



ANNUAL REPORT 2014



**ORAL HEALTH DIVISION
MINISTRY OF HEALTH MALAYSIA**



ANNUAL REPORT

2014

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MINISTRY OF HEALTH MALAYSIA

December 2015

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FOREWORD
PRINCIPAL DIRECTOR FOR ORAL HEALTH
MINISTRY OF HEALTH MALAYSIA



The end of 2014 was time again to take stock of the achievements of our Annual Plans of Action and to move forward into the next year.

Under the National Blue Ocean Strategy (NBOS) initiatives, the Oral Health Programme further increased accessibility to oral healthcare for the *rakyat* through an increasingly comprehensive network of oral health facilities. NBOS has seen a different kind of partnership take form – one where the clinic infrastructure is provided for by the Ministry of Finance and the Ministry of Health provides the human resource and healthcare delivery. Smart partnerships between public and private initiatives have taken on a similar form of collaboration where the infrastructure is built by an entity (ies) outside of the MOH. Under the NBOS initiatives, the Oral Health Programme has proceeded to provide oral healthcare in dental clinics in Urban Transformation Centres (UTC), outreach services in Rural Transformation Centres (RTC), participated in 1Malaysia Family Care (NBOS 7) activities and also gained support for the building of mobile facilities under the Mobile Community Transformation Centre (NBOS 8) initiatives. As of December 2014, a total of 124,815 patients had received dental treatment at nine (9) UTCs, a significant increase in the number of patients compared with the year 2013.

Efforts were also undertaken to strengthen outreach oral healthcare. At the end of 2014, there were 567 mobile dental teams and 29 Mobile Dental Clinics which together had served an estimated 4 million people. The use of the prototype of the first Mobile Dental Laboratory in 2014 is an on-going effort to increase dental lab infrastructure to meet denture demands, especially those of the elderly. This first prototype mobile dental lab was sited in Negeri Sembilan. In 2014, a total of 7,625 elderly Malaysians from private and public institutions for the elderly were rendered dental care.

To improve access to oral healthcare, especially for adults, the Programme has also increased the number of dental clinics providing daily outpatient services. As of December 2014, the number of dental clinics providing daily outpatient services had increased to 447 compared with 409 in 2013, an increase of 9.3%. Similarly, provision of endodontic services were initiated in 21 primary care clinics in the effort to save teeth and reduce tooth loss. Endodontic services in these 21 clinics have served to reduce the waiting time for endodontic treatment. In 2014, a workshop on ‘Strengthening Basic Endodontics’ was once again held to train selected dental officers from all states in the management of posterior teeth endodontics.

A notable event in 2014 was the Mouth Cancer Awareness Week launched by the Honourable Minister of Health Malaysia, Datuk Seri Dr S. Subramaniam at the Kuching Waterfront. Sarawak was chosen as an apt venue for this launch bearing in mind the preponderance of oral lesions in indigenous groups in Sabah and Sarawak. The 2014 theme “Sometimes a Big

"Mouth is a Good Thing" was reflective of the need for dental personnel to raise public awareness on mouth cancer and to emphasize the importance of mouth self-examination and the existence of risk habits to oral malignancies.

The 6th National Oral Health Research Conference 2014 with the theme 'Synergizing Research for Oral healthcare Delivery' was jointly organized by the Oral Health Division, the Malaysian Association of Dental Public Health Specialists and the College of Dental Specialists, Academy of Medicine. The Conference was successfully conducted in November 2014 and served as a platform for members of the Malaysian dental profession to share research projects and findings. Many of the results presented was timely and invaluable in the preparations for the 11th Malaysia Plan (2016-2020).

Malaysia participated in the 6th Asian Chief Dental Officers' Meeting 2014 (6th ACDOM 2014) with the theme 'Oral Health and General Health'. Once again, the event was jointly organized by Malaysia and Thailand. A total of 13 Asian countries participated in the deliberation and exchange of ideas on matters related to oral health policy, planning and implementation of oral health programmes for populations. Another important event organized by the Oral Health Division was the annual National Innovation Awards for the MOH 2014, in which the Principal Director for Oral Health serves as Chairman. This event aims to inspire creativity and to recognize innovations produced by MOH personnel. A total of 45 projects were shortlisted from state level and showcased at national level.

A notable collaborative effort in 2014 was the involvement of the Malaysian Forensic Odontology team in Disaster Victim Identification (DVI) of the MH 17 tragedy. The MOH team comprising members from the Forensics Odontology Unit of Hospital Kuala Lumpur headed by Dr Norhayati Jaffar and the DVI team from the Ministry of Defence led by Brigadier General Dato' Dr Hj Mohd Ilham Hj Haron. At the end of 2014, a workshop was held to review the direction of primary oral healthcare for the next 5 years. One of the pressing issues was to increase accessibility to oral healthcare for adults. With the decline in caries prevalence in the younger generation, the increase in the number of dental graduates joining the MOH, and the financial support gained through the NBOS initiatives and under the Development Funds of the MOH, it is timely for the Oral Health Programme to focus on young adults and adults.

I thank each and every member of the Oral Health family for the dedication, strong commitment and contributions in 2014. Without you, many of the achievements in 2014 would not have been possible. It is also my aspiration that we continue to persevere with renewed vigor in the years ahead for the sake of our people.



Dr Khairiyah bt. Abd Muttalib

Principal Director of Oral Health, Ministry of Health Malaysia
Ministry of Health Malaysia

HIGHLIGHTS 2014

World Oral Health Day, 20 March 2014



The World Oral Health Day (WOHD) was held on 20 March 2014 at Bau Sarawak. The event was officiated by YB Datuk Dr Jerip Susil, Menteri Muda Kesihatan Awam Sarawak with the theme “Celebrating Healthy Smile”. With the aim to encourage individuals, families, communities and governments to take action and help reduce the global burden of the oral disease. The WOHD declared by the Federation Dentaire International (FDI) on March 20 as an international day to celebrate the benefits of a healthy mouth and to promote worldwide awareness on issues surrounding oral health and the importance of looking after one’s oral hygiene.

Walkathon Mouth Cancer Awareness Week, 11 August 2014



The Oral Health Division MOH in collaboration with the Oral Cancer Research and Coordinating Centre University of Malaya (OCRCC), Universiti Teknologi Mara (UiTM), Universiti Kebangsaan Malaysia (UKM), Cancer Research Initiatives Foundation, Royal Medical Corps (KKD), Malaysian Association of Dental Public Health Specialists, the Malaysian Dental Association, the Malaysian Private Dental Practitioners Association, Malaysian Association For Orofacial Diseases and the Malaysian Association of Oro-Maxillofacial Surgeons organized a walkathon on the 11 August 2014, in conjunction with the launch of the Mouth Cancer Awareness Week 2014. It was held at Kuching Waterfront, Kuching, Sarawak and was officiated by YB. Datuk Seri Dr. S. Subramaniam, Minister of Health Malaysia. More than 350 participated in the walkathon to promote the importance of prevention, early detection and treatment of oral cancer to the public and to increase awareness of the public and private dental practitioner on their roles in preventing and early detection of oral cancer.

6th Asian Chief Dental Officers Meeting (ACDOM) , 14-16 August 2014



The annual meeting of Chief Dental Officers and experts all over Asia to exchange ideas, discuss, debate and networking on issues pertaining to oral health policy, planning and implementation of programmes as well as service provision in various countries. The 6th ACDOM was held at Hilton Hotel Kuching Sarawak and is jointly organized by Malaysia and Thailand. It was hosted by the Oral Health Division, Ministry of Health Malaysia and the Malaysian Association of Dental Public Health Specialists with the theme “Oral Health and General Health”. A total of 16 countries participated in this meeting.

National Level Innovation Award, 2-4 September 2014



The National Level Innovation Awards MOH was successfully conducted from 2-4 September 2014 at Hotel Summit USJ Selangor with the objective to enhance creativity and innovation in work process and to acknowledge the efforts made by MOH personnel in various areas. The oral health division is the secretariat for this event. A total of 45 innovations which includes 25 products, 8 processes, 8 services and 4 technologies from the states were put up for judging. The event was officiated by Y. Bhg. Datuk Farida binti Mohd Ali, the Secretary General of the Ministry of Health.

6th National Oral Health Research Conference, 10-12 November 2014



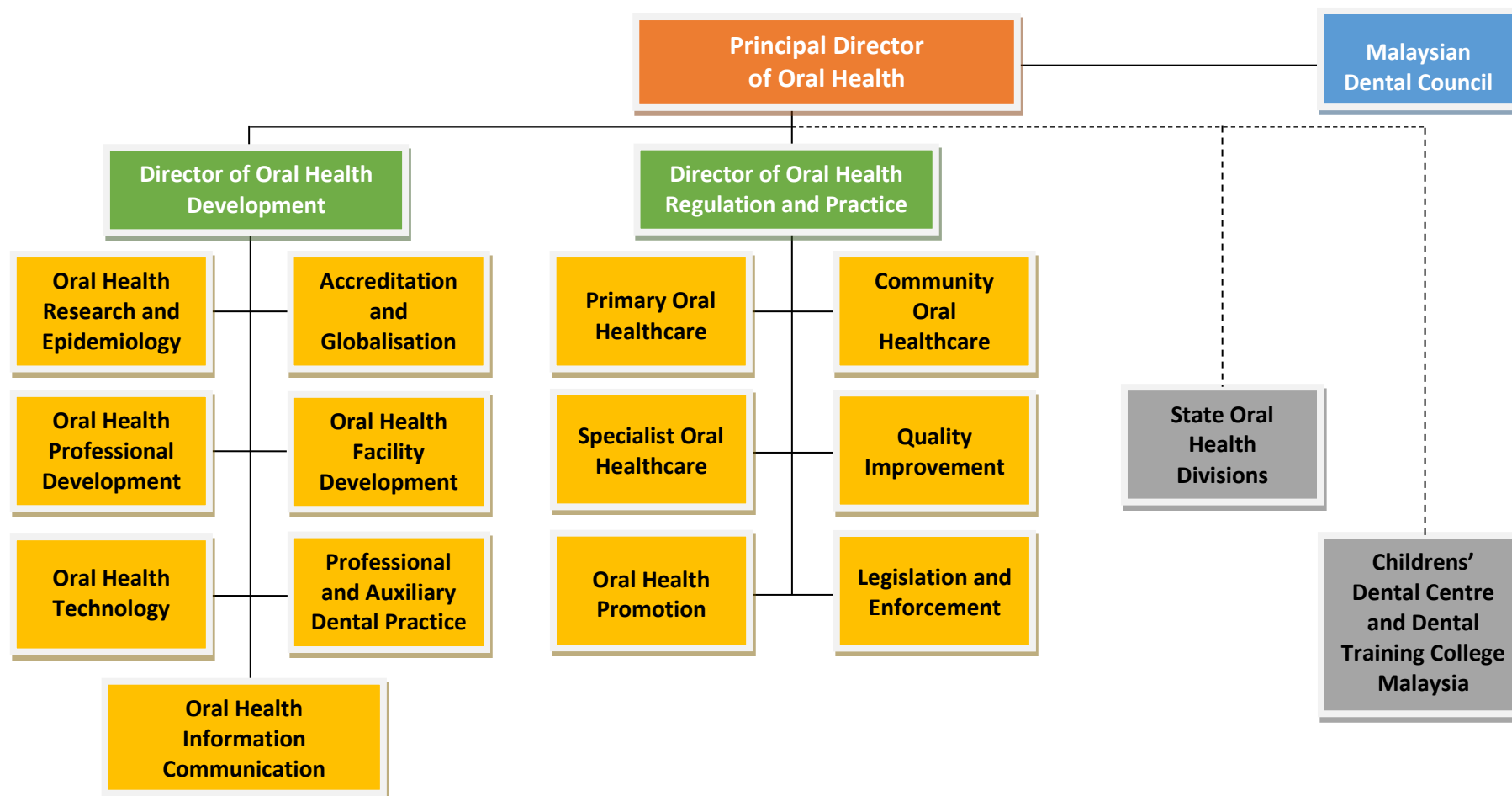
The 6th National Oral Health Research Conference was held successfully at Swiss Garden Hotel, Kuala Lumpur on the 10-12 November 2014 and is jointly organized by the Oral Health Division, Ministry of Health, The Malaysian Association of Dental Public Health Specialists and the College of Dental Specialists, Academy of Medicine Malaysia with the theme 'Synergizing Health Research for Oral Healthcare Delivery'. It was graciously officiated by the guest of honour YBhg. Datuk Dr. Noor Hisham Bin Abdullah, the Director General of Health Malaysia. A total of 630 delegates attended the conference including delegates from Singapore and Thailand.

Oral Health Division Family Day, 30 November 2014



The OHD Family day was held on the 30 November 2014 at Putrajaya Wetland Parks. A total of 41 families of OHD staff participated in several planned activities. The activities included talks on financial management and audits, team building and physical activities. The event aims at closer ties between all staff of OHD. The Family Day is an annual event and is symbolic to show appreciation to each member of the OHD for their contributions.

ORGANISATION STRUCTURE ORAL HEALTH DIVISION, MINISTRY OF HEALTH MALAYSIA



PROFESSIONAL AND TECHNICAL STAFF



First Row: Dr Che Noor Aini bt Che Omar, Datin Dr Salmiah bt Bustanuddin, Datin Dr Nooral Zeila bt Junid, Dr Noor Aliyah bt Ismail, Dr Khairiyah bt Abd Muttalib, Dr Jegarajan a/l N.S. Pillay, Dr Yaw Siew Lan, Dr Rusni bt Mohd Yusof, Dr Savithri a/p Vengadasalam.

Second Row: Dr Azizi bt Ab Malek, Dr Rohayati bt Mohd Noor, Cik Khairulbariah bt Mohammad Lukman, Dr Nurrul Ashikin bt Abdullah, Dr Azilina bt Abu Bakar, Dr Noormi bt Othman, Dr Elise Monerasinghe, Dr Zurina bt Abu Bakar, Dr Noor Syahidah bt Hishamuddin, Dr Faizah bt Kamarudin, Dr 'Ainun Mardhiah bt Meor Amir Hamzah.

Third Row: Dr Noor Akmal bt Muhamat, Dr Nur Farohana bt Zainol, Dr Siti Kamilah bt Kasim, Dr Hazwani bt Hassan, Dr Tan Ee Hong, Dr Norashikin bt Mustapha Yahya.

Forth Row: Dr Nurul Izzati bt Mohd Ali, Dr Salleh bin Zakaria, Dr Aiman Shafiq bin Abd Jalil, Cik Norjanah bt Mohd Nawi, Dr Zainab bt Shamdol, Dr Sofiah bt Mat Ripen, Dr Nurul Syakirin bt Abdul Shukor.

Not in Picture: Dr Zubaidah bt Japri, Dr Natifah bt Che Salleh, Dr Mohd Rashid bin Baharon, Dr Suhana bt Ismail, Dr Norliza bt Ismail, Dr Chu Geok Theng, Dr Tuan Yuswana bt Tuan Soh, Dr Sharol Lail bin Sujak, Dr Cheng Lai Choo, Dr Norlida bt Abdullah, Dr Haznita bt Zainal Abidin.

DENTAL NURSES AND DENTAL TECHNOLOGISTS



First Row: En. Abd Rahman bin Jaafar, Dr Noor Aliyah bt Ismail, Dr Khairiyah bt Abd Muttalib, Dr Jegarajan a/l N.S. Pillay, Pn. Fatimah bt Rahman.

Second Row: Pn. Julaiha bt Mohd Sarif, Pn. Arbiah bt Basri, Datin Zarina bt Abdullah, Pn. Lim Lean Yang, Pn. Hayati bt Mohd Yasin, Pn. Haziah bt Hassan, Pn. Mahani bt Ahamad, Pn. Siti Zuraidah bt Alias.

Third Row: Pn. Sarina bt Othman, Cik Umi Khairul bt Abdul Kadir, En. Zainudin bin Abdul Majid, Pn. Norliza bt Jamalludin, Pn. Zabidah bt Othman.

Not in Picture: Pn. Jeyandra Ghandi a/p Chelliah, Pn. Azirah bt Muhammad, En. Mohd Tohir bin Ibrahim, Pn. Ismalisa bt Ismail.

ADMINISTRATIVE STAFF



First Row: En. Mohamad Agil bin Mohamad Yussoff, En. Emir Ashraff bin Abdullah, Dr Noor Aliyah bt Ismail, Dr Khairiyah bt Abd Muttalib, Dr Jegarajan a/l N.S. Pillay, En. Hidzer bin Harun, En. Shahrudin Naim bin Saad.

Second Row: Pn. Rahanah bt Mat Nor, Cik Nurulliyana bt Mohd Don, Cik Suriyanti bt Sudin, Pn. Azlina bt Linggam, Pn. Jamilah bt Sha'ari, Pn. Wan Ismawati bt Wan Yusof, Pn. Rosyatimah bt Redzuan, Pn. Halimah bt Abu Kasim, Pn. Nur Aisyah Rutel Abdullah, Pn. Umi Kalsom bt Azmi, Pn. Nurul Ashikin bt Mohamad.

Third Row: En. Mustafa An Nor bin Abdul Ghani, En. Muhammad Tahir bin Rosien, En. Azman bin Alias, En. Mohd Sabre bin Omar, Pn. Norulhuda bt Razali.

Forth Row: En. Hasan bin Harun, En. Mohammad Fuadht bin Shahrudin, En. Yusree bin Mahiyar, En. Raszali bin Mahmud.

Not in Picture: Pn. Suzana bt Ahmad, Cik Nur Syhida bt Hamzah, Pn. Norhafizah bt Abu Hassan, En. Shahrizan bin Md Shah, En. Muhamad Zul Khairi bin Zaini, Cik Nor Azimah bt Abd Manab, Pn. Nik Iwani bt Nik Mohd Azami, Pn. Rosilawani bt Ismail, Pn. Siti Asmath bt Che Man.

Vision of the Ministry of Health

A nation working together for better health

Mission of the Ministry of Health

To lead and work in partnership:

To facilitate and support the people to:

- attain fully their potential in health
- appreciate health as a valuable asset
- take individual responsibility and positive action for their health

To ensure a high quality system that is:

- equitable
- affordable
- efficient
- technologically appropriate
- environmentally sustainable
- customer centred
- innovative

With emphasis on:

- professionalism, caring and teamwork
- respect for human dignity
- community participation

Mission of the Oral Health Division

To enhance the quality of life of the population through the
promotion of oral health
with emphasis on patient-centered care and
the building of partnerships for health

PART 1: RESOURCE MANAGEMENT

Financial Resource Management

Human Resource Management

Facilities Management

FINANCIAL MANAGEMENT

1. FINANCIAL MANAGEMENT AT PROGRAMME LEVEL

The Oral Health Programme has received increasing allocations for its operational costs over the years (**Table 1**). In 2014, the Programme received a total adjusted operational allocation of RM731,796,587.00 (*Peruntukan yang Dipinda*) which was 18.56% above that of 2013 and 37.51% above that of 2012.

Table 1: Adjusted Operational Allocation, Oral Health Programme, 2010-2014

Year	Emolument (RM)	Services (RM)	Asset (RM)	Total (RM)
2010	365,771,400.00	72,337,947.00	1,649,159.00	439,758,506.00
2011	425,297,450.00	92,502,300.00	3,350,000.00	521,149,750.00
2012	433,309,400.00	92,914,975.00	5,952,027.00	532,176,402.00
2013	517,050,700.00	94,499,420.00	5,678,281.00	617,228,401.00
2014	591,410,587.00	99,517,656.00	40,868,344.00	731,796,587.00

Source: Finance Division, MOH 2014.

Expenditure covered the following:

- Existing Policies (*Dasar Sedia Ada*)
- New Policies (*Dasar Baru*)
- One-off Programmes/Activities

The final expenditure of RM803,758,625.30 showed over-spending of 9.83% above the final adjusted allocation received for the year (**Table 2**). This excess above the adjusted budget was due to asset procurements under the MEET and the MES programme saving. The majority of the budget (RM799,627,335.54) was under Existing Policies (*Dasar Sedia Ada*).

Expenditure under Existing Policies included Management of Oral Health (Financial Code 050100), Primary Oral Healthcare (Financial Code 050200), Community Oral Healthcare (Financial Code 050300), and Specialist Oral Healthcare (Financial Code 050400).

Table 2: Adjusted Financial Allocation & Expenditure, Oral Health Programme MOH, 2014

Activity	Object Code	Final Adjusted Allocation (RM)	Final Expenditure (RM)	% Final Expenditure to Final Adjusted Allocations
Existing Policies (<i>Dasar Sedia Ada</i>)	050000	730,296,587.00	799,627,335.54	109.49%
New Policies (<i>Dasar Baru</i>)	100500	3,000,000.00	2,948,565.96	98.28%
One-off (Assets)	110100	1,200,000.00	1,182,723.80	98.56%
TOTAL	-	731,796,587.00	803,758,625.30	109.83%

Source: Finance Division and Oral Health Division, MOH 2014.

2. FINANCIAL MANAGEMENT, ORAL HEALTH DIVISION

In 2014, the Division received RM4,086,682.00, of which 92.39% (RM3,775,740.87) was spent (**Table 3**). Funds for the Oral Health Division (OHD) Ministry of Health were from the following sources:

- a) Management of Oral Health
- b) Primary Oral Healthcare
- c) MOH Management (Innovation Award)
- d) MS ISO 9001
- e) One-off for Assets
- f) In-service Training

The operating budget under Financial Codes 050100 and 050200 included the operating costs for the Division, the Malaysian Dental Council (MDC) and other activities at Ministry level. The OHD also received RM127,132.00 from MOH Management for the National Innovation Award which is an annual event in 2014.

The MS ISO 9001:2008 fund of RM9,000.00 was used for external auditor fees and training. The training sessions were for internal quality auditors and other quality-related courses for all categories of personnel of the OHD and from the states. A total of RM19,600.00 (74.81%) of the One-off allocation of RM26,200.00 was spent on assets for the Division.

RM1,350,000.00 of the In-service Training for local training was retained at the Division. In-service training included Continuing Professional Development (CPD) activities for oral health personnel at all levels.

In 2014, the Programme also received RM137,000.00 under the 'One-off for Training' Development Fund of which 95.5% was spent on 10 dental officers attending conferences and training abroad.

Table 3: Adjusted Financial Allocation and Expenditure, Oral Health Division, MOH, 2014

Activity	Object Code	Adjusted Allocation (RM)	Final Expenditures (RM)	% Final Expenditures to Initial Allocations
Management of Oral Health	050100	2,274,350.00	2,040,299.68	89.71
Primary Oral Healthcare	050200	300,000.00	299,995.57	100.00
MOH Management (Innovation Award)	010100	127,132.00	127,131.05	100.00
MS ISO 9001:2008	010300	9,000.00	8,936.00	99.29
One-off (assets)	120200	26,200.00	19,600.00	74.81
In-service Training	000105	1,350,000.00	1,279,778.57	94.80
TOTAL	-	4,086,682.00	3,775,740.87	92.39

3. DEVELOPMENT FUNDS RECEIVED BY THE ORAL HEALTH PROGRAMME

In 2013, the Programme received RM10 million in Development Funds (BP 011; P42) to procure assets for dental activities. In 2014, the Programme was given RM15 million in Development Funds under Financial Code BP 011 to procure medical & non-medical assets and non-ambulance vehicles.

The Programme also received RM3 million allocation for In-service Training, of which RM2,847,701.57 was spent for training held in the country and RM129,080.00 was used for attachments abroad.

3.1 Development Projects under the 10th Malaysia Plan (10MP)

The following development projects were in various states of approval, planning and completion in 2014:

- Three dedicated oral health facilities were approved under Rolling Plan 1 of the 10MP and brought forward to Rolling Plan 3 of the 10MP:
 - Klinik Pakar Pergigian Kota Setar, Kedah*
 - Klinik Pakar Pergigian dan Makmal Mak Mandin, Pulau Pinang*
 - Klinik Pergigian Bau, Sarawak*
- Seven oral health projects were approved under Rolling Plan 3 of the 10MP:
 - Mobile Dental Team (MDT) for 5 states with a total of 45 teams were approved. The allocation of RM17,350,000.00 received was based on specification for portable dental units and vehicle. Central tender for procurement of 53 portable dental unit was completed in 2014.

States	No of MDT
Kelantan	15
Negeri Sembilan	6
FT KL	2
Johor	4
Sarawak	18

- Public Water Fluoridation in Sarawak (completed in 2014)
- One Mobile Dental Clinic (bus type) with 2-dental chair was approved for Perak (delivered to District of Kinta, Perak in December 2014)
- Klinik Pergigian Tanjung Karang, Selangor (Standalone Dental Clinic)*
- Pusat Pakar Pergigian Sabah*
- Klinik Pergigian Sg. Tekam Utara, Jerantut, Pahang*
- Klinik Pergigian Bukit Changgang, Kuala Langat, Selangor*



Figure 1: Mobile Dental Clinic for District of Kinta, Perak

3.2 Upgrading of Existing Facilities (BP0600)

Proposal for upgrading of existing dental facilities are in line with the current oral health design guidelines. Number of facilities proposed for upgrading in 2014 are as follow:

- 46 facilities/projects under BP06 (hospitals, dental clinic, standalone and mobile dental clinic).
- 42 facilities/projects under 'old and critical categories' were under Rolling Plan 5 of the 10MP.

3.3 Development of Norms and Guidelines for New Facilities

Norms for dental facilities in the form of Brief of Requirements (BOR) were prepared for the following:

- a) *Pusat Pakar Pergigian Sabah*
- b) *Klinik Pergigian Tanjung Karang, Selangor*
- c) *Klinik Pergigian Sg. Tekam Utara, Pahang*
- d) *Klinik Pergigian Bukit Changgang, Selangor*

The list of standard equipment and requirement for the proposed dental clinics in **minor specialist hospitals** was reviewed in anticipation of establishment of hospital dentistry in Hospital Lahad Datu, Hospital Keningau, Hospital Langkawi and Hospital Slim River.

In addition, inputs on design and room data for dental component in the new development of Klinik Kesihatan Kuala Lumpur (KKKL) were also prepared in 2014.

3.4 Dental Equipment and Vehicles

In 2014, RM15 million were approved under Development Budget for replacing, upgrading and buying new dental equipment and vehicles. The list of equipment and vehicles were compiled, prioritized and submitted to the Development Division, MOH.

3.5 Procurement of Assets (Operating Funds)

A total of RM17 million were approved under Operating Budget (B42) *Dasar Sedia Ada Penjimatan MES* for procurement of assets for hospital based & non-hospital based dental specialists. In addition, under Operating Budget (B42) *Dasar Sedia Ada Penjimatan MEET*, the OHD also received a total of RM20 million for assets procurement in primary and specialist dental clinics.

3.6 Hospital and Health Clinic Support Services of Biomedical Equipment Management Services (BEMS) – Medical Equipment Enhancement Tenure (MEET) Programme

Contract of Concession Agreement for privatisation of BEMS in health and dental clinics, Ministry of Health under the Medical Equipment Enhancement Tenure (MEET) programme by Syarikat Quantum Medical Solutions Sdn Bhd (QMS) was finalised and signed on 17 April 2014. The effective date for this project to take effect was on 17 December 2014.

The proposal to implement MEET projects to five other states i.e. Kedah, Perlis, Kelantan, Terengganu & Pahang by Syarikat Produktif Kualiti Medical Supply (PKMS) was not yet finalised. However, the verification of clinic and biomedical equipment list have been coordinated with end users from the states.

3.7 Hospital and Health Clinic Support Services of Facilities Engineering Management Services (FEMS), Biomedical Equipment Management Services (BEMS), Cleaning Services (CLS) and Clinical Waste Management Services (CWMS).

In 2014, MOH proposed to expand the privatisation of three services (FEMS, CWMS & CLS) for clinic support services in Health and Dental Clinics throughout the country. The list of nine standalone dental clinics for the project was identified and submitted to Engineering Division, MOH.

3.8 Development of Oral Health Facility Database

The database on oral health facilities at the Health Informatics Centre, Planning Division, MOH was updated. The link of oral health facilities database to human resources database was also updated using Microsoft Access version 2010.

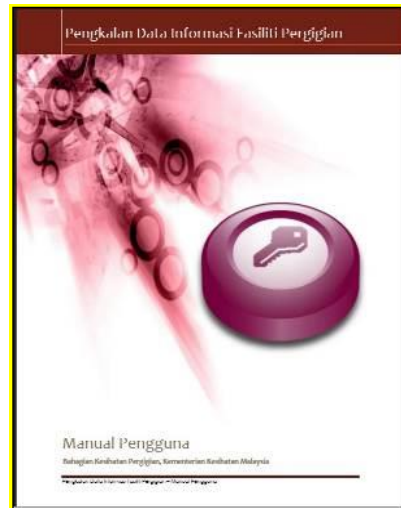


Figure 2: User manual of Oral Health Facility Database

3.9 Evaluation of Development Projects

The evaluation of development projects is crucial to ensure that the project is completed and function as planned. The evaluation is done with the cooperation of Development Division, MOH as well as the Implementation and Coordination Unit (ICU), Prime Minister Department. The outcome evaluation (*kajian outcome*) of Mobile Dental Clinic Negeri Kedah has been presented in *Kursus Pembangunan dan Perkembangan Fasilitas Kesehatan Pergigian 2014*.



Figure 3: Evaluation of Mobile Dental Clinic, Kulim Kedah

3.10 Training

Kursus Pembangunan dan Perkembangan Fasiliti Kesihatan Pergigian was held on 2 – 4 October 2014 at Hotel Crystal Crown, Johor Bahru, Johor. The course was conducted for dental officers in relation to management of development projects, procurement of dental equipment, implementation and evaluation of development projects and management of the Oral Health Database on Facilities and Human Resources.

4. MONITORING STATE FINANCIAL MATTERS

The OHD also monitor allocation and expenditure at state level. In 2014, under Existing Policies (*Dasar Sedia Ada*), Sarawak received the highest allocation, followed by Sabah and Selangor. Most states spent more than their initial allocations, with Terengganu being the highest (115.21%), followed by Kelantan (114.82%) and Sabah (113.28%) (**Table 4**). The overspending was due to increase in emoluments. Only four states spent less than the allocation given which were Perlis, PPKK & KLPM, HKL and IMR.

Table 4: Adjusted Financial Allocation and Expenditure under Existing Policies by States and Institutions, 2014

State	Adjusted Allocation (RM)	Final Expenditure (RM)	% Final Expenditure to Initial Allocation
Perlis	16,609,630.00	16,298,052.18	98.12%
Kedah	48,547,881.00	53,127,973.73	109.43%
Pulau Pinang	42,248,954.00	44,752,603.30	105.93%
Perak	66,594,445.00	71,002,539.99	106.62%
Selangor	67,621,070.00	73,764,697.32	109.09%
Negeri Sembilan	40,831,000.00	45,530,913.76	111.51%
Melaka	31,626,902.00	33,695,220.28	106.54%
Johor	61,500,110.00	65,378,917.74	106.31%
Pahang	51,473,800.00	57,735,837.98	112.17%
Terengganu	43,756,400.00	50,411,289.64	115.21%
Kelantan	49,202,514.00	56,493,048.50	114.82%
Sabah	68,241,050.00	77,304,779.05	113.28%
Sarawak	79,972,925.00	88,951,644.35	111.23%
FT KL & Putrajaya	39,845,000.00	42,476,612.94	106.60%
FT Labuan	3,224,900.00	3,292,336.88	102.09%
OHD, MOH	9,927,150.00	10,902,511.80	109.83%
PPKK & KLPM	439,000.00	430,683.11	98.11%
HKL	7,718,566.00	7,341,608.39	95.12%
IMR	915,290.00	735,064.60	80.31%
TOTAL	730,296,587.00	799,627,335.54	109.49%

Source: Finance Division, MOH 2014.

HUMAN RESOURCE MANAGEMENT

The oral health workforce in the Ministry of Health consists of dental officers (including dental specialists), dental auxiliaries (dental nurses, dental technologists and dental surgery assistants), training staffs (tutors) and support staff (attendants, administrative staff and drivers).

1. COMPOSITION OF THE ORAL HEALTH WORKFORCE

There were 16,166 posts for oral health personnel in the Ministry of Health in 2014, an increase of 5.8% from 15,278 in 2013. Out of 16,166 posts, 3,692 (22.8%) were dental officers' posts, of which 88.7% were filled (**Table 5**).

Table 5: Oral Health Personnel in MOH, 2012 – 2014

CATEGORY	2012			2013			2014		
	Post	Filled	% vac	Post	Filled	% vac	Post	Filled	% vac
Dental Officers	2,721	2,461	9.6	3,307	2,844	14.0	3,692	3,274	11.3
Dental Nurse	2,815	2,574	8.6	2,835	2,626	7.4	2,972	2,633	11.4
Dental Technologist	943	858	9.0	987	892	9.6	988	918	7.1
Dental Surgery Assistants	3,583	3,422	4.5	3,981	3,503	12.0	4,021	3,581	10.9
Others	3,253	3,055	6.1	4,168	3,064	26.5	4,493	4,162	7.4
TOTAL	13,315	12,370	7.1	15,278	12,929	15.4	16,166	14,568	9.9

vac= vacant

1.1 Distribution of Dental Officers and Dental Specialists

From 2012, more officers have been posted to Sabah and Sarawak to address the states needs. However, of the 244 posts allocated for clinical dental specialists, only 202 (82.8%) were filled. Posts and vacancies for clinical dental specialists are quite flexible as posts are often 'borrowed' between disciplines to cater for new postgraduates re-joining the workforce (**Table 6**).

Table 6: Dental Officers and Clinical Dental Specialists in MOH, 2014

State	Dental Officers			Clinical Dental Specialists		
	Post	Filled	% vac	Post	Filled	% vac
West Malaysia	2,871	2,605	9.4	211	185	14.7
Sabah	265	225	15.1	13	10	23.1
FT Labuan	11	6	5.0	0	0	0
Sarawak	301	240	20.6	20	14	40.0
Total	3,448	3,072	10.9	244	202	17.2

Vac= vacant

1.2 New Posts Approved

A total of 606 new posts were approved in 2014 for the whole Programme (**Table 7**), compared to 1201 in 2013.

Table 7: New Posts Approved, 2014

CATEGORY OF PERSONNEL	NO. OF POSTS APPROVED
Dental Specialists	
• Grade U41/44/48/52/54	0
Dental Officers	
• Grade U41/44/48/52/54	385
ICT Officers (<i>Pegawai Teknologi Maklumat</i>)	
• Grade F44	0
Dental Nurses	
• Grade U29/32	77
• Grade U32	55
• Grade U36	3
• Grade U38	1
• Grade U40	2
Dental Technologists	
• Grade U29/U32	0
• Grade U32	0
• Grade U36	0
• Grade U40	0
Dental Surgery Assistants	
• Grade U17/U22	0
• Grade U22	40
• Grade U24	0
Support Staff	
• Assistant Executive Officer (<i>Penolong Pegawai Tadbir</i>)	0
• Administrative Assistant (<i>Pembantu Tadbir N17/N22</i>)	3
• Attendants (<i>Pembantu Perawatan Kesihatan Gred U3/U12</i>)	24
• Drivers (<i>Pemandu Kenderaan Bermotor R3/R6</i>)	15
TOTAL	606

2. PROMOTION EXERCISES

In 2014, a total of 585 dental officers from various grades were promoted. As for clinical dental specialists, fourteen (14) were promoted to Grade U54 and five to Grade U52 (**Table 8**).

Table 8: Promotion Exercise for Clinical Specialists and Dental Officers, 2014

Category	Grade										Total
	Special A	Special B	Special C (KUP)	JUSA A	JUSA B	JUSA C	U54	U52	U44	U48	
Clinical Specialist	-	-	-	-	-	-	14	5	-	-	19
Dental officer	-	-	-	-	-	-	31	56	119	379	585
Total	-	-	-	-	-	-	45	61	119	379	604

For dental auxiliaries, 488 from various categories were also promoted (**Table 9**).

Table 9: Promotion Exercises for Dental Auxiliaries, 2014

Category	Grade								Total
	U40	U38	U36	U32	KUP U32	U29	U24	U22	
Dental Nurses	2	7	29	33	340	0	0	0	411
Dental Technologists	2	1	11	11	0	0	0	0	25
Dental Surgery Assistants	0	0	0	0	0	0	1	51	52
Total	4	8	40	44	340	0	1	51	488

3. DENTAL SPECIALTIES IN THE MINISTRY OF HEALTH

There are nine dental specialty disciplines recognised under the Oral Health programme. These are Oral Surgery, Orthodontics, Periodontology, Paediatric Dentistry, Oral Pathology & Oral Medicine, Restorative Dentistry, Special Needs Dentistry, Forensic Dentistry and Dental Public Health.

