



# Annual Report 2010

## NON-COMMUNICABLE DISEASE (NCD) SECTION

Disease Control Division, Ministry of Health Malaysia



*The cover of this year's Annual Report is reflective of Glomac's belief that our journey from the early years with the many milestones, navigates and guides our journey into the future.*

*To where we are going, we need to understand where we came from as they define our core values of creating enduring relationship and improving quality of life with our passion and productivity.*











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# Foreword

## **Assalamualaikum wrt. wbrt, Selamat Sejahtera dan Salam 1Malaysia**

First and foremost I would like to express my gratitude to all staff in the Non-Communicable Diseases (NCD) Section, Disease Control Division for their effort in preparing this report. I am pleased that now we are able to document our activities for 2010.

Currently there is an increasing global attention towards the prevention and control of NCD. I believe that many out there are searching for relevant literature, particularly on NCD programme and activities in Malaysia. Such literatures will enable a person to provide evidence-based information and assist in the decision-making that concerns NCDs. This is the reason behind the publication of this NCD annual report. This NCD Annual Report is a comprehensive report on the NCD prevention and control activities throughout 2010. I hope that the information provided in this report will help the readers understand the NCD prevention and control programme better and use the information for planning public health activities.

The National Strategic Plan for Non-Communicable Disease (NSP-NCD) was launched by The Honorable Minister of Health in December 2010. The launching of NSP-NCD is the first step towards getting the whole government involved in the prevention and control of NCD in Malaysia. Now is the time for us to reassess the prevention and control of NCD programme and to continue forward to manage the NCD burden more effectively with optimum use of existing resources.

Tremendous effort has been exerted to combat the problem of NCD. I would like to take this opportunity to thank all of the staff of the NCD Section for their endeavour and commitment to lessen the burden of NCD in this country, and this has been strongly echoed in this annual report. Our efforts need to be intensified if we want to see Malaysians live their lives to the fullest.

I would also like to take this opportunity to thank Dato' Sri Dr Hasan Abdul Rahman, Director General of Health Malaysia, Dr Lokman Hakim Sulaiman, Deputy Director General of Health (Public Health) and Dr Chong Chee Kheong, Director, Disease Control Division, for their continuous support of the NCD prevention and control programme and activities.

### **Dr Zainal Ariffin Omar**

Deputy Director (NCD)  
Disease Control Division  
Ministry of Health Malaysia  
January 2012



## CHAPTER 1

# *Introduction*



## Chapter 1 Introduction

### NON-COMMUNICABLE DISEASE (NCD) SECTION

In 1971, the Epidemiology Unit was established under the Health Services Division. However, in 1992, the restructuring of the Ministry of Health under the New Remuneration System, the Health Services Division was expanded and reorganised to become the Public Health Department, of which the NCD Section was created under the Disease Control Division. Currently, the NCD Section consists of three major sectors:

- **NCD-Cancer-FCTC Sector**
- **Occupational and Environmental Health Sector**
- **Mental Health, VIP & ATS (MeSVIPP) Sector**



## MISSION

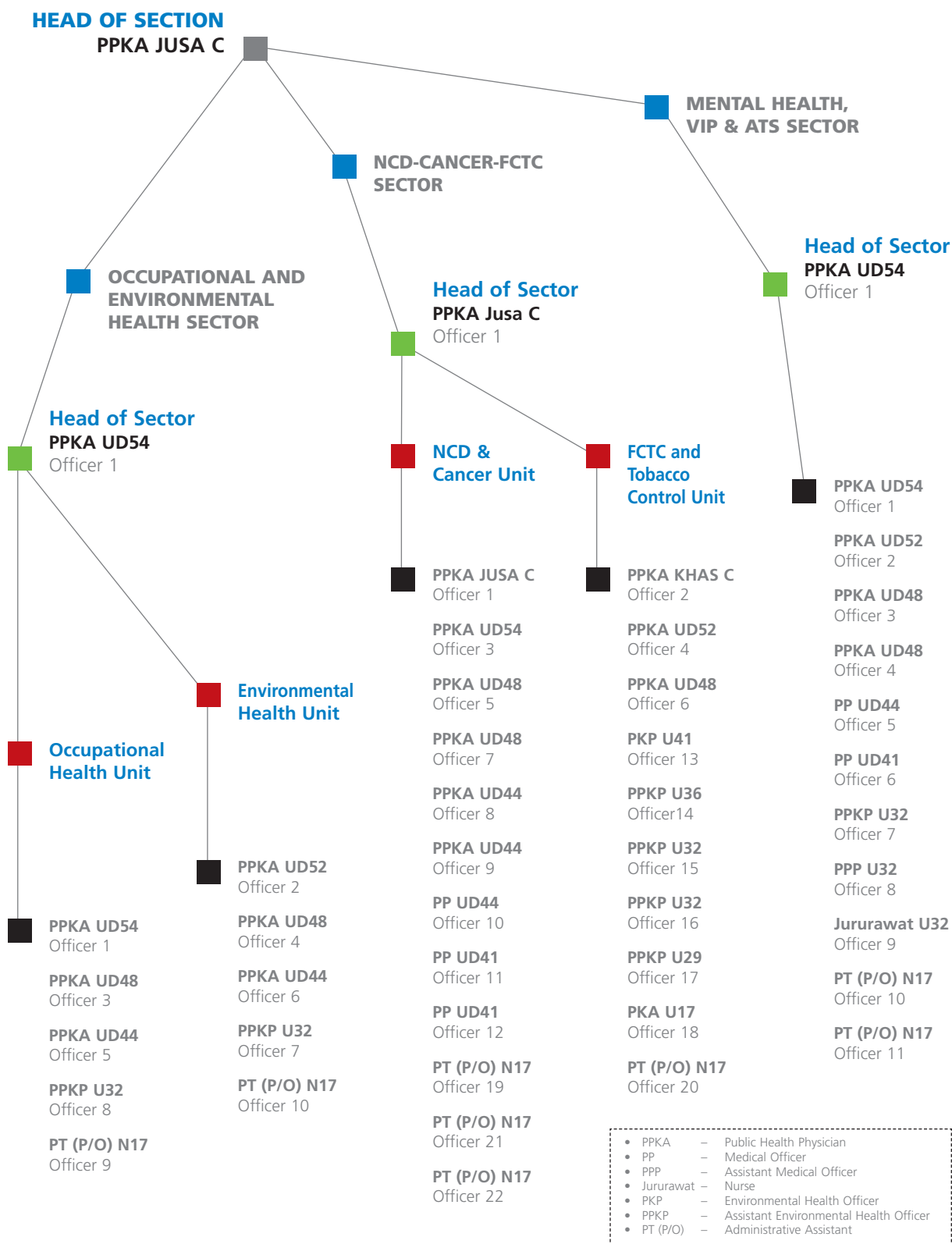
To provide adequate and effective health promotion, prevention, early diagnosis or detection and prompt treatment of diseases of public health importance as well as the rehabilitation of those affected by these diseases.



## VISION

Malaysia is to be a nation of healthy individuals, families, and communities, through a health system that is equitable, affordable, efficient, technologically appropriate, environmentally adaptable and consumer-friendly, with emphasis on quality, innovation, health promotion and respect for human dignity, and which promotes individual responsibility and community participation towards an enhanced quality of life.









## CHAPTER 2

# *NCD Initiatives*



## Chapter 2 NCD Initiatives

### 2.1 NCDP 1MALAYSIA

The Non-Communicable Diseases Prevention 1Malaysia (NCDP-1M) programme was initiated on 15 October 2010, when the first briefing, chaired by the Deputy Director of the NCD Section was held.

#### 2.1.1 Introduction

Diseases due to unhealthy lifestyles such as heart diseases and diabetes are increasing in Malaysia. Heart diseases are the leading cause of deaths of patients in government hospitals, i.e. 16.1% of total deaths in 2009. The Third National Health and Morbidity Survey (NHMS III) 2006 estimated that 1.5 million adult Malaysians suffered from diabetes and 4.8 million Malaysians suffered from hypertension. The main modifiable risk factors are related to unhealthy lifestyles e.g. lack of exercise, unhealthy diet and smoking.

A situational analysis on the current NCD prevention and control programmes and activities in Malaysia has shown that (i) programmes and activities on NCD are mostly confined within the health sector; (ii) appears disjointed when it comes to inter-sectoral collaboration; and (iii) there is also a lack of policy and regulatory intervention in creating a health-promoting built environment in Malaysia.

To further strengthen the NCD Prevention and Control Program in Malaysia, the Ministry of Health has published the “National Strategic Plan for Non-Communicable Diseases (NSP-NCD)” at the end of 2010. NSP-NCD was developed in line with the mandates of WHO, particularly with reference to the “2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases” and the “Western Pacific Regional Action Plan for Noncommunicable Diseases”. NSP-NCD uses obesity and diabetes as the entry points.

Adopting the whole-of-government approach, this document was presented and approved by the Malaysian Cabinet on 17 December 2010. The Prime Minister also consented to the formation of a “Cabinet Committee for a Health Promoting Environment”, chaired by the Deputy Prime Minister with a membership consisting of ten Ministries.

The NSP-NCD contains seven strategies:

1. Prevention and Promotion;
2. Clinical Management;
3. Increasing Patient Compliance;
4. Action with NGOs, Professional Bodies & Other Stakeholders;
5. Monitoring, Research and Surveillance;
6. Capacity Building; and
7. Policy and Regulatory Interventions.

The NCDP-1M is a major activity under Strategy 1: Prevention and Promotion, which also incorporates Strategy 4, as the involvements of members of the community and civil society is crucial in the implementation of NCDP-1M. In summary, NCDP-1M incorporates NCD risk factor screening and intervention in three different settings:

- i. Community-based
- ii. Work place-based
- iii. School-based

Such a programme has been initiated previously at the district and state level, but in an ad hoc manner. To maintain focus, obesity is used as the entry point for intervention in NCDP-1M.

### 2.1.2 Objective

The main objective of the NCDP-1M is to address NCD risk factors effectively in different settings outside of a health clinic, using obesity as the main entry point for NCD risk factor intervention.

The specific objectives are:

- i. Increase coverage of NCD risk factor screening to detect individuals with NCD risk factors at an early stage;
- ii. Implement NCD risk factor intervention among at-risk individuals in three different settings i.e. community, work-place and schools;
- iii. Implementation in an on-going and sustainable basis;
- iv. Reduce the prevalence of NCD risk factor in Malaysia;
- v. Reduce the burden of NCD in Malaysia.



### 2.1.3 Scope of Implementation

For the first phase of implementation, proposals were requested from each state. The District Medical Officer of Health was assigned as the responsible officer at the implementation level, and they were asked to identify suitable communities, work places and schools with potential. In October 2010, a total of 61 projects were approved by the Deputy Director General of Health (Public Health), together with a special funding of RM1.8 million. The details by states, settings and funding are shown in Table 1 below:

**Table 1: Number of NCDP-1M projects by state, setting and funding for Phase 1, 2010**

State	Settings			Total	Funding (RM)
	Community	Work place	School		
Kedah	8	0	0	8	360,000
Malacca	9	5	6	20	300,000
Pahang	7	0	0	7	240,000
Selangor	5	0	1	6	200,000
Penang	3	0	1	4	175,000
Perak	1	2	2	5	160,000
Sabah	3	0	1	4	117,900
N. Sembilan	2	0	0	2	110,000
Kelantan	0	1	0	1	50,000
Johore	1	1	0	2	60,000
WPKL & Putrajaya	1	0	0	1	20,000
Sarawak	1	0	0	1	10,000
<b>TOTAL</b>	<b>41</b>	<b>9</b>	<b>11</b>	<b>61</b>	<b>1,802,900</b>

In summary, the scope of implementation is as follows:

- The District Medical Officer of Health is the responsible officer for implementation;
- Obesity is used as the entry point for NCD risk factor intervention;
- Each district is given the option to determine the type of setting of their individual project;
- MOH Putrajaya develops the necessary training modules and basic implementation packages;
- MOH Putrajaya conducts training at the central level for "training-of-trainers";
- The officers at the state and district level need to customise and adapt the intervention packages to suit local needs.

