. Smoking ban – 4 per cent;
- vii. Long waiting time for treatment – 2 per cent;
- viii. Drugs price – 2 per cent;
- ix. Specialty training –1 per cent; and
- x. 1 Malaysia Clinic – 1 per cent.

**Figure 14.7**  
**Most Frequently Received Questions by MOH during the Debate for Budget 2019**



Source : Parliament Unit MOH

## WAY FORWARD

In order to improve the quality of preparation for Parliamentary answers and the delivery of health services, several enhancement initiatives will be implemented:

- i. Ensuring that the Head of Department together with the reviewing officer at the Program/Division level play a more active role in reviewing the accuracy of the content and format of the Parliament's answers before being submitted to the Parliament Unit;
- ii. Ensuring that the Head of Department at the Program/Division level constantly maintains and updates the critical data supplied to Parliament to ensure consistency and accuracy of the data;
- iii. Ensuring that the Head of Department at the Program/Divisions level take appropriate action on matters/issues raised in Parliament; and
- iv. Issues arising in Parliament where ever appropriate, be recognised as a Key Performance Indicator (KPI) at the Program/Divisions level.



# 15

## Internal Audit



## INTRODUCTION

The sustainability of excellent financial management and an effective delivery service system depends significantly on the personnel that are involved in the financial management system. The existence and establishment of Internal Audit through internal auditing activities enabled management to improve on their financial management performances and the implementation of their planned programmes/activities by using optimum resources.

## ACTIVITIES AND ACHIEVEMENTS

In line with the entrusted position of internal audit as stipulated in Treasury Circular *Pekeliling Perbendaharaan* (PP) PS 3.1 and PS 3.2 to primarily provide assurance on internal controls; compliance to statutory laws, regulations and directives; and consulting services to mitigate risks, the Internal Audit Division (IAD) has carried out financial management audits at selected Responsibility Centers (RCs) and rated them accordingly to determine whether assets, liabilities, revenue and expenditure have been managed accordingly. 74 per cent of the selected RCs audited were rated 5 star (excellent) whilst 15 per cent and 1 per cent were rated “4 star (good)” and “3 star (satisfactory)” respectively.

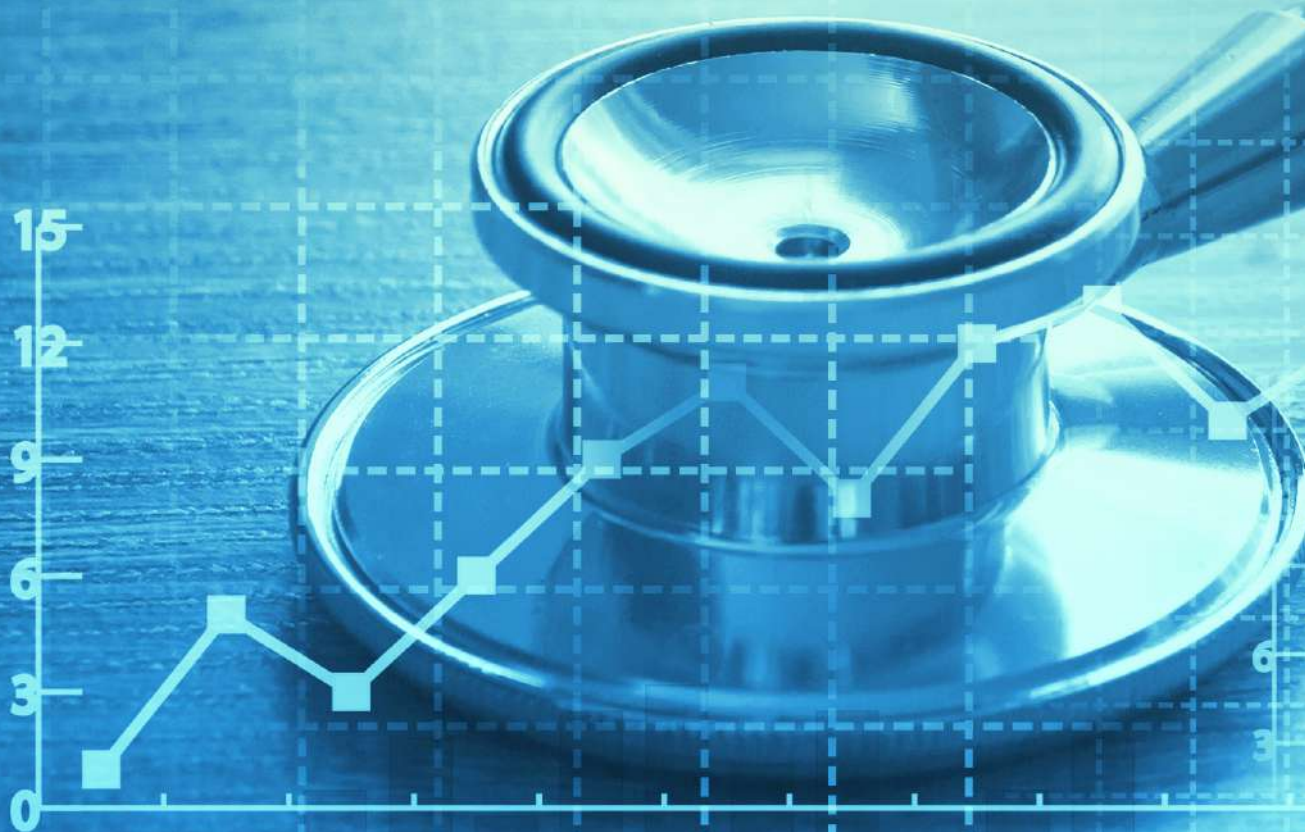
Besides financial management audits, IAD has also carried out performance audits on selected programmes/activities to evaluate whether the programmes/activities were implemented according to rules and regulations and achieved their purposes. A total of 12 performance audits were carried out and six (6) of them were related to procurement as this formed the most potential risk area that can be exposed to mismanagement. Material issues raised from IAD’s audits were tabled at the quarterly Audit Committee meetings chaired by the Secretary General of Ministry of Health (MOH). Issues raised have been addressed and resolved by the relevant parties concerned. Corrective and preventive measures have been put in place to strengthen internal controls and where appropriate, issues that were related to mismanagement were subsequently followed up by the Integrity Unit; and punitive actions taken against those concerned.