3.1 Number of Dental Specialists

The number of dental specialists in MOH increased 3.8% from 291 in 2013 to 302 in 2014. Among these were 114 Dental Public Health Specialists in MOH (37.7%) in 2014 (**Table 10**).

Table 10: Number of Dental Specialists in MOH, 2014

Discipline	Oral Surgery	Orthodontics	Periodontics	Paediatric Dentistry	Oral Pathology & Oral Medicine	Restorative Dentistry	Special Needs Dentistry	Forensic Odontology	Dental Public Health	Total
2010	45	32	19	25	8	14	0	0	129	272
2011	45	25	20	27	9	16	0	0	118	260
2012	48	34	21	29	9	17	2	1	116	276
2013	54	38	24	33	9	19	2	1	111	291
2014	56	48	29	35	10	20	3	1	114	302

4. NETT GAIN/LOSS OF DENTAL OFFICERS

In 2014, a total of 604 dental officers joined the MOH, while 219 left the service for various reasons, resulting in an overall nett gain of 385 in the MOH. There was a steady nett gain of dental officers from 2005 to 2013, however a decrease in net gain of dental officers were recorded in 2014 (**Table 11**).

Table 11: Nett Gain/Loss of Dental Officers in MOH, 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Joined MOH	145	179	232	215	222	297	415	514	693	604
Left MOH	56	78	107	84	81	104	105	96	129	219
Retired (Compulsory)	7	10	20	9	2	10	13	3	1	16
Retired (Optional)	9	5	2	0	2	5	2	3	5	4
Resigned	32	48	73	54	54	72	82	89	122	198
Released with Permission	6	14	10	20	23	16	7	0	0	0
Other Reasons	2	1	2	1	0	1	1	1	1	1
Nett Gain/Loss	89	101	125	131	141	193	310	418	564	385

5. DENTAL OFFICERS ON CONTRACT WITH THE MINISTRY

Dental officers were offered employment on a contract basis to address need in the MOH. With the increase in dental graduates joining the Ministry, the policy for the recruitment of contract dental officers was revised and took effect from 2012:

- No new recruitment of non-citizen contract dental officers (unless they are spouses of Malaysians).
- Defer the recruitment of retired non-specialist dental officers as contract dental officers.
- Recruitment of retirees limited only to those with specialty qualifications but subject to placement in areas of service need.

Generally, there has been a declining trend of contract officers with the revised policy for employment (Table 12).

Table 12: Recruitment of Contract Dental Officers in MOH, 2010 - 2014

YEAR	MALAYSIANS			NON - CITIZENS					
	Retiree			Non-Spouse			Spouse		
	Posts	Filled	% Filled	Posts	Filled	% Filled	Posts	Filled	% Filled
2010	80	39	48.7	80	43	53.7	20	15	75.0
2011	80	37	46.2	80	35	43.7	20	12	60.0
2012	80	36	45.0	80	24	30.0	20	10	50.0
2013	80	15	18.7	80	2	2.5	20	10	50.0
2014	80	14	17.5	80	1	1.3	20	11	55.0

FACILITIES MANAGEMENT

The Ministry of Health has established a comprehensive network of oral healthcare facilities which are located in stand-alone clinics, health clinics, hospitals, primary and secondary schools and institutions.

Under the Government's National Blue Ocean Strategy, Urban Transformation Centres (UTCs) have been established. These are built by the Ministry of Finance, and staffed and operated by the Ministry of Health. 1Malaysia Clinics within the UTCs are aimed at providing Malaysians with access to outpatient health services, including oral health services. In addition to the UTCs, Rural Transformation Centres (RTC), also funded by the MOF, have been established, where outpatient oral healthcare is delivered through the outreach concept.

In addition, various Mobile Dental Clinics (buses, trailers, lorries and caravans) and mobile dental teams provide outreach services, especially to schoolchildren and to populations in suburban and remote areas of the country. In 2014, there were 1,680 dental facilities with 3,127 dental units in the MOH (**Table 13**).

Table 13: Oral Health Facilities in MOH, 2014

Facility Type	Facilities	Dental Units
Stand-alone Dental Clinics	53*	461
Dental Clinics in Health Centres	576	1393
Dental Clinics in Hospitals	66	352
School Dental Clinics	926	849
Mobile Dental Clinics	26	44
Mobile Dental Laboratories	1	-
1Malaysia Mobile Dental Clinics		
• Bus	1	1
• Boat	2	0
Dental Clinic in 1Malaysia Clinics		
• Urban Transformation Centres (UTC)	8	14
• Rural Transformation Centres (RTC)	6	0
Others:	15	13
• Prisons/ <i>Maktab Rendah Sains MARA (MRSM) Pusat Serenti</i> , Handicapped Children's Centres and Children Spastic Centres.		
Total	1,680	3127

Source: Health Informatics Centre, MOH 2014.

* Including Children Dental Centre & Malaysian Dental Training College, Penang.

In addition, there were 576 mobile dental teams, with an estimated 2,331 portable dental units (**Table 14**).

Table 14: Mobile Dental Teams in MOH, 2014

Facility Type	Facilities	Dental Units
Mobile Dental Team		
• School Mobile Dental Teams (Primary and Secondary Schools)	433	} 2331**
• Pre-School Mobile Dental Teams	139	
• Elderly & Special Needs Mobile Dental Teams	4	
Total	576	2331

Source: Health Informatics Centre, MOH 2014.

**Total no. of portable dental units for mobile dental teams

PART 2: ORAL HEALTH DEVELOPMENT

**Professional Development
Oral Health Promotion
Epidemiology and Research
Oral Health Technology**

ORAL HEALTH PROFESSIONAL DEVELOPMENT

1. RECOGNITION AND ENDORSEMENT OF DENTAL POST-GRADUATE QUALIFICATIONS

1.1 JPA Recognition of Dental Post-graduate Qualifications

The following qualifications obtained full recognition by *Jabatan Perkhidmatan Awam* (JPA) at the meeting of the Permanent Committee for Assessment and Recognition of Qualifications (*Jawatankuasa Tetap Penilaian dan Pengiktirafan Kelayakan*) on 10 February 2014:

- a. Master of Community Oral Health (MCOH), University of Malaya
- b. Doctor of Dental Public Health (DrDPH), University of Malaya
- c. Doctor of Clinical Dentistry (Periodontology), University of Adelaide, Australia
- d. Master of Science in Clinical Dentistry (Periodontology), University of Manchester, United Kingdom
- e. Doctor of Clinical Dentistry (Periodontology), University of Otago, New Zealand
- f. Diploma of Memberships in Restorative Dentistry (Prosthodontics), Royal College of Surgeons of England, United Kingdom
- g. Diploma of Memberships in Restorative Dentistry (Prosthodontics), Royal College of Physicians and Surgeons, Glasgow, Scotland
- h. Diploma of Memberships in Prosthodontics, Royal College of Surgeons Edinburgh, United Kingdom
- i. Doctor of Clinical Dentistry (Paediatric Dentistry), University of Melbourne, Australia
- j. Master of Dental Surgery (Paediatric Dentistry) and Advanced Diploma in Paediatric Dentistry, University of Hong Kong, Hong Kong

1.2 Endorsement of Dental Postgraduate Qualifications by *Jawatankuasa Khas Perubatan (JKP)*

The Medical Special Committee [*Jawatankuasa Khas Perubatan (JKP)*] endorsed the following post-graduate qualifications on 27 March 2014:

- a. Doctorate in Clinical Dentistry [DClinDent (Periodontics)], University of Sheffield, United Kingdom
- b. Master of Dental Surgery in Periodontology [MDS (Periodontology)], National University of Singapore, Singapore
- c. Master of Dental Surgery [MDS (Periodontology)], University of Hong Kong, Hong Kong

The *JKP* endorsed the following post-graduate qualifications on 17 July 2014:

- a. Doctor of Clinical Dentistry (Orthodontics), *Universiti Teknologi MARA (UiTM)*

The *JKP* also endorsed the following post-graduate qualifications on 10 December 2014:

- a. Diploma of Membership in Periodontics, Royal College of Surgeons of Edinburgh (M Perio RCSEd), Scotland
- b. Diploma of Membership in Restorative Dentistry (Periodontology), Faculty of Dental Surgery, Royal College of Surgeons of England (MRD FDSRCSEng), United Kingdom
- c. Diploma of Membership in Restorative Dentistry (Periodontology), Royal College of Physicians and Surgeons of Glasgow (MRDRCPs Glasgow), Scotland
- d. Doctor of Clinical Dentistry (DClinDent) Periodontics, University of Sydney, Australia

- e. Doctor of Clinical Dentistry (DClinDent) Periodontics, University of Melbourne, Australia
- f. Doctor of Clinical Dentistry (DClinDent) Periodontics, University of Western Australia, Australia
- g. Doctor of Clinical Dentistry (DClinDent) Periodontics, University of Griffith, Australia
- h. Master of Dental Surgery (MDS) Paediatric Dentistry, University of Hong Kong, Hong Kong

2. GAZETTEMET OF DENTAL SPECIALISTS

2.1 Gazettement of Dental Public Health Specialists

There were four meetings of the Dental Specialist Gazettement and Evaluation Committee [*Jawatankuasa Penilaian Pewartaan Pakar Pergigian (JPPPP)*] in 2014 (12 March, 12 June, 11 September, and 4 December) to assess and make recommendations to the JKP for gazettelement of dental specialists in the MOH.

Nine Dental Public Health Specialists were gazetted in 2014 (**Table 15**).

Table 15: Dental Public Health Specialists Gazetted, 2014

No.	Name	Gazettelement Date	Pre-Gazettelement Period	Posting
1.	Dr Chung Yee Ying *	27.3.2014	11 years	PKPD Seberang Perai Tengah
2.	Dr Akmal Aida binti Othman	12.6.2014	2 years	Bahagian Perancangan & Pembangunan
3.	Dr Norliza binti Ismail	12.6.2014	3 years	BKPKKM
4.	Dr Azura binti Abdullah	12.9.2014	6 months	PKP Titawangsa
5.	Dr Zakiah binti Muhammad	12.9.2014	6 months	Pej TPKN(G) Negeri Sembilan
6.	Dr Nazita binti Yaacob	12.9.2014	2 years	BKPKKM
7.	Dr Zurina Asiah binti Musa	12.9.2014	2 years	PKPD Rembau
8.	Dr Sofiah binti Mat Ripen	12.9.2014	3 years	Majlis Pergigian Malaysia
9.	Dr Jamaliah binti A Rahman	12.9.2014	8 years	PKPD Kulaijaya

* Graduate Diploma in Community Oral Health and Epidemiology – gazettelement of Dental Public Health Specialist (Khas Untuk Penyandang).

2.2 Gazettement of Clinical Dental Specialists

Twenty five (25) clinical specialists were gazetted in 2014 (**Table 16**).

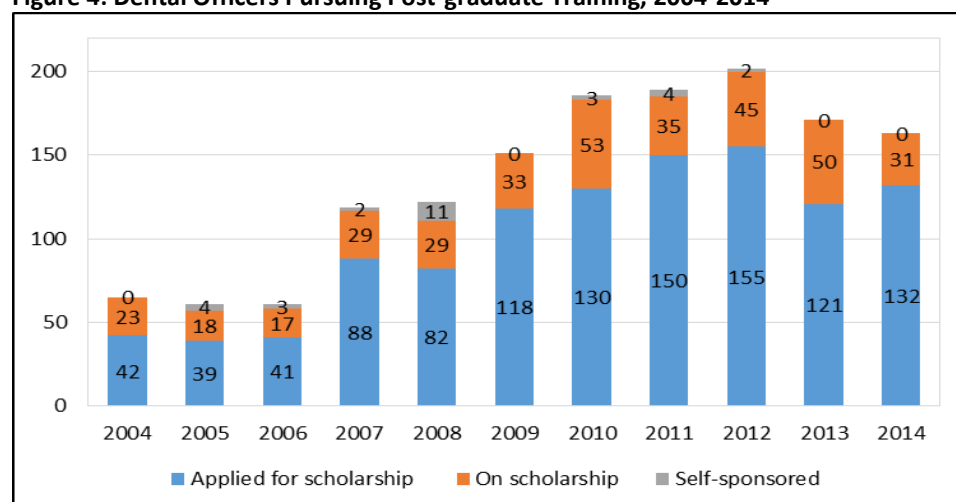
Table 16: Dental Clinical Specialists Gazetted, 2014

No.	Name	Gazettelement Date	Pre-Gazettelement Period	Posting Place
1.	Dr Roslili binti Mat	5.3.2014	6 months	KP Kuala Krai
2.	Dr Saravanan a/l Gopalan	5.3.2014	6 months	Jabatan Bedah Mulut, Hospital Queen Elizabeth
3.	Dr Muhammad Ridwan bin Yeop Ismail	5.3.2014	6 months	KP Hospital Tuanku Fauziah, Perlis
4.	Dr Vimahl Dass a/l Paramanandam	5.3.2014	6 months	Jabatan Bedah Mulut, Hospital Lahad Datu

5.	Dr Ch'ng Lay Ling	5.3.2014	6 months	<i>Hospital Seberang Jaya</i>
6.	Dr Nor Adilah bt Harun	5.3.2014	6 months	<i>Letak jawatan September 2014</i>
7.	Dr Sh Maznah bt Wan Mohammed	5.5.2014	6 months	<i>KP Cahaya Suria</i>
8.	Dr Fadzira bt Maarof	5.5.2014	6 months	<i>KP Hospital Putrajaya</i>
9.	Dr Azalina bt Osman @ Ali	5.5.2014	6 months	<i>Hospital Wanita dan Kanak- Kanak Likas, Sarawak</i>
10.	Dr Lee Siew Wei	5.3.2014	18 months	<i>KP Hospital Umum, Sarawak</i>
11.	Dr Zuryany bt Mohamed Zaid	29.5.2014	6 months	<i>KP Hospital Sultanah Zahirah</i>
12.	Dr Khamisah binti Awang Kechik	7.6.2014	6 months	<i>Hospital Raja Permaisuri Bainun, Ipoh Perak</i>
13.	Dr Dasera Raj a/l Vedha Raj	1.7.2014	18 months	<i>KP Hospital Seberang Jaya</i>
14.	Dr Praema a/p Suppiah	20.8.2014	18 months	<i>KP Teluk Intan</i>
15.	Dr Chang Chiew Sinn	19.9.2014	12 months	<i>KP Sungai Petani</i>
16.	Dr Soon Hooi Imm	19.9.2014	12 months	<i>KP Changloun</i>
17.	Dr Nivethiny a/p Nathan	25.9.2014	12 months	<i>KP Jalan Abdul Samad, Johor</i>
18.	Dr Freeda Woon bt Faiza Woon Tai Keat	26.9.2014	18 months	<i>KP Mak Mandin, Pulau Pinang</i>
19.	Dr Chung Yuan Ting	30.9.2014	12 months	<i>KP Batu 2 ½ Kemaman</i>
20.	Dr Nabilah Sawani bt Harith	24.10.2014	12 months	<i>KP Hospital Sultanah Aminah</i>
21.	Dr Saraswathy Devi a/p Sinniah	1.12.2014	18 months	<i>KP Senggarang</i>
22.	Dr Norhayati Abas	3.12.2014	6 months	<i>KP Paya Besar</i>
23.	Dr Suhailiza binti Saharudin	4.12.2014	6 months	<i>KP Pakar Pediatrik, Hospital Raja Permaisuri Bainun</i>
24.	Dr Chitra Devi a/p Sathy Vello	4.12.2014	6 months	<i>Jabatan Pergigian Pediatrik, Hospital Seberang Jaya</i>
25.	Dr Nurlidiah binti Md. Ghazali	20.12.2014	6 months	<i>Jabatan Bedah Mulut, Hospital Sultan Ismail, Johor</i>

3. POST-GRADUATE TRAINING FOR DENTAL PROFESSIONALS

Out of 132 dental officers who applied, 46 (34.8%) were offered Federal Scholarships for postgraduate training in 2014. Only 31 were taken up due to limited training slots (**Figure 4**).

Figure 4: Dental Officers Pursuing Post-graduate Training, 2004-2014

Eighteen dental officers pursued post-graduate training at local universities, while thirteen went abroad, including those for 'Areas of Special Interest' (**Table 17**).

Table 17: Dental Officers Pursuing Postgraduate Training by Discipline, 2014

Discipline	On Scholarship		Total
	Local	Abroad	
1. Oral Surgery	7	1	8
2. Orthodontics	1	2	3
3. Periodontics	7	1	8
4. Paediatric Dentistry	0	3	3
5. Restorative Dentistry	1	3	4
6. Oral Pathology & Oral Medicine	0	0	0
7. Special Needs Dentistry	0	1	1
8. Dental Public Health	2	0	2
9. Area of Special Interest	0	2	2
TOTAL	18	13	31

Thirty-nine dental officers completed post-graduate training in 2014 (**Table 18**).

Table 18: Dental Officers who Completed Post-graduate Training, 2014

Discipline	Local Universities	Institutions Abroad
1. Oral Surgery	6	1
2. Orthodontics	0	7
3. Periodontic	4	2
4. Paediatric Dentistry	6	1
5. Restorative Dentistry	4	1
6. Oral Pathology & Oral Medicine	2	0
7. Special Needs Dentistry	0	0
8. Dental Public Health	5	0
9. Areas of Special Interest	0	0
TOTAL	27	12

4. PROFESSIONAL DEVELOPMENT OF DENTAL AUXILIARIES

4.1 Post-Basic Training

The post-basic training in Oral Maxillofacial for dental technologists was conducted from July to December 2014 at the Childrens' Dental Centre and Dental Training College Malaysia in Penang [*Pusat Pergigian Kanak-kanak & Kolej Latihan Pergigian Malaysia* (PPKK & KLPM)]. Out of 42 applicants, 14 were offered, accepted and completed the course (**Table 19**).

Table 19: Dental Auxiliaries trained in Post-basic Courses, 2009-2014

Year	Dental Nurse		Dental Technologist	
	Post basic	No.	Post basic	No.
2009	Periodontics	20	-	-
2010	Paediatric Dentistry	23	-	-
2011	-	-	Orthodontics	24
2012	Periodontics	24	-	-
2013	Periodontics	22	-	-
2014	-	-	Oral Maxillofacial	14

The previous post-basic training in Oral Maxillofacial for dental technologist was conducted in 2007 with 25 candidates. However, up to December 2014, only 18 of them are still practising. One of the important module in post-basic training in Oral Maxillofacial is prosthesis construction. The objective of maxillofacial prosthesis construction is to replace parts or the missing tissues removed during surgical to increase quality of life of the patients or as an aid prior to surgical treatments such as in the cases of some cleft patients.

There are concerns that increasing number of cases and request from other agencies/specialties for maxillofacial prosthesis. There are also increasing trends of cancer and cleft patients which some would need maxillofacial prosthesis as part of the treatment. In the previous years, there were 244, 241 and 317 cases which needed prosthesis from the year 2011 to 2013 consecutively. The cases range from eye prosthesis to surgical plates and obturators. Therefore, the training will provide additional capable and trained dental technologists to cater the increasing needs of maxillofacial prosthesis treatment.

5. IN-SERVICE TRAINING FOR DENTAL PERSONNEL

From a total of RM3,000,000.00 received in 2014, RM2,870,000.00 (95.7%) was allocated for in-service training in the country, while the remaining RM130,000.00 (4.3%) was set aside for training abroad (**Table 20**).

Table 20: Funds for In-Service Training under 9th & 10th Malaysia Plans

Year	In-Service Training	Allocation (RM)	Dental Professionals And Auxiliaries Trained	Expenses (RM)	% Expenditure
9th Malaysia Plan (2006-2010)					
2006	Local	290,000.00	645	272,817.45	97.2
	Overseas	417,190.00	15	383,876.00	92.0
2007	Local	1,070,000.00	4,756	1,067,638.10	99.8

	Overseas	708,801.00	30	688,870.00	97.2
2008	Local	1,199,533.00	5,424	1,192,942.16	99.8
	Overseas	733,800.00	23	711,252.12	96.9
2009	Local	1,253,000.00	3,434	1,246,149.28	99.5
	Overseas	1,047,000.00	27	850,000.00	81.2
2010	Local	1,825,000.00	12,433	1,822,130.00	99.8
	Overseas	1,175,000.00	32	1,100,000.00	93.6
10th Malaysia Plan (2011-2015)					
2011	Local	2,015,000.00	14,929	2,014,731.00	99.9
	Overseas	985,000.00	23	960,000.00	97.5
2012	Local	2,660,000.00	17,294	2,571,992.00	96.7
	Overseas	340,000.00	10	340,000.00	100.0
2013	Local	2,914,660.00	20,450	2,913,067.29	99.9
	Overseas	35,340.00	2	35,340.00	100.0
2014	Local	2,870,000.00	19,460	2,847,701.57	99.2
	Overseas	130,000.00	8	129,080.00	99.3

5.1 Local In-Service Training

As of end December 2014, 21 Consultancy Training and Courses for Specialties were conducted and attended by 1,343 dental personnel (**Table 21**).

Table 21: Consultancy Training & Courses for Specialties, 2014

Specialty	Training Topic	Consultant & Participants	Date	Expenses	Venue
Dental Public Health Specialists (DPHS)	21st FDI/MDA 2014	60 DPHS & Dental officers	18-19/1/2015	RM24,000	Hotel Sunway Pyramid
	1st Biennial DPH Conference & 5th MADPHS AGM	60 DPHS	28-30/3/2014	RM21,000	Hotel Swiss Garden, Kuala Lumpur
	MIDEC 2014	358 DPHS & Dental officers, 267 Auxiliaries	30/5-1/6/2014	RM241,500	KLCC
	Training & Standardisation of Trainers for Early Detection of Oral Cancer	28 dental officers	11-13/8/2014	RM19,600	Hotel Grand Margherita, Kuching, Sarawak
	8th National Conference for Clinical Research 2014	1 DPHS	30/9-2/10/2014	RM990	Hotel Four Points by Sheraton, Kuching
	National Oral Health Research Conference 2014	190 DPHS & Dental Officers	10-12/11/2014	RM129,250	Hotel Swiss Garden and Residences, Kuala Lumpur.

	Workshop on Research for Busy Clinicians in Conjunction with National Oral Health Research Conference 2014	2 DPHS	10/11/2014	RM2,500	<i>Swiss Garden Hotel, KL</i>
	Health Financing Conference	2 DPHS	17-18/11/2014	RM900	<i>PPUKM, Cheras KL</i>
	Leading for Innovation	2 DPHS and Oral Medicine and Oral Pathology Specialists	20/11/2014	RM5,000	<i>UTM Jalan Semarak, KL</i>
	Scientific Writing Seminar	5 DPHS	26-27/11/2015	RM1,250	<i>PPUM</i>
Dental Public Health Specialists (DPHS)	Negotiation Skills	30 TPKN(G)	1-3/12/2015	RM28,500	<i>Hotel Everly, Putrajaya</i>
Oral Surgery	18th MAOMS Annual Scientific Meeting	12 Oral & Maxillofacial Surgeons	28-30/3/2014	RM5,400	<i>Hotel Equatorial, Melaka</i>
	Current Operative Maxillofacial Surgery : Techniques in Orthognatic Surgery & Distraction Osteogenesis	46 Oral & Maxillofacial Surgeons, Dental Officers	22-26/9/2014	RM93,390	<i>Hospital Kuala Lumpur</i>
Orthodontics	9th APOC & 20th MAOISCTE 2014	58 Orthodontist	17-20/10/2014	RM124,000	Borneo Convention Centre, Kuching, Sarawak
Paediatrics	MAPD Seminar & Workshop 2014	70 Paediatric Dentistry Specialists & Dental Officers	1-2/5/2014	RM14,000	<i>Hotel Evergreen Laurel, Pulau Pinang</i>
Periodontics	<i>Seminar anjuran</i> Malaysian Society of Periodontology (MSP)	55 Periodontists	13-14/12/2014	RM24,750	<i>Fakulti Pergigian , UKM</i>
Restorative Dentistry	4th MAP Scientific & Annual General Meeting 2014	16 Restorative Dentistry Specialists	20/9/2014	RM2,400	<i>Fakulti Pergigian, UiTM Shah Alam</i>
Restorative Dentistry	Malaysian Endodontic Society (MES) Annual Scientific Meeting & AGM	26 Restorative Dentistry Specialists	15-16/11/2014	RM14,300	<i>Hotel Istana Kuala Lumpur</i>
Forensic Dentistry	Forensic Odontology Disaster Preparedness (Sarawak)	44 Forensic Dentistry Specialist & Dental Officers	19-21/5/2014	RM24,530	<i>Hotel Grand Continental di Kuching, Sarawak.</i>
	Forensic Odontology Disaster Preparedness (Zon Utara)* (Penang)	11 Specialists: Oral Surgery and Paediatric Dentistry	17-19/11/2014	RM20,040	<i>Hotel Royal Penang</i>

5.2 In-service Training Abroad

A total of RM130,000.00 was spent in 2014 for training and attachments abroad involving eight dental professionals (**Table 22**).

Table 22: List of Overseas Courses/Attachment, 2014

No.	Course	Venue	Participant	Date
1.	Refresher Course: 40th International Course for Flap Raising and Microsurgery	Rwyth Aachen University Hospital, Aachen, Germany	1. Dr Shah Kamal bin Jamal	19-28 March 2014
2.	Improving the delivery of services in Periodontal Oral Healthcare, Ministry of Health, Malaysia	UCL Eastman/ NHS United Kingdom	1. Dr Sabariah bt Abdullah 2. Dr Latifah bt Othman	15-29 November 2014
3.	HIRA Training Course on Social Health Insurance	Seoul, Korea	1. Dr. Fauziah bt Ahmad 2. Dr. Nazita bt Yaakob	7 - 14 June 2014
4.	Flagship course on health system strengthening and sustainable financing - The challenge of universal health coverage	Dubai, United Arab Emirates	1. Datin Dr Nooral Zeila bt Junid	18 - 30 October 2014
5.	Attachment Universal Health Coverage	Songkhla and Bangkok, Thailand	1. Dr Chu Geok Theng 2. Dr Habibah bt Yacob	15 - 19 Dec 2014

5.3 'One-off' Courses

In 2014, there were seven courses/training abroad attended by dental professionals in MOH and which involved RM137,000.00 (Table 23).

Table 23: List of One-off Overseas Courses / Attachment, 2014

No.	Course	Venue	Date
1	4th China – ASEAN Forum on Dentistry	China	27-28 October 2014
2	2014 FDI Annual World Dental Congress	New Delhi, India	11 – 14 September 2014
3	11th International Conference of Asean Academy of Preventive Dentistry (ICAAPD)	Beijing, China	17 – 19 September 2014
4	36th Asia Pacific Dental Congress Dubai,	United Arab Emirates	16 – 19 June 2014
5	Asian Congress of Oral and Maxillofacial Surgeons (ACOMS)	Xian, China	22 – 25 August 2014
6	9th Biennial Conference of Paediatric Dentistry Association of Asia: Challenges, Innovations and Future Directions	Singapore	22 – 24 August 2014
7	British Society Paediatric Dentistry (BSPD) National Conference 2014, Royal College of Physicians	London, United Kingdom	17 – 19 September 2014

5.4 Continuing Professional Development (CPD)

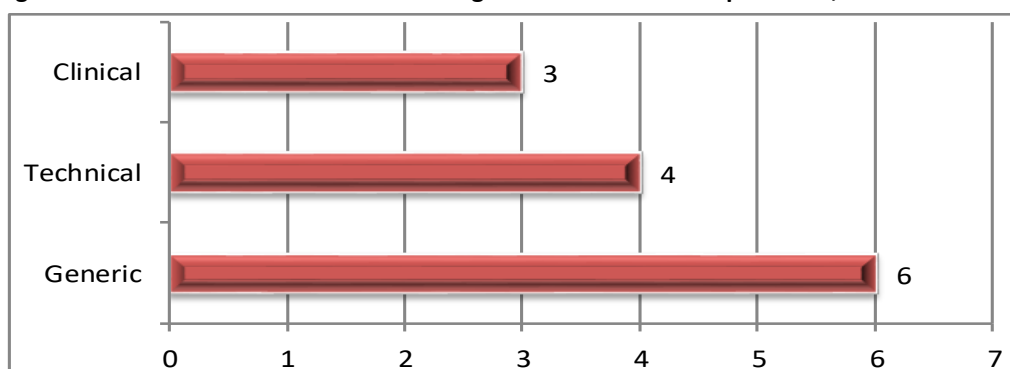
The following CPD sessions were held in the Oral Health Division (**Table 24**).

Table 24: List of CPD conducted in the Oral Health Division, 2014

No.	CPD Course
1	<i>Penggunaan MS Powerpoint</i>
2	Adobe Photoshop (Basic)
3	<i>Taklimat 5S</i>
4	<i>Taklimat eISO</i>
5	International Caries Detection and Assessment System
6	G.I.S Mapping of Health Facilities and Services in Malaysia
7	<i>Taklimat Pengurusan Aset</i>
8	Easy Construction of Flow Chart Using yEd Software
9	<i>Hijab Moden</i>
10	<i>Jom Semarakkan Idea Kreatif Kita</i>
11	<i>Pembentangan Projek Bagi Latihan Kelapangan Calon Pasca Ijazah Program Doktor Kesihatan Awam</i>
12	<i>Penggunaan Teknologi Hijau di Rumah dan Tempat Kerja Bahagian 1</i>
13	<i>Pelaksanaan GST</i>

These CPD sessions comprised of three areas of the core competencies namely Clinical, Technical and Generic (**Figure 5**)

Figure 5: Number of CPD Sessions According to Areas of Core Competencies, 2



5.5 MyCPD for Dental Technologists and Dental Nurses

In line with the *Pekeliling Ketua Pengarah Kesihatan Malaysia Bil (11) dlm KKM/87/SKB01/600-1/2/2 Jld.3*, the Dental Technologists (3) and Dental Nurses (10) at the Oral Health Division registered with MyCPD online.

5.6 CPD Points Verification

The objectives of the verification exercise are to:

- ensure accuracy of CPD points claimed for each category
- prevent overlapping claims for CPD points
- prevent CPD point claims made related to core business

Verification was undertaken twice in the year by auditors appointed by the Principal Director of Oral Health. The first exercise was from 22 – 26 July 2014 and the second on 15 – 31 January 2015. At each exercise, three auditors checked a random sample of log books (**Table 25**). The sample comprised of six dental officers and five dental nurses. The Audit Form for CPD programmes was used.

Table 25: Findings of CPD Verification Audits, 2014 (n=11)

No.	Item	Total	Percentage (%)
1	Name of supervisor	9	81.8
2	Supervisor's verification	9	81.8
3	Accuracy of category	9	81.8
4	Overlapping of credit points claimed	2	18.2
5	Claiming credit points for core duties	0	0.0
6	Supervisor verifies claims for core duties	0	0.0
7	Percentage of log books which are regularly monitored by the supervisor	0	0.0
8	Supporting documents as suitable to the category for credit points claimed.	11	100.0
9	Overall grouping of credit points (total cumulative points, total actual points & selected categories) was correctly entered based on the PTK level.	11	100.0

The audit found that there was duplication of CPD points claimed by the staff (18.2%). The verification audit report was prepared using the Audit Report form. A summary of the Audit Report was submitted to the Secretariat, Medical Development Division, Ministry of Health Malaysia. The auditors suggested that a briefing to new dental personnel and appointment of supervisors on the CPD system from time to time to be conducted as strategies for improvement.

6. KEY PERFORMANCE INDICATOR (KPI) REPORT FOR THE SECRETARY GENERAL OF THE MINISTRY OF HEALTH

In 2014, the Secretary General, Ministry of Health Malaysia issued a letter, (*Prestasi Pelaksanaan Dasar Latihan 7 Hari Setahun Bagi Tahun 2013 Ref (46) KKM510-4/1/3/1*) that requires all personnel in the Ministry of Health to attend a minimum of 7 days training annually, with the aim of enhancing skills and knowledge for service delivery for the *Rakyat*.

The annual 7-day-training report is monitored by the Training Management Division (*Bahagian Pengurusan Latihan - BPL*). Reports on percentage of dental staff that attended ≥ 7 days of training per year are submitted monthly to the BPL.

7. HUMAN RESOURCE PROJECTION SEMINAR FOR THE DENTAL PROFESSION

The work of projection for human resource for oral health (HROH) requirement was started since year 2000 onwards. Concern of oversupply of dental officer was raised in 2005 with the increasing numbers of dental schools in Malaysia. In 2007, views of the HROH projection and planning were gathered from stakeholders and other countries e.g. Armed Forces, Thailand and universities.

Early 2014, The Minister of Health requested the Ministry of Health (MOH) to prepare a Master Plan for Human Resource For Health (HRH). The planning should be for 2015-2030. The Health Policy and

Planning Unit (*Unit Perancangan Dasar dan Pelan Kesihatan* - PDPK) under the Planning Division acts as secretariat of the project. The project involves almost all divisions in MOH, including the Oral Health Division (OHD) to work on the projection of HRH in MOH and for Malaysia. There were three (3) dedicated staff from OHD were working together with the PDPK.

The project uses three (3) methodologies i.e.:

- i. Provider to population ratio;
- ii. Workload Indicators for Staffing Needs (WISN); and
- iii. System Dynamics Model (SD)

WISN template for primary oral healthcare was developed and further refined by collecting the required data from the Bandar Seri Putra Dental Clinic and Jinjang Dental Clinic. While for dental speciality in hospitals it includes Oral Surgery and Special Needs Dentistry in Kajang Hospital and Paediatric Dental speciality in Tuanku Ampuan Najihah Hospital was given focus. The data collection period was in June 2014.

WISN Methodology Workshop was conducted on 3-7 November 2014 at Summit Hotel USJ. The workshop is executed in anticipation of the use of this method in the development of human resource for health for the country. Thus there is a need to review and update WISN template for hospital and health clinics. The invited speakers/ facilitators are:

- i. Dr Gulin Gedik - team leader of the Human Resources for Health at World Health Organization, Regional office for Western Pacific Region; and
- ii. Ms Joyce Smith - a teaching associate with Queen Margaret University Edinburgh and involved in establishment of training in human resource development.

The task forces are working together with the Operations and Business Intelligence (OBI) Research Group from Malaysia Technology University (*Universiti Teknologi Malaysia* - UTM) on the System Dynamics methodology. In 2014, there were few workshops and meetings conducted by the PDPK to work on the model framework. The dental model framework and findings was expected to be completed and obtained by end of 2015.

In addition to the WISN and System Dynamics Methodologies, the Division also use Health Needs Method to project dental practitioners' and dental nurses' requirement till 2030, both in MOH and Malaysia. Separate workshops were conducted for primary care and specialist care in 2014 to get input from the practitioners to complement the task. The workshop for primary care and specialist care group were conducted on 21-22 May 2014 and for 26-27 June 2014 respectively, followed by several meetings to finalise the findings of groups work. The study results for primary care were presented to the Principal Director and officers in OHD on 7 August 2014 and the task force received many inputs for improvement. The model was amended based on inputs received, then the findings of the projection for primary care was presented to the Malaysian Dental Council (MDC) on 18 September 2014. The final report of the study is expected to be completed in 2015.

ORAL HEALTH PROMOTION

1. INTRA-AGENCY COLLABORATION

1.1 Media Talks (Radio/TV) in collaboration with Health Education Division (HED), MOH

In 2014, as part of oral health promotion activity six (6) media talks were held for public in TV and Radio (**Table 26**).

Table 26: Media Talks on Oral Health, 2014

Media	Topic	Speaker
1. Radio Asyik FM	<i>Kesihatan Pergigian Orang Asli</i>	Dr Lydia Mason
2. IKIM FM	<i>World Oral Health Day dan Kesihatan Pergigian</i>	Dr Noor Syahidah bt Hisamuddin
3. Nasional FM	<i>World Oral Health Day di Bau Sarawak</i>	Dr Hazrizul Azam bin Zama'at
4. RTM1 – <i>Selamat Pagi Malaysia</i>	<i>Hubungan Penyakit Gusi dan Penyakit Sistemik</i>	Dr Ahmad Sharifuddin bin Mohd Asari
5. Hello On 2	<i>Spesial Needs Dentistry</i>	Dr Siti Zaleha bt Hamzah
6. Nasional FM	<i>Kesihatan Pergigian (Penyakit Periodontal)</i>	Dr Ahmad Sharifuddin bin Mohd Asari

1.2 MyHealth Portal in collaboration with Health Online Unit HED, MOH

- **Monitor and Coordinate 'Ask the Expert' Segment**

The Oral Health Promotion Section is responsible for answering queries regarding oral health raised by the public via MyHealth Portal through this segment. In 2014, a total of 76 queries from the public were received and answered within three (3) working days (**Table 27**).