- vii. The District Medical Officer of Health needs to ensure strong and active involvement of other stakeholders in the programme i.e. community leaders, teachers, local NGOs etc.

#### 2.1.4 Monitoring and Evaluation

Monitoring and Evaluation was done via two main methodologies:

##### 1. Web-based application

Data from each individual project and their clients was collected via this web-based application. Currently the service is provided by a private IT company; however the NCD Section is in the process of obtaining approval to develop its own application for this purpose.

This application enables up-to-date monitoring of the number of projects and the number of clients in each individual project. More importantly, it enables the monitoring of the main KPI of the NCDP-1M i.e. the % of clients with weight loss after six month of intervention.

##### 2. Paper-based returns

Several variables relating to process indicators were collected via paper-based returns, which include expenditure reports, number of local trainings conducted and several other related information.

##### Proposed indicators and targets

- i. Number of participants or clients per project;
- ii. Retention rate of participants/clients after 6 months intervention;
- iii. Percentage of participants/clients with weight loss after 6 months intervention;
- iv. Percentage of participants/clients with pre-hypertension, pre-diabetes and elevated cholesterol showing improvement after 6 months intervention.
  - No. of participants per project
  - "Retention rate" after 6 months intervention
  - Percentage of clients with weight loss
  - Percentage of clients with borderline hypertension, elevated blood glucose and cholesterol showing improvement



## NCDP 1M Project Activities



Discussion with volunteers at Felda Bilut, Bentong



Health Exhibition



Health Screening



Working together with community members (*Gotong-royong session*) at Kg. Keda, Baling



Launching Day in Kg. Luanti, Ranau



Community commitment



Launching Day in Kg. Orang Asli Putra



Health screening ran by community

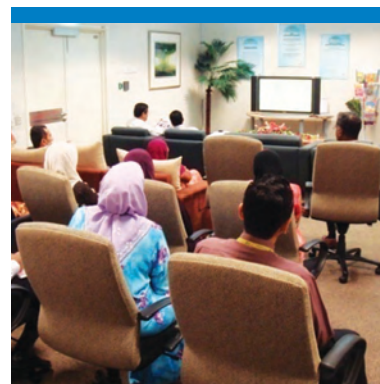


BP screening ran by community

## 2.2 A Healthy Workplace for A Healthy Work Force

In June 2010, the Occupational Health Unit (OHU) launched a healthy workplace program for the healthcare workers at the Disease Control Division, Ministry of Health. The main objective of this program is to make the workplace healthier and safer. Several activities have been carried out, which includes:

- i. Walking a 10,000 steps;
- ii. 'Senam tari' activities;
- iii. Awareness talks;
- iv. Health surveys;
- v. Creation of a "Health corner"



Awareness talks about ergonomic in office setting



'Walk for your heart' session 1



'Walk for your heart' session 2



Senam Tari activity



Senam Tari activity







## CHAPTER 3

*Sector / Unit*



## Chapter 3 A. NCD-Cancer-FCTC Sector

### 3.1 DIABETES AND CARDIOVASCULAR DISEASES CONTROL PROGRAMME

For early detection of diabetes, screening is conducted opportunistically in the clinic setting and also in the community via health camps. In 2010, a total of 886,746 individuals underwent screening throughout the country. Approximately 70% had normal results; 20% borderline and 10% abnormal. This profile is almost similar to that of 2009 and 2008.

In 2010, it was estimated that there are 659,938 diabetes patients on “active” follow-up at MOH health clinics throughout Malaysia. These patients contributed to 2,377,324 attendances to MOH health clinics, approximately 10% of total OPD attendances. In addition, a total of 133,784 patients were newly diagnosed and registered in 2010, 99% with Type 2 Diabetes Mellitus (distribution by state is shown in Table 2 below).

**Table 2: Distribution of number of active diabetes patients, total number of OPD attendances and number of newly registered diabetes patients by state, 2010**

State	No. of active patients	Total no. of attendances by diabetes patients	No. of newly registered patients
Perlis	10,222	41,772	1,849
Kedah	67,112	214,687	5,661
Pulau Pinang	37,404	111,696	7,018
Perak	75,472	270,599	61,829
Selangor	113,508	370,471	14,560
W.P. Kuala Lumpur	28,638	93,320	3,761
N. Sembilan	39,393	141,999	3,807
Melaka	31,427	90,668	5,905
Johor	91,329	445,272	9,318
Pahang	43,871	191,136	6,454
Terengganu	20,058	104,194	3,408
Kelantan	25,178	65,654	1,540
Sarawak	64,848	190,672	6,805
Sabah	10,926	42,709	1,749
W.P. Labuan	552	2,475	120
<b>TOTAL</b>	<b>659,938</b>	<b>2,377,324</b>	<b>133,784</b>

A total of 364,331 HbA<sub>1c</sub> tests were conducted in MOH health clinics in 2010. There was much variability of coverage between states, with WP Kuala Lumpur, Negeri Sembilan and Terengganu having the highest coverage (100% at least once a year), while Kedah, Kelantan and Sarawak having the lowest. In addition, there is currently a total of 110 fundus cameras in MOH health clinics throughout Malaysia.

Efforts to monitor the quality of diabetes care at the MOH health clinics continues, particularly in the nationwide implementation of the Diabetes Clinical Audit and also the implementation of the new Diabetes NIA Indicator "*Quality of Diabetes Care at MOH Health Care Facilities: Glycaemic Control*" in 2009.

The main objective of the Diabetes NIA Indicator is to assess the quality of care of patients with diabetes in MOH healthcare facilities (health clinics), using HbA<sub>1c</sub> level as the proxy. Level of glycaemia control is an important factor in determining the outcome of diabetes patients.

**Formula:**

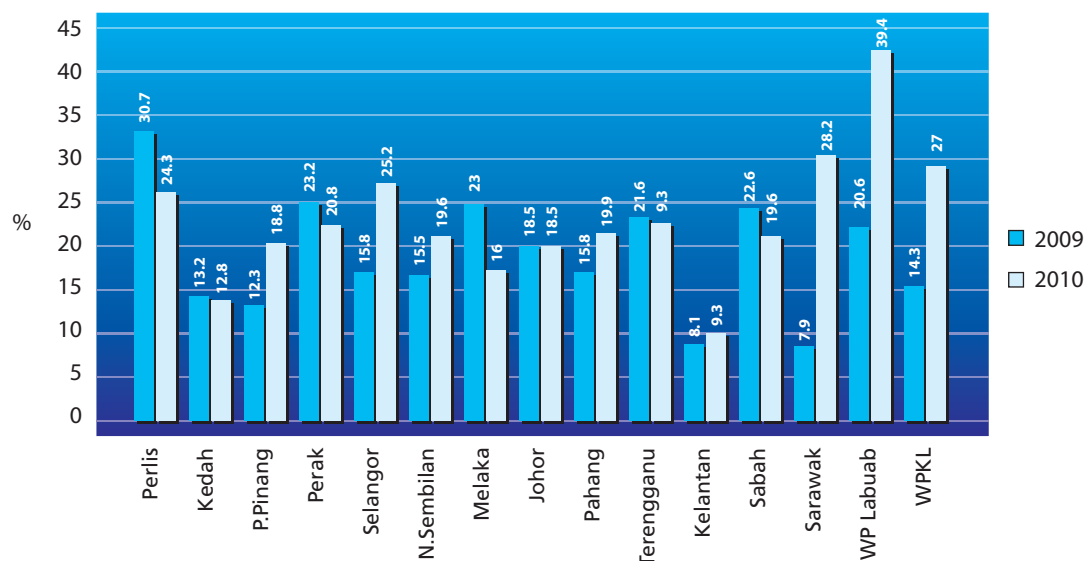
$$\frac{\text{Number of diabetes patients with HbA}_{1c} < 6.5\%}{\text{Total number of cases sampled}} \times 100\%$$

**Standard:  $\geq 30\%$**

In the first year of implementation (2009), 15.4% of diabetes patients achieved HbA<sub>1c</sub> < 6.5%. Total cases sampled were 77,266, or about 11% of the total number of estimated active patients on follow-up at MOH health clinics. While in 2010, 18.2% of diabetes patients achieved HbA<sub>1c</sub> < 6.5%. Total cases sampled were 82,383, about 12% of the total number of estimated active patients on follow-up at MOH health clinics. The performance trending (2009-2010) by states are shown in Figure 1 below:



**Figure 1 : Glycaemic Control: Proportion (%) of Diabetes Patients with HbA<sub>1c</sub><6.5% (2009-2010) (Standard ≥30%)**



## 3.2 CANCER CONTROL PROGRAMME

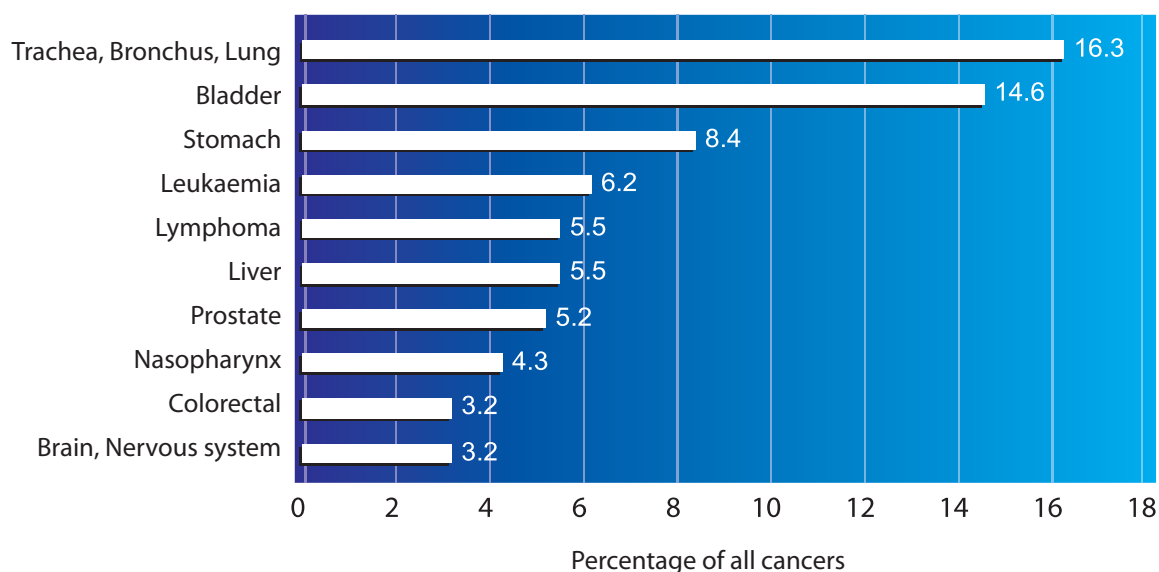
### 3.2.1 The National Cancer Registry (NCR)

The National Cancer Registry (NCR) was established at the NCD Section in June 2006 and started collecting data from January 2007. New State Cancer Registries were then established in Selangor, Perak, Kedah, Terengganu, Malacca, Negeri Sembilan, Federal Territory of Kuala Lumpur and Perlis. The existing State Cancer Registries i.e. Penang, Kelantan, Pahang, Johor, Sabah and Sarawak continued their operations. All State Cancer Registries are required to send cancer data collected at the state level to the Ministry of Health Putrajaya to be compiled within the NCR database.