## SUMMARY

With the support of various level of management in MOH and the RCs visited, IAD has succeeded in carrying out its roles and responsibilities as entrusted in PP. All efforts undertaken by every individual in MOH to rectify and improve shortcomings in processes and procedures; and upheld governance has helped to strengthen the public service delivery system in the healthcare sector.

16

# Clinical Research Malaysia





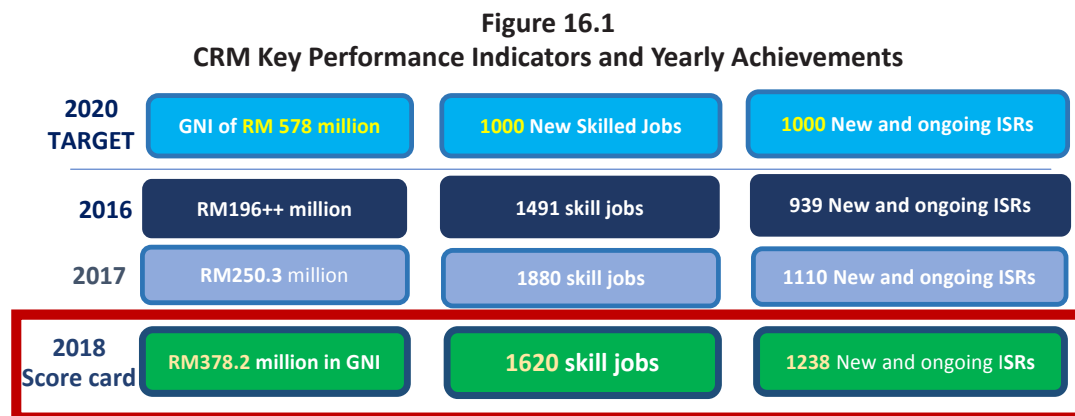
## INTRODUCTION

Clinical Research Malaysia (CRM), established in 2012, is a corporatized entity wholly owned by the Ministry of Health Malaysia to facilitate sponsored clinical research in Malaysia. Focused on developing Malaysia’s clinical research ecosystem, CRM provides speedy and reliable end-to-end support for quality studies to its partners. Among CRM’s range of services include complimentary feasibility studies and investigator matching, consultation and management of clinical trial budget, review of Clinical Trial Agreement (CTA) and Non-Disclosure Agreement (NDA), placement of Study Coordinators at trial sites, and trainings related to clinical research.

To ensure smooth and consistent quality trial delivery, CRM works closely with the government and relevant authorities to ensure that all regulations and best practices are thoroughly met. In addition, CRM continuously strive to improve on the delivery on its expertise by tapping into the breadth and depth of its talents. As studies unfold, CRM works together with industry players and investigators to propel clinical research in Malaysia, while at the same time creating high-skilled job opportunities.

## ACTIVITIES AND ACHIEVEMENTS

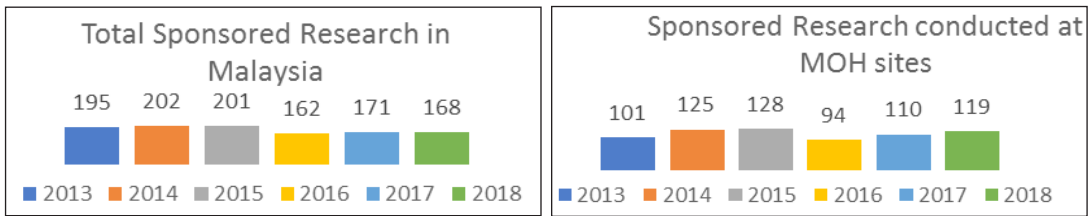
CRM’s vision by 2020 is to attract 1,000 new and ongoing sponsored research, achieve a Gross National Income (GNI) of RM578 million, and develop 1,000 high skilled jobs in the clinical research industry. In 2017, 2 out of 3 of these KPIs have been achieved. The recorded GNI for 2018 totalled over RM378.2 million, an increase of RM127.7 million from 2017. Furthermore, 1,620 skill jobs in clinical research were created between 2012 to 2018 (Figure 16.1).



Source: Clinical Research Malaysia

The total number of sponsored-research conducted in Malaysia remains almost similar to the previous year, which is 168 in 2018 from 171 in 2017, whereas at the Ministry of Health (MOH) sites, the number of sponsored-research have seen a healthy growth trend from 101 in 2013 to 119 in 2018 (Figure 16.2).

**Figure 16,2**  
**Number of Sponsored Research from 2013 to 2018**



Source: Clinical Research Malaysia

In 2018, CRM has signed a total of 6 Memorandum of Understandings (MoU) with some of the world's leading Clinical Research Organisations (CRO) (**Image 16.1**). The MoU partners include:

- The First Affiliated Hospital of Zhejiang University, China (30 January 2018)
- Intellim Corporation, Japan (23 March 2018)
- Hematogenix, USA (20 April 2018)
- Novotech, Australia's largest CRO (20 April 2018)
- Foundation for Innovative New Diagnostics, FIND, Switzerland (6 August 2018)
- IQVIA Early Phase Oncology Network (28 November 2018)

**Image 16.1**  
**Mou Signing between CRM and Other World's Leading Clinical Research Organisations**



MoU signing between CRM and FIND, witnessed by YB Datuk Seri Dr Hj Dzulkefly bin Ahmad, Minister of Health, Malaysia.