Table 27: Number of queries received by various discipline

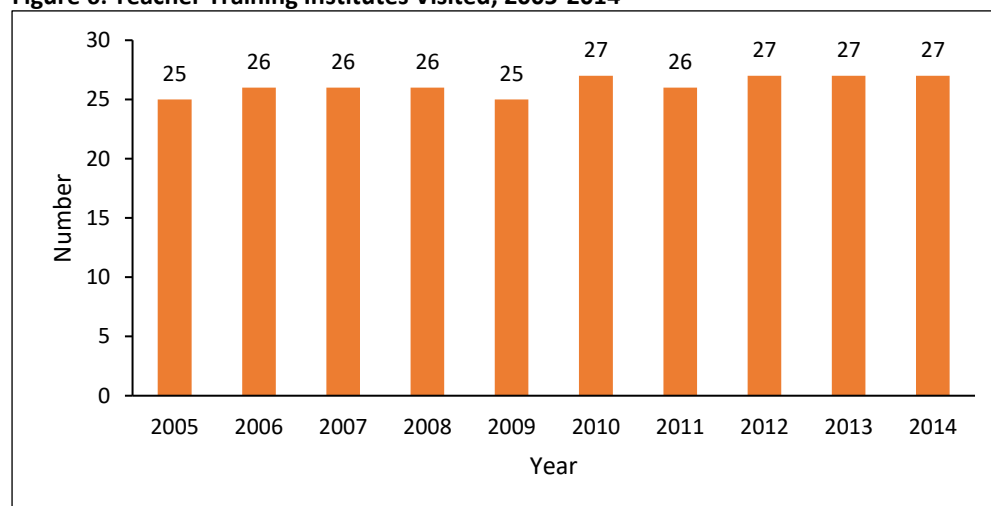
No	Discipline	Number of queries
1.	Oral Surgery	10
2.	Paediatric Dentistry	5
3.	Orthodontics	17
4.	Periodontics	5
5.	Restorative	10
6.	Oral Medicine & Oral Pathology	2
7.	Special Needs dentistry	1
8.	General	26
Total		76

2. INTER-AGENCY COLLABORATION

2.1 Oral Health Programme for Trainee Teachers

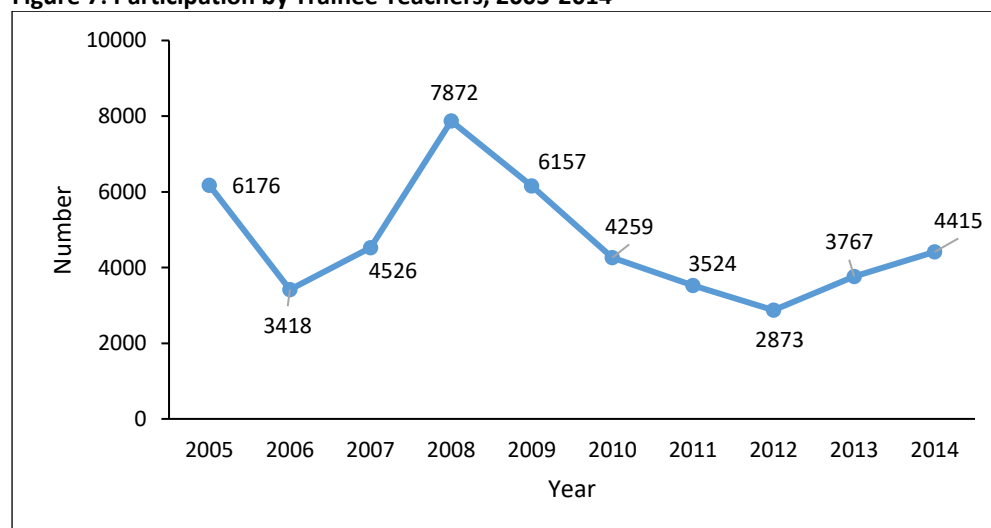
A total of 4,415 trainee teachers from 27 Teacher Training Institutes, Ministry of Higher Education participated in this programme (**Figure 6**).

Figure 6: Teacher Training Institutes Visited, 2005-2014



There has been a gradual increase in trainee teachers participating in the Oral Health Programme in 2014 (**Figure 7**). This is due to the increase of intake for candidates in the Diploma Programme (*Kursus Perguruan Lepas Ijazah/KPLI*). A 4-year degree programme (*Program Ijazah Sarjana Muda Perguruan/PISMP*) has been introduced where the oral health module will be taught only once during the 4 years.

Figure 7: Participation by Trainee Teachers, 2003-2014



2.2 Participation in other Health Promotion Activities

The Oral Health Promotion Section participated in exhibition at fourteen (14) events throughout the year (**Table 28**).

Table 28: Oral Health Exhibitions, 2014

Bil	Activity	Date	Location
1	21st MDA Scientific Convention & Trade Exhibition	18-19 Jan 2014	PWTC
2	1st Biennial Public Health Conference	29 March 2014	Swiss-Garden Hotel & Residences KL
3	3rd Malaysia Dental Technologist Conference and Trade Exhibition 2014	29-30 March 2014	Berjaya Times Square
4	<i>Majlis Pelancaran Hari Kesihatan Pergigian Sedunia 2014</i>	30 March 2014	Taman Rimba Bukit Kiara TTDI
5	<i>Seminar Tahunan Kesihatan "Wanita Sejahtera, Lelaki Perkasa" dan Perasmian Pusat Pemeriksaan Kesihatan Wanita PUSPANITA</i>	9 April 2014	Puspanitapuri, Dewan Seri Endon, Putrajaya.
6	Smart Kids Asia	25-27 April 2014	Putra World Trade Centre (PWTC), Kuala Lumpur
7	<i>Festival Belia Putrajaya</i>	23-25 May 2014	Dataran Putrajaya
8	<i>HALFEST Ekspo Halal Terbesar Malaysia</i>	6 September 2014	Malaysia International Exhibition & Convention Centre (MIECC), MINES, Selangor
9	<i>Pameran MIDEK 2014</i>	30 May 2014 - 1 June 2014	Kuala Lumpur Convention Centre (KLCC)
10	<i>Pelancaran Kempen Minggu Kesedaran Kanser Mulut 2014</i>	11 August 2014	Waterfront, Kuching Sarawak
11	<i>Kidfest Sempena 7th World Summit on Media for Children</i>	8-10 Sept 2014	Kompleks Kraf Jalan Conlay Kuala Lumpur
12	10th Allied Health Scientific Conference Malaysia 2014	9-10 Sept 2015	Berjaya Times Square, Kuala Lumpur
13	One Kiddie & Mom Fair	20-21 Sept 2014	Putrajaya International Convention Centre
14	<i>Majlis Anugerah Kantin Sekolah Bersih, Selamat & Sihat Peringkat Kebangsaan 2014</i>	2 Oct 2014	Shah Alam Convention Centre (SACC)

2.3 Visitors to the Oral Health Division

The Oral Health Division welcomes visitors for the purpose of knowledge sharing and smart partnership. In 2014, OHD received visitors as tabulated (**Table 29**).

Table 29: Visitors to the Oral Health Division, 2014

No	Visitors	Date	No. of Visitors
1.	<i>Kunjungan Mesra Exco SCODOS</i>	7 March 14	3
2.	<i>Jabatan Kesihatan Awam Pergigian Fakulti Pergigian UKM Pelajar Tahun 4</i>	25 Sept 2014	15
3.	<i>Lawatan Pelajar Tahun 4 UKM</i>	9 Oct 2014	14
4.	<i>Lawatan Pelajar UKM Fakulti Pergigian</i>	16 Oct 2014	14
5.	<i>Lawatan Pelajar UKM Fakulti Pergigian</i>	30 Oct 2014	14
6.	<i>Lawatan AMDI USM</i>	31 Oct 2014	1

3. ORAL HEALTH INFORMATION DEVELOPMENT AND DISSEMINATION

3.1 Oral Health Education Materials

- **Roll –up Banners**

Three new roll-up banners sized 32” x 78” were designed and printed in 2014.

Those were:

- *6 Langkah Mudah Pemeriksaan Mulut Sendiri Untuk Mengesan Kanser Mulut*
- *Panduan Penjagaan Gigi Warga Emas*

- **Posters**

Five (5) new posters sized 20” x 30” were printed and distributed to the states. These were:

- *Rawatan Gigi Tertanggal*
- *Penjagaan Pergigian Keperluan Khas*
- *Penggunaan Floss*
- *Rawatan Kanal Akar*
- *Pertumbuhan Gigi Kekal*
- *Pemilihan berus gigi untuk orang awam*

- **Pamphlets**

Two (2) new pamphlets were developed and printed. Four more existing pamphlets were improved, reviewed and also printed and all the pamphlets were distributed to the states.

Those were:

- *Penjagaan Pergigian Keperluan Khas (For patients)*
- *Penjagaan Pergigian Keperluan Khas (For carer)*
- *Booklet on Oral Cancer (The visible upper aero-digestive tract cancer)*
- *Veneer*
- *Jambatan Gigi*
- *Pengesanan Awal Kanser Mulut*
- *Korona (Dental Crown)*

4. TRAINING

4.1 Evaluation of Effectiveness of Promotion Activities and Materials.

A workshop to study the effectiveness of dental health promotion was held on 3-6 June 2014, entitled ‘Bengkel Kajian Kualitatif & Kuantitatif bagi Aktiviti dan Bahan Promosi.’ A group of 25 Dental Public

Health Specialist get together to discuss regarding on how to come put with methods to evaluate materials and activities qualitatively. At the end of the workshop, 12 proposals were presented.

On the same note, another in-house training was held entitled '*Bengkel Keberkesanan Pendidikan Kesihatan Pergigian Melalui Boneka dan Kebolehbacaan Modul Standard Pendidikan Kesihatan Pergigian*' was conducted on 16-18 December 2014 at Cititel Express Hotel Kuala Lumpur. Participants comprises of DPHS, dental officers and dental nurses for every state in Malaysia.

5. MONITORING AND EVALUATION

5.1 Oral Health Promotion activities

In 2014, a total of 613,546 oral health promotion activities were carried out by dental officers and dental nurses in all states. Overall, there was an increase in number of oral health promotion activities conducted from 2009 to 2014 (**Table 30**).

Table 30: Oral Health Promotion Activities, 2009 – 2014

Type of Activity	No. of Activities					
	2009	2010	2011	2012	2013	2014
Tooth brushing Drill (TBD)	206,221	237,910	225,652	234,038	132,324	160,909
Dental health talk	238,548	282,135	305,740	342,137	240,871	367,492
In-service training	497	473	538	433	332	11,284
Role play	33,769	36,023	39,842	42,276	44,453	48,213
Puppet show	3,036	3,507	2,968	3,278	3,086	3256
Exhibition /Campaign	2,754	3,370	3,823	4,278	4,636	4,982
TV/Radio (Mass Media)	44	53	40	46	54	50
Community Service	1,789	658	869	1,140	1,339	1,487
Others	30,448	50,587	65,355	80,278	25,251	15,873
Total	517,106	614,716	644,827	707,904	452,346	613,546

There was an increasing participation of preschool children in tooth brushing drill (TBD) from 2009 to 2014 (**Table 31**).

Table 31: Participants at Tooth Brushing Drills, 2009-2014

Year	Pre-school Children			Primary Schoolchildren		
	No. of participants	Est. Pop	%	No. of participants	Est. Pop	%
2009	566,685	947,348	59.8	2,718,518	2,955,173	92.0
2010	579,179	804,140	72.0	2,738,118	2,889,150	94.8
2011	594,986	1,024,900	58.1	2,716,242	2,864,264	94.8
2012	607,995	1,312,090	46.3	2,686,003	3,951,066	68.0
2013	619,756	999,100	62.03	2,625,049	3,164,400	83.0
2014	639,467	670,727	95.3	2,539,693	2,676,789	94.87

Source: Health Informatics Centre, MOH 2014

All target groups recorded an increase in the numbers receiving oral health talks (**Table 32**).

Table 32: Participants at Dental Health Talks, 2009-2014

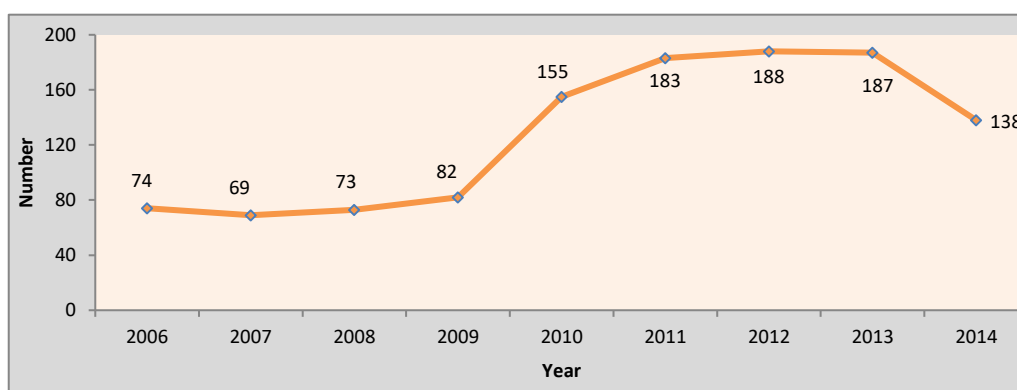
Target Group	Number Of Participants (% Population Reached)									
	2010	%	2011	%	2012	%	2013	%	2014	%
Pre-school	578,269	71.9	592,865	57.8	601,880	57.4	618,782	61.9	639,173	95.2
Primary	2,773,074	95.9	2,736,709	95.5	2,697,395	92.6	2,640,506	83.4	2,551,562	95.3
Secondary	832,886	37.1	895,602	39.6	906,502	39.7	956,643	35.6	997,476	46.5
Antenatal	153,762	26.2	162,232	29.5	183,409	30.1	193,894	32.7	213,649	60.5
Adults	126,197	0.70	129,948	0.7	159,503	0.8	174,933	0.98	189,898	11.09
Total	4,464,188	18.2	4,517,356	17.2	4,548,689	17.9	4,584,758	14.5	4,591,758	20.3

Source: Health Informatics Centre, MOH 2014.

5.2 Oral Health Seminars for Pre-school Teachers

Seminars for preschool teachers were organized at state and district levels to increase oral health awareness and collaboration in the on-going efforts to improve the oral health of pre-school and schoolchildren. In 2014, 138 oral health seminars were organized by the states (**Figure 8**).

Figure 8: Number of Oral Health Seminars for Teachers, 2006-2014



A total of 4614 teachers were involved in the oral health seminar (**Figure 9**).

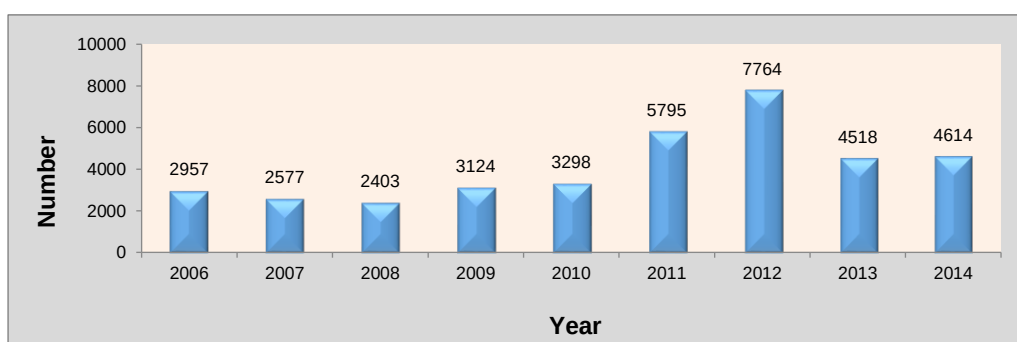


Figure 9: Number of Teachers Trained at Oral Health Seminars, 2006-2014

These included 1875 pre-school teachers from 1656 government kindergartens, 336 teachers from 240 private kindergartens and 994 childcare centres (TASKA) teachers from 273 TASKA (**Table 33**).

Table 33: Performance by State, 2013-2014

State	Year	No. of Seminars	No. of Teachers		No. of Preschools		Teachers at Childcare Centres	No. of Childcare Centres	Health Personnel
			Govt	Private	Govt	Private			
Perlis	2013	5	77	20	77	20	18	18	25
	2014	1	30	10	30	10	0	0	0
Kedah	2013	15	641	168	400	74	332	163	152
	2014	12	274	10	245	6	67	65	103
Penang	2013	6	132	27	131	24	29	5	24
	2014	4	66	28	66	21	0	0	44
Perak	2013	16	272	93	211	62	123	33	243
	2014	14	199	91	183	65	86	32	219
Selangor	2013	38	302	369	217	357	548	218	151
	2014	19	161	17	112	16	156	156	159
FT KL	2013	4	28	5	28	5	18	18	25
	2014	2	0	0	0	0	40	472	35
N. Sembilan	2013	9	198	33	164	29	147	85	75
	2014	12	244	11	196	9	147	55	102
Melaka	2013	4	55	2	52	1	26	4	0
	2014	5	55	10	36	1	11	9	23
Johor	2013	16	180	67	168	65	33	29	201
	2014	21	230	0	225	0	128	128	222
Pahang	2013	5	61	15	53	13	52	18	18
	2014	9	81	45	48	34	62	25	93
Terengganu	2013	17	0	0	0	0	160	10	668
	2014	8	25	1	25	1	54	61	154
Kelantan	2013	21	269	16	264	16	38	37	290
	2014	10	255	28	255	28	68	53	298
Sabah	2013	8	160	51	152	37	35	31	208
	2014	11	61	11	58	11	100	43	319
Sarawak	2013	20	313	26	218	6	381	35	2
	2014	11	158	62	141	32	73	56	0
Labuan	2013	2	23	7	22	3	0	0	24
	2014	3	36	12	36	6	2	12	1
TOTAL	2013	186	2,711	899	2,157	712	1,940	704	2,106
	2014	152	1,875	336	1,656	240	994	1,167	1,772

In terms of coverage, 94.5% of the government and private pre-schools benefited from the oral health seminars conducted in 2014 (**Table 34**). This augurs for the early childhood and pre-school oral healthcare programmes.

Table 34: Coverage of Preschools for Oral Health Seminars, 2005 - 2014

Year	No. of govt preschools covered	Total no. of govt preschools	% coverage of govt	No. of private preschools covered	Total no. of private preschools	% coverage of private	Total no. of preschools covered	% of total preschools covered
2005	1,093	11,681	9.4%	165	3,633	4.5%	1,258	8.2%
2006	1,979	12,232	16.2%	310	3,872	8.0%	2,289	14.2%
2007	1,698	13,133	12.9%	405	3,854	10.5%	2,103	12.4%
2008	1,643	13,694	11.9%	432	3,754	11.5%	2,075	11.9%
2009	1,990	14,258	14.0%	230	3,950	5.8%	2,220	12.2%

2010	2,143	14,296	15.0%	302	3,864	7.8%	2,445	13.5%
2011	2,469	14,927	16.5%	372	4,050	9.2%	2,841	14.9%
2012	15,311	15,717	97.4%	3,990	4,123	96.7%	19,840	97.3%
2013	15,765	16,088	95.5%	4,079	4,171	95.8%	668,402	97.3%
2014	19,570	20,705	94.5	10,285	35,271	29.16	703,473	4.24

6. TOBACCO CESSATION ACTIVITIES

Tobacco cessation messages continued to be emphasised in the oral health education and counselling sessions for outpatients, schoolchildren and participants. A total of 296 training sessions involving 72,637 participants were conducted in 2014. Efforts were emphasize at encouraging staffs and patients to quit smoking. A total of 1467 smokers were referred to quit smoking clinics (**Table 35**).

Table 35: Tobacco Cessation Activities, 2006-2014

Activities	Training / briefings / courses	Participants	Patients referred to Quit Smoking Clinics
2006	25	769	567
2007	26	513	261
2008	43	1,180	798
2009	64	1,318	201
2010	67	1,707	463
2011	91	1,854	486
2012	82	1,654	453
2013	85	1,754	470
2014	296	72,637	1,467

ORAL HEALTH RESEARCH AND EPIDEMIOLOGY

As in previous years, research efforts were concentrated at National and Programme levels. In 2014, the continuation of several research projects initiated prior to 2013 were continued in 2014.

1. NATIONAL LEVEL RESEARCH PROJECTS AND INITIATIVES

1.1 National Health and Morbidity Survey (NHMS) 2011-2014: Healthcare Demand Module

NHMS 2011-2014 is the country's fourth National Health and Morbidity Survey and is led by the Institute for Public Health, MOH. The objective of the survey is to obtain community-based data for healthcare policy decisions.

The statistical report for the oral healthcare component of the Health Care Demand Module, which included load of illness, health seeking behavior, utilization of oral healthcare and Healthcare Demand Analysis, was printed in 2014 by the Institute for Health System Research, MOH and disseminated to all stakeholders.

1.2 National Health and Morbidity Survey 2012: WHO Global School-based Student Health Survey Malaysia (GSHS)

The Global School Health Survey (GSHS) was conducted to obtain information on the behavioral aspects in relation to health and oral health of school children aged 13-17. It is part of the country surveys coordinated by the World Health Organization. Analysis of data for the Hygiene Module in the GSHS was completed in 2012 by the Institute for Public Health, MOH Malaysia.

The Oral Health Division contributed write-up for the Hygiene Module in 2013 and 2014, and also served as co-editor for the WHO Report for Malaysia, Malaysia Country Report and State Report for all the States. The Oral Health Division also participated in write-up for GSHS (Hygiene Section) Research Highlight.

1.3 National Health and Morbidity Survey 2014 (NHMS 2014): 'Healthcare Demand Analysis & Community Perception' Module

This survey was led by the Institute for Public Health, MOH in collaboration with the Institute for Health Systems Research (IHSR), MOH as the Principal Investigator for this module. This survey was conducted to obtain information on the community perception of health care system in Malaysia and health status of Malaysian population aged 13 and above. In 2013, the Oral Health Division took part in the development and pre-testing of the questionnaire.

Questionnaire development led by the Institute for Health Systems Research continued into 2014. In 2014, the Oral Health Division was involved in the preparation of the oral healthcare component training module for data collectors for Health Care Demand Module. However, training of data collectors and data collection for the project was deferred to 2015 by the IHSR.

1.4 National Health and Morbidity Survey 2011-2014: Malaysian Nutrition Survey 2013 (MANS)

This survey was initiated in 2013 by Institute for Public Health, MOH. In November 2013, the Oral Health Division was involved in the proposal development for food consumption habits section.

In 2014, the Epidemiology and Oral Health Research Section served as the co-editor for the MANS Instrument. Training of data collectors was conducted by IPH with input from the Epidemiology and Oral Health Research Section. The verification of data analysis output for the module pertaining to food consumption habits was carried out in September 2014. The draft report was completed in October 2014 and submitted to IPH for compilation of the master survey report.

1.5 Collaborative Project “An Evaluation of Diabetic Patients Referred to the Dental Clinic”

This study was initiated by the Oral Health Division in 2010 in collaboration with Institute for Public Health, Institute for Health Systems Research, Disease Control Division and the Family Health Development Division in the MOH. Data collection for Phase I was completed in 2012 and preparation of two manuscript of phase I findings for journal publication was initiated in 2013.

In 2014, one of the manuscript was completed and submitted for publication (*Publication: Sahril N, Aris T, Mohd Asari AS, Yaw SL, Omar MA, The CH, Abdul Muttalib K, Idzwan MF, Lan LL, Junid NZ, Ismail F, Ismail NA, Abu Talib N. Oral Health Seeking Behavior among Malaysians with Type II diabetes. J Public Health Aspects. 2014; 1:1*).

Preparation of a further manuscript of the Phase 1 Study (*Perception and trends in referral of diabetes patients for dental care among healthcare workers*) was carried out and shall be submitted for publication in 2015. The data collection for phase II of the study was completed in June 2013. In 2014, data entry of Phase II survey was undertaken by the Institute for Public Health, MOH and joint-analysis was conducted after completion of data entry.

1.6 National Oral Health Research Initiative (NOHRI)

The National Health Research Initiative (NOHRI) was established in 2010 to better manage the research agenda in oral healthcare. NOHRI membership comprises members of the dental fraternity from the Oral Health Division, MOH Malaysia, Ministry of Defence, public and private local universities, Oral Cancer Research and Coordinating Centre, University Malaya (OCRCC) and the Malaysian Dental Association (MDA).

In 2014, the NOHRI Steering Committee meeting was held on 17 November 2014. Since the establishment of NOHRI, oral health research priorities for the 10MP (2011-2015) were identified by NOHRI and uploaded on the Oral Health Division MOH website. Online update of the database pertaining to abstracts submitted to NOHRI was done in May and December 2014.

A proposal to improve the NOHRI web page was deferred to 2015 due to lack of information technology resource personnel at the Oral Health Division, MOH.

2. PROGRAMME LEVEL RESEARCH PROJECTS

2.1 National Oral Health Research Conference

The 6th National Oral Health Research Conference 2014 was held on 10-12 November 2014 at Hotel Swiss Garden and Residences, Kuala Lumpur. It was jointly organised by the Oral Health Division, the Malaysian Association of Dental Public Health Specialists and the College of Dental Specialists, Academy of Medicine Malaysia with the theme 'Synergizing Research for Oral Healthcare Delivery'.

The Conference was attended by almost 300 participants and was officiated by YBrs. Dr. Shahnaz bt Murad, the Deputy Director General of Health (Research and Technical Support), MOH. It undertook a first time multi-track mode incorporating nine plenary sessions and two concurrent symposiums alongside 21 oral presentations. It also showcased 34 competing posters and 24 non-competing posters which had been presented at various international platforms.

The opening ceremony included a tribute to the Dental Division of the Malaysian Armed Forces appropriately themed 'A Moment of Dedication: The Compact and Tough (CAT) Cutting Unit in The Oral Health Service, Ministry of Health Malaysia' for the generous transfer of knowledge, technology and equipment to the oral health programmed in the MOH.

2.2 National Oral Health Survey of Pre-school Children (NOHPS 2015)

NOHPS 2015 is the country's third national survey for preschool children and data collection shall be carried out in 2015, ten years after the second oral health survey of preschool children in 2005. In 2013, The National Steering Committee was established, with members from the Oral Health Division, MOH and the academia from the public and private universities. Protocol development was initiated in 2013 and was continued into 2014. The benchmark examiner and the gold standard examiner for the survey were identified in 2013.

The survey protocol development was carried out in 2014 with pretest of the questionnaire for kindergarten teachers in Johor from April - June 2014 and validation in August 2014. The results of the exercise were reported during the NOHPS 2015 Steering Committee Meeting on 19 September 2014. The Trial Run for NOHPS 2015 was conducted in Negeri Sembilan in July to August 2014 and reported to the NOHPS 2015 Steering Committee Meeting on 19 September 2014.

The registration of NOHPS 2015 with the National Medical Research Registry was completed in August 2014 and ethical approval to conduct the research was obtained in September 2014. Exposure and Consensus of the Survey Protocol was conducted on 9-10 December 2014, and attended by all examiners from the states. Protocol is expected to be finalized in the first quarter of 2015. Training of the Benchmark examiner (Dr. Leslie S. Geoffrey) was carried out in April 2014. A total of 36 examiners, 17 state coordinators and 33 field supervisors were identified to take part in the survey. The NOHPS 2015 Steering Committee Meeting met three times in the year (11 March 2014, 3 April 2014 and 19 September 2014).

2.3 Costing of Dental Procedures in Selangor Dental Facilities

This study was initiated in year 2009 as a multi-centre study in two urban and two rural public dental clinics in Selangor. In 2014, preparation of six (6) following manuscripts of survey findings for journal publication was continued:

- Dental macro-costing in public sector dental clinic in Selangor, Malaysia
- Costing dental examination and diagnosis procedure in public sector dental clinic in Selangor, Malaysia
- Costing scaling and prophylaxis procedure in public sector dental clinic in Selangor, Malaysia
- Costing fissure sealant procedure in public sector dental clinic in Selangor, Malaysia
- Costing denture laboratory procedure in public sector dental clinic in Selangor, Malaysia
- Costing denture in public sector dental clinic in Selangor, Malaysia

Preparation of these articles for journal publication will continue into 2015.

2.4 Costing of Dental Procedures in Sabah Dental Facilities

This study was initiated at the end of 2009 following the aforesaid multi-centre costing study done in Selangor. The objective was to estimate costs of dental procedures in public dental clinic in Sabah. Analysis for costing examination and diagnosis, scaling and prophylaxis and dental extraction procedure was completed in 2013.

In 2014, draft manuscript write-up for journal publication on dental macro-costing, costing dental examination and diagnosis, scaling and prophylaxis and dental extraction were initiated. Data analysis for costing of dental restoration procedure, costing of denture laboratory procedure and costing of clinical denture procedure were also initiated in 2014. The uncompleted manuscripts will continue into 2015.

2.5 A Study on the Drinking Water Supplies, Dietary Habits and Oral Health Status of Adults in Kelantan

The above study was nested into NOHSA 2010 for Kelantan state. The first draft of the report was completed in 2013 with input from two officers from the Oral Health Division, Kelantan. The draft was finalized in December 2014 and would be printed in January 2015.

2.6 Costing Study on Operating Costs of Dental Clinics in Kesihatan (New)

This study was mooted at the *Mesyuarat Jawatankuasa Dasar dan Perancangan Kesihatan Pergigian (JDPK KKM)* in April 2014. The objective was to estimate operating expenditure of public dental clinics with 8-, 5- and 3-dental chair in the states of Selangor, Perak, Johor, Sabah, Sarawak and Kelantan. Data collection was completed for analysis in September 2014. The initial findings were presented during Technical Meeting of the Oral Health Division on 26 November 2014. Further to the presentation, the findings will be used for managing and planning the operating budget of MOH dental clinics in 2015.

3. PUBLICATION OF COMPENDIUM OF ABSTRACTS

3.1 Publication of Compendium of Abstracts 2013

A total of 66 abstracts were received from the states. Of these, 36 were papers/posters presented at scientific meetings, 4 were publications in local and international journals and 26 were submitted to the Oral Health Division for publication in the compendium. The Compendium of Abstracts 2013 was completed in 2014 and distributed in 2015.

3.2 Compilation for Compendium of Abstracts 2014

Compilation of abstracts for scientific presentations and publications in 2014 into the 'Compendium of Abstracts 2014' commenced in 2014. Efforts towards the completion of this document for publication will continue into 2015.

4. HUMAN RESOURCE DEVELOPMENT AND CAPACITY BUILDING

In 2014, several Dental Public Health Officers were identified for training in research methodologies and suitable courses organized by Universiti Sains Malaysia (USM), Kelantan and other relevant agencies as follows:

- Dr Nurrul Ashikin Abdullah from Oral Health Division, MOH & Dr Jessina Sharis Othman from Kelantan State Oral Health Division, MOH attended STATA Course on 7-8 April 2014 at USM, Kelantan
- Dr Natifah Che Salleh and Dr Nurul Syakirin bt. Abd. Shukor both from Oral Health Division, MOH attended the Geographical Information System (GIS) Hands-on Course at University Malaya on 17 September 2014
- Dr Natifah Che Salleh from the Oral Health Division, MOH & Dr Badariah Tambi Chek from Kelantan State Oral Health Division, MOH attended the Systematic Review Training on 26-27 November 2014 at the Institute of Health Management, Kuala Lumpur
- Dr Nurrul Ashikin Abdullah from the Oral Health Division, MOH attended the Scientific Writing Course on 26-27 November 2014 at University Malaya

5. OTHER ORAL HEALTH RESEARCH ACTIVITIES

Other oral health research activities conducted in 2014 were as follows:

- Review of 4 research proposals from external agencies for conduct of research in MOH facilities as follows:
 - 'The 5As Model in Behavioural Therapy versus Brief Advice on Smoking Cessation Delivered by Dentists in a Dental Setting' by Dr. Nurul Asyikin Yahya from UKM
 - 'Musculoskeletal Study among Dental Personnel' by Dr. Mastura from USM
 - 'A Randomized Cross-Over Clinical Trial to Evaluate the Use of Oral Health-Related Quality of Life (OHRQoL) in Dental Practise' by Prof. Roslan Saub from UM
 - 'Antibiotic Prescribing Knowledge of First and Second Year Malaysian Dental Officers in the Management of Dental Infections in Children' by Wong Yee Chen from IMU.
- The Oral Health Division is a permanent member of the *Jawatankuasa Kelulusan Etika Perubatan, Fakulti Pergigian, Universiti Malaya (UM)*. This committee examines research proposals by the academia and both undergraduate and postgraduate students in the university to ensure the ethical conduct of research. In 2014, the permanent representative from the Oral Health Division MOH attended three (3) ethics meeting at UM.
- Data mining of the National Oral Health Survey of Schoolchildren 2007 (NOHSS 2007) data yielded the SiC Index for 12-year-old schoolchildren in Malaysia. The analysis was carried out together with input from a Dental Public Health Officer in Selangor. Abstract preparation for presentation was done in 2014. It was presented at the International Association for Dental Research (IADR) – South East Asian Association for Dental Education (SEAADE) on 11-14 August 2014, in Kuching, Sarawak.

- Preparation of Fact Sheet for 'Quick Facts on Oral Healthcare and Diseases' was completed and printed in 2014. The document was distributed during the National Oral Health research Conference 2014.

6. HEALTH SYSTEMS RESEARCH (HSR) FOR ORAL HEALTH

Monitoring of health systems research projects conducted by the states began in 1999 and continued through the years since then. There were 1,062 topics identified by the states and institution over that period. Of the identified projects, 705 (66.4%) were successfully completed (**Table 36**).

Table 36: Status of Health Systems Research Projects, 1999 – 2014

Year	Proposed	Completed		Cancelled		In progress	
	N	%	n	%	n	%	n
1999	72	45.8	33	54.2	39	0	0
2000	59	45.8	27	54.2	32	0	0
2001	47	70.2	33	29.8	14	0	0
2002	58	60.3	35	39.7	23	0	0
2003	23	56.5	13	43.5	10	0	0
2004	39	59.0	23	41.0	16	0	0
2005	40	90.0	36	10.0	4	0	0
2006	45	80.0	36	20.0	9	0	0
2007	71	66.2	47	32.4	23	1.4	1
2008	86	82.6	71	11.6	10	5.8	5
2009	96	81.3	78	16.7	16	2.1	2
2010	85	70.6	60	17.6	15	11.8	10
2011	71	74.6	53	11.3	8	14.1	10
2012	102	75.5	77	10.8	11	13.7	14
2013	101	56.4	57	15.8	16	27.7	28
2014	67	38.8	26	7.5	5	53.7	36
Total	1,062	66.4	705	23.6	251	10.0	106

The majority of the states/institutions had completed at least 50% of their proposed research projects (**Table 37**). In 2014, another 106 (10.0%) projects were on-going and 251 (23.6%) had been cancelled. Selangor reported a substantial proportion of projects cancelled with 29 out of 60 (48.3%) projects cancelled.

A substantial number of projects cancelled and delayed were partly due to staff transfers, competing roles and priorities and resignation of the project's Principal Investigator. Uncompleted projects will continue in 2015.