From 1 January 2007 until 31 December 2010, a total of 43,569 cancer cases diagnosed in 2007 until 2010 were registered in the NCR. The cases comprise of 19,232 (44.4%) males and 24,246 (55.6%) females. Of the 43,568 cases registered in the NCR database, 6,834 (15.7%) were from Penang, 6,634 (15.2%) from Johore, Perak 5,615 (12.9%), Sabah 4,503 (10.3%), Selangor 4,209 (9.7%), Federal Territory of Kuala Lumpur 2,609 (6%), Sarawak 2,445 (5.6%), Kelantan 2,197 (5.0%), Pahang 2,172 (4.9%), Terengganu 1,808 (4.1%), Malacca 1,395 (3.2%), Kedah 1,669 (3.8%), Negeri Sembilan 1,226 (2.8%) and 252 (0.6%) Perlis.

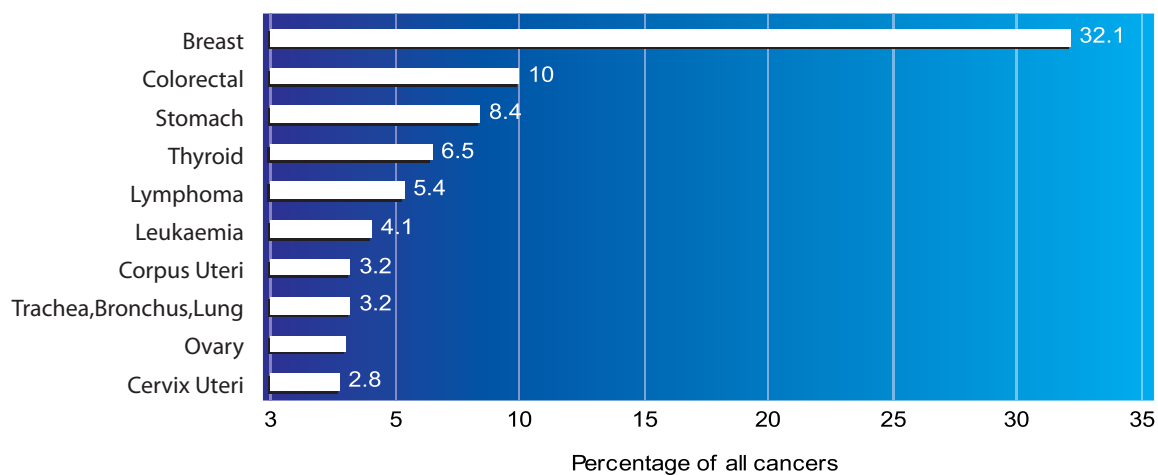
The collection of cancer data is a continuous process, hence, there are cases which are yet to be notified and registered in the NCR. As of this point, the detailed analysis of cancer cases diagnosed in 2007 which comprises of 18,219 cases had already been carried out. Figure 2 and 3 described the leading cancers among Malaysian males and females in 2007. The three most common cancers in Malaysia among males were lung, followed by colorectal and nasopharynx. While among females, the most common cancers were breast, followed by colorectal and cervix. Figure 4 showed that the incidence of cancers increases with age. The incidence rate in males exceeded the incidence rate in females after the age of 60 years.

**Figure 2 : Ten most frequent cancers, Male, Malaysia 2007**

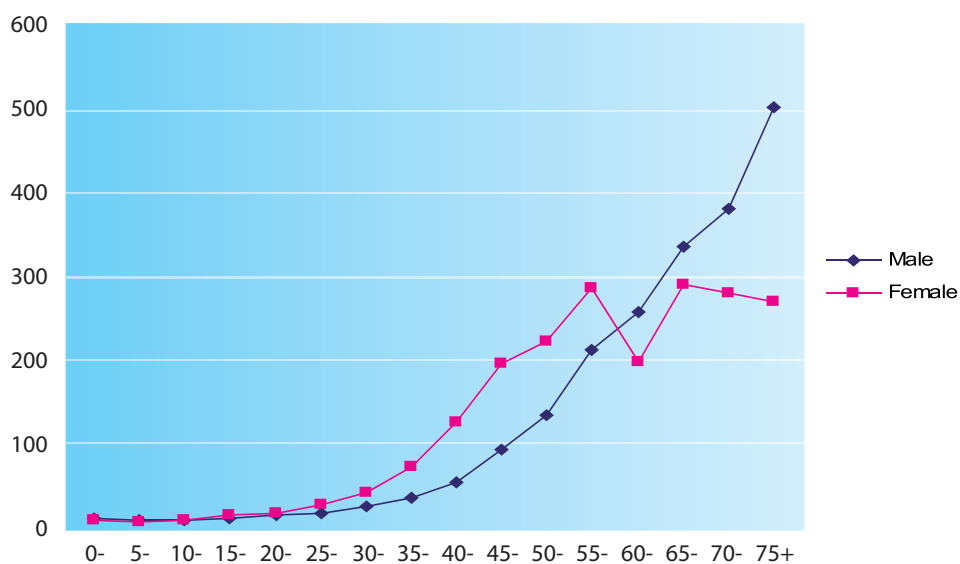




**Figure 3 : Ten most frequent cancers, Female, Malaysia 2007**



**Figure 4 : Average age-specific incidence rate, all residence, by all sites and sex, Malaysia 2007**



### 3.2.2 Colorectal cancer screening

Colorectal cancer is the second most common cancer in males and females in Malaysia. It is one of the cancer types which can be detected early through screening. The National Cancer Control Blueprint which was approved and endorsed by the Cabinet in November 2008 stated that colorectal cancer screening for high risk group should be initiated and implemented. In view of this, the screening programme was planned to be carried out in stages. This screening programme was initiated in Negeri Sembilan in August 2010. Up to 31 December 2010, a total of 310 people were screened using the Immunological Faecal Occult Blood Test (iFOBT) followed by colonoscopy. Out of those, 15 were found positive for iFOBT and 8 cases undergone colonoscopy. One case was found positive for focal adenocarcinoma, three cases diagnosed as colonic polyps, one case as gastritis, one case with oesophagitis and two cases with normal findings.

### 3.2.3 HPV vaccination

The policy for HPV immunisation programme for the prevention of cervical cancer was approved by the Cabinet in August 2009. Following that, the Cancer Unit under the NCD Section had worked together with the Family Health Development Division in the development of the Guideline for the National HPV Immunisation Programme and facilitated the training for the health staffs at the state levels. This Unit also had worked together with the Health Education Division in the development of the education materials targeted for the 13 years old girls and their parents. The HPV immunisation programme was implemented in August 2010 under the School Health Programme, Family Health Development Division.

### 3.3 FCTC SECRETARIAT AND TOBACCO CONTROL PROGRAMME

The Unit for Tobacco Control & FCTC was established in 2006, under the Non-Communicable Disease Section, after Malaysia ratified the global treaty, WHO Framework Convention on Tobacco Control (WHO FCTC). This unit previously had dual functions i.e. to control cancer as well as tobacco, but these are now two separate entities.

The foremost objective of this Unit is to reduce the impact of tobacco use so that it will no longer remain a major public health burden. The main approaches would be to prevent smoking uptake particularly amongst youths and to protect the public from the threats of second-hand smoke.

There are six major components of the Tobacco Control Programme and these are;

1. FCTC: Intersectoral collaboration and capacity building
2. Legislation & Enforcement
3. Health Promotion and Advocacy
4. Smoking Cessation Programme
5. Tax and Price Measures
6. Research, Surveillance & Evaluation

#### 3.3.1 FCTC

The Unit serves as the National Secretariat for the implementation of the world's first and only global legal tool, i.e. the WHO Framework Convention on Tobacco Control (WHO FCTC). This Unit is now known as the FCTC Malaysia, since the Malaysian Government officially became a party to the WHO FCTC in December 2005. Malaysia's involvement in the FCTC process had been active and remain so until now. In November 2010, Malaysia participated at the fourth session of the Conference of Parties (COP4) in Uruguay. Malaysian representatives had also partake in previous COP, sessions of the Inter-governmental Negotiating Body for the Protocol on FCTC Article 15 i.e. on control of illicit tobacco trade as well as becoming a partner country for the WHO FCTC Articles 5.3, 11, 12 and 13 working groups. At the national level, FCTC Malaysia coordinates at least four interagency meetings to discuss FCTC implementation status.



### 3.3.2 LEGISLATION AND ENFORCEMENT

The Unit for Tobacco Control & FCTC had been successful in legislating provisions for Pictorial Health Warnings (PHW) on cigarette packs and packets following the gazettment of the Control of Tobacco Product Regulations Amendment 2008 (CTPR 2008) in September. Besides PHW, the CTPR 2008 also included provisions for expansion of designated smoke-free areas to include National Service Training Centre (PLKN) and five-foot ways of shopping complexes.

Enforcement of the provisions in the Control of Tobacco Products Regulations is being carried out throughout the country by over 2,000 of the Ministry of Health enforcement officers located at the states and district levels. There are two major types of enforcement activities, i.e. the routine and the thematic operations known as 'Enforcement Information Blast' or "E-Info Blast". This nationwide operations were conducted four times in 2010 involving themes relating to youth smoking and cigarette sales and packaging. Each operation carried colloquial names, i.e. OPS Orang Belum Dewasa (minors), OPS Lepak, OPS Glamour (offense advertisements) and OPS KL (Kiddy Packs & Loose Sticks).

**Table 3 : Compilation report for OPS E-info BLAST 2010**

	Activities	Total
1.	Number of premises inspected	11,539
2.	Number of notice of error produced	1,441
3.	Compound values imposed	RM273,850.00

**Table 4 : Summary of enforcement achievement at State Health Department Level**

	Activities	2010	2009	2008	2007
<b>Compound produce under Control of Tobacco Product Regulations Amendment 2008</b>					
1.	Number of notice sek 32B produced	17,346	11,980	7,100	NA
2.	Number of compounds produced	10,260	6,619	4329	9,196
3.	Number of compounds produced (RM)	2,198,939.00	1,419,136.00	919,535.00	3,071,474.00
4.	Number of compounds described	9,219	6,304	3,679	3,652
5.	The total amount paid compound (RM)	993,775.00	556,180.00	321,613.00	38,562.00
6.	Percentage of the compound described	89.8%	95.2%	85%	4. %
<b>Court action under Control of Tobacco Product Regulations Amendment 2008</b>					
7.	The number registered in court	6,175	4,351	3,098	1,342
8.	Number of Fine	854	670	665	353
9.	Fines (RM)	228,870	147,098	165,895.00	96,475.00
10.	Number of imprisoned	1	1	0	1
11.	Number of D&A Cases	40	117	62	28
12.	Number of DNAA Cases	3,387	2,758	1079	684
13.	Seized	10,905	NA	NA	NA
14.	Value	331,557.07	NA	NA	NA

## **B. Mental Health-Substance Abuse-Violence and Injury Prevention Programme (MeSVIPP) Sector**

### **3.4 ALCOHOL AND SUBSTANCE ABUSE PREVENTION PROGRAMME**

The Alcohol and Substance Abuse Prevention Unit is responsible for activities relating to prevention and reduction of psychoactive substances abuse including alcohol use, misuse and dependence. It emphasises the formulating and development of policies related to substance abuse, develop a plan of action for substance abuse prevention and control and also monitors the implementation of substance abuse prevention activities at the field. In addition, this Unit also compiles and disseminates scientific information on substance use and dependence, as well as their health and social consequences.