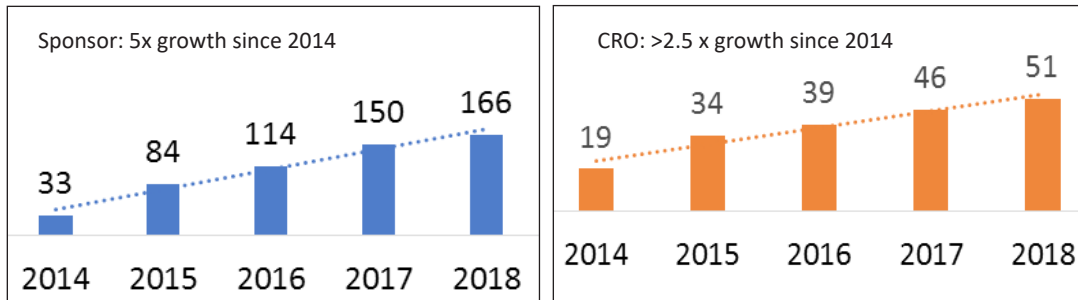


MoU signing with Intellim Corporation, witnessed by the Ambassador of Malaysia to Japan, His Excellency Dato' Ahmad Izlan Idris

Source: Clinical Research Malaysia

These MoUs are significant in which it will help to establish strategic partnership between Malaysia and the respective countries in advancing clinical research. As a result of CRM continuous international engagements, the growth rate of sponsors and CROs utilizing CRM's services have also accelerated throughout the years (**Figure 16.3**).

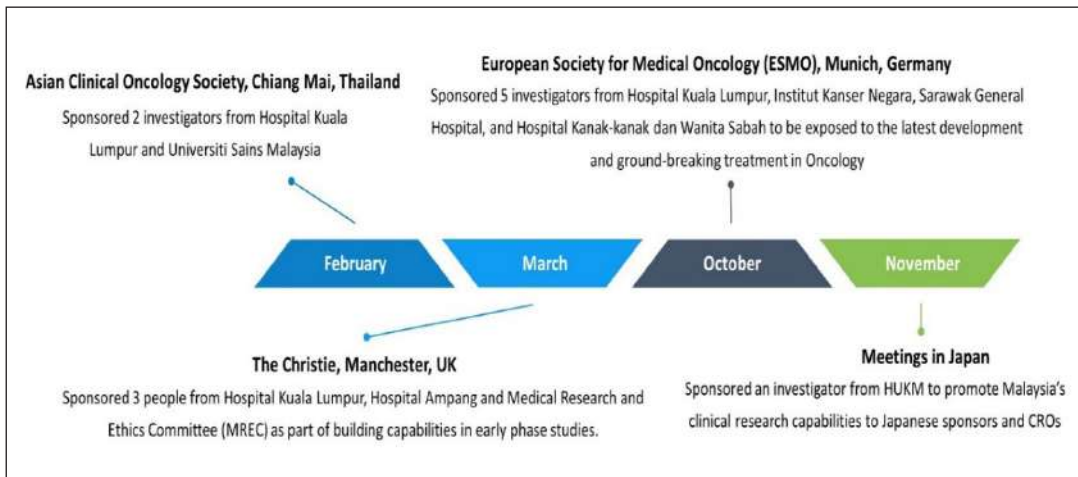
**Figure 16.3**  
Growth Rate of Sponsor and CRO from 2014 to 2018



Source: Clinical Research Malaysia

CRM has also participated in various national and international meetings and conferences to bring Malaysia’s clinical research opportunities to the local and global audiences. On top of that, CRM has also taken the initiative to invest in developing the capability of Malaysian investigators at the international level (**Figure 16.4**).

**Figure 16.4**  
Sponsorship of Local PIs and Regulators to International Meetings and Conferences



Source: Clinical Research Malaysia

## WAY FORWARD

Moving forward, CRM will remain focused on the Phase 1 Realization Project (P1RP) where we will drive stronger efforts to bring in more Phase 1 clinical trials to Malaysia. Various workshops will be conducted throughout the year with prominent figures in the Phase 1 environment taking the lead to guide Principal Investigators with the relevant skills. In light of CRM's recent accreditation of ISO 9001:2015, CRM will continue to provide our stakeholders with the highest standards of service by implementing the practice of the ISO standards.

**Image 16.2**

**CRM Received the ISO 9001:2015 Certification by SIRIM QAS International Sdn. Bhd. on 8 January 2019**



*Source: Clinical Research Malaysia*



17

# Malaysian Health Promotion Board



## INTRODUCTION

Malaysian Health Promotion Board (MHPB) was established on 1 April 2007 following the gazettment of the Malaysian Health Promotion Act 2006 (Act 651) as the first federal statutory body under the Ministry of Health (MOH). The purpose of MHPB's establishment is to expand the field of health promotion with involvement of community intensively in cooperation with organisations including non-governmental organisations (NGOs). The Board aims to promote healthy lifestyle by organising capacity building and activities towards enhancing social and environmental conditions to improve the health status of Malaysians.

## ACTIVITIES AND ACHIEVEMENTS

MHPB proactively conducts activities and programmes in parallel with the direction and policy outlined by the MOH, with their achievements as follows:

- i. 15 capacity building sessions on health promotion programme had been organised and joined by 445 participants. 2,245 people benefitted from the programmes conducted by various organisations with the support by MHPB like school health promotion seminars, health promotion volunteers programme, the Blue Ribbon Campaign audit training, smoke-free city initiatives and We Act Towards Caring of Health (WATCH).
- ii. Fit & Cool is a weight management programme that was introduced in 2015 and in 2018 was the fourth series. 758 overweight and obese participants were recruited with 625 managed to successfully reduced their Body Mass Indexes (BMIs) in the end. 55 participants have shown excellence with more than 10 kg weight reduction within the three (3) months of programme duration (**Image 17.1**).

**Image 17.1**  
**Fit and Cool**



Source : Planning and Evaluation Programme Division, MHPB

- iii. MHPB has implemented research activities on Non Communicable Disease (NCD) including tobacco control, healthy eating, physical activity and environmental health. Since 2015 to 2018, 10 research projects have been commissioned involving 19 collaborations with universities and NGOs. Some of the project outcome had been presented at three (3) conferences namely The 6<sup>th</sup> Terengganu Scientific Conference

(2016), The 2<sup>nd</sup> Public Health International Conference (PHICO), Indonesia (2017) and The 17<sup>th</sup> World Conference on Tobacco or Health (WCTOH), South Africa (2017). List of Research Projects by Malaysian Health Promotion Board as per **Table 17.1**:

**Table 17.1**  
**List of Research Projects by Malaysian Health Promotion Board**

No	Research Project	Year	Collaboration
1.	<i>Kajian Penilaian Komuniti Kesihatan Masyarakat India 1 Malaysia bagi Program Saringan Kesihatan NCD – 2015</i>	2015 to 2017	UKM, UM, USM, UPM, UTAR, SMK Taman Melawati, PPD Cameron Highlands, AMU (Practicle Student), Institusi/ Kolej Sains Bersekutu, UNISZA Terengganu, NGO POWER, Ministry of Education, IPTK, IKU, BPKK, PERKESO, NGO Tobiar, PEMADAM, and LPPKN
2.	<i>Intervensi Penurunan Berat Badan melalui Program @kSi MyKomuniti Fit &amp; Cool untuk mengurangkan Risiko NCD – 2016</i>		
3.	<i>Persepsi Wanita terhadap Asap Rokok Pasif dengan Melihat Bagaimana Mereka Dipengaruhi oleh Sifat Toleransi – 2016</i>		
4.	<i>Program NCD bagi Fit &amp; Cool Siri 2 – 2017</i>		
5.	<i>Program NCD bagi Projek NGO The Stealth Martial Art Taekwando Academy – 2017</i>		
6.	<i>Program Promosi Pemakanan Sihat Suku-Suku Separuh – 2017</i>		
7.	<i>Program Jom Sihat 2017: Intervensi untuk Meningkatkan Pengetahuan dan Memupuk Sikap Pelajar Terhadap Pemilihan Makanan Sihat dalam Kalangan Pelajar Tingkatan 1 di SMK Convent Sentul – 2017</i>		
8.	<i>Program Promosi Kesihatan untuk Orang Asli Lenggong Perak – 2017</i>		
9.	<i>Analisa Hasil Tinjauan Kepuasan Kerjaya Warga MySihat – 2017</i>		
10.	<i>Public Inputs on MySihat Smoke-Free Initiatives in Designated Sites in Malaysia – 2017</i>		

Source : Planning and Evaluation Programme Division, MHPB

- iv. Grant funding scheme is a sum of money provided by MHPB to any registered and eligible NGO to organise health promotion programme. From 2015 to 2018, 220 NGOs have received grant support and successfully implemented 191 projects with the participation of 314, 884 people (**Image 17.2**).



**Image 17.2**  
**Health Promotion Projects by Non Government Organisation (NGO)**



Source : Planning and Evaluation Programme Division, MHPB

- v. MySihat Online Evaluation System (MOVEs) is a web based system developed by MHPB with the support from MOH. MOVEs collect and houses data of public health screening at community and workplace settings, that is crucial to measure overall effectiveness of the programme. The system has undergone steadily grown since its inception in 2012 to cater for two (2) major community health programmes; ‘Komuniti Sihat Pembina Negara’ (KOSPEN) and Enhanced Primary Health Care (EnHPC). The brief summary of MOVEs usage is in **Table 17.2**:

**Table 17.2**  
**MOVEs System Usage Statistics**

No	Year	Details	Programme	Total
1.	2012 to January 2019	MOVEs Participants	KOSPEN Community	381,024
			EnPHC Programme	149, 508
		MOVEs Screenings	KOSPEN Community	451,575
			EnPHC Programme	42,822
2.	2015 to 2018	MOVEs Training	MOVEs training by MySihat	63

Source : ICT Unit, MHPB

- vi. The Blue Ribbon Campaign was initiated in 2013 to recognise and honour any individual, organisation and community who have contributed significantly towards protecting the public from the harm of second hand smoke by advocating a 100 per cent smoke-free environment. The summary of the campaign achievement from 2013 to 2018 is illustrated in **Table 17.3**, while the awards presented in 2018 is shown in **Table 17.4**:

**Table 17.3**  
**Blue Ribbon Campaign Achievement from 2013 to 2018**

Categories		Year						Total
		2013	2014	2015	2016	2017	2018	
Blue Ribbon Certificate		16	24	79	108	112	155	494
Media Award	Printed Media	-	3	3	-	3	3	24
	Broadcast Media	-	1	3	-	-	1	
	Social Media	-	1	1	-	3	2	
Outstanding Achievement Award		-	7	3	-	3	1	14
Special Award		-	1	-	-	1	1	3

Source: Corporate Communication Division, MHPB

**Table 17.4**  
**Summary of Blue Ribbon Campaign Award 2018**

Details	Total
Overall Recipients	163
<b>Overall 2018 Recipients by Categories:</b>	
Blue Ribbon Certificate (Non-PPKHT)	143
<b>Recipient Breakdown by Blue Ribbon Certificate (Non-PPKHT):</b>	
Eateries	48
Hotel/Homestay/Guest House	41
Others (Tourism Attraction, Business Premises and others)	54
Blue Ribbon KOSPEN & Community	10
Blue Ribbon Beyond	2
Blue Ribbon Printed Media Award	3
Blue Ribbon Broadcast Media Award	1
Blue Ribbon Social Media Award	2
Outstanding Achievement Award	1
Special Award	1

Source: Corporate Communication Division, MHPB

- vii. The 17<sup>th</sup> Annual Meeting of International Network of Health Promotion Foundation (INHPF) was successfully organised by MHPB from 29 to 30 October 2018 at the Putrajaya Marriott Hotel. The meeting was officiated and graced by the Hon. Tan Sri Dato' Sri Hj. Mohd Nasir bin Mohd Ashraf, Chairman of MHPB. A workshop was also concurrently held attended by 106 local and foreign delegates from Australia, Singapore, South Korea, Switzerland, Taiwan, Thailand and Tonga who have a health promotion foundation in their respective nations (**Image 17.3**).