Table 37: Status of Health Systems Research Projects by State/Institution, 1999–2014

State/Institution	Proposed	Completed		Cancelled		In progress	
	N	n	(%)	n	(%)	n	(%)
Perlis	23	14	60.9	4	17.4	5	21.7
Kedah	93	70	75.3	15	16.1	8	8.6
P. Pinang	45	28	62.2	13	28.9	4	8.9
Perak	73	46	63.0	21	28.8	6	8.2
Selangor	60	20	33.3	29	48.3	11	18.3
FT KL	42	29	69.0	13	31.0	0	0.0
N. Sembilan	52	29	55.8	17	32.7	6	11.5
Melaka	72	36	50.0	22	30.6	14	19.4
Johor	138	126	91.3	2	1.4	10	7.2
Pahang	81	44	54.3	32	39.5	5	6.2
Terengganu	61	44	72.1	12	19.7	5	8.2
Kelantan	62	38	61.3	16	25.8	8	12.9
Sarawak	88	54	61.4	26	29.5	8	9.1
Sabah	72	54	75.0	16	22.2	2	2.8
FT Labuan	0	0	0.0	0	0.0	0	0.0

PPKK & KLPM	28	12	42.9	11	39.3	5	17.9
HKL / Paediatric	41	37	90.2	1	2.4	3	7.3
HKL / Oral Surgery	31	24	77.4	1	3.2	6	19.4
ALL	1,062	705	66.4	251	23.6	106	10.0

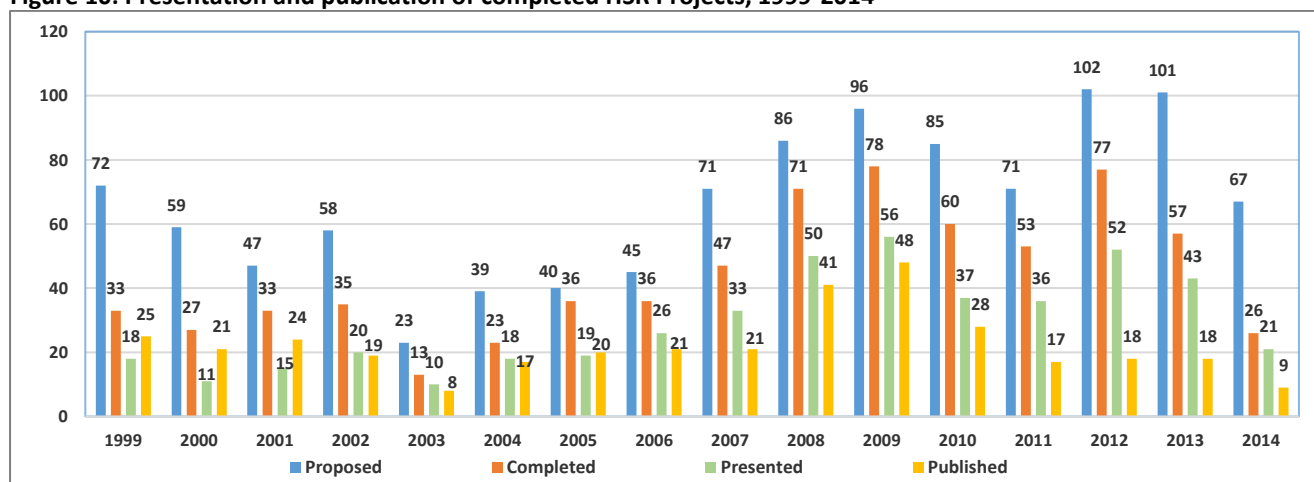
In an effort to ensure that research results are accessible and used by those who need them most, the dissemination of research projects continued to be adopted by the states/Institutions. Towards this endeavor, state research teams have either published or presented the completed research project findings at accredited meetings or conferences held locally and internationally.

Of the 705 completed projects, more than two thirds have been presented (465, 66.0%) and slightly more than half have been published (355, 50.4%) (**Table 38 and Figure 10**).

Table 38: Presentation and publication of completed HSR Projects by State/Institution, 1999-2014

State/Institution	Proposed	Completed		Presented		Published	
	N	n	(%)	n	(%)	n	(%)
Perlis	88	54	61.4	31	57.4	6	11.1
Kedah	93	70	75.3	24	34.3	34	48.6
P. Pinang	138	126	91.3	107	84.9	82	65.1
Perak	60	20	33.3	5	25.0	2	10.0
Selangor	62	38	61.3	24	63.2	20	52.6
FT KL	61	44	72.1	39	88.6	40	90.9
N. Sembilan	72	36	50.0	28	77.8	12	33.3
Melaka	52	29	55.8	25	86.2	25	86.2
Johor	23	14	60.9	11	78.6	4	28.6
Pahang	73	46	63.0	28	60.9	31	67.4
Terengganu	42	29	69.0	14	48.3	12	41.4
Kelantan	41	37	90.2	35	94.6	14	37.8
Sabah	45	28	62.2	18	64.3	20	71.4
Sarawak	28	12	42.9	4	33.3	6	50.0
PPKK & KLPM	72	54	75.0	31	57.4	13	24.1
FT Labuan	0	0	0.0	0	0.0	0	0.0
HKL/Oral Surgery	81	44	54.3	31	70.5	18	40.9
HKL/ Paediatric	31	24	77.4	10	41.7	16	66.7
ALL	1,062	705	66.4	465	66.0	355	50.4

Figure 10: Presentation and publication of completed HSR Projects, 1999-2014



ORAL HEALTH TECHNOLOGY

1. CLINICAL PRACTICE GUIDELINES (CPG)

The Oral Health Technology Section is secretariat for the development of dental CPG in managing the various oral conditions/diseases. This section collaborates with the Malaysian Health Technology Section (MaHTAS) Ministry of Health, Malaysia. The following CPGs are currently being developed/reviewed:

- Antibiotics Prophylaxis in Oral Surgery- For Prevention of Surgical Site Infection (2nd edition)
- Management of Ameloblastoma (New)
- Management of Periodontal Abscess (2nd edition)
- Management of Palatally Ectopic Canine (2nd edition)
- Management of Acute Orofacial Infections of Odontogenic Origin in Children (New)
- Management of Unerupted Maxillary Incisor (2nd edition)

2. LITERATURE SOURCING

Ongoing literature search was conducted to assist various CPG development groups. Continuous scanning of the market for new dental products and technology was done to provide information for decision making.

3. APPROVED PURCHASE PRICE LIST (APPL)

Activities in 2014 included attending meetings coordinated by Procurement and Privatisation Division, MOH on matters related to the supply of procured items by Pharmaniaga Logistics Sdn. Bhd. Issues includes delivery time, penalty on late delivery, product shelf life and product complaints.

3.1 Product Technical Assessment

Technical assessment on Dental Plaster of Paris supplied by an alternative supplier from India was conducted from 25 November until 17 December 2014. The technical assessment committee meeting concluded that the product had met the specifications of the MOH.

3.2 Management of Complaints of APPL Items

The log for complaints was constantly updated. In 2014 there were a total of 19 complaints made on dental items namely the capsulated Silverfill amalgam, autoclave tape, Plaster of Paris. Pharmaniaga Logistics Sdn. Bhd. took the responsibility to communicate with suppliers to improve the quality of delivery of products and/or other shortfalls. Follow ups were made to the complainants and corrective actions were noted.

4. GUIDELINES ON THE USE OF GLASS IONOMER CEMENTS (GIC)

The guidelines provide information on the use of GIC based on scientific evidence and the international standards. GIC is accepted as an interim restoration and should be replaced with permanent filling material within 6 months. The guidelines was successfully completed and circulated to the states in June 2014.

5. MINAMATA CONVENTION ON MERCURY

With the signing of the Minamata Convention, Malaysia is phasing down the use of dental amalgam, monitoring on number of amalgam fillings by MOH personnel continues. The use of capsulated dental amalgam among private dental providers was also audited. This is in line with provision of the use of product containing added mercury in Article 4 of the MINAMATA Convention. Monitoring continues into 2015. At the same time MOH promotes the use of mercury-free alternatives for dental restorations.

6. HORIZON SCANNING

Oral Health Technology Section is involved in the development of the manual on Horizon Scanning for Health Technologies with MaHTAS. Horizon scanning is used for early awareness and an alert system for new and emerging technologies. It focuses on identifying technologies that are likely to have significant impact on health services and/or patient care.

7. GUIDELINES ON THE USE OF FOR CONE-BEAM COMPUTED TOMOGRAPHY (CBCT) IN GOVERNMENT DENTAL FACILITIES

The guidelines is currently reviewed by the medical and dental specialists as well as radiologist. This guidelines was developed based on International Standards and was aimed to promote judicious use of CBCT in the dental field.

8. INQUIRY

The Oral Health Technology Section also responded to inquiries and requests from in-house and other agencies which include:

8.1 3D Printer

A 3D printing technology creates 3D physical prototype by solidifying layers of deposited powder using a liquid binder. 3D printers are used to produce early concept models and product prototype. This technology has expended into new market including medical, molecular and geospatial modeling. It can operate at unprecedented speed, low cost and broad range of application.

PART 3: ORAL HEALTHCARE

Primary Oral Healthcare

Specialist Oral Healthcare

Community Oral Healthcare

Quality Improvement Initiatives

Oral Health Information

PRIMARY ORAL HEALTHCARE

Oral healthcare for the population is prioritised by target groups: toddlers (0 - 4 years), pre-school children (5 - 6 years), schoolchildren (7 - 17 years), children with special needs, ante-natal mothers, adults and the elderly. Overall, there has been a slight increase in the utilisation of MOH primary oral healthcare from 24.9 % in 2013 to 25.2% in 2014 (**Table 39**).

The health services for the Orang Asli came under MOH purview from 1 January 2012. In 2014, a total of 42,643 Orang Asli utilised primary oral healthcare compared to 40,463 in 2013 – a 5.39% increase. A total of 132 Orang Asli primary schools covering 19,925 schoolchildren were visited.

Table 39: Percentage Utilisation of Primary Oral Healthcare by Category of Patients, 2009-2014

Year	Pre-School	Primary School	Secondary School	Antenatal	Adults	Elderly	Overall
2009	18.5	97.3	75.6	28.1	5.3	5.7	22.9
2010	20.7	98.0	80.5	34.6	6.2	6.1	25.4
2011	20.4	98.2	81.6	40.6	6.9	6.3	24.2
2012	22.2	98.5	84.0	35.6	7.3	7.1	24.5
2013	23.6	98.1	85.5	35.2	7.8	7.6	24.9
2014	25.2	98.4	90.1	39.2	8.3	8.0	25.2

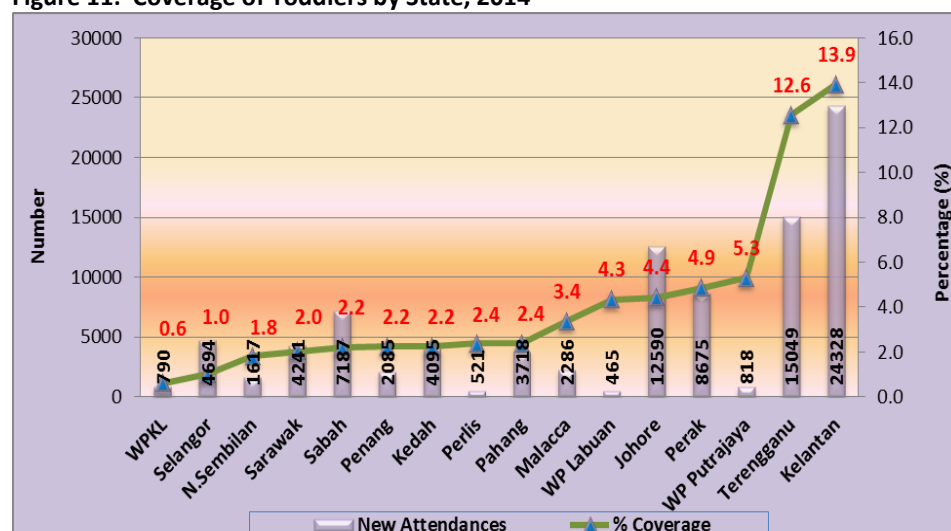
Source: Health Informatics Centre, MOH 2014.

1. EARLY CHILDHOOD ORAL HEALTHCARE FOR TODDLERS

Cursory examination of the oral cavity of toddlers - 'lift-the-lip' - is done in settings such as at childcare centres or Maternal and Child Health clinics. Clinical preventive measures, such as fluoride varnish are instituted where required.

Under the *PERMATA Negara* programme, 1,745 (89.9%) of the 1,941 *Taska Permata* were visited in 2014, and 89.5% (40,438/45,148) of toddlers examined. Awareness sessions on oral health were held for 227 childcare providers from 304 *Taska Permata* in 2014. In addition, all *Taska Permata* in West Malaysia were provided with 14,400 oral health kits.

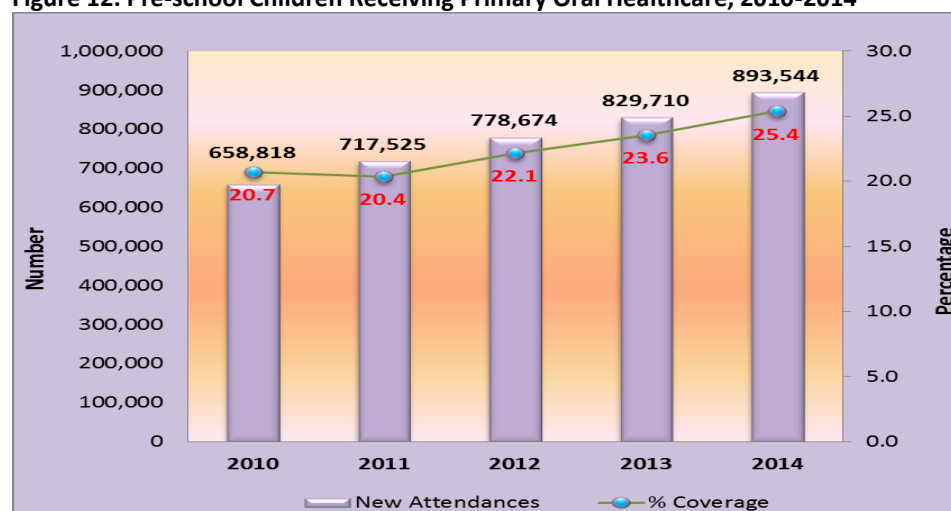
In 2014, an overall 3.7% (93,159) of the toddler population were given primary oral healthcare. The state of Kelantan recorded the highest coverage (13.9%) (**Figure 11**).

Figure 11: Coverage of Toddlers by State, 2014

Source: Health Informatics Centre, MOH 2014.

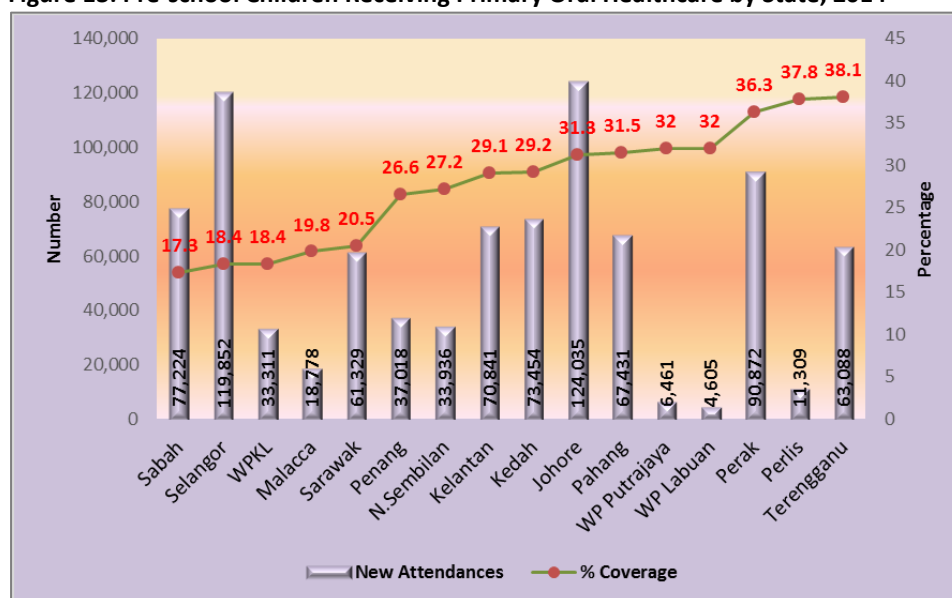
2. ORAL HEALTHCARE FOR PRE-SCHOOL CHILDREN

In 2014, a total of 893,544 pre-school children were given primary oral healthcare compared to 829,710 in 2013 (**Figure 12**) - a 7.7% increase in coverage.

Figure 12: Pre-school Children Receiving Primary Oral Healthcare, 2010-2014

Source: Health Informatics Centre, MOH 2014.

The states of Perak, Perlis and Terengganu (**Figure 13**) recorded the highest coverage of pre-school children receiving primary oral healthcare.

Figure 13: Pre-school Children Receiving Primary Oral Healthcare by State, 2014

Source: Health Informatics Centre, MOH 2014.

3. ORAL HEALTHCARE FOR SCHOOLCHILDREN

The oral health status of schoolchildren has improved over the years. Hence, the Oral Health Division has piloted a project of 2-year recall visits for schoolchildren identified as 'low risk' in 8 primary and 8 secondary schools in Johor and in 5 primary and 5 secondary schools in FT KL. The project is being continued in Johor Bahru and the four zones of Kepong, Lembah Pantai, Titiwangsa and Cheras in FT KL. The 7-surface Gingival Index for Schoolchildren (GIS) was approved for use at the *Mesyuarat Jawatankuasa Dasar dan Perancangan Kesihatan Pergigian Bil. 1/2013* on 4 February 2013 and was implemented nationwide beginning 1st January 2014. The GIS score on gingivitis and non-gingivitis status is as shown in **Table 40**.

Table 40: GIS Score of Primary and Secondary Schoolchildren by States; 2014

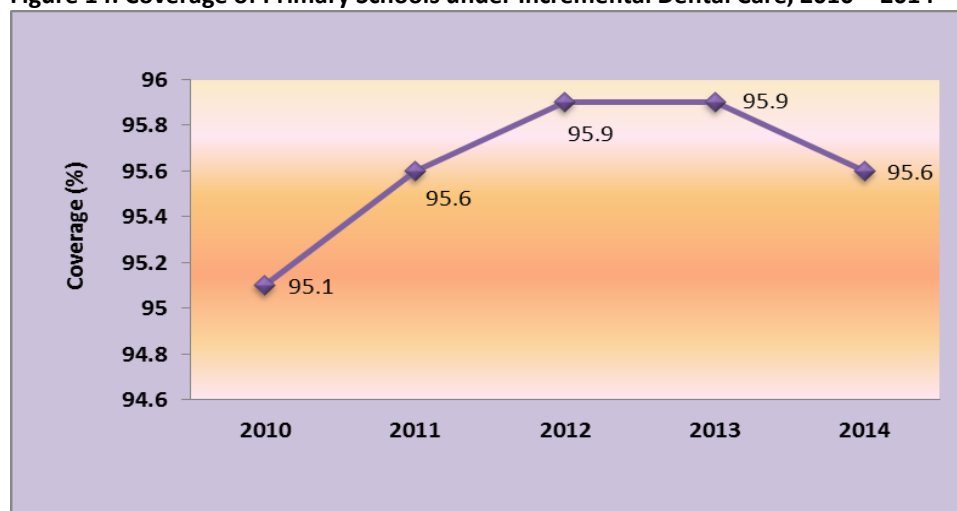
State	Primary Schools GIS Score (%)		Secondary Schools GIS Score (%)	
	No Gingivitis (Score 0 & 1)	Gingivitis (Score 2 & 3)	No Gingivitis (Score 0 & 1)	Gingivitis (Score 2 & 3)
Perlis	87.4	12.6	83.3	16.7
Kedah	69.9	30.1	63.3	36.7
Penang	55.2	44.8	55.8	44.2
Perak	89.9	10.1	82.2	17.8
Selangor	84.1	15.9	77.1	22.9
FT KL	98.1	1.9	94.4	5.6
N. Sembilan	52.0	48.0	46.9	53.1
Malacca	89.6	10.4	78.6	20.6
Johore	63.6	36.4	62.0	38.0
Pahang	96.4	3.6	92.1	7.9
Terengganu	77.6	22.4	74.4	25.6
Kelantan	82.4	17.6	72.5	27.5
Sarawak	80.6	19.4	75.7	24.3
Sabah	80.3	19.7	61.8	38.2
FT Labuan	78.1	21.9	47.6	52.4
Malaysia	78.8	21.2	72.1	27.9

Source: States Service Data, 2014.

- **Primary schoolchildren**

Dental nurses and supporting teams are entrusted with the oral healthcare for primary schoolchildren. While the coverage of primary schools showed an improving trend from 2010 to 2012, the achievement remained plateau in 2013 and decreased to 95.6 % in 2014 (**Figure 14**).

Figure 14: Coverage of Primary Schools under Incremental Dental Care, 2010 – 2014



Source: Health Informatics Centre, MOH 2014.

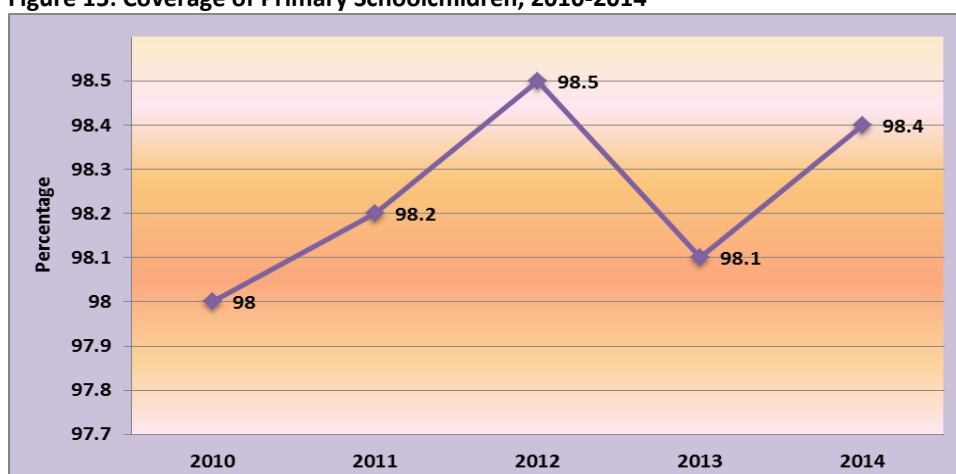
Majority states have achieved above 98% for coverage of primary schools in 2014 with the exceptions in Sabah (79.6%) and Sarawak (91.7%) (**Table 41**).

Table 41: Coverage of Primary Schools under Incremental Dental Care by State, 2010 – 2014

State	Percent Coverage of Primary Schools				
	2010	2011	2012	2013	2014
Perlis	100	100	100	100	100
Kedah	99.4	100	99.1	100	100
Pulau Pinang	95.1	100	99.6	100	100
Perak	100	97.8	99.4	99.7	99.2
Selangor	99.5	99.5	99.8	99.7	98.8
FT KL	100	100	100	100	100
FT Putrajaya	100	100	100	100	100
N. Sembilan	100	100	100	100	100
Melaka	100	100	100	100	100
Johor	100	100	100	100	100
Pahang	99.6	100	99.6	100	100
Terengganu	98.9	99.7	99.7	100	99.5
Kelantan	92.6	96.3	98.8	99.5	98.8
FT Labuan	100	100	100	100	100
Sabah	83.2	84	83.5	82.4	79.6
Sarawak	88.6	89.7	90	89.9	91.7
MALAYSIA	95.1	95.6	95.9	95.9	95.6

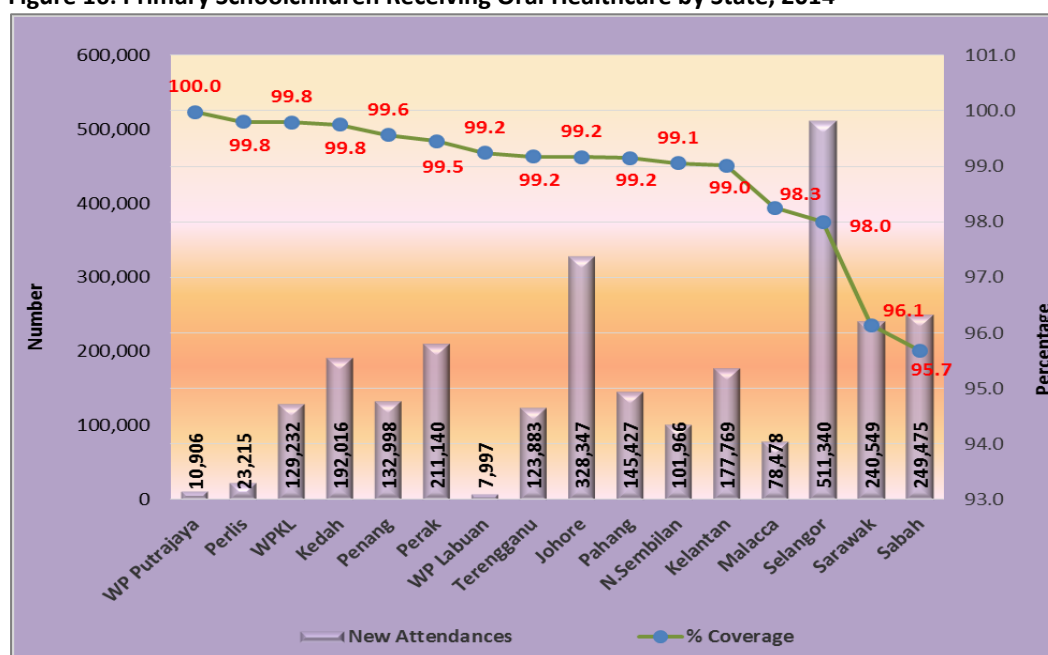
Source: Health Informatics Centre, MOH 2014.

The coverage for primary schoolchildren has exceeded 95% over the past 5 years with 98.4% of primary schoolchildren examined in 2014 (**Figure 15**). Of these, 34.4% were caries-free and 60.5% did not require any treatment.

Figure 15: Coverage of Primary Schoolchildren, 2010-2014

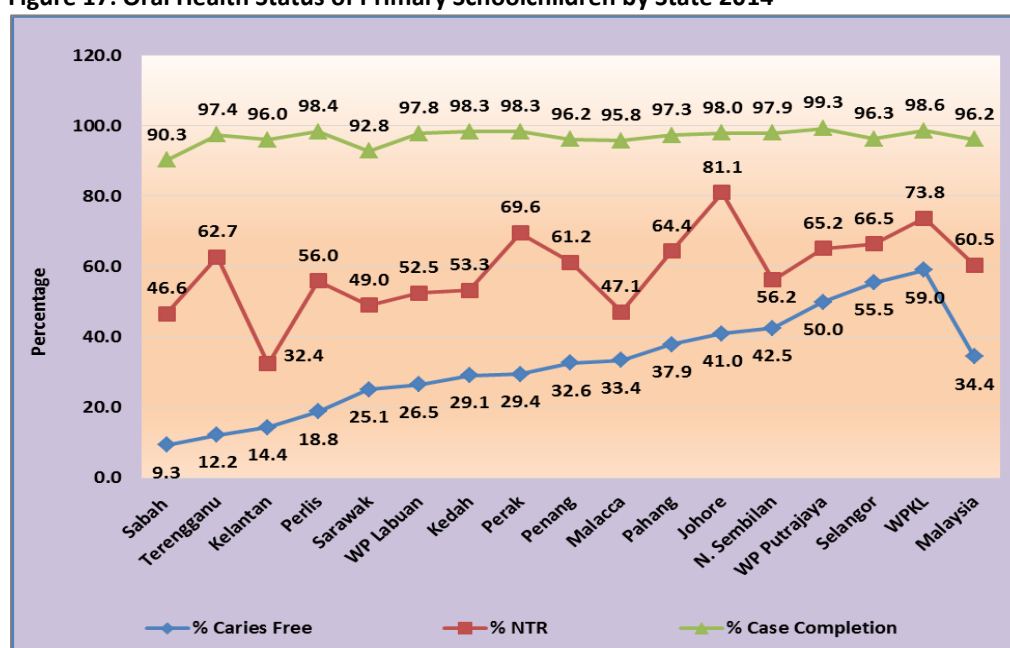
Source: Health Informatics Centre, MOH 2014.

All states except Selangor (98.0%), Melaka (98.3%), Sabah (95.7%) and Sarawak (96.1%) achieved coverage of 98.5% and more (**Figure 16**).

Figure 16: Primary Schoolchildren Receiving Oral Healthcare by State, 2014

Source: Health Informatics Centre, MOH 2014.

In 2014, about 96.2% of primary schoolchildren were rendered orally-fit (case completion) (**Figure 17**).

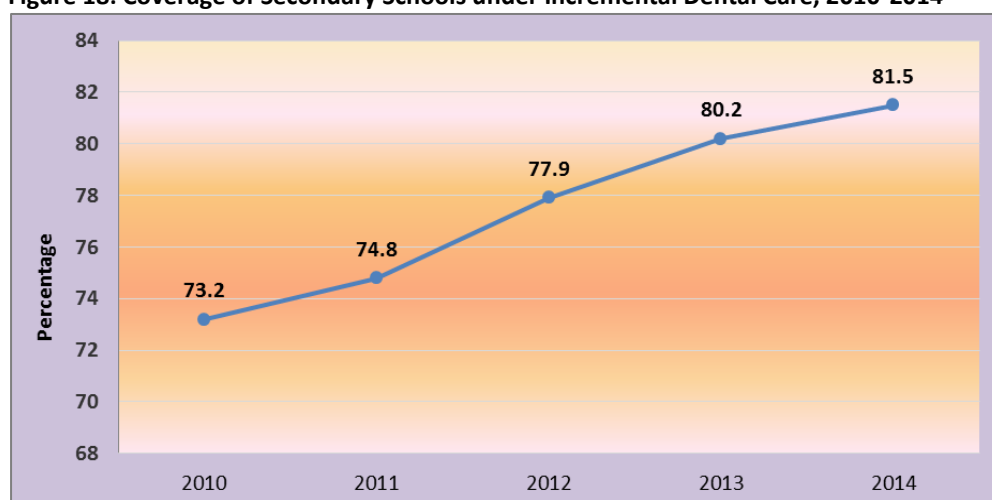
Figure 17: Oral Health Status of Primary Schoolchildren by State 2014

Source: Health Informatics Centre, MOH 2014.

All states achieved more than 96% case completion among primary schoolchildren except for Sabah and Sarawak. FT Putrajaya showed the highest percentage of case completion followed by FT KL at 99.3% and 98.6% respectively.

• Secondary Schoolchildren

With the move for dental officers to provide daily outpatient services in the clinics, dental nurses now shoulder more responsibilities for the secondary school dental service. The coverage of secondary schools has shown an increase over the years with 81.5% of the secondary schools covered in 2014 (Figure 18).

Figure 18: Coverage of Secondary Schools under Incremental Dental Care, 2010-2014

Source: Health Informatics Centre, MOH 2014.

The majority of states achieved above 93% secondary school coverage in 2014 except for Sarawak, Sabah, Kelantan and Selangor (**Table 42**).

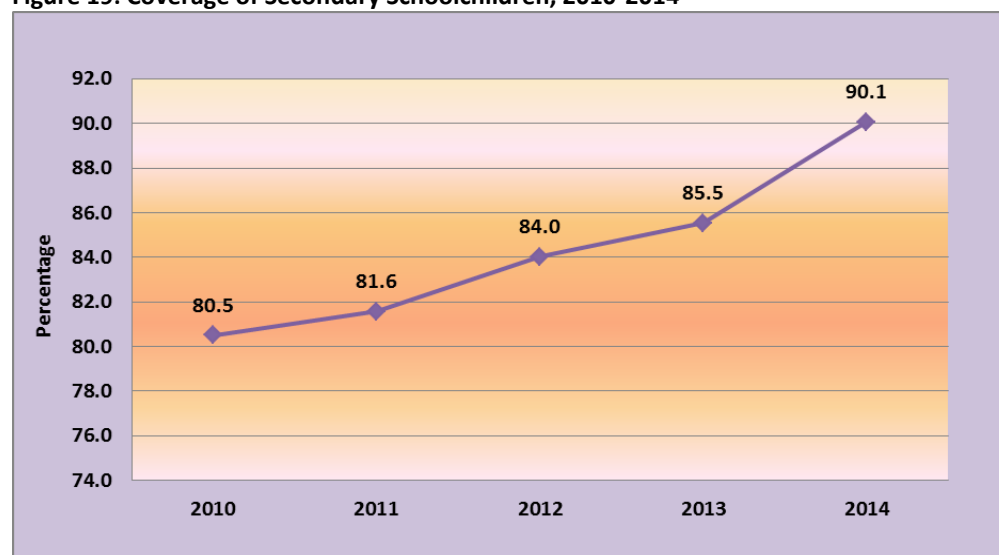
Table 42: Percentage of Secondary School Coverage under Incremental Dental Care by State, 2010-2014

State	Percent Secondary Schools Covered				
	2010	2011	2012	2013	2014
Perlis	96.6	100	100	100	100
Kedah	83.9	82.5	92	93.6	94.7
Pulau Pinang	84.9	95.1	97.6	99.2	99.2
Perak	97.6	96.9	99.2	99.6	97.3
Selangor	79.3	75.4	82.8	83.3	79.6
FT KL	100	100	100	100	100
FT Putrajaya	100	100	100	100	100
N. Sembilan	100	100	100	100	100
Melaka	100	100	100	100	100
Johor	100	100	100	100	100
Pahang	97.1	100	100	100	97.7
Terengganu	64.5	68.1	75.5	87.2	96
Kelantan	33.2	38.3	42.8	49.8	50.8
FT Labuan	100	100	100	100	100
Sabah	21.3	27	31	29.2	35.9
Sarawak	14.4	16.7	15.4	24.7	29.3
MALAYSIA	73.2	74.8	77.9	80.2	81.5

Source: Health Informatics Centre, MOH 2014.

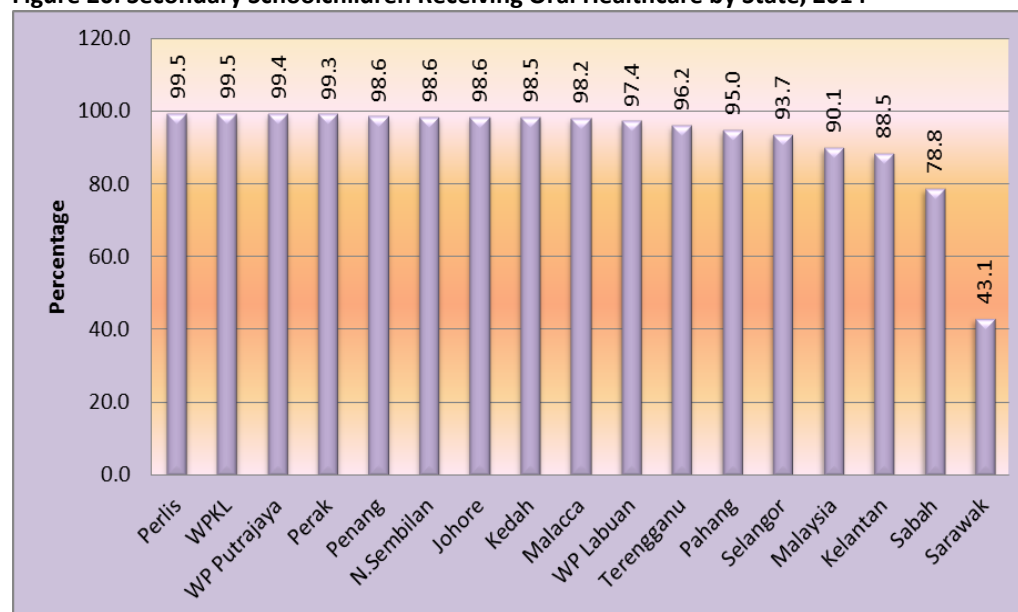
In 2014, 90.1% of secondary school children were seen, an improvement from the previous years (**Figure 19**).

Figure 19: Coverage of Secondary Schoolchildren, 2010-2014



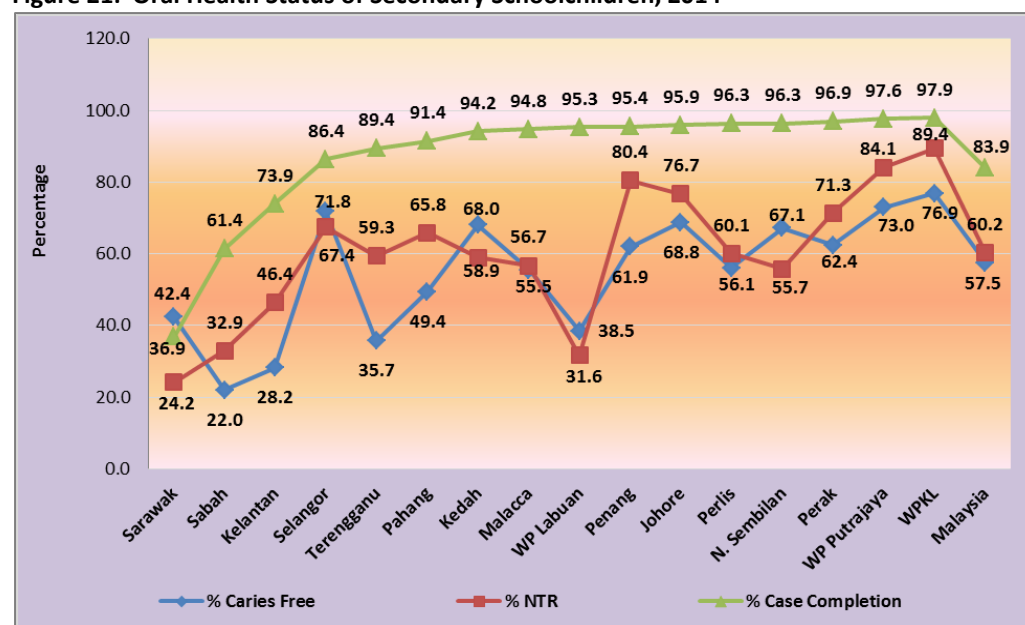
Source: Health Informatics Centre, MOH 2014.