#### **Objectives**

- i. To formulate policy and plan of action to prevent and control drug and alcohol related harm;
- ii. To develop the programme for preventing and reducing alcohol and drug abuse related harm;
- iii. To monitor and evaluate the implementation of the substance prevention programme;
- iv. Surveillance on disorder and diseases related to drug and alcohol abuse;
- v. To plan and initiate research related to illicit drug use and alcohol consumption;
- vi. To collaborate with other relevant agencies in preventing and controlling drug and alcohol abuse.

#### **Activities**

##### **i. Training on substance abuse management at the primary care level**

Training on substance abuse management was carried out at the national level on the 19 to 21 October 2010 at Aminuddin Baki Institute, Genting Highlands, Pahang. This three-days training covered several topics on the management of illegal drug, alcohol and nicotine use. It was jointly organised with the National Institute of Health. The main objective of this training was to increase knowledge and skills on substance abuse management among MOH staff particularly those working at primary care clinics, increasing human capacity in the field of addiction medicine in Malaysia.





Guideline on risk assessment and primary intervention for alcohol related harm

## ii. Guidelines and modules

In 2010, the “Guideline on risk assessment and primary intervention for alcohol related harm” was developed. This guideline was subsequently endorsed in the Public Health Program EXCO and Policy Meeting Number 4/2010 held in June 2010. In relation to this, one demonstration project on screening, brief intervention and referral to treatment (SBIRT) of alcohol-related harm using this guideline was carried out in four health clinics in Sabah.

A workshop to develop a guideline for “Management of Amphetamine Type Stimulant (ATS) abuse in primary and community level” was held on 22 to 23 November 2010. It was attended by specialists in Psychiatry, Public Health, Family Medicine and paramedics. Academicians and officers from the National Anti-Drug Agency (AADK) were also invited to share their knowledge and experience in managing ATS users.



Training on substance abuse management

### iii. Demonstration Projects

Four health clinics in remote areas in Tuaran and Keningau were chosen to implement the SBIRT as demonstration projects. The selected health clinics were Klinik Kesihatan Bundu Tuhan in Ranau and another three in Keningau which were Klinik Kesihatan Melalap, Klinik Kesihatan Sepulot and Klinik Kesihatan Sook. The demonstration projects will be implemented for a year before it can be integrated into the existing health clinic services.



The first batch of health care workers in Tuaran and Keningau trained for the SBIRT program. The training was conducted at the Keningau Division Health Office Sabah



Awareness campaign on SBIRT to the community was supported by YB Dr Joachim Gunsalam, ADUN N29 Kundasang, Sabah

### iv. Intra- and inter-agency collaboration and consultation

- a. The Alcohol and Substance Abuse Unit was invited to participate in two laboratories for two National Key Result Areas (NKRA), namely the Drug Laboratory and Road Safety Laboratory.
- b. Providing consultation and expert opinions in the Malaysian Technical Cooperation Program (MTCP) for Harm Reduction Program organised by the Institute of Health Management, MOH. Besides Malaysia, it was attended by 18 other countries from Eastern Europe, Africa and South Asia.

### 3.5 VIOLENCE AND INJURY PREVENTION PROGRAMME

This Unit is the Focal Point for activities related to violence and injury prevention for the MOH, Coordinator and Secretariat for policy making, program planning and Violence and Injury Prevention Plan of Action development activities in the MOH, and Secretariat for the Coordinating Panel for Social Issues related to Children. This Unit actively collaborates with other related agencies in reducing mortality, morbidity and disability due to violence and injury.

#### Objective

Cooperate with other agencies in reducing morbidity, mortality and disability by violence and injuries.

#### Functions

- i. Act as a focal point for activities related to violence and injury prevention at the MOH;
- ii. Coordinate the formulation of policy and also injury and prevention plans;
- iii. Coordinator of activities, monitoring and evaluation of programmes and activities;
- iv. Secretariat and Coordinator Panel for children's issues which was formed under the National Social Council.

#### Statistics

The World Health Organisation (WHO) reported that injury is one of the leading cause of morbidity and mortality in many parts of the world and becoming a major public health problem. In Malaysia, based on admissions and deaths data from government hospitals for the year 2009, accidental injuries were consistently recorded as the third commonest cause of hospital admissions, accounting for about 170,000 to 200,000 cases since 2006 (refer to Table 5 and Table 6). It was reported previously that the ratio between the number of admissions and the number of out-patient cases for injury was 1 to 4: for every one case admitted there were about four others treated as out-patient. In addition, injury was also among the top five of the causes of death in MOH hospitals accounting for more than 2,200 in hospitals deaths per year. Data on admissions and deaths in MOH hospitals by types of injuries are shown in Table 7 and 8.

The impacts of injuries are tremendous. The consequences due to loss of life to the injured as well to those who close to them are immeasurable. Economic loss due to loss of productivity also gives significant implication to the country. Based on the Malaysian Burden of Disease and Injury Study, unintentional injuries were



responsible for 9.6% of all total Disability Adjusted Life Years (DALYs) in Malaysia in 2000 and 86% of the burden was due to mortality (Ministry of Health, 2004).

The understanding of injury prevention and control has been late compared to other health conditions. In the past, an injury was thought to be a result of an accident or a random event which was believed to be unpredictable. It was also thought to be largely unpreventable or can only be prevented by educating people to be more careful. The importance of other components of injury prevention such as modification of environmental conditions, using safe equipments, reducing personal risk factors was almost 'neglected'. Nowadays, injury is known to be preventable. The uses of motorcycle helmet, seat belt and other personal protective measures together with early childhood education has been proven to be effective in preventing injury.

**Table 5 : Common Causes of Admissions in MOH Hospitals in 2009**

	Causes	No. of admissions	Percentage to total admissions (%)
1	Normal Deliveries	281,611	18.10
2	Complications of Pregnancy, Childbirth and the Puerperium	280,408	18.02
3	Accident (Accidental injuries)	200,718	12.90
4	Diseases of the Circulatory System	149,994	9.64
5	Diseases of the Respiratory System	171,735	11.04
6	Certain Conditions Originating in the Perinatal Period	147,843	9.51
7	Diseases of the Digestive System	110,690	7.11
8	Diseases of Urinary System	73,258	4.71
9	Ill-defined Conditions	74,957	4.82
10	Malignant Neoplasms	64,578	4.15
	Others		
	<b>TOTAL</b>	<b>1,555,792</b>	<b>100</b>

**Table 6 : Common Causes of Deaths in MOH Hospitals in 2009**

	Causes	No. of deaths	Percentage to total deaths (%)
1	Septicaemia	6,648	13.82
2	Heart Diseases and Disease of Pulmonary Circulation	7,738	16.09
3	Malignant Neoplasms	5,220	10.85
4	Cerebrovascular Diseases	4,052	8.43
5	Accident (Accidental Injuries)	2,332	4.85
6	Pneumonia	4,994	10.38
7	Certain Conditions Originating in the Perinatal Period	1,836	3.82
8	Diseases of The Digestive System	2,393	4.98
9	Nephritis, Nephrotic, Syndrome and Nephrosis	1,724	3.58
10	Chronic Lower Respiratory Diseases	978	2.03
	Others	10,182	21.17
	<b>TOTAL</b>	<b>48,097</b>	<b>100</b>

**Table 7 : Admissions and Deaths in MOH Hospitals by Type of Injury in 2009**

	Types of Injury	No. of admissions	No. of deaths
1	Fractures	72,443	227
2	Injuries to Organs	40,811	781
3	Other Injuries, Not Classified Elsewhere	38,911	1,146
4	Toxic Effects of Substances Chiefly Non Medicinal as to Sources	12,506	202
5	Poisoning by Drugs, Medicaments and Biological Substances	7,302	46
6	Complications of Surgical and Medical Care, Not Classified Elsewhere	4,025	44
7	Dislocations, Sprains and Strains of Specified and Multiple Body Regions	3,921	2
8	Other and Unspecified Effects of External Causes	3,827	33
9	Burns and Corrosions	3,808	80
10	Effects of Foreign Body Entering Through Natural Orifice	2,325	8
11	Certain Early Complications of Trauma, Not Elsewhere Classified	1,580	28
12	Sequelae of Injuries, Poisoning and Other Consequences of External Causes	208	8
13	Frostbite	15	0
	<b>TOTAL</b>	<b>191,682</b>	<b>2,605</b>

**Table 8 : Admissions and Deaths in MOH Hospitals by Type of Injury in 2010**

	Types of Injury	No. of admissions	No. of deaths
1	Fractures	71,859	170
2	Injuries to Organs	40,294	851
3	Other Injuries, Not Classified Elsewhere	32,765	1,071
4	Toxic Effects of Substances Chiefly Non Medicinal as to Sources	12,707	205
5	Poisoning by Drugs, Medicaments and Biological Substances	7,091	33
6	Complications of Surgical and Medical Care, Not Classified Elsewhere	5,167	60
7	Dislocations, Sprains and Strains of Specified and Multiple Body Regions	3,536	0
8	Other and Unspecified Effects of External Causes	4,570	24
9	Burns and Corrosions	3,902	63
10	Effects of Foreign Body Entering Through Natural Orifice	2,225	7
11	Certain Early Complications of Trauma, Not Elsewhere Classified	1,872	19
12	Sequelae of Injuries, Poisoning and Other Consequences of External Causes	244	7
13	Frostbite	13	0
	<b>TOTAL</b>	<b>186,245</b>	<b>2,510</b>

## Achievements

### i. National Social Council

The Violence and Injury Prevention Unit has acted as the Secretariat for the Panel Coordinator for the Implementation of the Child Abuse Prevention Action Plan, where the performance report of activities under this plan has been prepared and presented by the MOH Secretary General at the National Social Council Meeting on 1 October 2010. This meeting was chaired by the Deputy Prime Minister of Malaysia, Tan Sri Muhyiddin Yasin.

The National Social Policy (NSP) is a social development policy based on moral values and self-enrichment to achieve unity and social stability, national fortitude and well-being of the people of Malaysia.



This policy was approved by the Cabinet of Malaysia on 19 February 2003. Malaysia aims to create a progressive society and a sustainable social, economic and technological.

It ensures that every individual, family and community, regardless of ethnicity, religion, culture, gender and political affiliation, and region participate and contribute to the national development as well as enjoy continuous contentment in life.

## **ii. Council For Child Protection**

The Violence and Injury Prevention Unit has been a member of the Coordinating Council for Child Protection, chaired by the Department of Social Welfare. The Council met four times in 2010.

In the Council for Child Protection, the Violence and Injury Prevention Unit with the Department of Social Welfare are responsible to create a module and improve the training to all those who deal with children to have the knowledge, qualifications and skills sufficient and a positive attitude in handling cases of abuse, neglect, violence and exploitation against children.