**Image 17.3**

**17<sup>th</sup> Annual Meeting of International Network of Health Promotion Foundation (INHPF)**



Source: Corporate Communication Division, MHPB

18

# Malaysia Healthcare Travel Council

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12  
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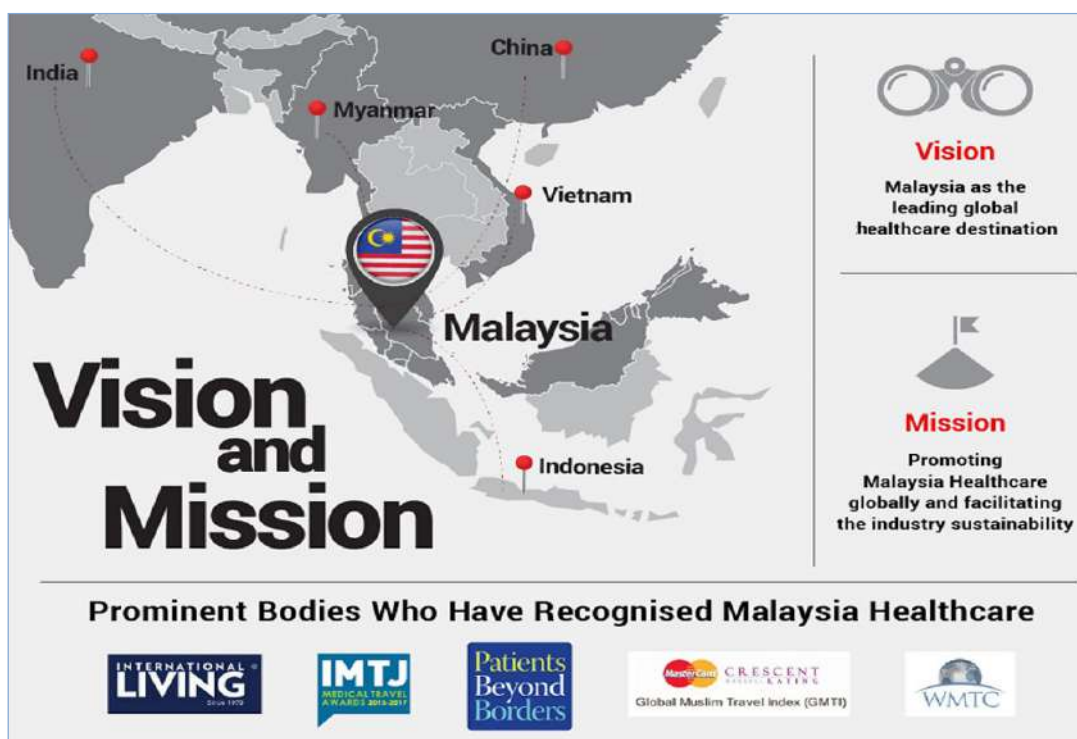
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## INTRODUCTION

Malaysia Healthcare Travel Council (MHTC) was established in 2009 to promote and facilitate country's healthcare travel industry, as known as Malaysia Healthcare. Malaysia Healthcare has been globally recognised by numerous international bodies, one of which being UK-based International Medical Travel Journal (IMTJ) as the "Destination of the Year" for healthcare travel thrice from 2015 to 2017 and received Highly Commended recognition in 2018.

In 2018, the New Malaysia Government identified the healthcare travel industry as a key export services in driving economic recovery. This led to MHTC being placed under the purview of the Ministry of Finance with the support of stakeholders (**Figure 18.1**)

**Figure 18.1**  
MHTC Aims to Take Malaysia Healthcare Further



Source: Malaysia Healthcare Travel Council (MHTC)

MHTC has been recognized as an effective council through international awards such as "Cluster of the Year" by International Medical Travel Journal (IMTJ) and "Medical Travel Organisation of the Year" by Asia Pacific Health and Medical Tourism Awards in 2017 and 2018. MHTC works in tandem with public and private entities in coordinating partnerships and perfecting the seamless end-to-end healthcare journey experience along the value chain while pushing for international recognition.

In profiling Malaysia as the leading global destination for healthcare, MHTC assessed gaps in Malaysia Healthcare's brand reach namely end-to-end patient service offerings and healthcare

traveller source markets. Having identified areas for growth and enhancement, MHTC crafted clearly defined strategies which addressed each gap purposefully:

- Amplifying Branding and Recognition
- Strengthen End-to-End Value Chain
- Enhance Networks and Relationships

Each strategy is supported by three (3) core pillars which advise and guide execution of initiatives:

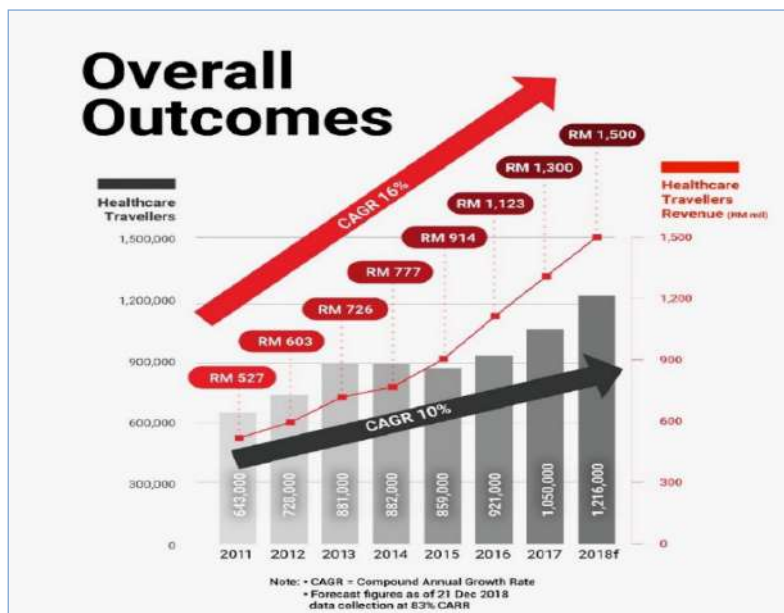
- Industry facilitation
- Optimisation of digital marketing
- Sustainable industry growth

MHTC heavily leveraged on relationships built-on mutual trust with industry from public and private players to overcome challenges of budget limitations, global competition and changes faced in 2018.

## ACHIEVEMENTS

Malaysia Healthcare experienced continual growth of healthcare travellers in terms of volume and revenue despite the limited budget and stiff competition from regional competitors. From 2011 to 2018, Malaysia Healthcare amassed a Compound Annual Growth Rate (CAGR) at 16 per cent for hospital revenue and 10 per cent for volume. This achievement is a result from strong public-private partnerships (PPP) driven by MHTC, investment from the private sector and support of the government (**Figure 18.2**). MHTC's efforts and strong PPP in building visibility in focus markets paid off, recording healthcare traveller revenue increases in China (63 per cent) and Indonesia (11 per cent).