Two states, Sarawak and Sabah, recorded coverage of secondary schoolchildren below the target of 85.7% (**Figure 20**).

Figure 20: Secondary Schoolchildren Receiving Oral Healthcare by State, 2014

Source: Health Informatics Centre, MOH 2014.

In 2014, about 83.9% of secondary schoolchildren were rendered orally-fit (**Figure 21**) while 57.5% were caries-free and 60.2% did not require any treatment. Three states - Sarawak, Sabah and Kelantan - recorded below 80.3% case completion among secondary schoolchildren.

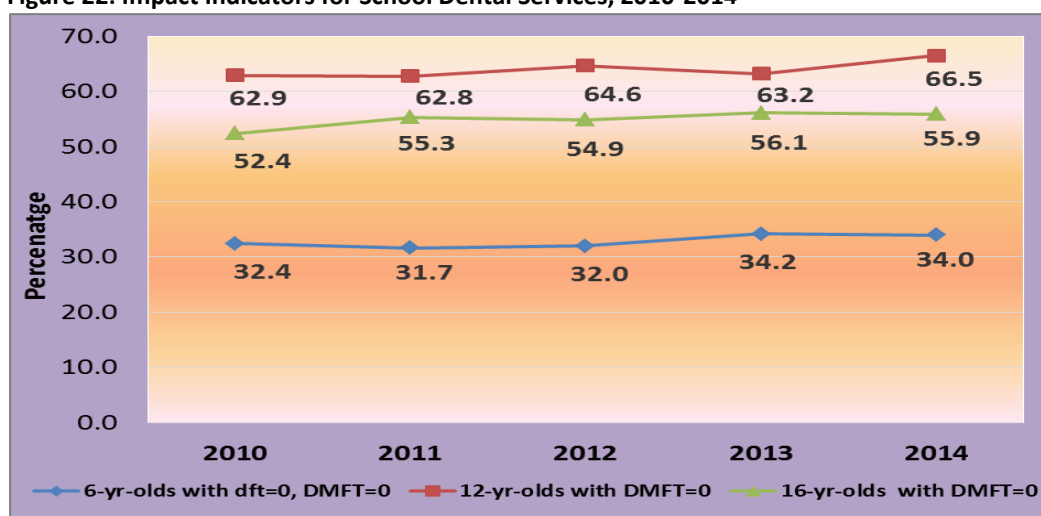
Figure 21: Oral Health Status of Secondary Schoolchildren, 2014

Source: Health Informatics Centre, MOH 2014.

• Caries-free status of 6, 12 and 16 year-old Schoolchildren – Impact Indicators

The percentage of children with caries-free status among the 12-years-old showed a slight increase from 2013, while it showed a decrease for 6 and 16-year-olds (**Figure 22**).

Figure 22: Impact Indicators for School Dental Services, 2010-2014



Source: Health Informatics Centre, MOH 2014.

FT KL showed the highest percentage of 12-year olds who were caries-free followed by Selangor (Table 43). All states, except for Perlis, showed an increase in caries-free 12-year-olds compared to 2013.

Table 43: Percentage of Caries-Free 12-year-olds by State, 2010-2014

State	Percent Caries Free				
	2010	2011	2012	2013	2014
Perlis	70.5	70.5	72.5	71.0	70.3
Kedah	69.4	69.5	72.2	71.5	74.3
P. Pinang	66.8	67.0	70.8	70.0	73.6
Perak	69.6	69.7	72.1	70.5	73.8
Selangor	79.1	79.1	80.7	78.8	81.9
FT Kuala Lumpur	80.0	79.4	81.9	81.9	85.4
FT Putrajaya	80.0	79.9	82.9	79.5	80.5
Negeri Sembilan	74.8	75.2	77.5	76.1	79.3
Melaka	66.4	64.8	65.6	64.0	69.3
Johor	74.5	74.3	76.2	74.2	77.9
Pahang	61.0	61.5	61.3	59.4	61.3
Terengganu	47.7	45.2	45.2	42.9	46.2
Kelantan	29.6	30.6	32.0	34.6	39.3
FT Labuan	54.4	52.1	54.9	55.6	58.7
Sabah	29.9	30.4	31.2	33.2	34.9
Sarawak	53.1	52.7	52.5	49.1	52.3
Malaysia	62.9	62.8	64.6	63.2	66.5

Source: Health Informatics Centre, MOH 2014.

FT KL also showed the highest percentage of caries-free 16-year-olds while Sabah and Kelantan reported the lowest (**Table 44**). In 2014, the states of Perlis, Negeri Sembilan, Melaka, Terengganu, Kelantan, Sabah and Sarawak recorded a drop in caries-free 16-year-olds.

Table 44: Percentage of Caries Free 16-year olds by State 2010 – 2014

State	2010	2011	2012	2013	2014
Perlis	49.5	56.2	58.1	56.8	54.6
Kedah	58.3	64.5	64.3	65.5	66.3
Pulau Pinang	53.0	56.3	55.3	56.8	59.3
Perak	51.8	56.6	56.3	59.2	59.9
Selangor	66.5	69.4	70.4	72.3	73.3
FT Kuala Lumpur	67.1	71.6	71.5	73.4	74.8
FT Putrajaya	64.6	65.1	71.8	67.7	72.8
N. Sembilan	59.9	64.2	63.1	66.6	66.0
Melaka	51.30	53.7	52.0	53.3	52.4
Johor	59.4	63.0	62.7	64.8	66.6
Pahang	43.0	45.7	45.2	46.0	46.6
Terengganu	38.7	39.0	37.0	38.0	33.9
Kelantan	28.9	29.3	26.0	27.5	25.7
FT Labuan	34.9	35.5	34.1	35.7	36.3
Sabah	17.6	17.1	18.4	19.2	18.4
Sarawak	38.6	43.0	51.8	41.6	40.1
MALAYSIA	52.4	55.3	54.9	56.1	55.9

Source: Health Informatics Centre, MOH 2014.

The mean DMFT score for 12-year-olds has remained below 1, and mean DMFT has increased among the 16-year-olds (**Table 45**).

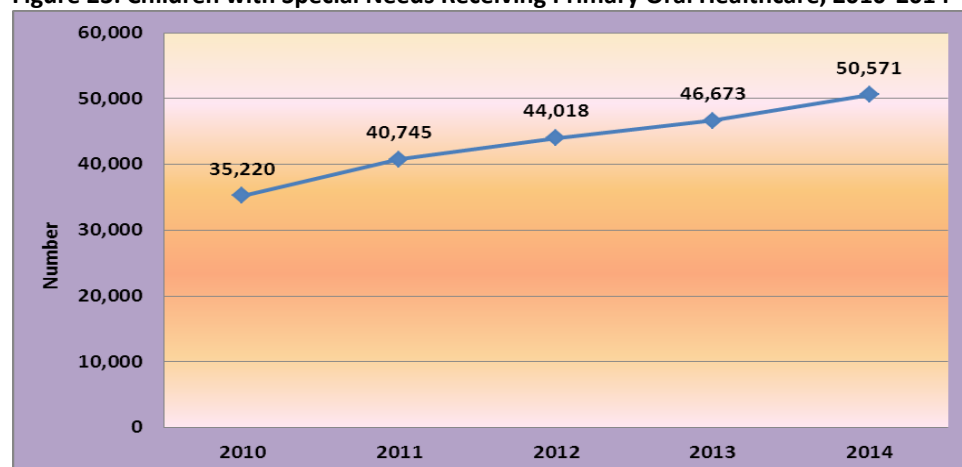
Table 45: Mean DMFT Score for 12 and 16-year-olds, 2010-2014

Age	2010	2011	2012	2013	2014
12-yr-olds	0.96	0.96	0.89	0.91	0.85
16-yr-olds	1.44	1.37	1.32	1.30	1.35

Source: Health Informatics Centre, MOH 2014.

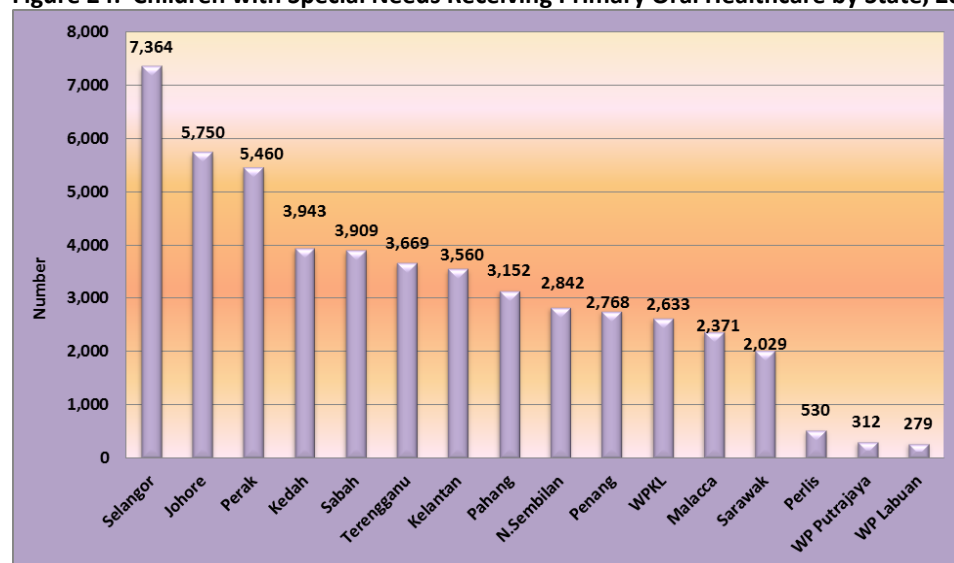
• Oral Healthcare for Children With Special Needs

The number of children with special needs utilising primary oral healthcare services has been increasing over the years. The increase has been mainly due to the National Blue Ocean Strategy 7 (NBOS 7) initiative in 2012 which prioritised health services to special needs children, the elderly and single mothers. In 2014, a total of 50,571 special needs children received oral healthcare (**Figure 23**).

Figure 23: Children with Special Needs Receiving Primary Oral Healthcare, 2010-2014

Source: Health Informatics Centre, MOH 2014.

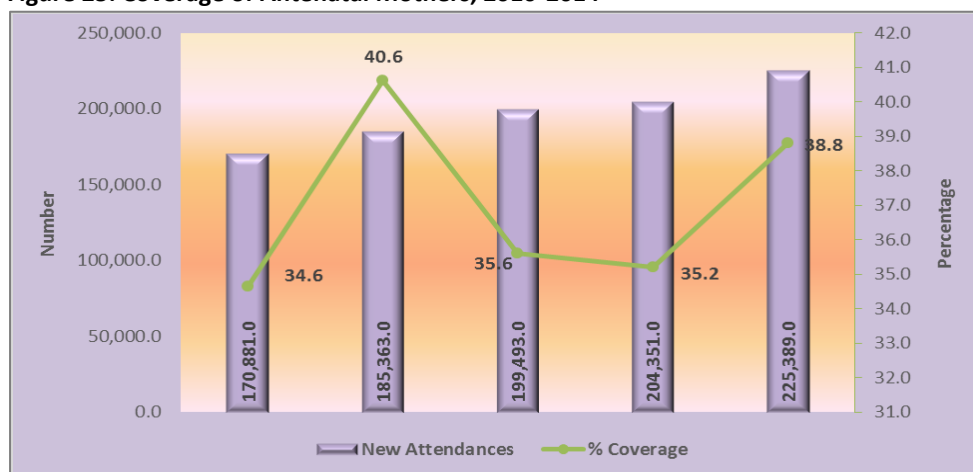
The highest number of special needs children was seen in Selangor followed by Johor and Perak (**Figure 24**).

Figure 24: Children with Special Needs Receiving Primary Oral Healthcare by State, 2014

Source: Health Informatics Centre, MOH 2014.

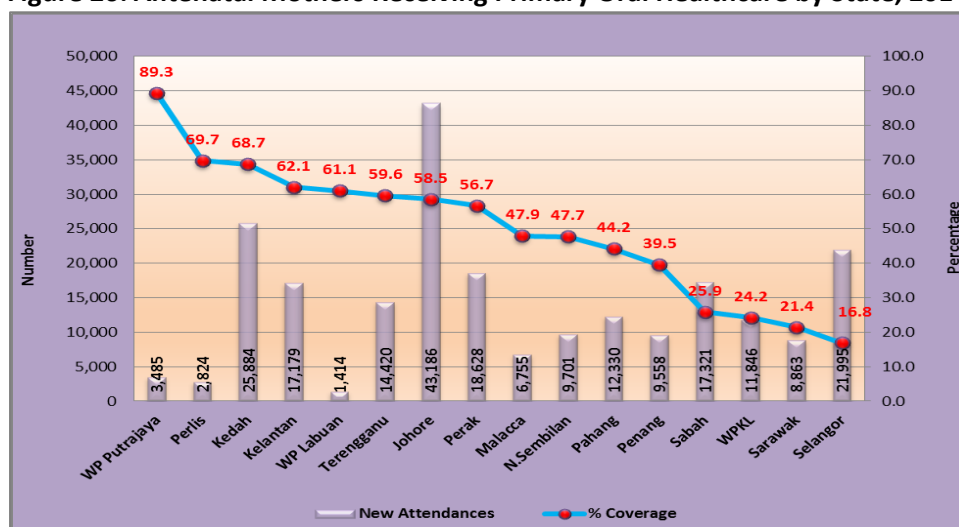
4. ORAL HEALTHCARE FOR ANTENATAL MOTHERS

Efforts have been made to increase attendance of antenatal mothers at dental clinics. The aim is to impart essential oral health knowledge to mothers as agents of change and to render them orally-fit. There was an overall increase in the utilisation of primary oral healthcare by antenatal mothers (**Figure 25**).

Figure 25: Coverage of Antenatal Mothers, 2010-2014

Source: Health Informatics Centre, MOH 2014.

The highest percentage of antenatal mothers who sought dental care was in FT Putrajaya, followed by Perlis and Kedah (Figure 26).

Figure 26: Antenatal Mothers Receiving Primary Oral Healthcare by State, 2014

Source: Health Informatics Centre, MOH 2014.

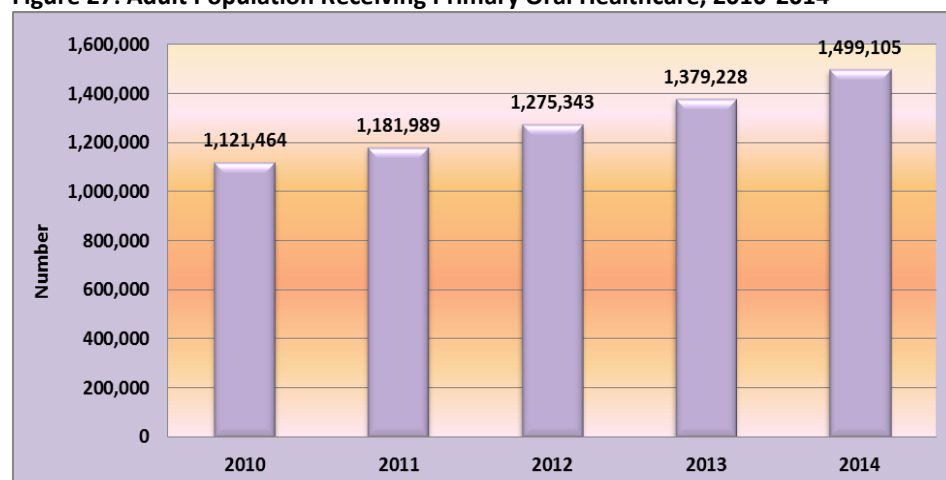
5. ORAL HEALTHCARE FOR ADULTS

Oral healthcare for adults is provided through various dental facilities and through outreach services. Since 2012, oral health services were also provided through new initiatives such as the Urban Transformation Centres (UTCs) and Rural Transformation Centres (RTCs). UTCs operate for extended hours from 8.00am to 10.00pm and are located in Melaka, FT KL (Pudu Sentral and Sentul), Perak, Pahang, Kedah, Johor and Sabah, whereas RTCs are located in Perak (Gopeng), Kelantan (Wakaf Che Yeh), Melaka (Kuala Linggi) and Pekan (Pahang). A total of 124,815 people utilised the UTCs and 2,519 utilised the RTCs in 2014 compared to 56,889 and 1,621 respectively in 2013.

The demand for oral healthcare among adults is increasing. Thus the number of dental clinics providing daily outpatient services has been included as one of the key performance indicators (KPI) for the Oral Health Programme. Efforts have been made to accommodate this need and to date 95.8% (410/428) of dental clinics with 2 or more dental officers offer daily outpatient services.

In 2014, adult utilisation of primary oral healthcare increased by 8.7% from 2013 (**Figure 27**) with the highest number in Johor and Selangor. To further improve accessibility to oral healthcare services, in 2013 the Programme has established 21 clinics which offer complex endodontic treatment. Dental officers from these 21 clinics were trained to carry out posterior endodontics using rotary handpieces. In 2014, a total of 1,279 endodontic cases were seen in these KEPPs with the breakdown of cases as shown in **Table 46**.

Figure 27: Adult Population Receiving Primary Oral Healthcare, 2010-2014

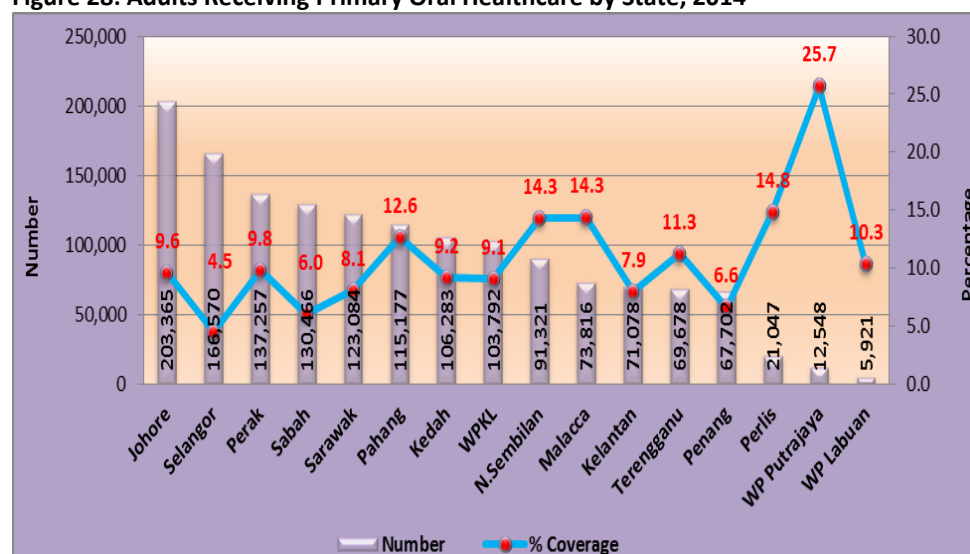


Source: Health Informatics Centre, MOH 2014.

Table 46: Types of Completed Endodontic Cases in KEPP; 2013-2014

Year	Number of Completed Endodontic Cases				Total
	Anterior	Premolar	Molar	Retreatment	
2013	394	213	430	13	1,050
2014	582	278	403	16	1,279

A total of 8.3% of the adult population aged 18 - 59 years received primary oral healthcare in 2014. FT Putrajaya recorded the highest percentage while Selangor recorded the lowest (**Figure 28**).

Figure 28: Adults Receiving Primary Oral Healthcare by State, 2014

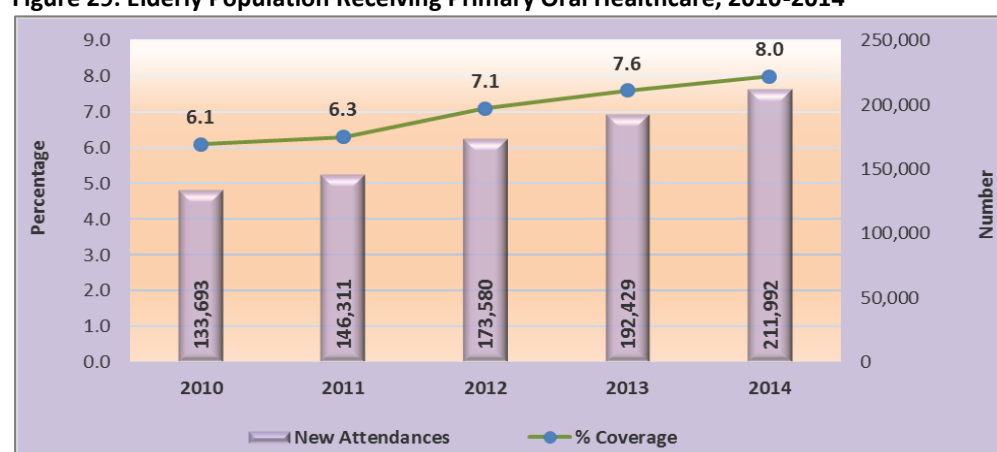
Source: Health Informatics Centre, MOH 2014.

6. Oral Healthcare for the Elderly

Malaysia is expected to reach ageing nation status by 2030, when those aged 60 and above make up 15% of the population. In 2014, the number of elderly was 2.65 million, representing 8.8% of the total Malaysian population of 30.1 million and is expected to reach 3.4 million by year 2020. This necessitates a focus on the oral healthcare needs of the elderly.

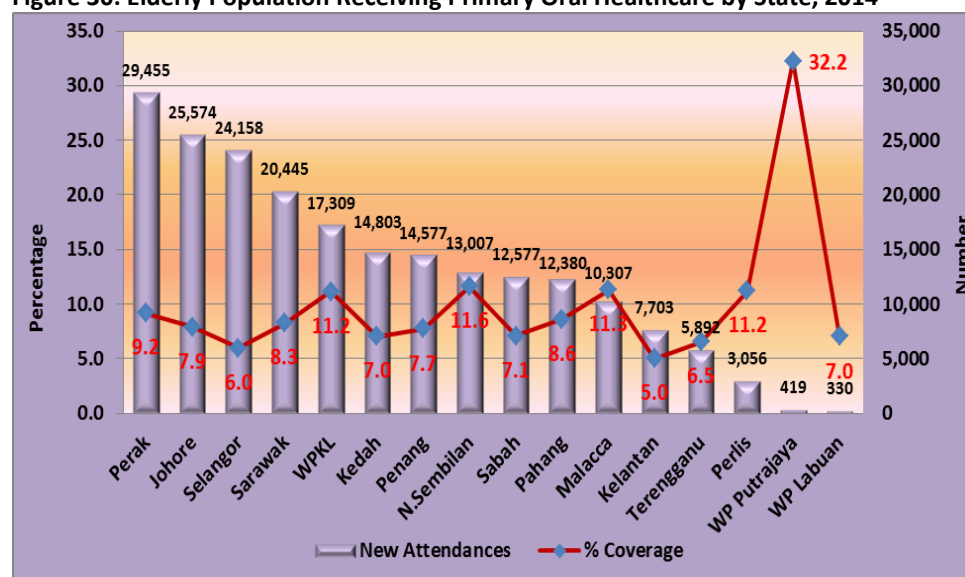
Oral healthcare coverage for the elderly has increased in 2013 with the NBOS 7 initiatives. With these increased efforts, it is hoped that the goals for better accessibility to oral healthcare and better oral health status for the elderly will be achieved.

In 2014, a total of 8.0% (211,992) of the elderly sought oral healthcare in MOH facilities (**Figure 29**). Of these, 6,946 elderly were treated in 310 institutions.

Figure 29: Elderly Population Receiving Primary Oral Healthcare, 2010-2014

Source: Health Informatics Centre, MOH 2014.

The highest coverage of elderly was in FT Putrajaya, followed by Negeri Sembilan and Perlis (**Figure 30**).

Figure 30: Elderly Population Receiving Primary Oral Healthcare by State, 2014

Source: Health Informatics Centre, MOH 2014.

Despite an increase in the elderly population utilising oral healthcare facilities, their oral health status is still far from satisfactory. Only 37.1% of 60-year-olds had 20 or more teeth (**Table 47**). This is far from the targeted goal of 60% in the National Oral Health Plan 2011-2020.

Table 47: Oral Health Status of the Elderly by Age Group, 2014

Age group (year)	Average no. of teeth present		Edentulous (%)		With 20 or more teeth (%)	
	2013	2014	2013	2014	2013	2014
60	14.9	15.1	10.2	9.7	36.9	37.1
65	13.2	13.5	13.9	12.5	28.9	29.6
75 and above	9.6	9.9	25.1	24.0	16.9	17.9

Source: Health Informatics Centre, MOH 2014.

SPECIALIST ORAL HEALTHCARE

1. DENTAL SPECIALTY DISCIPLINES

There are eight (8) clinical dental specialties and one (1) non-clinical dental speciality recognised in the MOH (**Table 48**). Five (5) of the clinical specialties are hospital-based. In 2014, there 202 Clinical Dental Specialists and 121 Dental Public Health Specialists in the MOH.

Table 48: Number of Dental Specialists in MOH, 2010-2014

Discipline \ Year	2010	2011	2012	2013	2014
Clinical Dental Specialists					
Hospital-based					
Oral Surgery	45	45 (*4)	48 (*3)	55(*3)	56(*4)
Paediatric Dentistry	25	27	29	33	35
Oral Pathology & Oral Medicine	8	9	9	9	10
Special Needs Dentistry	0	0	2	2	3
Forensic Dentistry	0	0	1	1	1
Non-hospital-based					
Orthodontics	32	25 (*5)	34 (*6)	46 (*4)	48(*3)
Periodontics	19	20	21	24	29
Restorative Dentistry	14	16	17	20	20
Total Number of Clinical Dental Specialists	143	142 (*9)	161 (*9)	190 (*7)	202
Non- Clinical Dental Specialists					
Dental Public Health Specialist	129	123	122	119	121

(Not inclusive of postgraduates undergoing specialty gazettement)

**Contract Dental Specialists*

Four (4) additional specialist services were established in eight (8) facilities in 2014 (**Table 49**).

Table 49: New Specialty Services Established, 2014

Specialty	Hospital / Dental Facilities
Special Needs Dentistry	Hospital Seberang Jaya
Orthodontics	KP Changlun, KP Tampin and KP Kuala Krai
Periodontics	KP Jerantut and KP Teluk Intan
Restorative Dentistry	KP Taiping and KP Beseri

- **Dental Specialist Meetings**

Dental Specialist Meetings are organised annually for each discipline to discuss Annual Plans of Action, Achievements, Key Performance Indicators, National Indicator Approaches, Patient Safety Indicators and issues pertaining to each specialty. In 2014, nine (9) dental specialists meetings were held inclusive of a Combined Dental Specialists Meeting (**Table 50**).

Table 50: Dental Specialist Meetings, 2014

Specialty	Date	Venue
Dental Public Health	27 – 28 March 2014	Oral Health Division, MOH
Oral Surgery and Forensic Dentistry	31 March – 1 April 2014	Melaka Hospital
Oral Pathology & Oral Medicine	27 – 28 February 2014	Oral Health Division, MOH
Orthodontics	26 -27 May 2014	Health Management Institute, Bangsar, Kuala Lumpur
Paediatric Dentistry	29 – 30 April 2014	<i>Kolej Latihan Pergigian Penang</i>
Periodontics	14 – 15 May 2014	Health Education Division, MOH
Restorative Dentistry	8 - 9 May 2014	Bandar Botanik Dental Clinic, Klang, Selangor
Special Needs Dentistry	8 - 9 May 2014	Bandar Botanik Dental Clinic, Klang, Selangor
Combined Dental Specialists Meeting	12 – 14 October 2014	Grand Continental Hotel, Kuala Terengganu



• Monitoring of Specialist Oral Healthcare

The dental specialists' workload is reflected as number of patients seen in a year. There was an increase in workload for the majority of specialties except for the Paediatric Dental specialty. Orthodontics showed the most significant increase. **(Table 51).**

Table 51: Workload per Dental Specialists by Discipline, 2010-2014

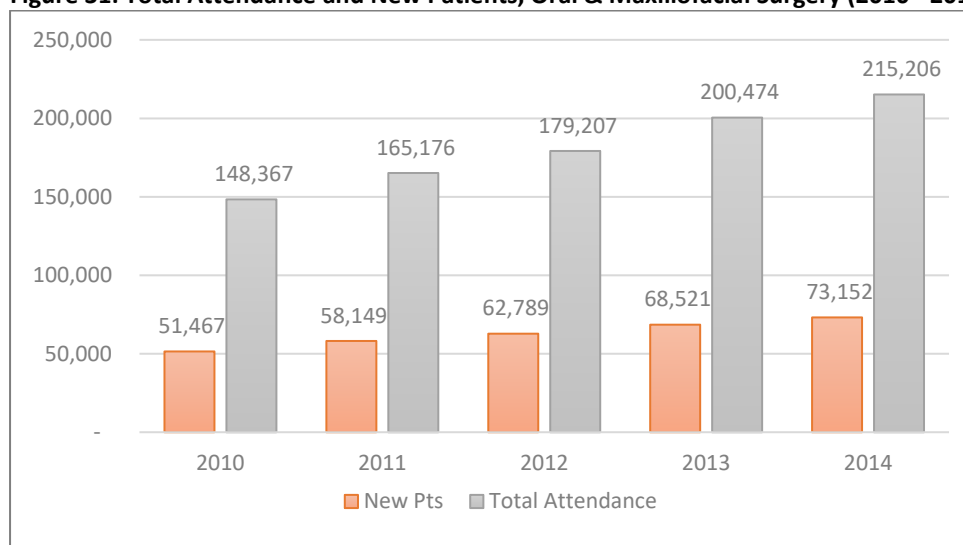
No.	Specialty	Workload				
		2010	2011	2012	2013	2014
1	Paediatric Dentistry	1:2,979	1:3,264	1:3,144	1:3,400	1: 2676
2	Oral & Maxillofacial Surgery	1:2,799	1:2,950	1:2,950	1:3,182	1: 3,843
3	Oral Pathology and Oral Medicine	1:463	1:527	1:816	1:828	1: 848
4	Orthodontics	1:3,235	1:2,754	1: 2,362	1:2,788	1: 3,689
5	Restorative Dentistry	1:1,244	1:1,332	1:1,495	1:1,376	1: 1,658
6	Periodontics	1:1,374	1:1,494	1:1,627	1:1,222	1: 1,368

2. HOSPITAL-BASED CLINICAL DENTAL SPECIALTIES

2.1 Oral & Maxillofacial Surgery

There was an increasing trend in new patients and total attendance over the last 5 years for Oral & Maxillofacial Surgery (2010 - 2014) **(Figure 31).**

Figure 31: Total Attendance and New Patients, Oral & Maxillofacial Surgery (2010 - 2014)



Of all oral surgeries performed in 2014, 90.6% (18,687) were minor surgical cases. Majority of the minor surgeries were pre-prosthetic and pre-orthodontic procedures, removal of impacted teeth, biopsies, excision/ablative surgeries and removal of retained/displaced roots. Major surgery cases accounted for 9.4% (1,947) which consisted of surgical removal of malignant lesions, primary or

secondary facial reconstruction, cleft lip and palate repair, orthognathic surgery and distraction osteogenesis (**Table 52**).

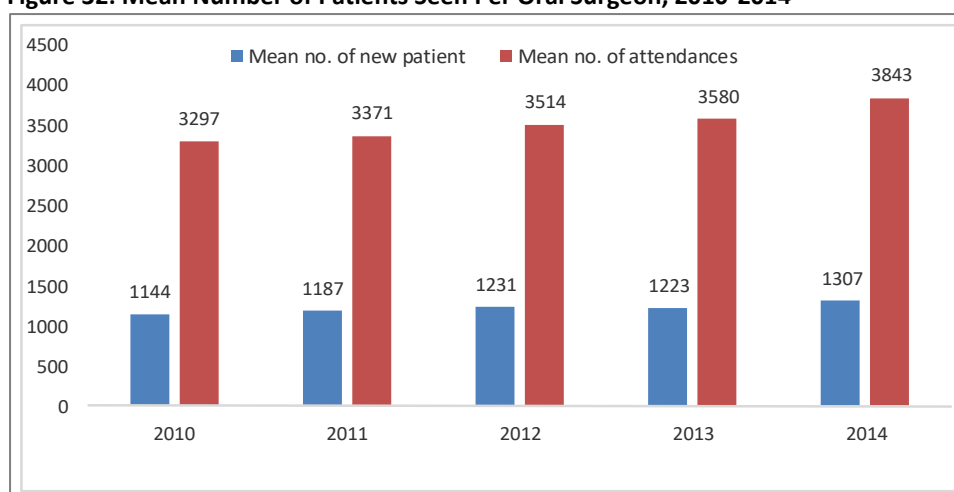
Table 52: Surgeries Performed by Oral Surgeons, 2014

Type of Cases	No.	%
Minor Surgery	18,687	90.6%
Major Surgery	1,947	9.4%

Source: Health Informatics Centre, MOH 2014.

In 2014, the mean number of patients seen by an Oral Surgeon was 3,843, each patient making an average of three visits (**Figure 32**).

Figure 32: Mean Number of Patients Seen Per Oral Surgeon, 2010-2014

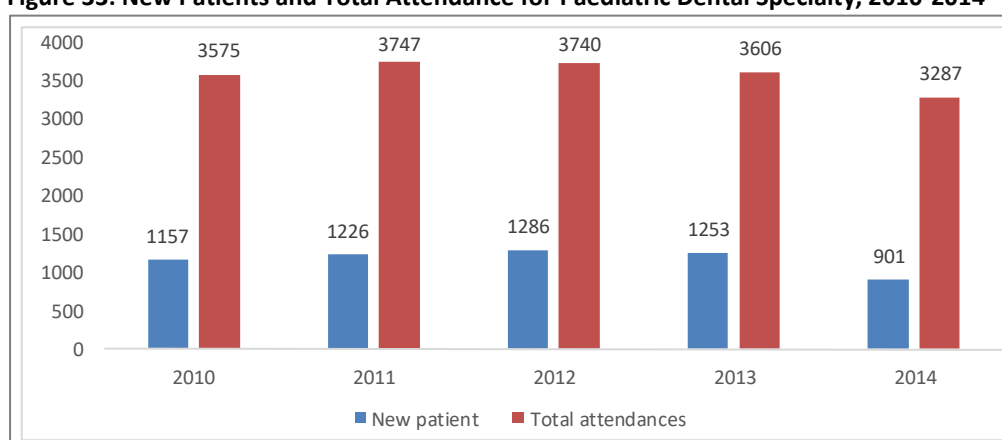


Source: Health Informatics Centre, MOH 2014.

2.2 Paediatric Dental Specialty

Paediatric Dental Specialists attend to children below 17 years. There was a decrease in new and total attendance in 2014 compared with 2013 (**Figure 33**).

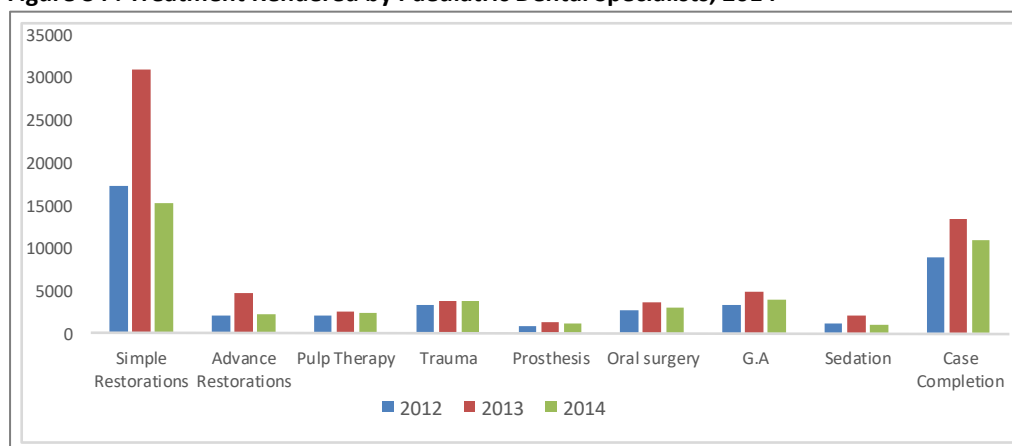
Figure 33: New Patients and Total Attendance for Paediatric Dental Specialty, 2010-2014



Source: Health Informatics Centre, MOH 2014.

More than half of the treatment rendered by Paediatric Dental Specialists in 2014 was restorations (**Figure 34**), some done under general anaesthesia or sedation. Each patient made an average of 3 visits a year.