## **iii. Road Safety Issues**

This Unit has worked with the Department of Road Safety, Ministry of Transport on road safety issues.

## **iv. Domestic Violence Case Management Cooperation**

This Unit contributed to the publication of documents discussed in the workshop on Domestic Violence Case Management Cooperation held on 7 to 9 July 2010.

## **v. Report On Admissions And Deaths In MOH Hospitals Due To Injury In Malaysia (2006-2007)**

This Unit has published a report entitled "Admissions and Deaths in MOH Hospitals due to Injury in Malaysia (2006-2007)". This report contains statistics of the admissions and deaths in MOH Hospitals due to injury such as intracranial injury, fracture of femur, burns and corrosions, poisoning by drugs, transport accidents, falls, intentional self-harm, assault etc. by gender and age.

## vi. Shaken Baby Syndrome Brochure

This Unit has also produced a brochure related to shaken baby syndrome. The MOH is very concerned about cases of shaken baby syndrome that are becoming more common in recent years. This brochure explained what is shaken baby syndrome, why we cannot shake our baby, the effects, and precautions on shaken baby syndrome.



Shaken baby syndrome brochure

### 3.6 MENTAL HEALTH PROGRAMME

The Mental Health Unit under the NCD Section is responsible for the development of the Community Mental Health Programme.

The objectives of the programme include:

- To promote healthy mind among the population through instilling healthy lifestyle and coping skills;
- To reduce prevalence of mental disorders of high risk groups through screening and early intervention at the primary health care (PHC) level;
- To provide treatment and care for those with mental health problems and illnesses at the PHC level;
- To facilitate optimal psychosocial functioning of the mentally ill individual in the community.

The scope of programme includes promotion of mental health, prevention and early detection through screening for mental health problems, treatment at primary health care and psychosocial rehabilitation.

#### Activities conducted in year 2010

##### i. National Strategic and Action Plan for Suicide Prevention Plan

A National Strategic and Action Plan for Suicide Prevention Programme was developed by the technical working group and was presented at the Disease Control Technical Meeting in late June 2010. This plan outlines the implementation strategies among which are:

- Improving awareness among public and health care providers on suicide and suicidal behaviour;
- Promotes early detection of signs and symptoms of mental disorders and risks factors for suicide among primary health care providers, teachers, school counsellors, police, community and religious leaders and emergency medical care personnel;
- Foster inter-sectoral collaboration among various agencies towards enhancing suicide prevention;
- Advocate relevant agencies on efforts towards reducing access to lethal means.

This plan shall further be presented for approval at the Public Health Program EXCO and Policy Meeting which is chaired by the Deputy Director General of Health (Public Health).

## **ii. Workshop on Development of Mental Health Indicators**

A workshop to develop mental health indicators was held in April 2010 which involved experts from various services category including psychiatrists, public health specialists, family medicine specialists, state epidemiological officers, state family health officers, psychologists and counsellors. Following this workshop, a report was produced and several mental health indicators were chosen to strengthen the mental health programme. The indicators chosen are:

- i. Percentage of deliberate self-harm
- ii. Percentage of adolescents having high risk behaviour
- iii. Percentage of mental health problems among children and adolescents
- iv. Percentage of re-admissions of patients under community mental health services

## **iii. Mental Health Advisory Council**

In August 2010, a Mental Health Advisory Council was set up by the Ministry of Health. This Council which is chaired by the Minister of Health consists of members of various experts with backgrounds related to mental health. The members include government and university psychiatrists, public health specialists, representatives from the Education Ministry, president of the Malaysian Psychiatric Association, president of the Malaysian Mental Health Association, presidents of mental health NGO's as well as representatives from media. This council serves to advise the Health Minister on issues related to mental health as well as providing insights and views on the strategy and directions in the implementation of mental health activities. The Mental Health Unit acts as the Secretariat for this Council.

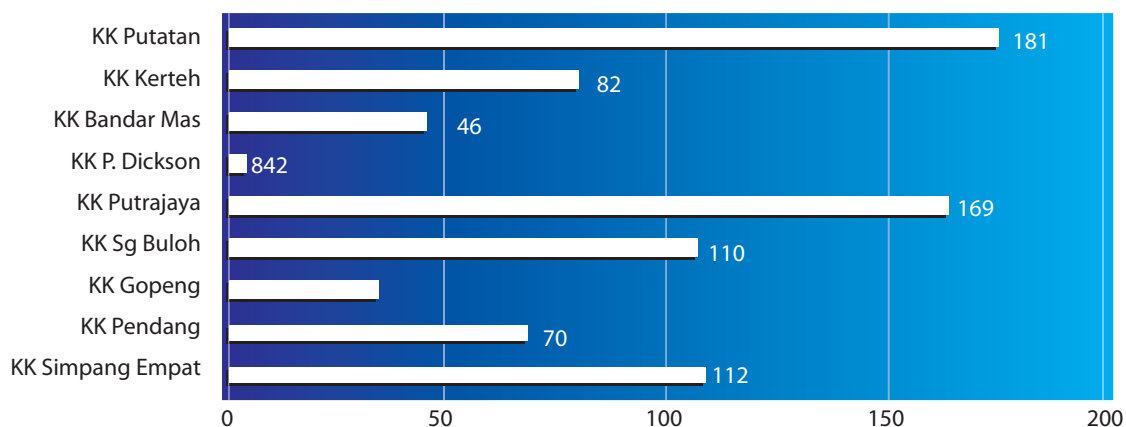
## **iv. Healthy Mind Services (*MINDA SIHAT*)**

The Healthy Mind Services which was piloted at nine health clinics throughout Malaysia was implemented using the Guideline and Standard Operating Procedure of the Healthy Mind Services. The objective of this service is to promote the community to screen for their mental health status and risk factors to identify stress, anxiety and depression, and to empower the community to handle stress effectively through instilling mental health



life skills and relaxation techniques. Up to December 2010, 809 clients were screened using the Depression, Anxiety, Stress Scale (DASS) of which 296 (37%) were found to have stress, anxiety and depression (Figure 5). Out of these, 64.5% were referred for counselling.

**Figure 5 : Total number of clients screened at nine health clinics implementing Healthy Mind Services**



#### **v. Follow Up Treatment and Psychosocial Rehabilitation for Mentally Ill at Health Clinics**

A total of 671 health clinics have implemented the follow up treatment for stable mentally ill patients. Till December 2010, 1,187 new cases with mental disorders were detected in MOH health clinics, less 38.7% compared to 2005. A total of 345 cases had received psychosocial rehabilitation services in 26 health clinics implementing psychosocial rehabilitation services to improve their psychosocial functioning and promote independent living in the community.

## C. Occupational and Environmental Health Sector

### 3.7 OCCUPATIONAL HEALTH PROGRAMME

#### Introduction

The Occupational Health Unit (OHU) conducted many activities pertaining to safety and health throughout the year 2010.

- i. Occupational health surveillance
- ii. Investigations of accidents and diseases
- iii. Health promotion
- iv. Health and safety audits
- v. Training
- vi. Collaborations with other agencies
- vii. Other activities

#### Objectives

- i. To promote the safety and health at workplace which includes work environment and processes;
- ii. To increase awareness among employers, employees and communities on occupational safety and health aspects;
- iii. To prevent occupational related health problems arising from the work environment and work process amongst workers;
- iv. To reduce the morbidity and mortality due to occupational diseases.

#### Programme Strategies

- i. Training of staffs on occupational health
- ii. Enhancing the surveillance for occupational diseases
- iii. Occupational Health promotion in the workplace
- iv. Developing occupational healthcare services through OH clinics
- v. Producing guidelines and SOP for MOH staff
- vi. Enhancing the cooperation among agencies

## Programme Activities and Achievements

### 3.7.1 Occupational Health Surveillance

#### 3.7.1.1 Sharp Injury Surveillance (SIS)

Sharps injury surveillance (SIS) was introduced in the MOH in 2007 in order to provide a basis for a registry on sharps injuries among healthcare workers in the MOH and to provide data for policies, strategies and program development in the prevention of occupational related diseases.

Data was retrieved from the OHU/SIS-1 Forms which were sent to the Occupational Health Unit, following the occurrence of sharps injuries in MOH facilities. The OHU/SIS-1 Forms are used to collect epidemiological data on sharps injuries. There were a total of 1,231 cases of sharps injuries notified to the OHU from 1 January 2010 until 14 January 2011.

The data showed that Selangor recorded the highest occurrence of sharp injuries (17.5%), followed by Perak (13.1%) and Johore (11.0%). The population of female workers who were injured was higher (71.3%) compared to males (28.7%).

**Table 9 : Sharps Injury Surveillance by State**

	State	No. of cases (%)
1.	Selangor	215 (17.5)
2.	Perak	161 (13.1)
3.	Johor	136 (11.0)

The incident of sharps injury decreased with age, with the highest incident of sharps injuries among those aged 20-29 years (72.7%) and lowest incident among those aged below 20 years (2.5%).

**Table 10 : Sharps Injury Surveillance by Age Group**

	Age Group	No. of Cases (%)
1	Below 20	31 (2.5)
2	20-29	895 (72.7)
3	30-39	189 (15.4)
4	40-49	71 (5.8)
5	50 and above	44 (3.6)

The place of occurrences that contributed the largest proportion of sharps injury was the ward (60.4%), followed by the operating theatre (9.3%) and at the Accident & Emergency (6.8%). Between different job categories, the highest number of sharps injuries were sustained by Medical Officers (35.7%), followed by Staff Nurses (21.3%), Trainee Nurses (13.5%) and Hospital Support Service Staff (8%).

**Table 11 : Sharps Injury Surveillance by Place of Occurrences**

	Place of Occurrence	No. of Cases (%)
1	Ward	744 (60.4)
2	Operating Theatre	115 (9.3)
3	Health Clinic/Polyclinic	46 (3.7)
4	Accident & Emergency	84 (6.8)
5	Dental Clinic	57 (4.6)
6	Labour Room	38 (3.1)
7	Intensive Care Unit	11 (0.9)
8	Specialist Clinic	18 (1.5)
9	Laboratory	25 (2.0)
10	School/College/Faculty	8 (0.6)
11	Others	85 (6.9)
	<b>TOTAL</b>	<b>1,231 (100.0)</b>



**Table 12 : Sharps Injury Surveillance by Job Categories**

	Job Category	No. of Cases (%)
1.	Medical Officer/Medical and Health Officer/House Officer	440 (35.7)
2.	Staff Nurse	262 (21.3)
3.	Trainee Nurse	166 (13.5)
4.	Hospital Support Service	99 (8.0)

Hypodermic needles caused the highest number of sharps injury (49.6%), followed by IV catheter stylet (18.2%) and butterfly needles (2.5%). The largest proportion of sharps injuries had occurred during Injection: IV/IM/SC (18.4%), followed by drawing venous blood sample (16.7%) and starting IV or setting up heparin blocks (9.6%).