Figure 18.2  
Growth outcomes for 2018



Source: Malaysia Healthcare Travel Council (MHTC)

## ACTIVITIES

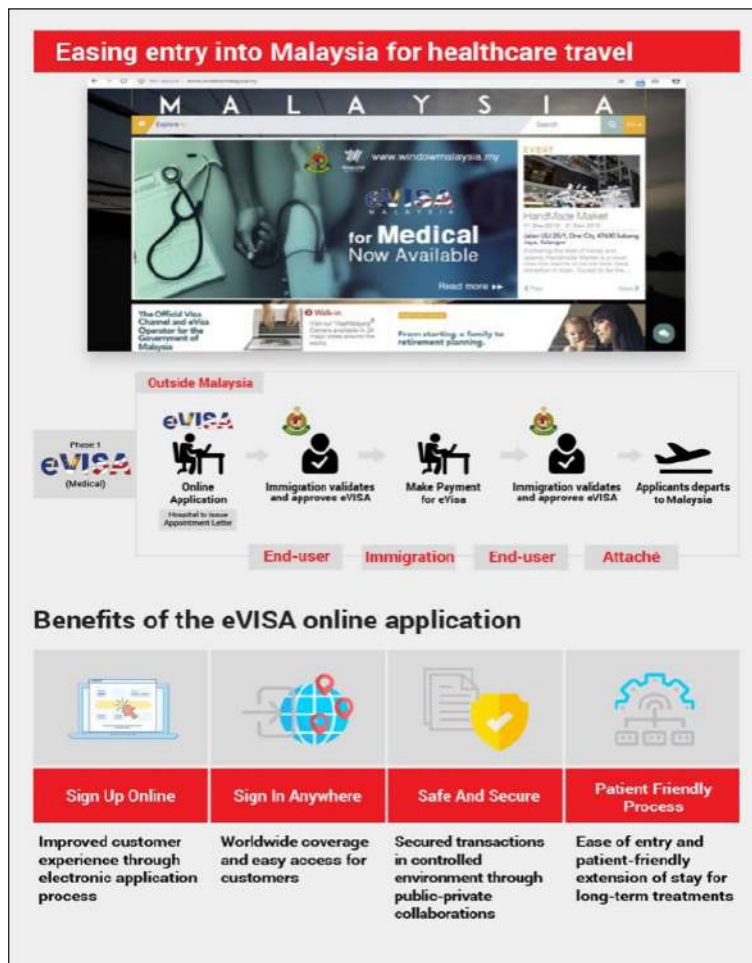
In 2018, MHTC carried out numerous activities targeted at enhancing Malaysia Healthcare’s seamless end-to-end journey experience by raising our global profile as a subject-matter expert in healthcare travel and crafting a niche identity for Malaysia’s healthcare travel industry to differentiate our country from regional competitors.

Several of these initiatives are as follows:

### Launching of eVisa (Medical)

In collaboration with the Immigration Department of Malaysia, MHTC facilitated the soft launch of the eVisa (Medical) platform, providing healthcare travellers easy, secure and quick access to Malaysia Healthcare (Figure 18.3).

**Figure 18.3**  
MHTC Collaborated with Immigration Department of Malaysia to Enhance Medical Visa Applications.



Source: Malaysia Healthcare Travel Council (MHTC)

### Positioning of Malaysia as the Fertility Hub of Asia

Carrying the tagline “Giving Hope to Dreams”, Malaysia was profiled as the Fertility Hub of Asia, offering aspiring parents opportunity to fulfil their hopes to one day have a family. Under the guidance of the Ministry of Health and having the enthusiasm and support of the private Malaysian fertility facilities, Malaysia Healthcare welcomed a 104 per cent increase in demand for fertility treatments in 2018 (Figure 18.4).

Figure 18.4  
Growth of Asia’s Fertility Hub does Astoundingly Well!



Source: Malaysia Healthcare Travel Council (MHTC)

### Hosting of insigHT2018

MHTC had organised insigHT2018, a medical travel market intelligence conference which encouraged knowledge-sharing among industry stakeholders on various concerns and opportunities within the healthcare travel industry. Carrying the theme “Building Trust Towards Excellence”, insigHT2018 recorded a 50 per cent increase in participants from the previous year. InsigHT2018 was officiated by Deputy Minister of Finance, YB Dato’ Ir. Haji Amiruddin Bin Hamzah and Deputy Minister of Health, YB Dr. Lee Boon Chye (Image 18.1).

Image 18.1

insigHT2018 was officiated by Deputy Minister of Finance, YB Dato’ Ir. Haji Amiruddin Bin Hamzah and Deputy Minister of Health, YB Dr. Lee Boon Chye.



Source: Malaysia Healthcare Travel Council (MHTC)



## Globally Positioning Malaysia Healthcare

MHTC participated in various conferences and expos, bringing global awareness of Malaysia Healthcare's service offerings to 11 countries including Tunisia, United State of America (USA), Croatia and South Korea. Some of the notable events include the IMTJ Summit in Athens and USA, Medical Korea and ITB Berlin (**Image 18.2**).

**Image 18.2**

**Malaysia Healthcare Raked in a Sweeping 7 out of 15 Awards Presented at the IMTJ Medical Travel Awards 2018 in Greece!**



*Source: Malaysia Healthcare Travel Council (MHTC)*

## WAY FORWARD

Firmly fixed on our ambitious goal to earn MYR2.0 billion in hospital revenues by 2020, MHTC will focus on market diversification, hosting Malaysia Year of Healthcare Travel 2020 (MYHT2020), establishing Malaysia's cardiology hub and raise Malaysia's home-grown reference point for medical excellence through the "Flagship Medical Tourism Hospital Programme" (**Figure 18.5**).

**Figure 18.5**  
**MHTC as the Leading Global Destination for Healthcare**



Source: Malaysia Healthcare Travel Council (MHTC)



# 19

## Medical Device Authority



## INTRODUCTION

Medical Device Authority (MDA) is a federal statutory agency under the Ministry of Health Malaysia MDA and was established under the Act 738 on 15 March 2012 and has been officially and fully in operation since 16 June 2012. The main objectives of the Act are to address public health and safety issues related to medical devices and to facilitate medical device trade and industry, beside to implement and enforce the Medical Device Act 2012 (Act 737).