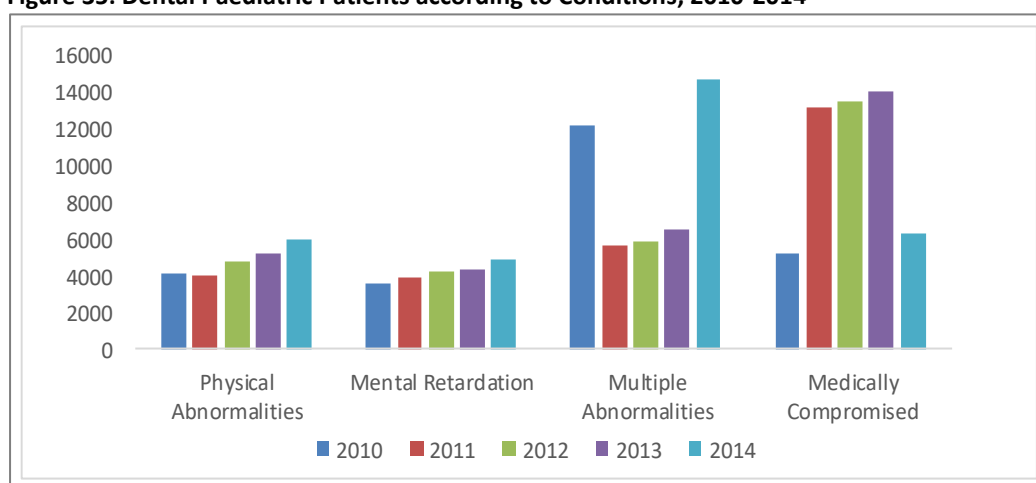
Figure 34 : Treatment Rendered by Paediatric Dental Specialists, 2014



Source: Health Informatics Centre, MOH 2014.

Paediatric Dental Specialists also manages children with special needs. These patients are categorised as those with physical abnormalities, mental retardation, multiple abnormalities and/or those who are medically-compromised. There was an overall increase in cases, especially children with multiple abnormalities and who were medically-compromised (**Figure 35**).

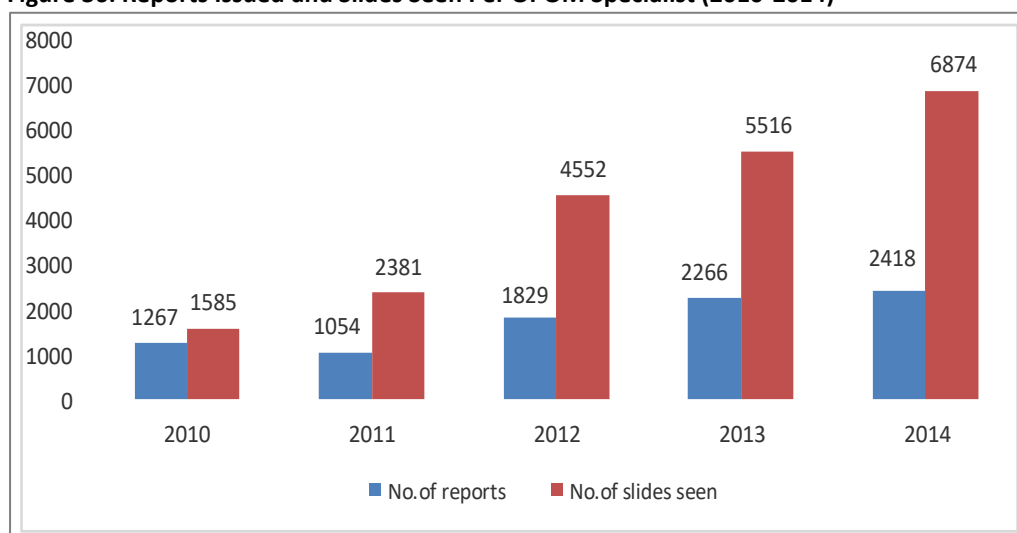
Figure 35: Dental Paediatric Patients according to Conditions, 2010-2014



Source: Health Informatics Centre, MOH 2014.

2.3 Oral Pathology and Oral Medicine

In 2014, the average cases for Oral Pathology & Oral Medicine (OPOM) specialists had increased to 848 per specialist compared with 827 in the previous year. There was an increase in the number of reports issued (6.7%) and the number of slides (24.6%) seen by the OPOM specialists in year 2014 as compared to year 2013 (**Figure 36**).

Figure 36: Reports Issued and Slides Seen Per OPOM Specialist (2010-2014)

Source: Health Informatics Centre, MOH 2014.

2.4 Special Needs Dentistry

Special Needs Dentistry (SND) services began in early 2011. Presently, there are three SND specialists based in Kuala Lumpur Hospital (HKL), Kajang Hospital and Seberang Jaya Hospital. Two (2) new SND units are in the planning, one in Rehabilitative Hospital in Cheras (*Hospital Rehabilitasi Cheras*) in FT Kuala Lumpur and the other in Queen Elizabeth Hospital, Kota Kinabalu, Sabah.



2.5 Forensic Odontology

The first Forensic Odontology Unit in the MOH was established in Hospital Kuala Lumpur with one (1) specialist working closely with the General Forensic Department in Kuala Lumpur Hospital. In 2014, this unit held a Forensic Odontology Course for oral health personnel of the MOH with the objective of forming local Disaster Victim Identification (DVI) Teams in the MOH.

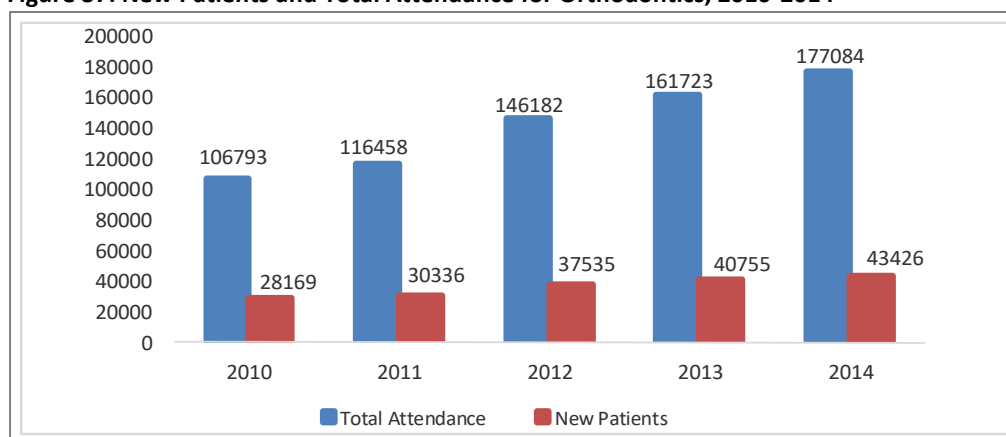


3. NON-HOSPITAL-BASED CLINICAL DENTAL SPECIALTIES

3.1 Orthodontics

The demand for orthodontics treatment has been on the rise over the last few years. Total attendance has increased by 9.5% in 2014 compared with 2013.

Figure 37: New Patients and Total Attendance for Orthodontics, 2010-2014



Source: Health Informatics Centre, MOH 2014.

Over the years there has been a gradual increase of cases on the waiting lists (Consultation II). Concurrently, there has been an increase in completion of active treatment cases and patients issued with removable and fixed appliances. In 2014, a total of 8,291 patients were treated with fixed appliances and 6,069 patients with removable appliances (**Table 53**).

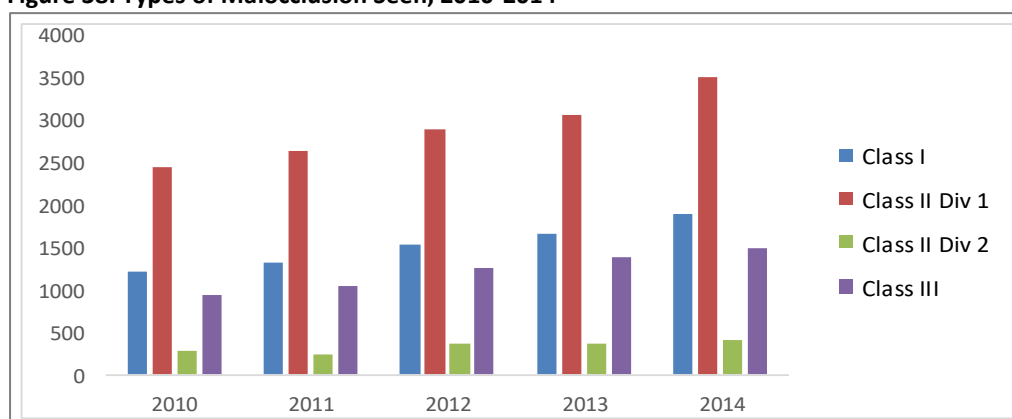
Table 53: Items of Care for Orthodontic Cases, 2010-2014

Items of Care		2010	2011	2012	2013	2014
Consultation	I	9,932	9,888	11,542	12,117	12,130
	II	4,881	5,253	6,079	6,474	7,306
Removable Appliances	No. of Patients	4,032	4,693	5,373	5,669	6,069
Fixed Appliances	No. of Patients	5,596	5,726	6,733	7,471	8,291
Number of active treatment cases		15,829	16,879	19,380	22,340	24,528
Active treatment completed		2,429	2,951	3,314	3,623	3,971

Source: Health Informatics Centre, MOH 2014.

Majority of cases seen were malocclusion Class II Div I cases. There has been an increasing trend in Class II Div 1, Class I and Class III cases over the last 5 years (**Figure 38**).

Figure 38: Types of Malocclusion Seen, 2010-2014

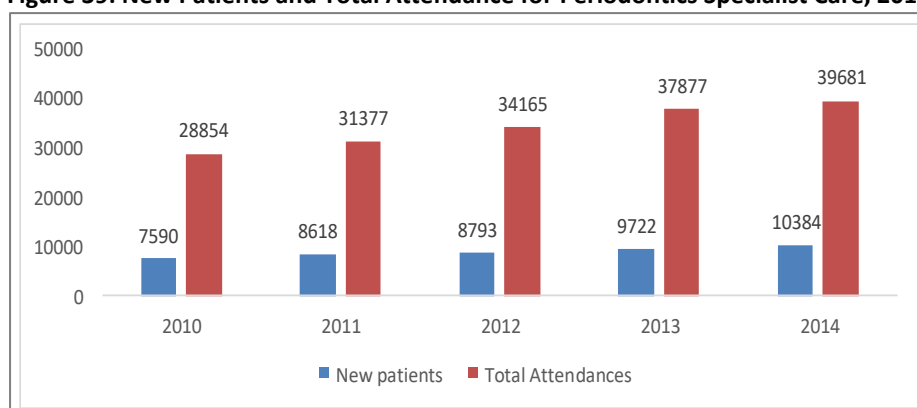


Source: Health Informatics Centre, MOH 2014.

3.2 Periodontics

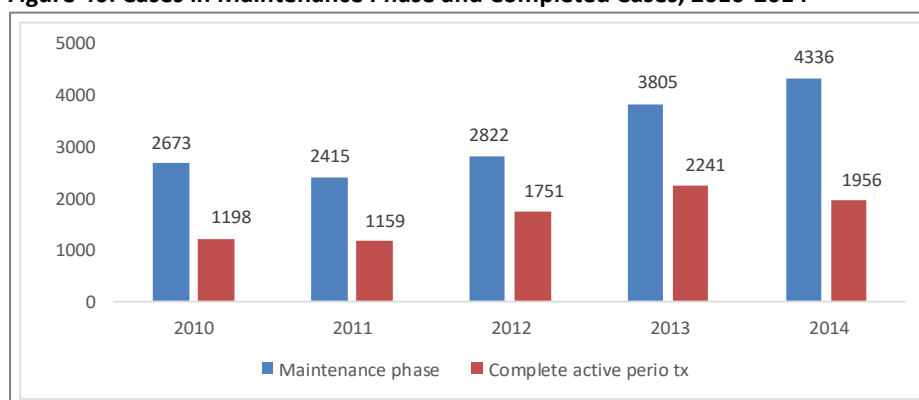
The trend for new patients and total attendance per Periodontist had increased in the last 5 years (**Figure 39**).

Figure 39: New Patients and Total Attendance for Periodontics Specialist Care, 2010-2014



Source: Health Informatics Centre, MOH 2014

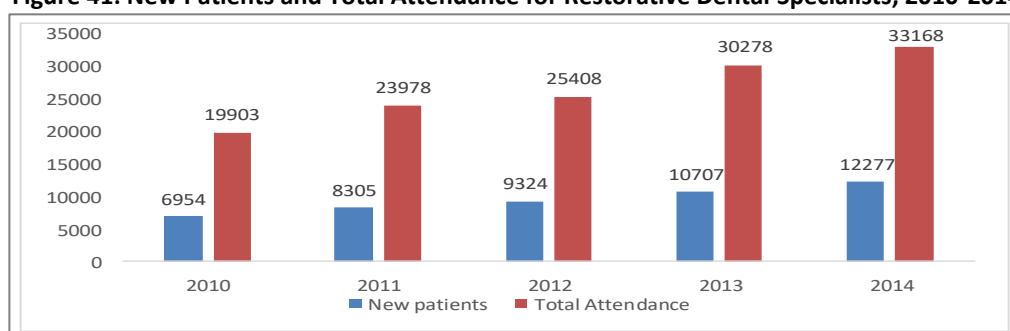
The number of patients in the maintenance phase seen in the Periodontics Units has been increasing (**Figure 40**). Patients for monitoring and continuous care under maintenance phase in future may be seen at Primary Care clinics. Hence, there is a need to improve the existing system of patient referrals and back-referrals between specialist and primary care.

Figure 40: Cases in Maintenance Phase and Completed Cases, 2010-2014

Source: Health Informatics Centre, MOH 2014.

3.3 Restorative Dentistry

New patients and total attendance in Restorative Specialty Clinics have been increasing steadily in the last 5 years (**Figure 41**).

Figure 41: New Patients and Total Attendance for Restorative Dental Specialists, 2010-2014

Source: Health Informatics Centre, MOH 2014.

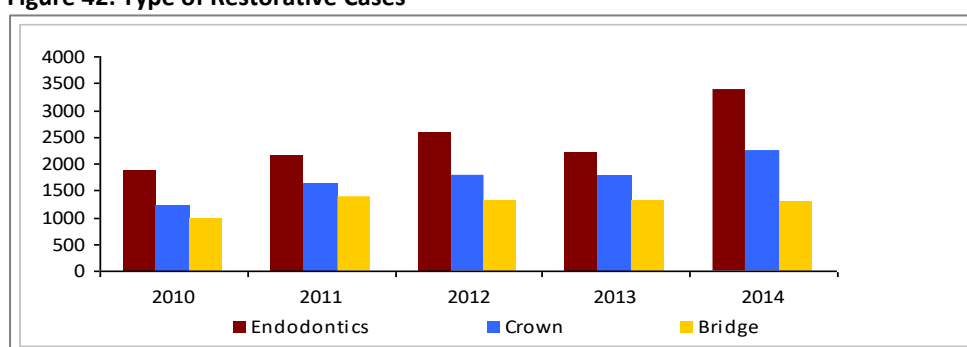
In 2014, the highest attendance was among those in the 30 - 59 age group (**Table 54**). On average, each patient made three visits a year to the specialist.

Table 54 : New Patients and Total Attendance for Restorative Dental Specialty, 2010 – 2014

Age Group	New Patients					Total Attendance				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
7-12	133	97	111	102	96	215	159	175	160	147
13-17	485	517	557	597	723	1,146	1,148	1,154	1,348	1,536
18-29	1,374	1,619	1,902	2,246	2,634	3,294	3,902	4363	5,522	6,178
30-59	3,974	4,798	5,325	6,098	6,892	11,603	14,495	15,187	17,797	19,229
≥60	988	1,274	1,429	1,664	1,932	3,645	4,274	4,529	5,451	6,078
TOTAL	6,954	8,305	9,324	10,707	12,277	19,903	23,978	25,408	30,278	33,168

Source: Health Informatics Centre, MOH 2014

There was an increase in endodontic, crown and bridge cases in 2014. Among these, endodontic cases contributed the highest number of cases.

Figure 42: Type of Restorative Cases

4. NON-CLINICAL DENTAL SPECIALTY: DENTAL PUBLIC HEALTH DENTISTRY

In the MOH, the Dental Public Health Specialists (DPHS) take on the administration of the whole MOH programme, from management of its activities, issues of human resource and fundings, regulation and enforcement, clinical affairs, research and epidemiology, intersectoral collaboration and challenges that face the dental profession from within and outside of the country. DPHS also play a pivotal role in decisions made through the Malaysian Dental Council and matters pertaining to professional associations. Hence, this whole Annual Report covers almost all activities undertaken under the role and function of the DPHS.

COMMUNITY ORAL HEALTHCARE

1. FLUORIDATION OF PUBLIC WATER SUPPLY

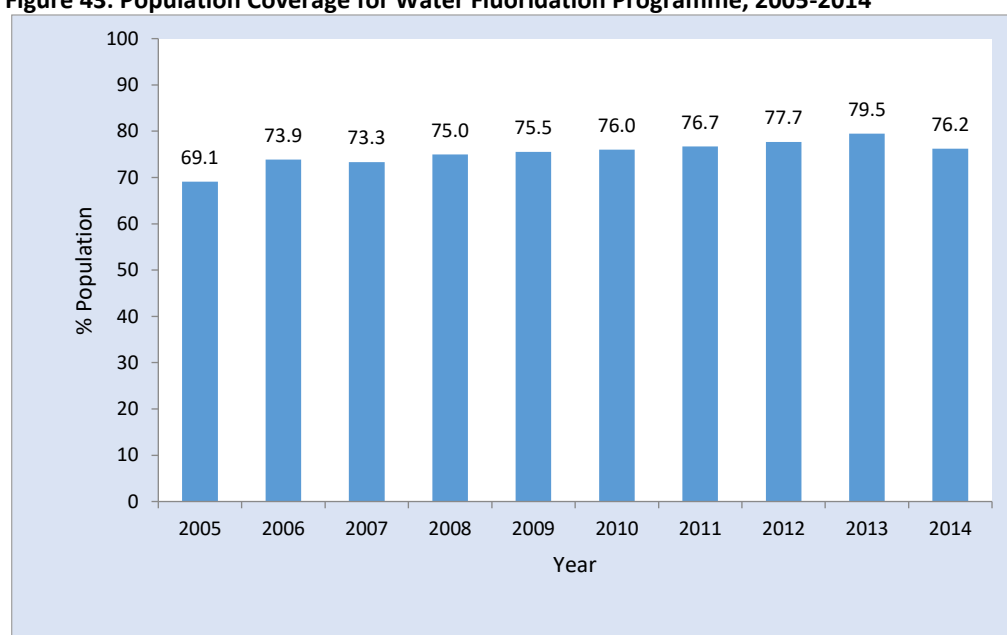
1.1 Population Coverage

The fluoridation of public water supplies is a safe, effective, economical, practical and socially equitable public health measure for prevention and control of dental caries for people of all age groups, ethnicity and income or educational levels. However, the coverage and maintenance of optimum levels of fluoride at water treatment plants and reticulation points still remains a challenge for some states, in particular, Sabah, Sarawak, Kelantan and Pahang.

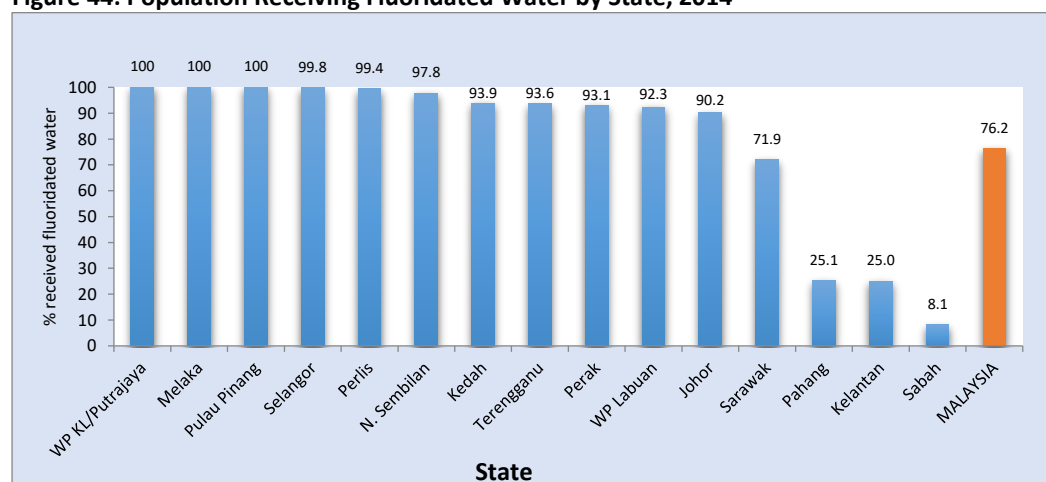
The trend on the estimated population receiving fluoridated water is generally on the increase from 2005 - 2013. However, there was a drop in coverage in 2014 from 79.5% in 2013 to 76.2% in 2014 (**Figure 43**).

The drop was due to a decline in population coverage for Pahang as a result of cessation of water fluoridation in majority of the water treatment plants in the state. The water authority in Pahang was corporatised in 2012. Since then, due to financial constraints, there has been no purchase of fluoride compounds.

Figure 43: Population Coverage for Water Fluoridation Programme, 2005-2014



Three (3) states achieved less than 25% population coverage of fluoridated water – Pahang, Kelantan and Sabah, with Sabah being the lowest at 8.1% (**Figure 44**). Sarawak achieved a population coverage of 71.9%.

Figure 44: Population Receiving Fluoridated Water by State, 2014

In Sabah, the State Cabinet Committee approved the re-activation of the water fluoridation programme on 6 October 2010. However, the implementation of the programme remains a continuing challenge due to funding and technical issues in the state, rendering Sabah with the lowest population coverage of 8.1% (**Figure 44**).

1.2 Water Treatment Plants (WTP)

In 2014, there were 459 Water Treatment Plants (WTPs) in Malaysia (**Table 55**). Majority (302, 65.8%) have been privatized.

Table 55: Water Treatment Plant by Sector, 2014

State	Government	Water Board	Private	Total
Perlis	3	0	0	3
Kedah	0	0	36	36
Pulau Pinang	0	0	8	8
Perak	0	40	5	45
Selangor	0	0	29	29
FT KL & Putrajaya	0	0	3	3
N. Sembilan	0	0	22	22
Melaka	0	0	8	8
Johor	0	0	45	45
Pahang	0	0	75	75
Terengganu	0	0	14	14
Kelantan	0	0	30	30
Sabah	36	0	22	58
FT Labuan	4	0	1	5
Sarawak	67	7	4	78
Total	110 (24.0%)	47 (10.2%)	302 (65.8%)	459 (100.0%)

A total of 301 (65.6%) have had fluoride feeders installed (**Table 56**). Among those with feeders, 252 (83.7%) were active while 49 (16.3%) were inactive due to lack of resources to purchase fluoride compound or technical problems such as fluoride feeders that require repairs or replacement.

In 2014, all WTPs in Perlis, Penang, Federal Territory Kuala Lumpur/Putrajaya, and Melaka were producing fluoridated water. However, less than 50% of water treatment plants in Sarawak, Federal Territory Labuan (FT Labuan), Kelantan, Sabah and Pahang produce fluoridated water (**Table 56**).

Table 56: WTP with Fluoride Feeders by State, 2014

State	No. of WTP	WTP with Fluoride Feeder		WTP with Active Fluoride Feeder		WTP producing fluoridated water (%)
		No.	%	No.	%	
Perlis	3	3	100.0	3	100.0	100.0
Kedah	36	32	88.9	32	100.0	88.9
Penang	8	8	100.0	8	100.0	100.0
Perak	45	42	93.3	41	97.6	91.1
Selangor	29	29	100.0	29	100.0	100.0
FT KL & Putrajaya	3	3	100.0	3	100.0	100.0
N. Sembilan	22	20	90.9	20	100.0	90.9
Melaka	8	8	100.0	8	100.0	100.0
Johor	45	39	86.7	39	100.0	86.7
Pahang	75	53	70.7	14	26.4	18.7
Terengganu	14	14	100.0	14	100.0	100.0
Kelantan	30	3	10.0	3	100.0	10.0
Sabah	58	11	18.3	11	100.0	18.3
FT Labuan	5	3	60.0	1	33.3	20.0
Sarawak	78	33	42.3	26	78.8	33.3
MALAYSIA	459	301	65.6	252	83.7	54.9

1.3 Maintaining Fluoride Levels in Public Water Supply

Maintenance of fluoride levels within the recommended range of 0.4 – 0.6 ppm is important to achieve maximum benefit for control and prevention of dental caries while ensuring health and safety. In general, there is an upward trend in conformance of readings to the recommended range for the years 2006 – 2014 (**Figure 45**). In 2014, 83.8% of readings at reticulation points conformed to the recommended range.

Figure 45: Conformance of Fluoride Level in Public Water Supplies to the Recommended Range (0.4-0.6ppm), 2006-2014



Nine out of 15 states, namely Perlis, Kedah, Penang, Perak, Selangor, FT Kuala Lumpur/Putrajaya, Negeri Sembilan, Johor and Pahang, complied with the National Indicator Approach (NIA) standards for the lower limit (not more than 25% of the readings below 0.4 ppm) and the upper limit (not more than 7% of readings exceeding 0.6 ppm) of fluoride level in public water supplies (**Table 57**).

Table 57: Fluoride Level at Reticulation Points by State, 2014

States	Total Readings	Fluoride Readings					
		0.4 - 0.6 ppm		< 0.4 ppm (Std. < 25%)		> 0.6 ppm (Std. < 7%)	
		No.	%	No.	%	No.	%
Perlis	424	380	89.6	37	8.7	7	1.7
Kedah	1,461	1,411	96.6	45	3.1	5	0.3
Penang	380	340	89.5	38	10.0	2	0.5
Perak	1,998	1,893	94.7	99	5.0	6	0.3
Selangor	1,227	1,227	100.0	0	0.0	0	0.0
FT KL & Putrajaya	1,333	1,295	97.1	9	0.7	29	2.2
N. Sembilan	960	958	99.8	2	0.2	0	0.0
Melaka	384	254	66.1	116	30.2	14	3.6
Johor	1,820	1,797	98.7	19	1.0	4	0.2
Pahang	699	511	73.1	175	25.0	13	1.9
Terengganu	653	444	68.0	173	26.5	36	5.5
Kelantan	869	216	24.9	555	63.9	98	11.3
Sabah	489	295	60.3	190	38.9	4	0.8
FT Labuan	144	50	34.7	94	65.3	0	0.0
Sarawak	648	239	36.9	394	60.8	15	2.3
Malaysia	13,489	11,310	83.8	1,946	14.4	233	1.7

Source: Oral Health Division (Quality Assurance Programme), MOH 2014.

Six states did not comply with the standard for the lower limit (not more than 25% of the readings below 0.4 ppm) of fluoride level, worse in FT Labuan with 65.3% non-compliance of reticulation readings. Kelantan was the only state which did not comply with the upper limit (not more than 7% of readings exceeding 0.6 ppm) (**Table 57**).

1.4 Annual Operating Budget for the Fluoridation Programme

Government funds only the government-operated WTPs. In 2014, nearly RM 3.8 million was spent on four (4) states for this programme (**Table 58**). Perak, Perlis and Sarawak received operating allocations up to the sum of RM 1.34 Million. Sabah received an allocation of RM 250,000.00 under *Dasar Baru* and Sarawak received Development Funds of RM 2.3 Million. Some government funds were used for monitoring fluoride levels at reticulation points in WTP operated by the private sector.

Table 58: Government Funded Fluoridation Programme by State, 2014

State	Annual Operating Budget		Dasar Baru (New Policy/One Off)		Development Fund (10MP)		Total Allocation (RM)	Total Expenditure (RM)
	Allocation (RM)	Expenditure (RM)	Allocation (RM)	Expenditure (RM)	Allocation (RM)	Expenditure (RM)		
Perak	710,000.00	709,784.50	-	-	-	-	710,000.00	709,784.50
Perlis	100,000.00	100,000.00	-	-	-	-	100,000.00	100,000.00
Sabah	-	-	250,000.00	250,000.00	-	-	250,000.00	250,000.00
Sarawak	525,000.00	500,000.00	-	-	2,305,000.00	2,220,000.00	2,805,000.00	2,720,000.00
MALAYSIA	1,335,000.00	1,309,784.50	250,000.00	250,000.00	2,305,000.00	2,220,000.00	3,865,000.00	3,779,784.50

1.5 Interagency Collaboration for Water Fluoridation

The Oral Health Division continues to collaborate with various agencies to strengthen and expand community water fluoridation in the country. Visits to WTPs and meetings were conducted with

relevant agencies at national and state level in 2014. Various implementation issues were discussed and these included fluoride levels in public water supplies, conformance of fluoride levels to the recommended range, and the supply and storage of fluoride compounds.

A few remedial actions have been taken to address issues raised during meetings with stakeholders. The procedure for monitoring of fluoride levels at reticulation points by oral health personnel has been improved and work processes for budget application and monitoring has been developed.

- **Training and Public Awareness**

Recognising that knowledge and understanding of water fluoridation is crucial, training is conducted each year for the health personnel as well as personnel from WTPs. Nationwide, 88 training sessions were conducted in 2014, including hands-on training on the use of colorimeters.

1.6 Research

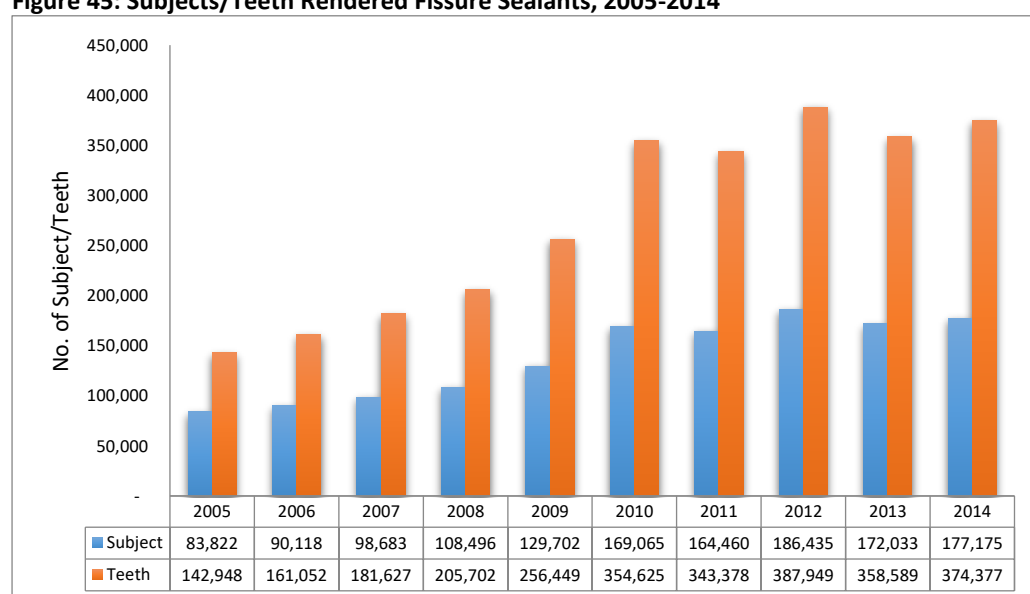
Data collection of the study on 'Fluoride Enamel Opacities among 16-Year-Old Schoolchildren' was completed in November 2013. The management and analysis of data was done in 2014. Report writing began in 2014, and will continue into 2015.

2. CLINICAL PREVENTION

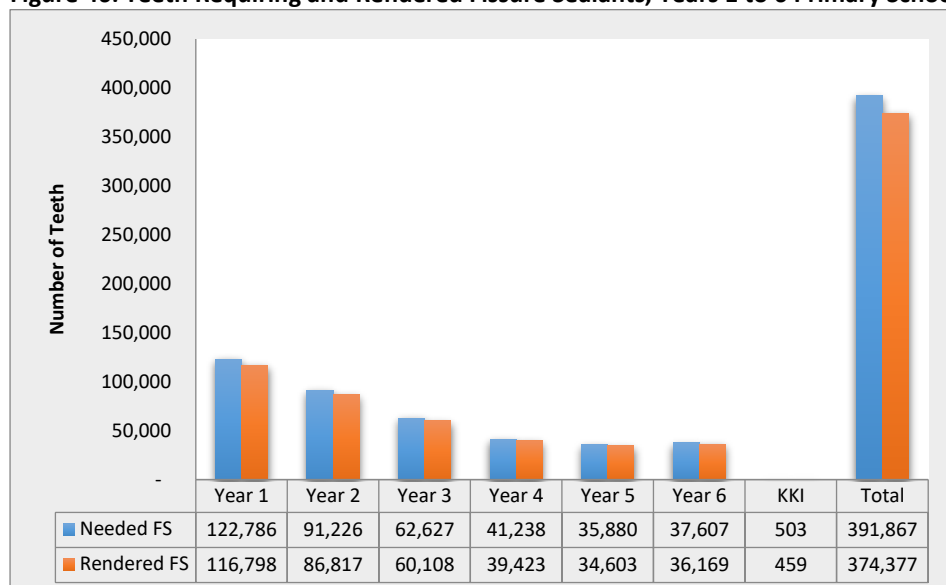
2.1 Fissure Sealant Programme

Overall, there is an increasing trend of subjects and teeth provided with fissure sealants from year 2005 to 2014 under the integrated Fissure Sealant Programme in schools (**Figure 45**). In 2014, more than 175,000 schoolchildren came under this programme, mainly among Years 1 and 2 children.

Figure 45: Subjects/Teeth Rendered Fissure Sealants, 2005-2014



A total number of 391, 867 teeth examined required fissure sealants. Of these, 95.5% were fissure-sealed. More than half were among Years 1 and 2 primary schoolchildren (**Figure 46**).

Figure 46: Teeth Requiring and Rendered Fissure Sealants, Years 1 to 6 Primary Schoolchildren, 2014

*KKI=kanak-kanak istimewa

Over the last 5 years, the percentage of children in need of fissure sealant and those rendered fissure sealant have increased from 92.3% in year 2010 to 95.6% in 2014 (**Table 59**). The percentage of teeth in need of fissure sealant and rendered fissure sealant had increased from 90.7% in 2010 to 95.5% in 2014. This achieved the target set, i.e. 95% of schoolchildren needing fissure sealants, received fissure sealants.

Table 59: Provision of Fissure Sealants, 2010-2014

Year	No. of Children			No. of Teeth		
	Needed FS	Rendered FS		Needed FS	Rendered FS	
	n	n	%	n	n	%
2010	183,142	169,065	92.3	391,115	354,625	90.7
2011	174,218	164,460	94.4	363,861	343,378	94.4
2012	197,095	186,435	94.6	409,923	387,949	94.6
2013	181,706	172,033	94.7	379,401	358,589	94.5
2014	185,385	177,175	95.6	391,867	374,377	95.5

The trend of decayed teeth among selected year 6 schoolchildren from 2005 until 2014 was also captured. The data shows that the 67.9% - 73.3% caries experience were in posterior teeth of which 59.6% – 64.9% involved only the occlusal surface (**Table 60**).

Table 60: Trend Data of Decayed Teeth among Year 6 Schoolchildren, 2004-2013

Year	No. of Teeth with Caries Experience (* D + F)	No. of teeth with occlusal caries experience (D + F)				Percentage of Caries in Anterior Teeth	
		All type (** Class I and II)		Class I only			
	N	n1	%	n2	%	N-n1	%
2005	450,665	313,757	69.6	277,151	61.5	136,908	30.4
2006	455,964	323,174	70.9	291,583	63.9	132,790	29.1
2007	414,610	289,671	69.9	260,901	62.9	124,939	30.1
2008	430,798	292,397	67.9	256,954	59.6	138,401	32.1
2009	426,747	301,298	70.6	266,766	62.5	125,449	29.4
2010	409,324	287,626	70.3	258,963	63.3	121,698	29.7
2011	409,162	291,587	71.3	262,771	64.2	117,575	28.7

2012	441,440	297,460	70.9	284,107	63.9	143,980	32.6
2013	409,858	293,282	71.6	265,716	64.8	116,576	28.4
2014	362,116	265,286	73.3	234,934	64.9	96,830	26.7

* D: Carious tooth; F: Filled tooth

** Class I : Caries involves only the occlusal surface of the posterior tooth

Class II : Caries involves other surfaces and/or occlusal of the posterior tooth

Evaluation on trend of occlusal caries further justifies the need for fissure sealants as an integral part of incremental care in primary schoolchildren. With limited resources, priority should be given to high risk individuals and teeth.