**Table 13 : Sharps Injury Surveillance by Type of Needles**

	Type of Needles	No. of Cases (%)
1.	Hypodermic needle	610 (49.6)
2.	IV Catheter stylet	224 (18.2)
3.	Needle on IV line	18 (1.5)
4.	Central line catheter introducer	12 (1.0)
5.	Spinal/epidural	3 (0.2)
6.	Butterfly	31 (2.5)
7.	Bone marrow needle	2 (0.2)
8.	Biopsy needle	3 (0.2)
9.	Others	60 (4.9)
	<b>TOTAL</b>	<b>963 (100.0)</b>

In conclusion, compared to the number of sharps injuries in 2009 (910 cases), there was an increase in the number of sharps injuries in 2010 (1,231 cases). With extensive campaigns on the prevention of sharps injuries in Malaysia, it is hoped that there will be a decrease in the number of sharps injury in Malaysia in the future. A comprehensive program that addresses institutional, behavioral, and device-related factors is essential to prevent sharps injuries and its tragic consequences among healthcare workers

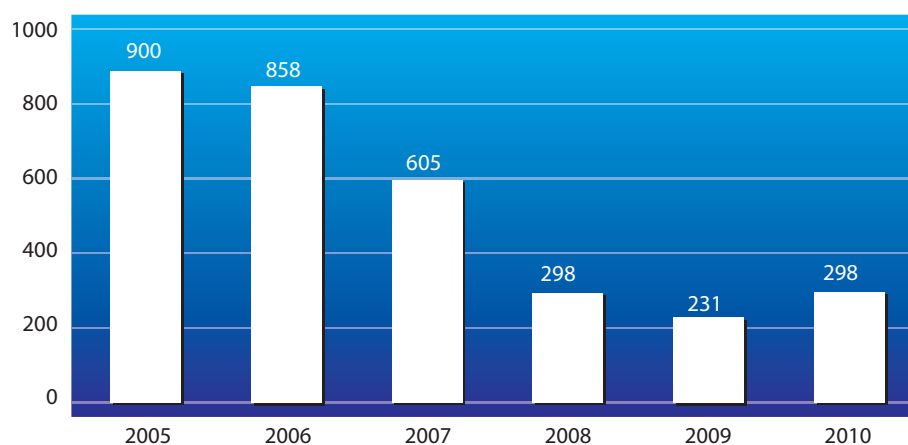
### 3.7.1.2 Surveillance of Occupational Diseases, Poisoning and Injuries (WEHU)

This surveillance system was first established for pesticide and chemical poisoning in 1989. This was followed by surveillance for occupational lung disease, skin disease and injuries in 1997. Occupational noise-induced hearing loss was then established in the year 2002. Generally cases of occupational diseases being notified are still low compared to other countries. This is most likely due to the under-reporting of cases and difficulties in diagnosing occupational diseases.

#### i. Chemical poisoning

Chemical poisoning is still a serious problem in Malaysia. In the year 2010, a total of 299 cases were notified. Based on data between 2005 and 2010, the majority of poisoning involved pesticides followed by gases, industrial chemicals, agrochemicals and organic solvent. Paraquat, organophosphate, glyphosate, carbamate and organochlorine were the main pesticides involved in poisoning. Most chemical poisoning were accidental. However parasuicide was the second main cause of poisoning, followed by occupational related poisoning. The main route of exposure for poisoning was inhalation, followed by oral and dermal.

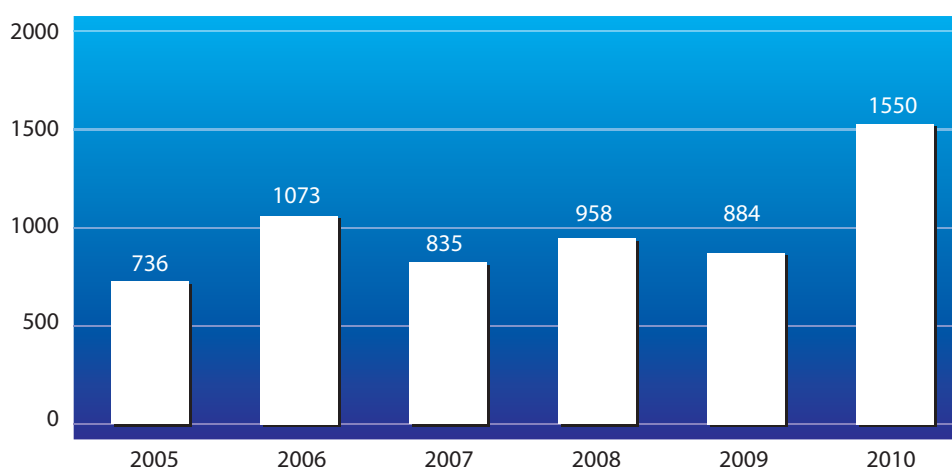
**Figure 6 : Total Notified Poisoning Cases from 2005-2010**



## ii. Occupational Injuries among MOH Staff

The total number cases of injuries reported in the year 2010 was 1,550, slightly higher than the previous year. The majority of injuries occurred in hospitals (1,298 cases) followed by health facilities (176 cases) and dental facilities (67 cases). Nine cases of injuries happened in “other places”. Needle stick injuries remain as the most common type of injuries among the health care workers followed by motor vehicle accident and injuries while handling/lifting. In the hospitals, the wards showed the highest incidence of needle stick injuries, followed by operating theatres and emergency department.

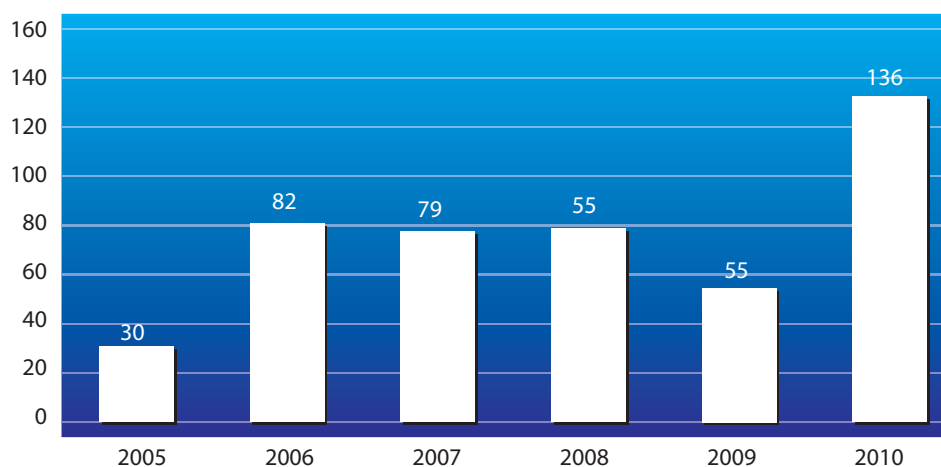
**Figure 7 : Total Notified Injury and Accident Cases from 2005-2010**



## iii. Occupational lung diseases

They were 136 cases of occupational lung diseases notified in the year 2010. Infectious diseases, occupational asthma and pneumoconiosis were the three most common type of occupational lung diseases notified. Despite being diagnosed as having occupational lung diseases, most of the workers still continued to perform the same work, however using Personal Protective Equipment (PPE) while working.

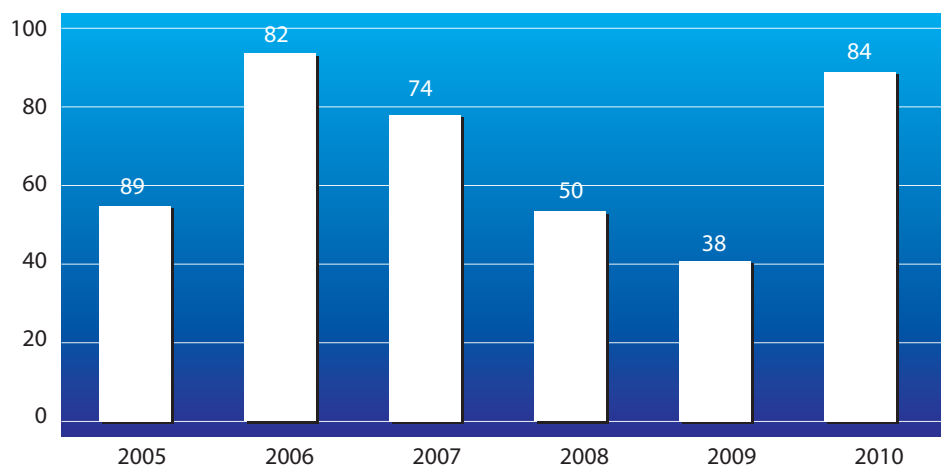
**Figure 8 : Total Notified Lung Disease Cases from 2005-2010**



**iv. Occupational skin diseases**

In the year 2010, 84 cases of occupational skin diseases were notified compared to 38 in the previous year. Occupational dermatitis remains as the main type of occupational skin disease notified.

**Figure 9 : Total Notified Skin Disease Cases from 2005-2010**

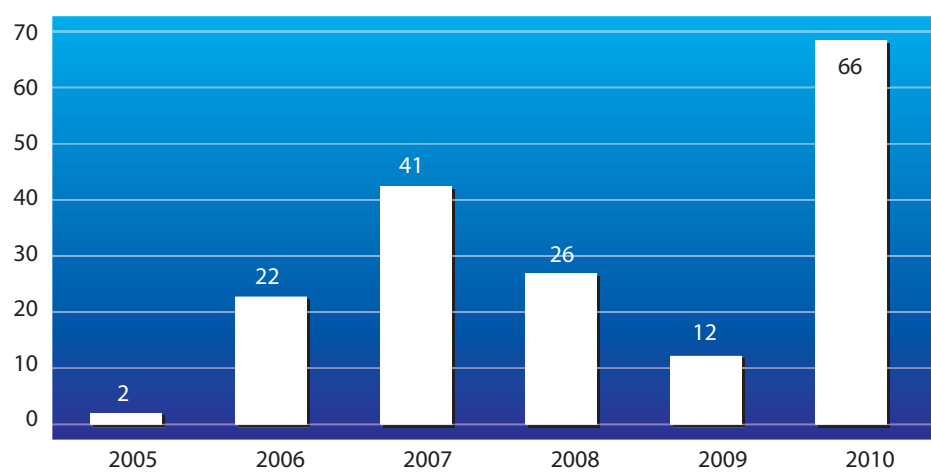




**v. Occupational noise-induced hearing loss**

The notification of occupational noise-induced hearing loss (NIHL) is still low with only 66 cases being notified in the year 2010. In the majority of cases, personal hearing protection devices were partial used by the employees.

**Figure 10 : Total Notified NIHL Cases from 2005 - 2010**

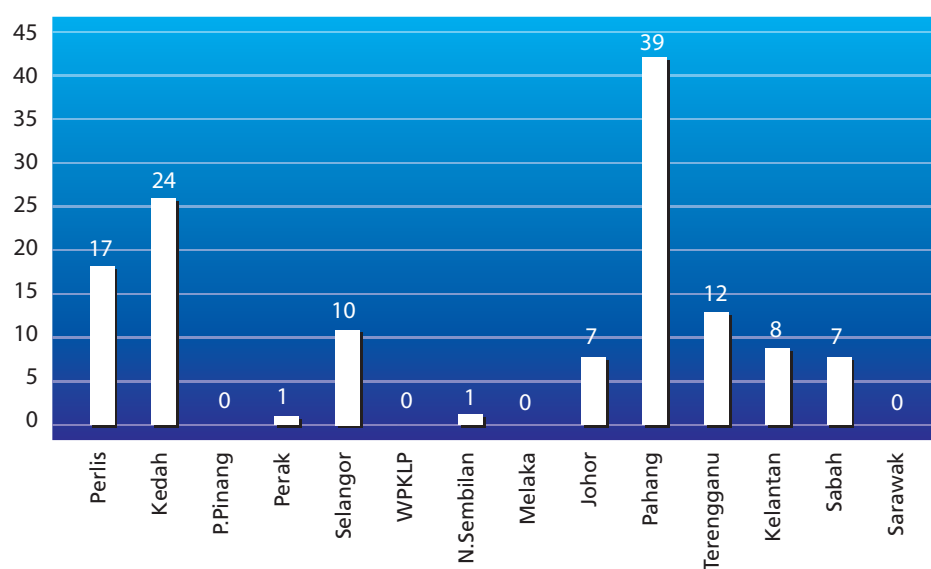


### 3.7.2 Investigation of accidents and diseases

#### 3.7.2.1 Investigated cases by State

In 2010, the OHU, received 126 investigation reports from the States. Majority of the reports were from Pahang (31% or 39 cases), followed by Kedah (19.1% or 24 cases) and Perlis (13.5% or 17 cases). There were no investigation reports received from Pulau Pinang, Wilayah Persekutuan Kuala Lumpur & Putrajaya, Malacca and Sarawak.