### FUNCTION

According to Section 12(1) of Act 738 indicates that Medical Device Authority functions are as follows:

- i. To execute, enforce, assess and propose relevant improvements to the Medical Device Act.
- ii. Supervise all medical device matters involving its' industries and activities.
- iii. To encourage and promote medical device development, medical device industry and its activities including research and training.
- iv. To provide consultation, advice and any other services involving, medical device industry and its activities.
- v. Imposing fees or any kind of charges on services that was provided by the Authority.

MDA's way forward as stated in its MDA Strategic Plan are as follows:

#### Vision

To become an internationally recognise authority that provides world class service in medical device hub to ensure a safe and effective national health care environment by 2023.

#### Mission

- i. Effective Enforcement and Control
- ii. Driven by technology and human resource competencies
- iii. Engagement with customer and stakeholder
- iv. Create and sustain international relations

## ACTIVITIES AND ACHIEVEMENT

### CHIEF EXECUTIVE OFFICE

Chief Executive supervises and monitors three (3) units under his office:

- i. Corporate Communication Unit
- ii. Integrity Unit
- iii. Regulatory Unit

All of the activities and achievements by the three units are shown in **Table 19.1** as follows:

**Table 19.1**  
**Activities and Achievements of Chief Executive office**

Unit	Achievement
Corporate Communication Unit	<p>As a unit responsible for the coordination of strategic communication and public relations.</p> <p>The achievements are as follows:</p> <ul style="list-style-type: none"> <li>- Manage 1,611 enquiries or complaints regarding various issues regarding medical devices regulatory.</li> <li>- Coordinate five (5) answers for parliamentary questions regarding medical device.</li> <li>- Coordinate and manage two (2) MDA's Board meetings.</li> <li>- Organize four (4) awareness programmes, one (1) seminar with medical device industry and one (1) medical device exhibition.</li> <li>- Coordinate a visit to Traxx.fm with MDA's Chief Executive to promote MDA.</li> <li>- Coordinate MDA's web portal input.</li> <li>- Coordinate the publication of MDA's Annual Report.</li> <li>- Coordinate the development of MDA's Feedback Management System (FEMES).</li> </ul>
Integrity Unit	<p>This unit is responsible for managing and create awareness regarding integrity issues within MDA.</p> <p>The achievements are as follows:</p> <ul style="list-style-type: none"> <li>- Organize a visit to MACC to give exposure regarding bribery and corruption on 16 April 2018.</li> <li>- Issue an internal policy regarding Additional Condition for Conformity Assessment Body Technical Officer Registration from MDA's former employee that was enforced on 29 November 2018.</li> <li>- Organize three (3) AP. 309 spot checks with MDA's Chief Executive in 2018.</li> <li>- Organize "<i>Program Santai Bersama PU Azman</i>" with the theme of "<i>Zahirkan Ramadan</i>" on 22 May 2018.</li> </ul>
Regulatory Unit	<p>This unit formulate, review and consults MDA regarding legal issues under Act 737 and any other act that is related to medical device regulations. The achievements are as follows:</p> <ul style="list-style-type: none"> <li>- Coordinate four (4) medical device regulation drafts as follows: <ul style="list-style-type: none"> <li>i. Medical Device Regulations (Medical Device Permit that was Established) 2018</li> <li>ii. Medical Device Regulations (Advertisement) 2018</li> <li>iii. Medical Device Regulations (License and Permit Holder's Obligations) 2018</li> <li>iv. Medical Device Regulations (<i>Pengkompaunan Kesalahan</i>) 2018</li> </ul> </li> <li>- Consult MDA regarding: <ul style="list-style-type: none"> <li>i. The usage of Personal Data Protection Act 2010 (Act 709)</li> <li>ii. Memorandum of Understanding between MDA and Saudi Food and Drug Authority</li> <li>iii. Agreement for Development of Medical Device Regulatory Regime for The Implementation and Enforcement of Medical Device Act (ACT 737) project</li> </ul> </li> </ul>

Source: Chief Executive Office. Medical Device Authority

## POLICY, CODE AND STANDARD DIVISION

Policy, Code and Standard Division is responsible for the development of policies, regulations, orders as well as the development of guidance documents and guideline documents. This division is also responsible for engaging and maintaining international affairs between MDA and other countries beside conducting audit and coordinating support to the medical device industry in Malaysia. The achievements from the units under this division are shown in **Table 19.2** as follows:

**Table 19.2**  
**Activities and Achievements of Policy, Code and Standard Division**

Unit	Achievement
Compliance Audit Unit	This unit has conducted audit on Conformity Assessment Body (CAB) and establishment as follows; <ul style="list-style-type: none"> <li>- 14 audits on <i>Conformity Assessment Body</i> (CAB) including registration, surveillance and witness/observe audit.</li> <li>- 10 audits conducted on establishments.</li> </ul>
Code and Standard Development Unit	This unit has manage to develop six (6) guidelines documents in 2018.
Policy and International Relation Unit	This unit is responsible in policy development regarding the implementation of medical device regulations under the Medical Device Act 2012 (Act 737) and manage to develop five (5) new policies and revise three (3) existing policies in 2018.
Industrial Support Unit	In order to assist medical device industry in medical device trading and giving awareness to the industry and stakeholders, this unit has manage to: <ul style="list-style-type: none"> <li>- issue 1,294 Certificate of Free Sale/Manufacturer Certificate for export purposes.</li> <li>- Organize eight (8) awareness programme and briefing to hospitals, clinics and other medical device users.</li> </ul>

Source: Policy, Code and Standard Division. Medical Device Authority

## REGISTRATION, LICENSING AND ENFORCEMENT DIVISION

Registration, Licensing and Enforcement division is given the responsibility to execute MDA's core activities such as medical device registration, Conformity Assessment Body (CAB) registration, establishment licensing, post market surveillance, vigilance and enforcement activities. The achievements of the units under this division are as shown in **Table 19.3**:

**Table 19.3**  
**Activities and Achievements of Registration, Licensing and Enforcement Division**

<b>Unit</b>	<b>Achievement</b>
Registration Unit	This unit is responsible on medical device registration and in 2018 this unit manage to: <ul style="list-style-type: none"> <li>- evaluate 14,347 medical device registration application.</li> <li>- evaluate 847 change of notification for medical device that has been registered.</li> </ul>
Licensing Unit	As a unit that manage establishment licensing, this unit manage to issue: <ul style="list-style-type: none"> <li>- 301 establishment licenses.</li> <li>- 695 establishment license renewal.</li> </ul>
Registration of Conformity Assessment Body – CAB Unit	This unit achievements in the year 2018 are as follows: <ul style="list-style-type: none"> <li>- six (6) CAB applications has been approved and registered under the Act 737.</li> <li>- 41 technical officers for CAB have been registered under Act 737.</li> <li>- Organize nine (9) training course that was attended by a total of 274 participants.</li> </ul>
Post Market Surveillance and Vigilance Unit	This unit is accountable for post market surveillance and vigilance activities and their achievements in 2018 are as follows: <ul style="list-style-type: none"> <li>- handle 7,020 incident report involving medical device.</li> <li>- handle 642 consumer’s complaints regarding medical device safety.</li> <li>- handle 111 issues regarding medical device advertisement complaints.</li> <li>- manage 520 Field Corrective Action cases and 107 recall cases.</li> </ul>
Enforcement Unit	As a unit conducting enforcement activities, this unit have: <ul style="list-style-type: none"> <li>- accepted and managed 49 complaints regarding non-compliance to Act 737 in 2018.</li> <li>- issue 23 warning letter.</li> <li>- Performed compliance check on 73 related premises</li> </ul>

*Source: Registration, Licensing and Enforcement Division, Medical Device Authority*

## **TECHNICAL EVALUATION DIVISION**

Technical Evaluation Division is responsible to provide technical assistance to MDA and its function is generally to manage and coordinate technical research to support policy development and the implementation on Act 737. Moreover, this unit is also accountable for developing and implementing medical device regulation for products that are exempted from registration through notification under the Medical Device Order (Exemption) 2016 as well as information management through Information Technology (IT). The achievements of the units under this division are as shown in **Table 19.4**:



**Table 19.4**  
**Activities and Achievements of Technical Evaluation Division**

Branch	Achievement
Clinical Research Branch	This branch is accountable for the evaluation of medical device notification for clinical research use purpose application that was exempted from registering under the Medical Device Order (Exemption) 2016 and this branch has issue: <ol style="list-style-type: none"> <li>i. 198 notifications on Clinical Research Use and Research Supportive Use.</li> <li>ii. Six (6) notifications on Clinical Investigational Use/Performance Evaluation.</li> <li>iii. 20 notifications on Serious Adverse Events.</li> <li>iv. 38 notifications on research that was completed before the research deadline.</li> </ol>
Scientific Reference Branch	This branch is responsible to conduct evaluation on medical device notification application that was exempted from registering under the Medical Device Order (Exemption) 2016 application for local and foreign products and this branch has issue: <ol style="list-style-type: none"> <li>i. 136 notifications to Import and/or Supply of Unregistered Medical Devices for the purpose of demonstration for Marketing or Education.</li> <li>ii. 64 notifications of Unregistered Medical Device for Custom Made.</li> <li>iii. 108 notifications of Unregistered Medical Device for Special Access.</li> </ol>
ICT and Information Management Branch	This branch is responsible for coordinating and supervising activities related to information management and information communication technology based on MDA's Information Technology Strategic Plan and this branch manage to: <ol style="list-style-type: none"> <li>i. Upgrade MeDC@St to MeDC@St 2.0.</li> <li>ii. Develop Medical Device Technical Competency system.</li> <li>iii. Develop MDA web portal.</li> <li>iv. Develop MDA's Feedback Management System.</li> </ol> Develop PMSV Online System.

Source: Technical Evaluation Division, Medical Device Authority

## MANAGEMENT AND SERVICE UNIT

The main objective for this unit is to provide assistance and consultation in managing this organization effectively so that other activities can be conducted smoothly and professionally. These unit activities in 2018 are as shown in **Table 19.5** below:

**Table 19.5**  
**Activities and Achievements of Management and Service Unit**

Activities	Achievement
Human Resource Management	<ul style="list-style-type: none"> <li>- Manage 108 MDA staffs that include top management, permanent staff and contract staff.</li> <li>- Handle one (1) promotion for Science Officer Grade C44 to C48.</li> <li>- Issue eight (8) confirmation letters for work covering allowance.</li> </ul>

Activities	Achievement
	<ul style="list-style-type: none"> <li>- Handle one (1) retirement of MDA Chief Executive.</li> <li>- Organize one (1) Human Resource Development Panel Meeting on 22 February 2018.</li> <li>- Issue 60 confirmation letters for hospital treatment.</li> </ul>
Financial Management	RM 23.9 million have been allocated for MDA to conduct its' activities in 2018 and the expenditure achievement as of 31 December 2018 is at 83 per cent.
Administration and Quality Management	<ul style="list-style-type: none"> <li>- Prepare 12 time report card report to supervise staff attendance.</li> <li>- Coordinate eight (8) monthly meeting.</li> <li>- Conduct file registration and disposal record management as follows: <ul style="list-style-type: none"> <li>i. 5 Personal Files.</li> <li>ii. 60 Open Files.</li> <li>iii. 10 Staged Files.</li> <li>iv. 243 Files Disposed.</li> </ul> </li> </ul>
Assets and Revenue Management	<ul style="list-style-type: none"> <li>- 57 items that was acquired in 2018 has been recorded in inventory.</li> <li>- 140 types of asset aged between seven (7) to 13 years have been disposed in 2018.</li> </ul>

Source: Management and Service Unit, Medical Device Authority

## WAY FORWARD

Among the key strategies of the Medical Device Authority are as follows:

- i. Ensuring effective governance and monitoring.
- ii. Ensuring governance is supported by collaborative and dynamic information and communication technology.
- iii. Encouraging multi-level interaction through various communication channels.
- iv. Coordinating collaborative programmes nationally and internationally.





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