2.2 Fluoride Varnish Programme

In order to further strengthen the Early Childhood Oral Healthcare programme, fluoride varnish (FV) programmes was introduced for toddlers and piloted in Sabah, Kelantan, and Terengganu in 2011. Additional funds were allocated for the purchase of fluoride varnish for the pilot project. Data collection forms were further improved based on feedbacks from state coordinators. In 2014, a total of 26,473 (79.2%) high risk toddlers were rendered fluoride varnish in Kelantan, Terengganu and Sabah (Table 61).

Table 61: Fluoride Varnish Application, 2011-2014

Year	Kelantan			Terengganu			Sabah			TOTAL		
	Need FV	FV Applied		Need FV	FV Applied		Need FV	FV Applied		Need FV	FV Applied	
	No.	No.	%	No.	No.	%	No.	No.	%	No.	No.	%
2011	4,337	1,650	38.0	6,141	5,612	91.4	3,896	3,866	99.2	14,374	11,128	77.4
2012	5,530	2,616	47.3	7,742	7,004	90.5	6,408	6,232	97.3	19,680	15,852	80.5
2013	5,816	2,924	50.3	11,269	10,318	91.6	12,147	11,380	93.7	29,232	24,622	84.2
2014	8,037	2,981	37.1	14,382	13,247	92.1	11,018	10,245	93.0	33,437	26,473	79.2

Attrition rates were high among children rendered FV in 2012, with only 26.7%, 7.2% and 9.7% in Kelantan, Terengganu and Sabah respectively completed recommended 4 times application in 2 years (Table 62).

Table 62: Attrition Rate for Fluoride Varnish Application Done for Cohort 2012-2014

State	Need FV	Rendered FV	With 2 times application		With 3 times application		With 4 times application		Compliance to six-monthly (± 1 month) application	
	No.	No.	No.	%	No.	%	No.	%	No.	%
Kelantan	5,530	2,616	1,621	62.0	1,097	41.9	698	26.7	603	23.1
Terengganu	7,742	7,004	2,792	39.9	1,126	16.1	502	7.2	377	5.4
Sabah	6,408	6,232	2,814	45.2	1,209	19.4	605	9.7	591	9.5
TOTAL	19,680	15,852	7,227	45.6	3,432	21.7	1,805	11.4	1,571	9.9

2.3 School-Based Fluoride Mouth Rinsing Programme

School-based fluoride mouth rinsing (FMR) programmes have been carried out in Sabah, Sarawak and Kelantan. In 2014, the programme was conducted for Year 2 to Year 6 children in selected schools in non-fluoridated areas in Kelantan, Sabah and Sarawak. In total, 78 schools and 32,212 students benefited from this programme (Table 63).

Table 63: Schools and Students Participating in FMR Programme, 2014

State	No. of schools participated					No. of student involved				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Kelantan	7	7	7	7	7	1,204	723	765	720	557
Sabah	44	43	46	38	47	21,641	21,835	23,835	20,898	27,579
Sarawak	25	26	30	26	24	5,585	5,758	5,077	5,436	4,076
Total	76	76	83	71	78	28,430	28,316	29,677	27,054	32,212

There were an increase in the number of schools and schoolchildren involved in FMR programme in 2014. It is recommended that FMR Programme be continued in communities with no water fluoridation programme with vigilance monitoring by the oral healthcare professional.

3. NATIONAL BLUE OCEAN STRATEGY (NBOS)

NBOS is a government initiative to ensure that services can be delivered to the people in a low cost, high impact and rapid execution. Ministry of Health (MOH) is one of the leading agencies in ensuring the successful delivery of services through NBOS initiatives. Thus, oral health services are also directly involved in the activities outlined.

NBOS initiatives involving oral health services are as follows:

Type	Description	Year of Commence
NBOS 4	Rural Transformation Centre (RTC)	2012
NBOS 5	Urban Transformation Centre (UTC)	2012
NBOS 6	Organize Health Fairs for Sabah and Sarawak	2012
NBOS 7	1Malaysia Family Care	2013
NBOS 8	Mobile Community Transformation Centres (MCTC)	2014
NBOS 10	1Malaysia Civil Service Retirement Support	2014

3.1 NBOS 4: Rural Transformation Centre (RTC)

RTC aims to serve as one-stop centre to facilitate access by the rural population to services provided by various government and non-governmental agencies. Dental Clinic is among the services available in RTC. It is implemented to deliver outpatient dental care and at the same time to develop optimum oral health care among the rural population. In 2014, there were 6 RTCs in the country, namely RTC Gopeng (Perak), RTC Kota Bharu (Kelantan), RTC Linggi (Melaka), RTC Pekan (Pahang) and RTC Napoh, Jitra (Kedah) and RTC Kulaijaya (Johor). Services provided at the RTCs are dental examination and basic dental treatment such as dental extraction, fillings and scaling. A total of 2,519 patients visited dental clinics in RTCs in 2014 (**Table 64**).

Table 64: Oral health services in RTCs, year 2012-2014

Year	Dental clinics at RTCs		Patient Attendances
	No.	Location	
2012	3	Gopeng, Linggi, Wakaf Che Yeh	912
2013	4	Gopeng, Linggi, Wakaf Che Yeh, Pekan	1, 621
2014	6	Gopeng, Linggi, Wakaf Che Yeh, Pekan, Jitra, Kulaijaya	2, 519

3.2 NBOS 5: Urban Transformation Centre (UTC)

In 2014, there were eight dental clinics operating at UTCs in the country namely UTC Kedah, UTC Ipoh, UTC Pudu Sentral, UTC Sentul, UTC Melaka, UTC Johor, UTC Kuantan and UTC Sabah. A total of 124,815 patients attended the dental clinics in UTCs in 2014 compared to 4,892 in 2012 and 56, 889 in 2013 (Table 65).

Table 65: Oral health services in UTCs, year 2012-2014

Year	Dental clinics at UTCs		Patient Attendances
	No.	Location	
2012	2	Bandaraya Melaka, Pudu Sentral	4, 892
2013	7	Bandaraya Melaka, Pudu Sentral, Alor Setar, Ipoh, Sentul, Kuantan	56, 889
2014	8	Bandaraya Melaka, Pudu Sentral, Alor Setar, Ipoh, Sentul, Kuantan, Kota Kinabalu	124, 815

The increasing trend of patients attending the UTCs was due to the increase in the number of UTC and also due to the awareness of the public about the existence of these UTCs.

3.3 NBOS 6: Organize Health Fairs for Sabah and Sarawak

Ministry of Health (MOH) is the lead agency for this initiative together with Implementation Coordination Unit (ICU) of Prime Minister's Department, Ministry of Education (MOE), Ministry of Defence (MinDef), Ministry of Finance (MOF) and state government of Sabah and Sarawak for 'Organize Health Fairs for Sabah & Sarawak'. This initiative aims at providing various services for the convenience of the people in those state.

Under NBOS 6, oral health services delivered were oral health examination, screening for oral pre-cancer and cancer, fillings, extraction, scaling and oral health promotion activities.

Table 66: Oral health activities conducted during Organise Health Fair in Sabah and Sarawak, year 2012-2014

Year	Sabah			Sarawak		
	No. of Health Fair	No. of patients attendance	No. of participants for Oral Health Talks	No. of Health Fair	No. of patients Attendance	No. of participants for Oral Health Talks
2012	7	1,529	-	35	3,495	-
2013	3	273	80	12	857	-
2014	34	1,332	1,429	75	3,009	2,127

In 2014, a total of 109 health fairs were organised in Sabah and Sarawak with 4, 341 patients seen; 1,332 in Sabah and 3,009 in Sarawak respectively (Table 66).

3.4 NBOS 7: 1Malaysia Family Care

NBOS 7 aims to provide holistic support in terms of health and social to the identified groups through collaboration with government and non-government agencies. One of the activities under this initiative is provision of outreach oral healthcare at the institutions for the elderly and special needs (*PDK, Pusat Pemulihan Dalam Komuniti*) through mobile dental teams/clinics.

A total of 325 institutions for the elderly were visited and 7, 625 patients were seen in 2014. The highest number of patients seen was in Pulau Pinang (2, 570) while the highest number of institutions visited was in Perak (67) (**Table 67**). There were 787 institutions for the special needs visited in 2014, highest in Kelantan (157). A total of 12, 445 patients were seen, highest in Johor (1, 911) (**Table 68**).

Table 67: Number of Elderly Patients Seen in Institution in 2014

State	Government Institution		Private Institution		Total Patients Seen
	No. of Institution	No. of Institution Visited	No. of Institution	No. of Institution Visited	
Perlis	3	3	1	1	162
Kedah	3	3	17	17	389
Pulau Pinang	2	2	48	46	2570
Perak	2	2	65	65	1524
Selangor	5	5	43	42	681
FT KL & Putrajaya	1	1	8	8	195
N. Sembilan	2	1	15	12	76
Melaka	12	9	28	22	203
Johor	6	6	11	9	938
Pahang	7	7	44	44	197
Terengganu	5	5	0	0	233
Kelantan	9	4	5	3	167
Sabah	3	3	1	1	179
Sarawak	4	3	16	1	111
FT Labuan	0	0	0	0	0
Total	64	54	302	271	7625

Table 68: Number of Special Need Patients Seen in Institution in 2014

State	<i>Pusat Dalam Komuniti</i>		<i>Other than Pusat Dalam Komuniti</i>		Total Patients Seen
	No. of Institution	No. of Institution Visited	No. of Institution	No. of Institution Visited	
Perlis	8	8	1	1	114
Kedah	36	36	3	3	1,103
Pulau Pinang	22	22	2	1	538
Perak	39	39	7	7	1,242
Selangor	38	37	38	38	1,045
FT KL & Putrajaya	10	10	0	0	308
N. Sembilan	65	41	37	35	1,292
Melaka	52	43	8	8	222
Johor	30	30	41	41	1,911
Pahang	69	69	11	10	438
Terengganu	44	44	1	1	1,258
Kelantan	36	33	124	124	774
Sabah	28	28	36	36	1,137

Sarawak	38	27	24	12	1,137
FT Labuan	2	2	1	1	89
Total	517	469	334	318	12,445

3.5 NBOS 8: Mobile Community Transformation Centres (MCTC)

MCTC initiative was introduced in May 2014 and was organized by National Strategic Unit (NSU), Ministry of Finance. The aim of this initiative is to assemble main services of various government agencies according to local needs at the same time and at identified location based on the concept of UTC/RTC. Oral health programme was involved in this initiative through invitation by NSU. There were eight activities conducted in 2014 with a total of 666 patients (**Table 69**).

Table 69: MCTC activities in 2014

Date	Location
31 May 2014	Dewan Shahbandar, Bandar Chini, Pekan, Pahang
15 June 2014	Dataran Dewan Perda Sungai Acheh, Nibong Tebal, Pulau Pinang
23 Aug 2014	Night Market Site of Kampung Bandariang, Gerik, Perak
20 Sept 2014	Padang Awam Felda Ketengah Jaya, Dungun, Terengganu
19 Oct 2014	Sekolah Kebangsaan Kuala Triang, Bera, Pahang
09 Nov 2014	Padang Awam, Perumahan Ampang Hilir, Kuala Lumpur
14 Dec 2014	Dewan Serbaguna Chaah, Majlis Daerah Labis, Johor
20 Dec 2014	Dataran Sentuhan Kasih, Felda Tenggaroh 3, Mersing, Johor

3.6 NBOS 10: 1Malaysia Civil Service Retirement Support (1M CSRS)

The aim of this initiative is to improve the quality of service delivery to the pensioners. There are 5 strategic trusts for this initiative, i.e. Healthcare Advocacy, financial management, pensioners' wellbeing, re-employment guidance and entrepreneurship development.

Under healthcare advocacy, rapid lane (R-lane) for pensioner visiting healthcare facilities in the Ministry of Health was introduced in June 2014. In 2014, there were 507 dental clinics provided R-lane for pensioners with 9.7% of the pensioners used the R-lane provided (**Table 70**).

Table 70: Patients using R-lane in 2014

Using of R-Lane	Age < 60 Years Old	Age ≥ 60 Years Old	Total
No. of patient	121812	141624	43973
No. of pensioners	10944	17459	4255
% Pensioners using R-Lane	9.0	12.3	9.7

4. PRIMARY PREVENTION & EARLY DETECTION OF ORAL PRE-CANCER & CANCER

Oral cancer remains a major health concern in Malaysia. The Oral Health Division in the Ministry of Health Malaysia continues its emphasis on Primary Prevention and Early Detection of Oral Pre-Cancer and Cancer Programme since 1997 in collaboration with relevant agencies. In 2014, 511 high-risk *kampung*/estates/communities were visited and 10,994 residents aged 20 years and above were screened for oral lesions. A total of 25,086 participants were given dental health education (**Table 71**).

Table 71: Oral Cancer and Pre-cancer Screening and Prevention Programme, 2014

No. of estates/ villages visited		No. of patients screened	No. of Exhibitions held	Dental Health Education	
New	Repeat			No. of talks given	No. of participants
398	113	10,994	388	733	25,086

Among the screened patients in 2014, 59 were seen with suspected lesion and 39 were referred to oral surgeons for further investigation and management (**Table 72 & 73**). Of these, 17 (44%) complied with referral to oral surgeons (**Table 72**). Of the malignant cases detected and TNM staging reported from 2003 to 2014, about 21% were detected at stage 1 while more than 60% were detected at later stages (Stages 3 & 4) (**Table 74 & 75**). There is a need to improve patient's compliance to referral to prevent delayed treatment (**Table 74 & 75**).

Table 72: Participants Screened and Referred by State, 2014

State	No. Examined		Total Attendances	No. With Lesion		No. Referred	No. Seen by Surgeons	
	New	Repeat		n	%		n	%
Perlis	77	0	77	0	0	0	0	0
Kedah	1,787	0	1,787	0	0	0	0	0
Penang	527	9	536	0	0	0	0	0
Perak	1,414	189	1,603	2	0.12	2	1	50
FT KL & Putrajaya	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Selangor	1,096	0	1,096	5	0.46	1	1	100
N. Sembilan	824	14	838	17	2.03	6	5	83.33
Melaka	383	0	383	7	1.83	7	4	57.14
Johor	1,120	19	1,139	1	0.09	1	0	0
Pahang	1,052	0	1,052	0	0	0	0	0
Terengganu	768	0	768	0	0	0	0	0
Kelantan	138	0	138	7	5.07	2	2	100
Pen. Malaysia	9,186	231	9,417	39	0.41	19	13	68.42
Sabah	1,152	0	1,152	16	1.39	16	0	0
Sarawak	425	0	425	4	0.94	4	4	100
FT Labuan	0	0	0	0	0	0	0	0
Malaysia	10,763	231	10,994	59	0.54	39	17	43.59

Note: n.a.: all screening cases were walk-in patients

Table 73: Participants Screened and Referred, 2007-2014

Year	No. Examined		Total Attendances	No. With Lesion		No. Referred	No. Seen by Surgeons	
	New	Repeat		n	%		n	%
2007	3,606	111	3,717	88	2.4	76	50	65.8
2008	4,745	133	4,878	113	2.3	68	48	69.6
2009	7,131	102	7,233	128	1.8	105	47	44.8
2010	5,680	133	5,813	36	0.6	17	8	47.1
2011	7,036	19	7,055	55	0.8	16	5	31.3
2012	15,887	156	16,043	37	0.23	29	15	51.7
2013	10,542	39	10,581	51	0.5	33	2	6.1
2014	10,763	231	10,994	59	0.54	39	17	43.6
TOTAL	38,961	924	55,733	567	1	383	192	50.1

Table 74: Clinical and Histological Diagnosis of Referred Cases, 2014

State	No. of Cases Seen by oral Surgeon	Clinical Diagnosis						TNM Staging				Histological diagnosis								Lesion Status		
		Leukoplakia	Erythroplakia	Lichen Planus	Sub Mucous Fibrosis	Suspicious of Oral Cancer	Other Pathology	Stage 1	Stage 2	Stage 3	Stage 4	Hyperkeratosis	Epithelial Dysplasia	Carcinoma In-situ	Invasive Squamous Cell Carcinoma	Oral Lichen Planus	Oral Submucous Fibrosis	Other Malignancy	Benign Pathologies	Benign	Pre malignant	Malignant
Perlis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kedah	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Penang	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perak	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
FT KL & Putrajaya	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Selangor	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Negeri Sembilan	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
Melaka	4	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0
Johor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pahang	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terengganu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kelantan	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Pen. Malaysia	13	1	0	1	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0
Sabah	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sarawak	4	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT Labuan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	17	3	1	1	0	1	11	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0

Table 75: Clinical and Histological Diagnosis of Referred Cases, 2003 – 2014

Year	No. of Cases Seen by Oral Surgeon	Clinical Diagnosis					Staging				Histological diagnosis					Lesion Status							
		Leukoplakia	Erythroplakia	Lichen Planus	Sub Mucous Fibrosis	Suspicious of oral cancer	Other Pathology	Stage 1	Stage 2	Stage 3	Stage 4	Hyperkeratosis	Epithelial Dysplasia	Carcinoma In-situ	Invasive Squamous Cell Carcinoma	Oral Lichen Planus	Oral Submucous Fibrosis	Other Malignancy	Benign Pathologies	Benign	Pre malignant	Malignant	
2003	26	6	1	8	4	2	6	1	0	0	0	1	4	0	0	2	1	0	4	5	6	0	
2004	19	3	1	3	1	2	10	0	0	3	0	0	0	0	3	0	0	0	0	0	1	2	
2005	25	9	1	3	2	9	6	5	2	3	1	0	1	0	10	0	0	2	0	1	6	10	
2006	34	1	1	6	1	18	7	7	1	5	7	0	0	0	17	3	0	1	4	3	2	19	
2007	50	6	1	4	3	27	13	4	5	6	8	0	6	1	22	3	3	2	5	5	11	26	
2008	48	2	1	0	1	35	7	4	2	8	13	0	5	2	20	8	0	2	2	3	6	32	
2009	47	4	0	4	2	30	5	3	3	5	16	2	2	0	20	1	0	5	1	0	1	28	
2010	8	1	0	2	0	1	4	0	0	1	0	0	2	0	1	0	0	0	0	0	3	1	

2011	5	1	0	0	1	3	0	0	1	0	1	1	0	0	2	0	0	0	0	2	2
2012	16	3	2	1	2	6	2	0	0	0	2	0	0	0	2	0	0	1	3	4	4
2013	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0
2014	17	3	1	1	0	1	11	0	0	0	0	0	0	0	0	0	0	0	12	1	0
Total	297	39	9	32	17	134	66	24	14	31	48	4	20	3	97	17	4	13	19	35	124

*Histological diagnosis only available for cases with biopsy done.

4.1 Opportunistic Screening for Walk-in Patients

In 2014, a total of 55,871 patients were screened in the dental clinics (**Table 76**). 349 patients were seen with suspected lesion and 189 were referred to oral surgeons for further investigation and management (**Table 77 & 78**). Of these, 93 (49.2%) complied with referral to oral surgeons (**Table 77**). Higher number of malignant cases was detected among patients screened in the dental clinic compared to screening at high risk communities (**Table 74 & 78**).

Table 76: Oral Cancer and Pre-cancer Screening for Walk-in Patients, 2014

No. of patients screened	No. of Exhibitions held	Dental Health Talks	
		No. of talks given	No. of participants
55,871	323	2,438	22,428

Table 77: Walk-in Patients Screened and Referred by State, 2014

State	No. Examined		Total Attendances	No. With Lesion		No. Referred	No. Seen by Surgeons	
	New	Repeat		n	%		n	%
Perlis	966	0	966	9	0.93	0	0	0
Kedah	23,356	0	2,3356	10	0.04	10	9	90
Penang	2,390	0	2,390	10	0.42	9	3	33.3
Perak	3,919	7	3,926	79	2.01	42	25	59.5
FT KL & Putrajaya	2,580	0	2,580	66	2.56	35	12	34.3
Selangor	897	0	897	42	4.68	36	21	58.3
N. Sembilan	827	0	827	0	0	0	0	0
Melaka	2,619	0	2,619	24	0.92	8	4	50
Johore	4,384	19	4,403	38	0.86	26	9	34.6
Pahang	1,533	33	1,566	1	0.06	1	1	100
Terengganu	,3993	0	3,993	1	0.03	1	1	100
Kelantan	4,227	0	4,227	33	0.78	3	3	100
Pen. Malaysia	51,691	59	51,750	313	0.60	171	88	51.5
Sabah	1,357	0	1,357	17	1.25	17	4	23.5
Sarawak	2,558	0	2,558	1	0.04	1	1	100
FT Labuan	206	0	206	18	8.74	0	0	0
Total	55,812	59	55,871	349	0.62	189	93	49.2

Table 78: Clinical and Histological Diagnosis of Referred Cases (Walk-in patients), 2014

State	No. of Cases Seen by Oral Surgeon	Clinical Diagnosis						Staging				Histological diagnosis*								Lesion Status				
		Leukoplakia	Erythroplakia	Lichen Planus	Sub Mucous Fibrosis	Suspicious of oral cancer	Other Pathology	Stage 1	Stage 2	Stage 3	Stage 4	Hyperkeratosis	Epithelial Dysplasia	Carcinoma In-situ	Invasive Squamous Cell	Oral Lichen Planus	Oral Submucous Fibrosis	Other Malignancy	Benign Pathologies	Benign	Pre malignant	Malignant		
Perlis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kedah	9	0	0	0	0	2	7	0	0	0	2	0	0	0	2	0	0	0	6	7	0	2		
Penang	3	0	0	0	0	2	1	1	0	0	2	0	0	1	2	0	0	0	0	0	0	3		
Perak	25	1	0	1	1	9	13	0	2	0	3	1	0	0	6	2	0	0	1	3	1	8		
FT KL & Putrajaya	12	1	0	0	0	2	9	1	0	0	1	1	1	0	2	0	0	0	1	5	1	2		
Selangor	21	0	0	4	1	8	8	1	0	0	1	0	1	0	7	2	0	0	8	10	2	7		
Negeri Sembilan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Melaka	4	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2		
Johor	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0		
Pahang	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Terengganu	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0		
Kelantan	3	0	0	0	0	2	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0		
Pen. M'sia	88	2	0	5	2	28	51	4	2	0	9	2	2	1	22	4	0	1	17	26	6	24		
Sabah	4	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	3		
Sarawak	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
FT Labuan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Malaysia	93	3	0	5	2	32	51	4	2	0	9	2	2	1	26	4	0	1	17	26	7	27		

*Histological diagnosis only available for cases with biopsy done

4.2 Mouth Cancer Awareness Week

Various activities held by the states during Mouth Cancer Awareness Week from 10-16 August 2014 aimed to increase oral cancer awareness among health professionals and the public. Activities include screening of 20,232 people, 561 awareness campaigns, 841 health education talks, 8 radio slots, and counselling of 4,545 individuals on risk habits (**Table 79**).

At the national level, Mouth Cancer Awareness Week was launched on 19 August 2014 at Waterfront Kuching, Sarawak by YB Minister of Health, Malaysia. The launch of the event was done in collaboration with Oral Cancer Research & Coordinating Center, Dental Faculties of Public and Private Universities (UM, UKM, UiTM, MAHSA, Segi University and IMU), Cancer Research Foundation (CARIF), Malaysia Association of Maxillo-facial Surgeons (MAOMS), Oral Health Division, Ministry of Defence and supported by Malaysia Airline System and Borneo Convention Centre, Kuching. A 1.5km walkathon, *senamrobik*, oral examination (including mouth cancer screening), health screening, charity booth sales, exhibition and testimony talk by oral cancer survivors were among the highlights in conjunction with the launch.

Table 79: Activities during Mouth Cancer Awareness Week by State, 2014

State	Oral Screening	Oral Health Education			Oral Health promotion (No. of activities held)				*Advice/Counselling
		Talks			Radio Talk	Television Talk	Exhibition/Campaign	Others **	No. of Participants
		Group		Individual					
		No. Held	No. of Participants	No. Held					
Perlis	316	5	35	0	0	0	4	0	92
Kedah	2,222	71	1,136	1115	0	0	65	0	902
Penang	424	15	280	53	0	0	12	0	148
Perak	1,636	137	1,828	619	0	0	67	0	68
Selangor	1,124	30	619	235	0	0	33	0	429
FT KL & Putrajaya	3,685	104	2,208	854	5	0	15	284	509
N Sembilan	1,154	56	1,520	181	0	0	43	3	241
Melaka	422	25	1,088	61	0	0	26	0	144
Johor	656	18	562	142	0	0	19	0	208
Pahang	1,355	42	417	411	0	0	65	18	342
Terengganu	975	13	140	634	0	0	29	0	300
Kelantan	1,235	153	1,793	383	1	0	100	0	39
Sabah	1,576	51	2,946	63	0	0	32	7	146
Sarawak	2,983	103	2,263	107	1	0	46	2	975
FT Labuan	1	4	84	0	0	0	1	0	0
HKL	242	13	290	0	0	0	1	0	0
CDC, DTCM***	226	1	336	387	0	0	2	3	2
OHD, MOH	0	0	0	0	1	1	1	1	0
Total	20,232	841	17,545	5,245	8	1	561	318	4,545

* Example: Stop smoking habits / chewing betel quid / drinking alcohol / others

** Example: MSE demonstration

*** Children's Dental Centre, Dental Training College, Malaysia

4.3 Training

In 2014, there were 59 trainings on primary prevention and early detection of oral cancer conducted by all states involving 1739 dental officers. The highest number of training done was done in Selangor. No training was done at Sarawak and FT Labuan (**Table 80**).

Table 80: Oral Cancer Related Courses Conducted by States, 2014

States	Oral Cancer Training	
	No. of courses conducted	No. of dental officers trained
Perlis	2	55
Kedah	2	70
Penang	1	23
Perak	2	80
FT KL & Putrajaya	1	27
Selangor	6	100
N. Sembilan	2	220
Melaka	2	45
Johor	3	6
Pahang	3	103
Terengganu	2	67
Kelantan	2	42
Pen. Malaysia	28	838
Sabah	3	63
Sarawak	0	0
FT Labuan	0	0
Malaysia	59	1,739

QUALITY IMPROVEMENTS INITIATIVES

1. QUALITY ASSURANCE PROGRAMME (QAP)

The Quality Assurance Programme (QAP) is intended to improve the quality, efficiency and effectiveness of health services 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.

The National Indicator Approach (NIA) with the District/Hospital Specific Approach (DSA/HSA) have been used under the QAP of the Ministry of Health. At national level, the achievements of these indicators are monitored twice a year. The indicators are periodically reviewed to ensure relevance and appropriateness.

1.1 National Indicator Approach (NIA)

In 2014, four indicators under the National Indicator Approach (NIA) were monitored to measure the performance of primary and community oral healthcare (**Table 81**). This is the fifth year where Indicators 1 and 2 have been monitored based on the revised standards from 2010 to reflect improving quality of care rendered. The Gingival Index for Schoolchildren (GIS) was introduced in 2014 to replace 'Mulut Bebas Gingivitis'.

Table 81: Oral Health Indicators under NIA, January-December 2014

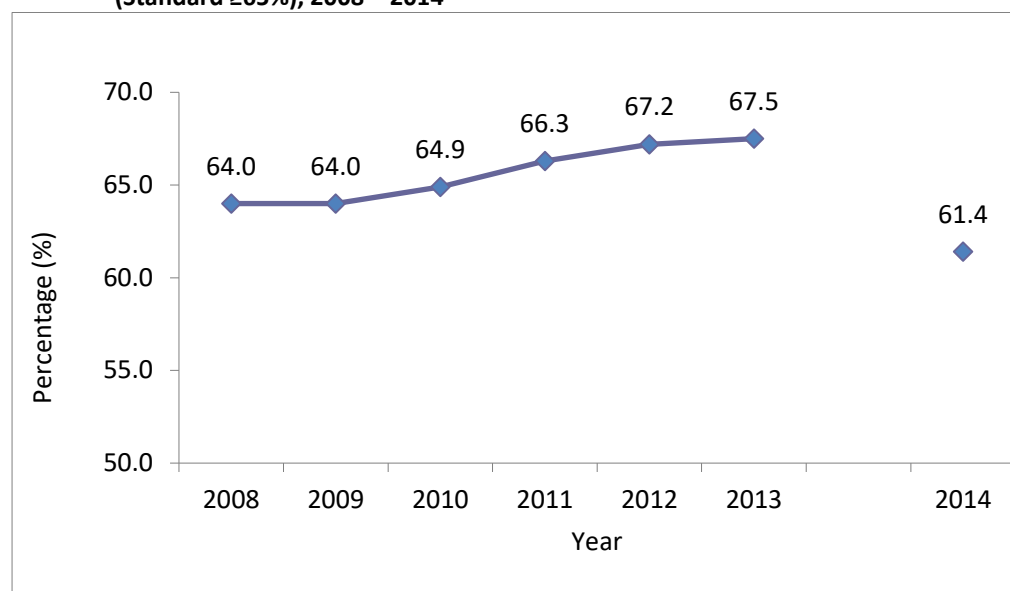
No.	Indicator	Standard (%)	Achievement (%)	SIQ Yes/No
			2014	
1	Percentage of primary schoolchildren maintaining orally-fit status	≥ 65	61.4	Yes
2	Percentage of secondary schoolchildren maintaining orally-fit status	≥ 80	66.8	Yes
3	Percentage of non-conformance of fluoride level at reticulation points (Level < 0.4ppm)	≤ 25	14.4	No
4	Percentage of non-conformance of fluoride level at reticulation points (Level > 0.6ppm)	≤ 7	1.7	No

In 2014, two of the four indicators achieved their targets. Both indicators on 'Percentage of non-conformance of fluoride levels at reticulation points' showed improvements compared with results in 2013.

Over the years there have been gradual improvements at state and national levels for 'Percentage of primary schoolchildren maintaining orally-fit status' and Percentage of secondary schoolchildren maintaining orally-fit status'. However, in 2014, both indicators showed a sharp drop. The introduction of the new Gingival Index for Schoolchildren (GIS) has been contributory to the declines in achievements.

The performance in 2014 for primary schoolchildren orally-fit was 61.4% (**Figure 47**), a drop of about 6.0% from 67.5% in 2013. Since the GIS is a totally new indicator, the 2014 figure will serve as baseline for data henceforth.

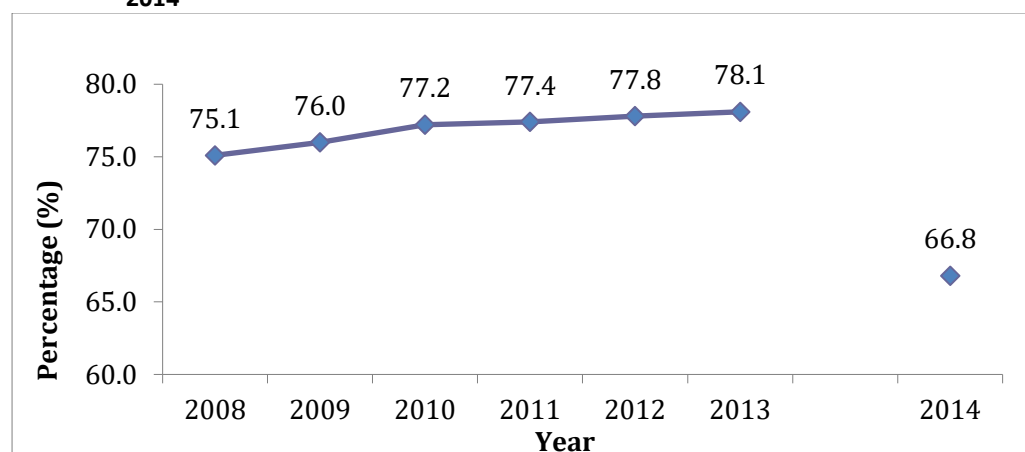
Figure 47: Percentage of Primary Schoolchildren Maintaining Orally Fit Status (Standard $\geq 65\%$), 2008 – 2014



* 2014 – Introduction of GIS

Similarly, there has been a drop in performance of 'Secondary Schoolchildren Maintaining Orally-fit Status' from 78.1% in 2013 to 66.8% in 2014 (**Figure 48**). The 2014 data for GIS will also serve as baseline henceforth.

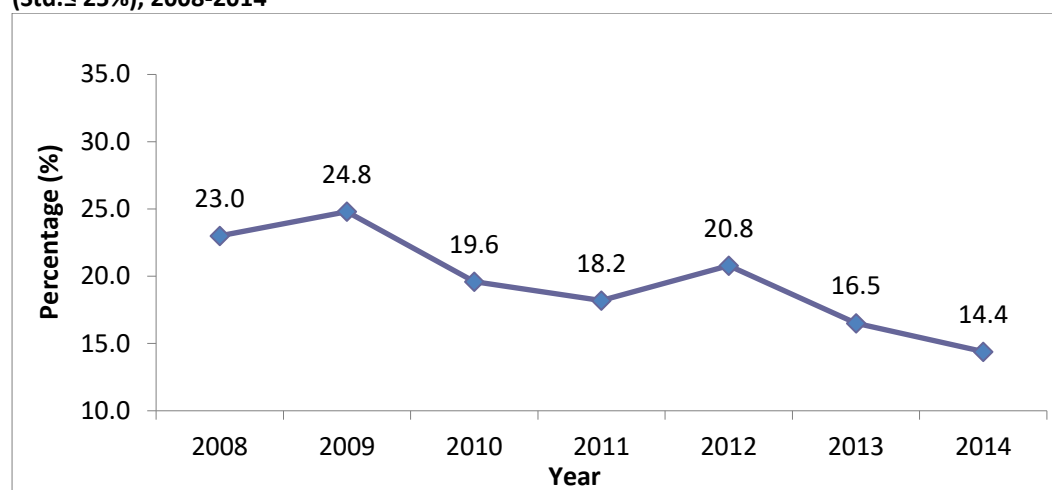
Figure 48: Percentage of Secondary Schoolchildren Maintaining Orally-fit Status (Standard $\geq 80\%$), 2008-2014



* 2014 – Introduction of GIS

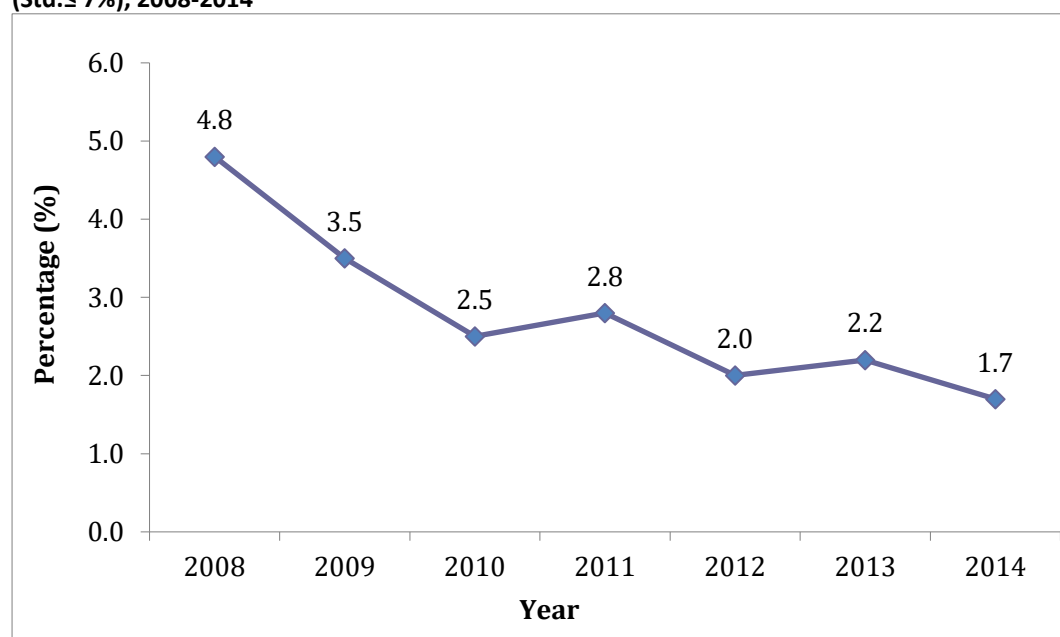
Achievements for non-conformance of fluoride levels < 0.4 ppm have been variable from 23.0% (2008) to 16.5% (2013). The 2014 achievement of 14.4% is the best thus far (**Figure 49**).

Figure 49: Percentage of Non-conformance of Optimal Fluoride Level at Reticulation Points, Level < 0.4ppm (Std. ≤ 25%), 2008-2014



The percentage of non-conformance of optimal fluoride levels for > 0.6 ppm in 2014 at 1.7% is also the best achievement thus far (**Figure 50**).