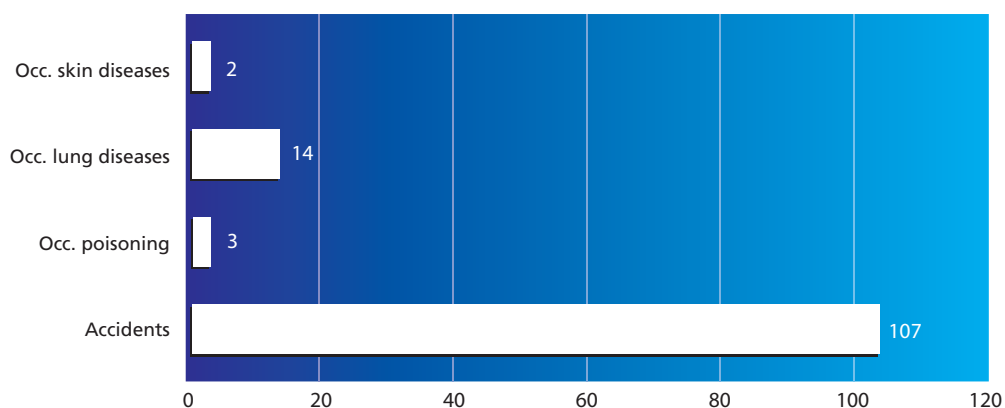
**Figure 11 : Numbers of Investigated Cases by State**



#### 3.7.2.2 Total cases investigated by types of diseases

From the 126 investigated, 107 cases (84.9%) were accidents at the workplaces. This was followed by occupational lung diseases (11.1% or 14 cases), occupational poisoning (2.4% or 3 cases) and occupational skin disease (1.6% or 2 cases).

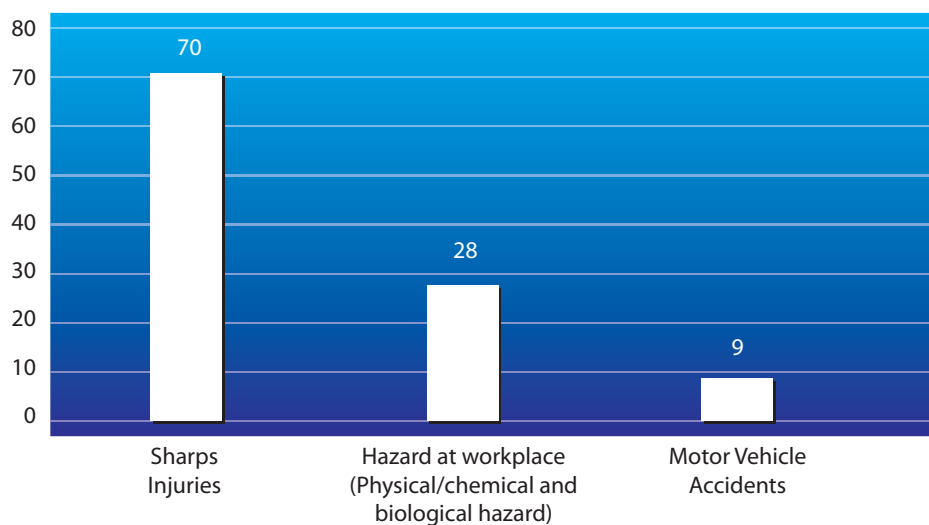
**Figure 12 : Total Investigated Cases by Types of Diseases**



### 3.7.2.3 Major causes of accidents

Basically, there were three major causes that contributed to the accidents in the workplace. These three major hazards were sharp injuries, presence of physical, chemical and biological hazards in the workplace and motor vehicle accidents. From these three causes, sharp injuries were the most common (65.4% or 70 cases).

**Figure 13 : Major Causes of Accidents at the Workplace**



### 3.7.3 Health Promotion

#### 3.7.3.1 Lectures

In 2010, several health promotion activities were conducted by the OHU. The main objectives were:

- i. To strengthen inter-sectoral collaboration between OHU at MOH Putrajaya and OHU at the State level;
- ii. To develop human resource and training;
- iii. To provide appropriate services at various levels of health care providers.

Several lectures were also delivered in 2010, included in Master Skill College Selangor (Environmental and Occupational Health Students), Allied Health Science College in Sungai Buloh (Public Health Nurse Students), and NCD Section staff.

#### 3.7.3.1 Obesity at Workplace Programme

This programme forms part of the NCDP 1Malaysia initiatives, whereby the OHU was given the responsibility to create the training modules and implementation packages for the NCD risk factor intervention for workplaces. The training module was developed and ready for implementation. Three states were selected for pilot implementation.

**Table 14 : Obesity at Workplace Programme**

	State	Workplace Setting
1.	Perak	Pusat Latihan FELCRA, Seberang Perak, Perak Tengah
2.	Johore	Stesyen Janakuasa Elektrik Sultan Ibrahim, Tenaga Nasional Berhad, Pasir Gudang, Johor Bharu
3.	Malacca	1. Ibu Pejabat Polis Kontinjen Melaka 2. Wisma Persekutuan (MITCH) 3. Wisma Negeri Melaka 4. Pejabat Tanah dan Galian Alor Gajah 5. Majlis Perbandaran Melaka



### 3.7.4 Health Audits

In 2010, the OHU conducted health audits at the workplace for:

- i. Ergonomic Assessment and Audit, for the Work station of the Deputy Director General of Health (Public Health), on 7 October 2010;
- ii. Environmental and Occupational Health Audit at the Disease Control Division, MOH on 21 to 22 July 2010.



Ergonomic Assessment on Deputy of Director General of Health (Public Health) workstation & office



Environmental and Occupational Health Audits at Disease Control Division, MOH Putrajaya

### 3.7.5 Training

A number of training sessions were conducted by the OHU in 2010:

**Table 15 : Training Sessions Conducted in 2010**

	Activity	Target Groups	Date
1.	Investigation of accident among healthcare workers	1. Asst. Environmental Health Officer 2. Asst. Medical Health Officer 3. Public Health Nurse	7 October 2010
2.	Fire drill training	Blok E10 Safety and Disaster Committee	30 June 2010

### 3.7.6 Collaborations with other agencies

The OHU conducted many activities in collaboration with other agencies :

**Table 16 : Collaboration with Other Agencies in 2010**

	Agency	Contribution
1.	University of Malaya, Kuala Lumpur	Part-time lecturer
2.	Ministry of Agriculture	1. Technical input on Pesticide Board 2. Examiner for licensing fumigator
3.	Ministry of Defence (MOD)	Technical input on Healthy Life Style Programmes in MOD

### 3.7.7 Other Activities

#### 3.7.7.1 Visit to the Mass Decontamination Centre, Hospital Kulim, Kedah

On 25 September 2010, a visit was made to Hospital Kulim which is the first hospital in Malaysia to be equipped with a mass decontamination system. This system is specifically catered to treat persons who have been exposed to hazardous chemicals.



Briefing session from Director of Hospital Kulim



Short briefing by Officer In Charge



Site visited to the Mass Decontamination Centre

### 3.7.8 Achievement/Performance

#### 3.7.8.1 Quality Assurance (QA) Achievement

In Malaysia, the standard precaution guideline has been produced and issued to all health facilities in the early nineties. All workplace were to adopt the guidelines and use it in their daily practice. Reporting has been emphasised for workplace accidents as noted in the surveillance data received. Beginning from 2010, Sharps Injuries (SI) replaced Needle Stick Injury (NSI) as the Key Performance Indicator (KPI) for the OHU following several technical meetings among the Occupational and Environmental Health Officers from each State to select the most suitable indicator to be used. The change of this KPI indicator from NSI to SI as an indicator will reflect not only the incidence of sharp injuries but also the compliance to the guideline. Below is the QA Achievement for the year 2010.

	Incidence Rate of NSI per 1,000 Health Care Workers
Cycle 1 : Jan - June 2010	5
Cycle 2 : July - Dec 2010	4

### Conclusion

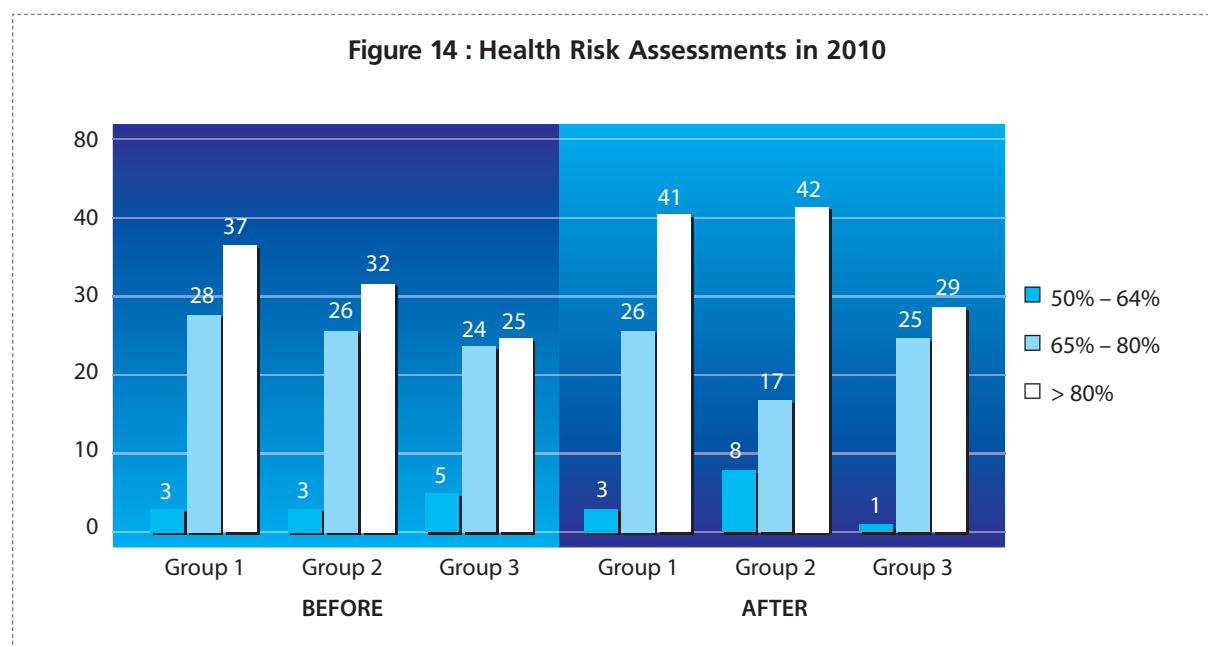
The Occupational Health Unit has endeavoured to conduct various activities pertaining to the dissemination and maintenance of health and safety among the employees of the MOH and other agencies. Thus we need to pool resources and work together to prevent and control occupational health diseases and accidents especially among the health care workers.

## 3.8 ENVIRONMENTAL HEALTH PROGRAMME

### 3.8.1 National Service Training Centres (PLKN) Risk Assessment and Disease Monitoring Programme

A total of 79 National Service Training Centres (PLKN) camps were in operation in 2010 with 234 training sessions being conducted as three consecutive sessions. The MOH implemented several healthcare services to ensure the healthy of the trainees while in the camps. The services comprised of health risk assessments of the camps, medical services and health education on HIV/AIDS.

The inspection of the PLKN Camps is a routine activity to ensure the sanitation and hygiene of these premises. A total of 234 health risk assessments were conducted in 2010 (Figure 14).

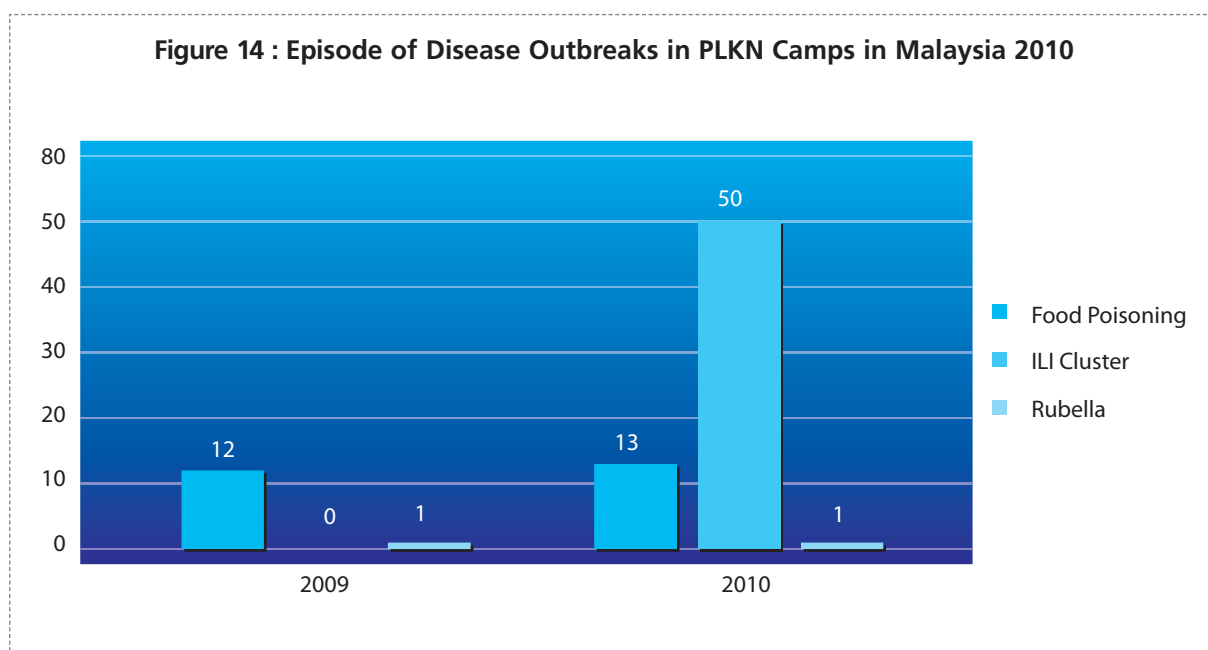


The health risks identified in 2010 during these assessments included:

- Camps canteen operated by food handlers without proper food handlers training;
- PLKN camps using untreated water for non drinking purposes;
- PLKN camps with low sanitation and hygiene status which exposed the trainees to diseases.



There were 64 episodes of disease outbreaks reported from the PLKN camps in 2010. The major contributors were Influenza-like Illness (50 episodes) and food poisoning (13 episodes).



A total of 234 health education sessions regarding HIV/AIDS were conducted in 2010 throughout the three consecutive training sessions. In order to strengthen the assessment practice, the Disease Control Division has produced a Guideline on PLKN Health Risk Assessment and a standardised format for the assessment.

### 3.8.2 Natural Disaster Control Programme

Several States in Malaysia were hit by severe floods in 2010. It started in Sabah in early 2010, and hit Kedah, Perlis and Kelantan by end of 2010. The floods were due to several factors, such as continuing rainfall, the effects to tidal sea water, and topographic conditions exacerbated by the rising water level in the dam reservoir lake e.g. Lake Tasoh Tin.

A total of 55,497 flood victims were housed in 178 evacuation centres during the floods. A total of four states were affected by the floods and the State Health Departments had activated their respective Flood Operations Room (Table 17). The number of evacuation centres and the number of flood victims are shown in Table 18. The MOH had mobilised 116 teams (38 medical teams and 78 health teams) for disease prevention and control activities related to the floods (Table 19).

Several MOH facilities were affected by the floods. In Kedah: two hospitals, three Units of the State Health Department, one District Health Office, one District Dental Health Office, ten health or rural clinics, ten dental clinics, five school dental clinic and one college of nursing. In Perlis: one hospital, the Deputy State Health Director (Public Health) office, the and Health Promotion Unit of State Health Department, the Kangar District Health Office, seven health / rural clinics, two dental clinics and 14) school dental clinics. While in Sabah: four health / rural clinics; and lastly Kelantan: one health clinic.

In terms of types of disease reported amongst the flood victims in 2010, 3,644 were infectious diseases, 3,386 were non-communicable diseases and 62 were injuries. Five deaths were reported due to the floods (Table 20 and 21).

**Table 17 : The State Flood Operations Room**

State	Date Activated	Date Closed
Sabah	15.1.2010	20.1.2010
Kedah	1.11.2010	19.11.2010
Perlis	1.11.2010	13.11.2010
Kelantan	1.11.2010	5.11.2010

**Table 18 : Number of Evacuation Centres and Flood Victims in Malaysia**

State	No. of Evacuation Centres	No. of Flood Victims
Sabah	19	3,569
Kedah	109	37,745
Perlis	46	13,684
Kelantan	4	499
<b>Total</b>	<b>178</b>	<b>55,497</b>

**Table 19 : Number of Health and Medical Teams**

State	Total	Medical Team	Health Team
Sabah	37	15	22
Kedah	66	21	45
Perlis	11	2	9
Kelantan	2	0	2
<b>Total</b>	<b>116</b>	<b>38</b>	<b>78</b>

**Table 20 : Diseases Treated and Reported**

State	Communicable Diseases	Non Communicable Diseases	Injuries	Total	Death
Sabah	391	147	0	538	0
Kedah	2864	3079	37	5980	5
Perlis	772	297	25	1094	0
Kelantan	8	10	0	18	0
<b>Total</b>	<b>3,644</b>	<b>3,386</b>	<b>62</b>	<b>7,092</b>	<b>5</b>

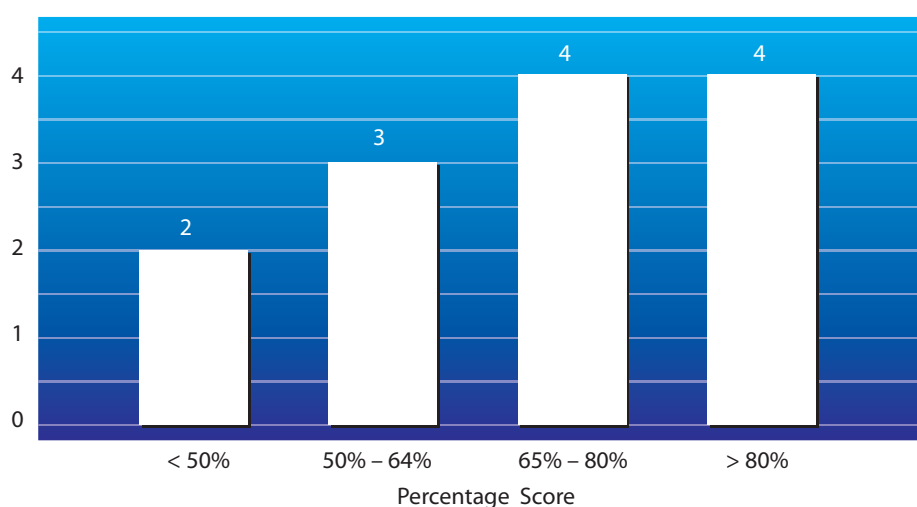
**Table 21 : Categories of Communicable Diseases**

State	"Acute Gastroenteritis"	"Acute Respiratory Infections"	"Skin Infection"	"Fever"	"Notifiable Diseases"
Sabah	44	312	11	24	0
Kedah	43	625	1529	667	0
Perlis	33	255	281	203	0
Kelantan	0	5	3	0	0
<b>Total</b>	<b>76</b>	<b>885</b>	<b>1,813</b>	<b>870</b>	<b>0</b>

### 3.8.3 Immigration Detention Depot

There are 13 Immigration Detention depot throughout the country. The MOH provides services to inmate as out-patients, with referrals to the nearest health clinics and hospitals. Mobile medical teams visit the depot every two weeks to provide treatment and referral as required. In addition, these teams also conduct regular cleanliness assessment of the depots. The distribution of these assessment scores for 2010 is shown in Figure 15.

**Figure 15 : Distribution of Depot Assessment Scores for 2010**



### 3.8.4 National World Health Day 2010

The National World Health Day 2010, with the theme of “Urbanisation and Health” was organised jointly between the Health Education Division, MOH and Malacca State Health Department on 11 April 2010 at West Concourse, Dataran Pahlawan, Malacca Mega Mall. This event was officiated by the Tuan Yang Terutama Tun Datuk Seri Utama Mohd Khalil bin Yaakob, Yang Dipertua Negeri Malacca.







## CHAPTER 4

# *Future Direction*

## Chapter 4 Future Direction

### 4.1 Challenges

In Malaysia, the prevention and control program for NCD has been initiated in the late 1980s and was further strengthened at the turn of the century. Despite various prevention and control programmes and activities, the prevalence of NCD and NCD risk factors continue to rise in Malaysia. Several challenges that have been identified included:

- i. Continuous increase in NCD burden and risk factors;
- ii. Lack of effective inter-sectoral coordination between the relevant government agencies;
- iii. Resource constraints with competing priorities;
- iv. Climate change;
- v. Increasing mental health problems amongst the population.

### 4.2 NCD's Next Development Cycle (10<sup>th</sup> Malaysia Plan, 2011-2015)

Malaysians must be physically, mentally, and spiritually fit to live their life to the fullest. The real goal for Malaysian is to be a healthy nation. To achieve this goal, the NCD Section has developed and planned several programmes and activities for the next Malaysia Plan.

- i. Implementation of the NSP-NCD & NSP for tobacco control (also known as "MPOWER Malaysia");
- ii. Implementation of the National Cancer Control Blueprint;
- iii. Implementation of the Healthy Work Place Healthy Workforce programme;
- iv. Develop policies on preparedness to mitigate the impact of climate change on health;
- v. Strengthen integrated mental health services amongst the target groups; focusing on preventive programmes;
- vi. Develop national policies to control alcohol & substance abuse.





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