Figure 50: Percentage of Non-conformance of Optimal Fluoride Level at Reticulation Points, Level > 0.4ppm (Std. ≤ 7%), 2008-2014



In spite of these achievements, fluoride levels still need vigilant monitoring to ensure maximum effectiveness.

1.2 District Specific Approach (DSA)

DSA indicators have been monitored at state level. As for previous years, the DSA indicator for ante-natal oral healthcare is the most commonly adopted at state level. Indicators adopted have included rates of attendance, treatment and oral health education to antenatals.

Other DSA indicators commonly adopted relate to oral healthcare for toddlers, pre-school children, and primary and secondary schoolchildren. The overall performance of DSA indicators related to

primary care have generally improved based on the improved (higher) standards set by the districts and states.

Some states have different DSA indicators. These include:

- Toddlers given fluoride varnish
- Toddlers rendered fissure sealants
- Private kindergarten preschool children treated
- Loss of teeth due to caries in every 100 children
- Incidence of sharps injury (all healthcare workers)
- Failed fissure sealants
- New attendance of toddlers at MCHC, *Klinik Desa* and Dental Clinic
- Full dentures issued within two months.

All states have DSA indicators for each district. Perlis, Kedah, FT Kuala Lumpur, Negeri Sembilan, Melaka, Pahang, Kelantan, Terengganu and Sarawak have adopted the same indicators for all their district making them state specific.

1.3 Quality Assurance Projects/Studies

Oral health personnel are actively involved in QA projects/studies. In 2014, a total of 23 projects were completed and 57 projects will continue to 2015. Johor and Perak had the highest number of completed QA projects (8 studies each). Many of these studies were presented at various conventions at state and regional levels.

2. MS ISO 9001: 2008

2.1 Certification Status

Nationwide, out of 640 dental clinics with primary oral healthcare, 538 dental clinics (84.1%) are ISO-certified (**Table 82**). 2014 was the second year where the denominator was defined as 'Clinics Providing Primary Oral Healthcare' (endorsed at *Mesyuarat Jawatan Dasar dan Perancangan Kesihatan Pergigian Bil. 6/2012*).

Table 82: MS ISO 9001:2008 Certification Status by State, District and Facility, 2014

MULTI-SITE CERTIFICATION								
States	District			Dental Clinic			Certification Period	Registration Number
	No. with certification	Total	%	No. with certification	Total	%		
Perlis	2	2	100.0	9	9	100.0	24.06.14-12.06.17	AR 3676
Kedah	11	11	100.0	59	59	100.0	15.09.14-07.08.17	AR 4665
P Pinang	5	5	100.0	24	28	85.7	28.10.12 - 29.10.15	AR 5028
Perak	10	10	100.0	57	71	80.3	14.03.14-09.10.16	AR 4449
Selangor	9	9	100.00	61	63	96.8	11.03.14-26.01.17	AR 3530
FT KL	5	5	100.0	15	15	100.0	26.01.14-26.01.17	AR 3531
N. Sembilan	7	7	100.0	39	39	100.0	17.01.12-16.01.15	AR 3889
Melaka	3	3	100.0	16	26	61.5	25.02.14 - 24.02.17	AR 3569
Johor	10	10	100	90	90	100.0	18.03.14-20.01.17	AR 5365
Pahang	11	11	100.0	37	72	51.4	02.05.12 - 20.03.15	AR 3949

Kelantan	10	10	100.0	48	62	77.4	28.04.12 -11.04.15	AR 3975
Terengganu	7	7	100.0	44	44	100.0	03.02.12- 02.02.15	AR 5591
Sabah	9	9	100.0	19	32	59.4	21.03.12 - 20.03.15	AR 3950
WP Labuan	1	1		1	1	100.0	20.02.13-19.02.16	AR 3135
Total Multi-site Certification	100	100	100.0	519	611	84.9	-	-
DISTRICT CERTIFICATION								
Sarawak	10	11	90.9	19	29	65.5	Refer Table 3	
Malaysia	110	111	99.1	538	640	84.1	-	-

Sarawak (with 11 Divisions) is the only state that still has the original district certification approach (Table 83).

Table 83: MS ISO 9001:2008 District Certification Status for Sarawak, 2014

District/ Division	Location	Certification Period	Registration No.
Kuching	KP Jln Masjid KP Tanah Puteh KP Kota Sentosa KP Lundu	06.01.14-29.12.16	AR 3494
Sri Aman	KP Sri Aman	03.01.13 - 01.04.16	AR 3175
Samarahan	KP Samarahan KP Serian KP Simunjan	08.04.12 - 15.12.14	AR 3858
Miri	KP Jalan Merbau KP Tudan	17.01.13-05.01.15	AR 3873
Sibu	KP Jalan Oya KP Lanang KP Kanowit	17.01.12 - 16.01.15	AR 3890
Sarikei	KP Sarikei KP Bintangor	12.04.12 - 11.04.15	AR 3976
Bintulu	KP Bintulu	23.11.13 - 22.11.16	AR 4474
Limbang	KP Limbang	04.04.2012 - 22.10.14	AR 4722
Mukah	KP Mukah KP Dalat	05.10.12 - 04.10.15	AR 5717
Kapit	KP Kapit	10.01.14 - 09.01.17	AR 6042
Betong	-	-	-

2.2 Quality Management System

In 2014, the Oral Health Division was unable to secure funds for the expansion of the electronic Quality Management System (eQMS). The number of states using the system remains at nine. States with the eQMS are Perlis, Kedah, Pulau Pinang, Perak, Selangor, Federal Territory Kuala Lumpur, Negeri Sembilan, Melaka and Johor. The Oral Health Division MOH and the Childrens' Dental Centre & Dental Training College Malaysia also utilize the eQMS. The system is supported by a central server at the Health Informatics Centre, MOH.

Improvements have been made to the eQMS at the Oral Health Division in terms of function and user-friendliness. In 2014, the eISO security system was upgraded by strengthening the passwords from 4-digits to 8-alphanumeric passwords.

The eQMS web page content was updated as follows in 2014:

- February - Audit Schedule and Objective Quality 2014
- February - updated marquee on first internal audit
- July - updated Organization Chart
- September – updated revised version of Quality Objectives; Management Review Meeting
- October - updated marquee on second internal audit and audit surveillance

In 2014, one new procedure was incorporated - *Prosedur Pembangunan/Kajisemula Panduan Amalan Klinik* – and 11 existing procedures were reviewed as follows:

- Prosedur Pembangunan / Kajisemula Dasar Kesihatan Pergigian*
- Prosedur Pengurusan Projek Pembangunan Pergigian*
- Prosedur Permohonan Pendaftaran Graduan Dengan Kelayakan yang tidak diiktiraf*
- Prosedur Pengurusan Aduan*
- Prosedur Pemantauan Persepsi Pelanggan / Pengguna*
- Prosedur Pengurusan Sumber Manusia (Pegawai Pergigian)*
- Prosedur Pengurusan Perolehan*
- Prosedur Penyelenggaraan Aset*
- Prosedur Penyelenggaraan Pencegahan Perkakasan Teknologi Maklumat & Komunikasi (ICT) Secara Berkala di Bahagian Kesihatan Pergigian, Kementerian Kesihatan Malaysia (BKP, KKM)*
- Prosedur Penyediaan Bahan Pandang Dengar*
- Prosedur Penyediaan dan Pengurusan Pameran*

2.3 Technical Advisor for Certification Body

In 2014, the OHD arranged for senior dental officers to act as Technical Advisors to assist Certification Bodies to audit sites undergoing surveillance or recertification audits. Eight sites underwent recertification audits and the rest were surveillance audits (**Table 84**). All sites received their certification.

Table 84: List of MS ISO Audit by Certification Body, 2014

Place of Audit	Date	Type of Audit	Certification Body
Pahang	14-16 May 2014	Recertification	SIRIM
Perlis	5-6 June 2014	Recertification	SIRIM
Limbang, Sarawak	22-23 Sept 2014	Recertification	SIRIM
Samarahan, Sarawak	13-17 Oct 2014	Recertification	SIRIM
Miri, Sarawak	27-31 Oct 2014	Recertification	SIRIM
Sibu, Sarawak	28-30 Oct 2014	Recertification	SIRIM
Negeri Sembilan	8-10 Dec 2014	Recertification	SIRIM
Terengganu	22-24 Dec 2014	Recertification	SIRIM
Samarahan, Sarawak	23-24 Jan 2014	Surveillance	SIRIM
WP Labuan	17-19 Mac 2014	Surveillance	SIRIM
Sarikei, Sarawak	22-25 April 2014	Surveillance	SIRIM
Miri, Sarawak	23-25 April 2014	Surveillance	SIRIM
PPKK & KLPM	10-11 June 2014	Surveillance	CI Certification
Sabah	14-16 June 2014	Surveillance	SIRIM
Kedah	7-9 July 2014	Surveillance	SIRIM
Kelantan	22-24 July 2014	Surveillance	SIRIM
Perak	2-4 Sept 2014	Surveillance	SIRIM
Bintulu, Sarawak	2-5 Sept 2014	Surveillance	SIRIM
Kapit, Sarawak	1-3 Oct 2014	Surveillance	SIRIM
Pulau Pinang	13-15 Oct 2014	Surveillance	SIRIM
Melaka	14-15 Oct 2014	Surveillance	SIRIM

WP KL & Putrajaya	4-5 Nov 2014	Surveillance	SIRIM
Sri Aman, Sarawak	13-14 Nov 2014	Surveillance	SIRIM
Oral Health Division, MOH	17 Nov 2014	Surveillance	CI Certification
Selangor	26-28 Nov 2014	Surveillance	SIRIM
Johor	7-10 Dec 2014	Surveillance	SIRIM
Mukah, Sarawak	11-12 Dec 2014	Surveillance	SIRIM
Kuching, Sarawak	18-19 Dec 2014	Surveillance	SIRIM

3. OTHER QUALITY IMPROVEMENT ACTIVITIES

3.1 Innovation

Innovation is one of the quality initiative activities actively being carried out by oral health personnel throughout the country. In 2014, a total of 73 innovation projects were completed and 30 projects will be continued in 2015. The number of innovation projects which were completed in 2014 had increased compared to only 61 projects in 2013.

Several dental projects received awards at state, regional and national levels. Among the top achievers were:

- Starwash, Perak – second place (process category) at *Anugerah Inovasi Peringkat Kebangsaan KKM 2014*
- Intra Oral Light Device – first place at *Konvensyen Inovasi Peringkat JKN Pulau Pinang*
- *Denture Penuh Satu Hari*, Sarawak - first place (process category) at *Konvensyen Inovasi JKN Sarawak 2014*
- Base Plate Tray, Sarawak - first place (product category) at *Konvensyen Inovasi dan Kreativiti JKN Sarawak 2014*
- Wills Cephalometric Tracing System, Sarawak - first place (technology category) at *Konvensyen Inovasi JKN Sarawak 2014*
- TOD 3 in 1, Sabah – first place (process category) at *Pertandingan Inovasi JKN Sabah 2014*
- *Penimbang Paeds*, Terengganu – *Johan Anugerah Emas* at State Innovation Convention
- *Pemegang Filem Eureka*, Sarawak - second place (product category) at *Konvensyen Inovasi JKN Sarawak 2014*
- Ezy Bite Block, Kelantan - second place at *Anugerah Inovasi Negeri Kelantan*

3.2 National Awards for Innovation, MOH

The National Innovation Awards, MOH for 2014 was held at the Summit Hotel, USJ Selangor from 3-5 September 2014. The objectives of the Convention were to:

- give recognition to innovations by MOH personnel
- inspire creativity and innovation in work place
- share the application of useful innovations
- improve services through adoption of innovations

The event was officiated by Y Bhg. Datuk Farida Mohd Ali, the Secretary General of the Ministry of Health. This was the third year in which the awards were classified into four categories - Product, Process, Service and Technology. A total of 45 teams (25 Product, 8 Process, 8 Service and 4 Technology) competed for the awards. Judges constituted a good mix of eminent personalities from the public and private sectors. Winners received a certificate and cash prize of RM5000, RM3000 and RM 2000 for 1st, 2nd and 3rd places respectively (**Table 85**).

Table 85: Winners of National Innovation Awards, 2014

Position	Project	Organisation/State
Product		
1st	Modified Staining Rack	Pejabat Kesihatan Daerah Kinta, Batu Gajah, Perak
2nd	C-Holder	Jabatan Pengimejan Diagnostik, Hosp Sultanah Nur Zahirah, Terengganu
3rd	Penambahbaikan Dalam Penyediaan Filem Darah Nipis	Unit Patologi dan Tabung Darah, Hosp Queen Elizabeth II, Sabah
Process		
1st	Greentech Portables Staining Apparatus	Hospital Kuala Kangsar, Perak
2nd	Starwash Kerian	Pejabat Kesihatan Pergigian Daerah Kerian, Perak
3rd	Diathermy Leak Test	Jabatan Pembedahan Am, Hospital Pulau Pinang
Service		
1st	Locker-4U	Jabatan Fisioterapi, Hospital Tengku Ampuan Afzan, Kuantan, Pahang
2nd	Programme Knee Class Physio Team	Unit Fisioterapi, Hospital Teluk Intan, Perak
3rd	Active Defaulter Tracing	Pejabat Kesihatan Ledang, Johor
Technology		
1st	PT On The Run	Unit Fisioterapi, Hospital Sultanah Aminah
2nd	Sistem Aplikasi MyTB	Unit Kawalan Penyakit (TB/Kusta) Jabatan Negeri Sabah
3rd	E-Triage	Jabatan Kecemasan dan Trauma, Hospital Taiping

In 2014, the panel of judges introduced Jury's Award for innovation under product category (**Table 86**).

Table 86: Recipients of Jury's Awards at National Innovation Awards, 2014

Project	Organisation / State
3'S Box	Pejabat Pergigian Daerah Batu Pahat, Johor
Easy Bite Block and Wax Bite (Ezy BB)	Klinik Pergigian Besar Kota Bharu, Kelantan
Glowax Edisi Baru	Unit Fisioterapi, Hospital Seri Manjung, Perak

Among the competing innovation projects, seven (7) were dental projects:

- i. Dust Buster - Klinik Pergigian Kuala Nerang, Kedah
- ii. My ID - Chair - Pejabat Kesihatan Pergigian Daerah Hulu Langat, Selangor
- iii. 3'S Box - Pejabat Pergigian Daerah Batu Pahat, Johor
- iv. Drive Air Suction - Pejabat Perkhidmatan Pergigian Melaka Tengah, Melaka
- v. Easy Bite Block and Wax Bite (EZY BB) - Klinik Pergigian Besar Kota Bharu, Kelantan
- vi. Endo K-File Marking System - Jabatan Pergigian Pediatrik Hospital Sultanah Nur Zahirah, Terengganu
- vii. South West Multi Investing Technique (SW-MIT) - Pejabat Kesihatan Pergigian Daerah Daerah Barat Daya, Pulau Pinang

3.3 Innovative and Creative Circle (ICC)

In 2014, 11 ICC projects were completed and another 38 projects were continued to 2015. Several dental ICC projects that won awards at state and national level were:

- *Kesukaran pembuangan bilah scaple di semua Klinik Pergigian Seberang Prai Selatan* - first place at *Pertandingan KIK Peringkat JKN Pulau Pinang*
- *Kesukaran Dalam Proses Rendaman Gigi Palsu di Klinik Pergigian Batu Pahat* - second place at *Konvensyen Inovasi JKN Johor 2014*
- *Latihan Memberus Gigi di Kalangan Pasukan Pergigian Bergerak Tidak Berkesan* - first place (technical category) at *Konvensyen KIK Peringkat Kebangsaan Negeri Sabah*

3.4 Key Performance Indicators (KPI)

Twenty-two KPIs were monitored by the oral health programme in 2014 (**Table 87**). All the KPIs achieved the targets set for 2014 except for the following which nevertheless, achieved more than 90% of the 2014 target:

- Percentage of Health Clinics with dental facility component (73.2% vs target of 75.0%)
- Percentage of secondary schoolchildren rendered orally-fit (over new attendances) (93.0% vs. target of 93.7%)
- Percentage of population receiving fluoridated water supply (77.4% vs. target of 78.0%)
- Percentage of customers satisfied with services received (90.9% vs. target of 95.0%)
- Percentage of dental clinics with MS ISO certification (84.1% vs. target of 85.0%)
- Percentage of dental staff with 7 days training per year (94.7% vs. target of 100%)

Three (3) of the KPIs - KPI 3, 16 and 18 were also chosen as KPIs for the Director-General of Health monitored by the Public Services Department. The number of dental clinics with two or more fulltime dental officers providing daily outpatient service also contributed one KPI for the Health Minister (KPI 3).

Table 87: Key Performance Indicators, Oral Health Programme, MOH

KPI	Target 2014	Achievement	
		2013	2014
1. Percentage of dental clinics with a full-time dental officer	75.0%	74.7%	77.0%
2. Percentage of dental clinics with a full-time dental officer providing daily outpatient services	88.5%	86.5%	90.7%
3. Percentage of dental clinics with 2 or more full-time dental officers providing daily outpatient services	93.5%	93.2%	95.8%
4. Percentage of Health Clinics with a dental facility component	75.0%	72.5%	73.2%
5. Number of dental facilities implementing a shift system	7	7	8
6. Percentage of primary schools treated under the incremental dental care programme	99.4%	99.1%	99.4%
7. Percentage of primary schoolchildren treated	98.5%	98.1%	98.5%
8. Percentage of secondary schools treated under the incremental dental care programme	93.0%	93.0%	94.9%
9. Percentage of secondary schoolchildren treated	85.7%	85.5%	88.0%
10. Percentage of primary schoolchildren rendered orally-fit (over new attendances)	97.6%	97.5%	97.9%
11. Percentage of primary schoolchildren rendered orally-fit (over enrolment)	96.0%	95.7%	96.4%
12. Percentage of secondary schoolchildren rendered orally-fit (over new attendances)	93.7%	93.8%	93.0%
13. Percentage of secondary schoolchildren rendered orally-fit (over enrolment)	80.3%	80.3%	81.9%
14. Percentage of population receiving a fluoridated water supply	78.0%	79.5%	77.4%

15. Percentage of outpatients seen within 30 minutes by the dental officer (DO)	≥ 80%	85.2%	86.1%
16. Percentage of appointments seen within 30 minutes by the DO	≥ 90.8%	90.8%	91.9%
17. Percentage of dental clinics with waiting list for dentures exceeding 3 months	≤ 10.0%	9.7%	7.5%
18. Percentage of patients who received dentures within 3 months	60.0%	59.9%	63.3%
19. Percentage of patients aged 60 years and above who received dentures within 8 weeks	43.9%	41.9%	48.7%
20. Percentage of customers satisfied with services received	95.0%	94.0%	90.9%
21. Percentage of dental clinics with MS ISO certification	85.0%	78.4%	84.1%
22. Percentage of dental staff with 7 days training per year	100%	85.7%	94.7%

3.5 Client Satisfaction Survey

Client Satisfaction Surveys were carried out by dental clinics using a self-administered questionnaire from the Oral Health Division, MOH that measures patients' satisfaction. For 2014, more than 90% of patients expressed satisfaction except for the states of Negeri Sembilan, Perak, Selangor, Federal Territory of Kuala Lumpur & Putrajaya, Sabah and Sarawak. The highest score was in Kedah (98.2%), followed by Johor (97.0%) and Pulau Pinang (96.0%). Overall, an average of 90.9% of patients surveyed expressed satisfaction with MOH dental clinics.

3.6 Clients' Charter

There are two main areas for the Oral Health Programme Clients' Charter. The first is the Core Clients' Charter of the Ministry of Health (**Table 88**). This is one of the KPI indicators of the Secretary General of Health and is uploaded in the MOH web site.

Table 88: Clients' Charter of the Ministry of Health, 2014

Core Clients' Charter	Indicator	Target	Achievement
<i>Taraf Perkhidmatan</i>	1. Pesakit luar dipanggil untuk rawatan oleh pegawai pergigian dalam tempoh 30 minit	70%	86.1%
<i>Maklumat Perkhidmatan</i>	2. Pesakit berpuas hati dengan perkhidmatan pergigian yang diberikan	90%	90.9%

The second Clients' Charter is for the Oral Health Division MOH (**Table 89**).

Table 89: Clients' Charter of Oral Health Division, 2014

No.	Client's Charter Indicator	Target	Achievement
1a	<i>Semua pelanggan dilayan oleh petugas kaunter dengan mesra</i>	80.0%	100%
1a	<i>Semua pelanggan dilayan oleh petugas kaunter dengan cekap</i>	80.0%	100%
2	<i>Semua pelanggan diberi maklumat mengenai perkhidmatan yang disediakan</i>	80.0%	100%
3	<i>Semua pelanggan yang ada temujanji akan dapat berjumpa dengan pegawai berkenaan dalam 15 minit</i>	80.0%	100%
4	<i>Semua permohonan Klinik Pergigian Swasta ditentusahkan dalam tempoh 7 hari {dari tarikh fail permohonan diterima oleh Unit Kawalan Amalan Perubatan Swasta (UKAPS)}</i>	90%	97.4%

Reports were submitted every quarter to the Clients' Charter Secretariat, Pharmaceutical Services Division MOH.

3.7 Star Rating System (SSR)

The Star Rating System (SSR) introduced in 2008 to assess the performance of Ministries, has been expanded to other public sector agencies, frontline agencies and state governments. The objectives are:

- to evaluate and measure the performance of government agencies
- to give formal recognition to outstanding agencies
- to give wide publicity to the policies, strategies and practices implemented
- to promote healthy competition among public sector agencies.

In 2014, the SSR assessment was not carried out as MAMPU was in the midst of developing a new assessment criteria. However, efforts were made in 2014 to ensure activities and documentation of the existing criteria were updated.

3.8 *Amalan Ekosistem Kondusif Sektor Awam (EKSA)*

MAMPU has taken initiatives to improve the implementation of *Amalan 5S* which has been rebranded as *Ekosistem Kondusif Sektor Awam (EKSA)*. The move is in line with efforts to strengthen the organizational culture of high performance and innovation among public sector agencies through the provision of environmental, workplace culture and values.

The re-branding was done to allow government agencies to:

- improve corporate image;
- promote creativity and innovation activities in line with the demands of stakeholders;
- promote activities towards creating a greener environment through culture Go Green;
- extend the implementation of the government agencies in order to create a conducive environment; and
- ensure the audits meet the needs of the various elements of government agencies.

In April 2014, the EKSA Recertification Audit was carried out by MAMPU. The Ministry of Health including the Oral Health Division (Zon Pergigian) successfully received certification for the period of 1 June 2014 until 31 May 2016.

4. TRAINING

To continuously update the knowledge and skills of oral health personnel and for new personnel as well, states conducted courses on ISO awareness and internal audit.

4.1 MS ISO

Many of the training sessions were 'in-house' due to limited funds for ISO training. Central training on 'Effective Quality Management Representative' was conducted for all state representatives.

Several states have embarked on awareness sessions and workshops on preparation of documentation for the new ISO 9001:2015. Other workshops included training on 'Failure Mode Effect Analysis' and 'Root Cause Analysis'.

4.2 Quality Assurance

In 2014, a total of 53 courses related to Quality Assurance were conducted involving 1,131 participants.

4.3 Corporate Culture

Activities and courses related to Corporate Culture were carried out in all states either by the Oral Health Division or in collaboration with the Health Departments or hospitals. In 2014, a total of 241 courses related to Corporate Culture were conducted involving 6,600 oral personnel at state level.

4.4 Workshop on 'Dental Innovation Projects'

A Workshop on 'Dental Innovation Projects' was held in *My Angkasa* Langkawi, Kedah from 13 – 15 October 2014. The workshop was attended by a mixed group of dental personnel who are directly involved in innovation projects. Among the objectives of the workshop were to expose the participants on creativity and innovation and to assist participants in selecting innovation projects and to guide them through the projects.

5. RECOGNITION FOR OUTSTANDING PERFORMANCE

Several State/District Oral Health Divisions received recognition for their outstanding performance in the following areas:

a. Anugerah Kewangan Naziran eSPKB Tahap Cemerlang

- Kedah (Pejabat Pergigian Daerah Kuala Muda, Kulim, Kubang Pasu, Baling, Pulau Langkawi, Padang Terap, Yan and Pejabat Timbalan Pengarah Kesihatan Negeri (Pergigian))
- Pulau Pinang

b. Anugerah PTJ Terbaik Dalam Pengemaskinian Sistem HRMIS

- Pejabat Pergigian Daerah Kota Tinggi, Johor

c. Surat Penghargaan Ketua Setiausaha KKM diatas Perkhidmatan Cemerlang Warga Kerja

- Klinik Pergigian Banting, Selangor

d. Surat Penghargaan Ketua Setiausaha diatas Perkhidmatan Cemerlang

- Selangor (Pejabat Pergigian Daerah Hulu Selangor, Klang dan Petaling)
- Pejabat Pergigian Daerah Ledang, Johor
- Pahang

e. Anugerah Pengurusan Kewangan Peringkat Jabatan Kesihatan Negeri

- Kelantan (Tempat pertama)

ORAL HEALTH INFORMATION AND COMMUNICATION TECHNOLOGY

The role and functions of the Oral health Information and Communication Technology section are as follow:

1. Responsible for the implementation of Oral Health Clinical Information System (OHCIS).
2. Responsible for ICT issues in Oral Health Division.
3. Collaborate with Information Management Division (IMD), MOH for implementation of KKM ICT projects.
4. Collaborate with Health Informatics Centre, MOH to provide domain requirements in health informatics and standards development.

1. TPC-OHCIS PROJECT

The highlight of the year is the kick-off of the TPC-OHCIS project which is a partnership Public Service Delivery Transformation (PSDT) project between the MOH, Ministry Of Science, Technology and Innovation (MOSTI), MIMOS and PEMANDU.

In line with the need to provide better healthcare delivery to the people through clinical information system, the MOH developed TelePrimary Care (TPC) for use in the health clinics in 2005 and Oral Health Information Clinical System (OHCIS) for dental clinics in 2008.

However to achieve seamless care through patient data sharing and to optimise resources, MOH aspires to develop an integrated solution to replace these two systems. The collaborative efforts between MIMOS and MOH brought the success in obtaining the approval from PEMANDU to develop a unified TPC-OHCIS system under PSDT initiative.

This project is funded under MOSTI research fund of RM30.9million and MIMOS will be the technology provider and developer. The project was kicked off on 8 December 2014 and expected to end in November 2016.

Two User Requirement Gathering workshops were conducted and the governance structure was established in December 2014.

2. OHCIS AND eKL (DENTAL)

The support and maintenance service contract for OHCIS and eKL (Dental) was extended for another year until 4 Mac 2015. The e-KL (Dental) project was implemented in 2010 as part of the e-Government project to provide Short Message Service (SMS) appointment service to patients in Klang Valley.

Hardware procurement and training of users were done in collaboration with the Putrajaya Dental Office and Putrajaya Health Office in preparation for OHCIS implementation in Putrajaya Presint 18 Dental Clinic next year.

A survey on the effectiveness of OHCIS implementation was conducted by Johor state and was presented at the 4th Teleprimary Care Users Conference on 9 September 2014. The findings showed that user acceptance is high and it has improved average waiting time for registration by 55% from 2008 to 2013 despite an increase of almost 120% in patient attendances in the same period.

3. ORAL HEALTH DIVISION WEBSITE

A simple survey form which is linked to Survey Monkey was inserted in the website to gather feedback for further improvement. Comics and pamphlets for oral health education produced by Oral Health Promotion were the main materials uploaded for the year.

4. TRAINING

The following trainings were conducted by the ICT unit:

Date	Course	Purpose	No. of participants
7-8 July 2014	Pivot Table	To equipped staff with skills in using pivot table for data analysis	16 pax
11 August 2014	Workshop iSPAAA	To train and enhance state coordinator's skill in using iSPAAA (Interaktif Sistem Pengurusan Aduan Agensi Awam) for public feedback management	16 pax
18-19 November 2014	Workshop Pivot Table	To produce data collection format for Special Need Dentistry and Forensic Odontology and other activities	33 pax
3-4 December 2014	OHCIS User Training	To train new users for implementation at Putrajaya Presint 18	28 pax

PART 4: PRACTICE OF DENTISTRY

Accreditation and Globalisation Legislation and Enforcement

ACCREDITATION AND GLOBALISATION

ACCREDITATION OF DENTAL PROGRAMMES

1. PROVISIONAL ACCREDITATION AND APPROVAL FOR NEW DENTAL PROGRAMMES

1.1 Undergraduate Dental Degree Programme

- The provisional accreditation process of Pusrawi International College of Medical Sciences (PICOMS) Bachelor of Dental Surgery (BDS) programme was discontinued by the Malaysian Qualifications Agency (MQA) as PICOMS did not comply with the timeline of six months respond time for resubmission of additional documents requested by the panel of assessors.
- The first desktop assessment for provisional accreditation of Quest International University, Perak (QIUP) BDS programme was carried out on the 24th February 2014 followed by the second desktop assessment on the 4th September 2014.

2. MONITORING AND EVALUATION OF COMPLIANCE OF DENTAL PROGRAMMES TO THE ACCREDITATION STANDARDS

- The 1st surveillance accreditation visit to assess the implementation of the pre-clinical phase of Lincoln University College (LUC) Bachelor of Dental Surgery (BDS) programme was conducted on the 8-9th October 2014. LUC was given the approval to continue conducting the programme at the 108th MDC Meeting.
- As there was a delay in the 1st surveillance accreditation visit, the 2nd surveillance visit to assess the implementation of the clinical phase of SEGi University BDS programme will be carried out in 2015.

3. FULL ACCREDITATION OF DENTAL DEGREE PROGRAMME

Full accreditation assessment visit for Melaka-Manipal Medical College (MMMC) BDS programme were conducted on 2-3 June 2014 for the Melaka campus and on 4-6 June 2014 for the Manipal campus. Full accreditation was given for 3 years from 3rd July 2014 to 2nd July 2017 by MDC on the 3rd July 2014.

4. RE-ACCREDITATION OF DENTAL PROGRAMMES

4.1 Undergraduate Dental Degree Programme

Re-accreditation assessment visits were undertaken to the following institutions:

- MAHSA University
MAHSA Doctor of Dental Surgery (DDS) programme was conducted on 12-13 February 2014. Reaccreditation was given for 3 years from 15 June 2014 – 14 June 2017 at 106th MDC Meeting.
- University of Malaya (UM), Universiti Sains Islam Malaysia (USIM) and International Islamic University Malaysia (IIUM)

Reaccreditation for BDS programme have been rescheduled to 2015 as there was a delay in the submission of documents by the institutions to MQA.

4.2 Dental Auxiliary Programmes

Reaccreditation assessment visit was conducted on 24-25 September 2014 for MAHSA Dental Surgery Assistant (DSA) certificate programme. Reaccreditation was given from 20 October 2014 to 30 January 2017.

5. ADDITIONAL / FOLLOW-UP SURVEILLANCE VISIT

Surveillance visits that were made:

7 January 2014 - First cohort of DDS programme Allianze University College of Medical Sciences (AUCMS). The panel requested AUCMS to provide evidence that rental for the new dental faculty building has been paid before the first student intake.

1 March 2014 - Vinayaka Missions International University College (VMIUC) requested postponement of the surveillance visit to evaluate its readiness to take the first cohort of BDS student. As stated in the approval letter issued by the Ministry of Education, VMIUC was given a period of 2 years from the date of approval (i.e. 24 February 2014) to take its first batch of dental students.

6. GUIDELINES FOR ACCREDITATION OF DENTAL PROGRAMMES

The guideline on standards and criteria for accreditation of the degree, diploma and certificate programmes were reviewed and the drafts were distributed at the Technical Accreditation Committee (*JKTAP*) Meeting *Bil. 2/2014* for feedbacks.

The Terms of Reference (TOR) for the Technical Accreditation Committee (*JKTAP*) was reviewed and agreed upon at the *JKTAP* meeting *Bil. 4/2014* for submission to the Malaysian Dental Council for endorsement.

7. MEETINGS OF THE JOINT TECHNICAL ACCREDITATION COMMITTEE FOR DENTAL PROGRAMMES

The Technical Committee which consists of representatives of the Ministry of Health (MOH), the Malaysian Dental Council (MDC), the Deans of the dental faculties, the Malaysian Qualifications Agency (MQA), the Ministry of Education Malaysia (MOE), the Malaysian Dental Council (MDC) and the Public Services Department (PSD) held regular 2-monthly meetings.

Six meetings were held in 2014:

- *JKTAP 1/2014* – 7th February 2014
- *JKTAP 2/2014* – 28th April 2014
- *JKTAP 3/2014* – 17th June 2014
- *JKTAP 4/2014* – 28th August 2014
- *JKTAP 5/2014* – 20th October 2014
- *JKTAP 6/2014* – 12th December 2014

8. PREPARATION OF ACCREDITATION REPORTS / PAPERS FOR TABLING AT MALAYSIAN DENTAL COUNCIL

One (1) recommendation from the *JKTAP* was presented for endorsement at the 105th MDC Meeting on 24 February 2014:

- AUCMS DDS programme – assessment on readiness to take the first batch of students

Three (3) recommendations from the *JKTAP* were presented for endorsement at the 106th MDC Meeting on 26 May 2014:

- MAHSA DDS programme – Reaccreditation assessment
- AIMST Bachelor of Dental Technology programme – Provisional Accreditation assessment
- Proposal to increase total intake of local students per year from 800 to 900 students for local institutions of higher education

Two (2) recommendations from the *JKTAP* were presented for endorsement at the 107th MDC Meeting on 18 September 2014:

- MAHSA University Diploma in Dental Technology programme – assessment to increase intake of students from 30 to 50 students per year
- Term of Reference for the Joint Technical Accreditation Committee for Dental Programmes

Four (4) recommendations from the *JKTAP* were presented for endorsement at the 108th MDC Meeting on 25 November 2014:

- MAHSA University Dental Surgery Assistant Certificate programme – Reaccreditation assessment.
- Lincoln University College BDS programme – 1st compliance (pre-clinical phase) evaluation
- International Medical University BDS programme – assessment on the distribution of student quota for Partner Dental School and Full track.
- SEGi University BDS programme – approval to take one (1) additional foreign student more than the approved quota.

9. MEMORANDUM OF AGREEMENT (MOA) BETWEEN MOH AND HIGHER EDUCATION PROVIDERS (HEPS) FOR THE USE OF MINISTRY OF HEALTH (MOH) FACILITIES BY STUDENTS OF DENTAL DEGREE UNDERGRADUATE PROGRAMMES

The MoA for the use of MOH hospitals and dental clinics was signed between Ministry of Health and these HEPS:

- Universiti Sains Malaysia (USM) for a period of five (5) years from 1 September 2014 to 31 August 2019.
- Penang International Dental College (PIDC) for a period of five (5) years from 3 November 2013 to 2 November 2018.

10. ATTACHMENT OF DENTAL STUDENTS AT MOH FACILITIES

Eight applications for community postings from local Institutions of Higher Education were approved – AIMST, IMU, USIM, UiTM, MAHSA, IIUM, UM, UKM.

Four (4) applications for clinical posting from local institutions of Higher Education were approved - IMU, PIDC, SEGi and USM.

Fifty five (55) applications for elective attachments from dental students from foreign institutions of higher education were approved – Al-Azhar University, Alexandria University, Mansoura University, Tanta University of Egypt, Jordan University and University of Dundee, UK.

GLOBALISATION AND LIBERALISATION OF ORAL HEALTHCARE SERVICES

1. ASEAN FRAMEWORK AGREEMENT ON SERVICES (AFAS)

Several issues were discussed during the two ASEAN Meeting held at Can Tho City, Vietnam (on 26-28 May 2014) and Bali Indonesia (on 22 -24 September 2014) as follows:

- Updated roadmap for implementation of ASEAN MRA for Dental Practitioners for Malaysia.
- Updates on country websites for exchange of information on domestic rules and regulations pertaining to mobility of dental practitioners among ASEAN Member states (AMS).
- Mobility of dental practitioners among ASEAN countries through temporary licensing (TPC).
- Preparation for review of MRA (Mutual Recognition Arrangement) for dental practitioners.
- Draft proposal on establishment of ASEAN healthcare services website.
- To consider the proposal by CCS on the ASEAN Qualification Reference Framework (AQRf) for education and training.

2. AUTONOMOUS LIBERALISATION

Several meetings has been attended to provide dental technical input as follows:

- Discussion with MITI and representatives from WTO on the review of WTO trade policies in services 2014 for Malaysia to include updates on foreign equity of 100% for stand-alone medical and dental specialist clinics as of June 2012.
- Discussion with the Policy and International Relations Division of MOH in the presence of other stakeholders such as MIDA, EPU, PEMANDU and MITI on foreign equity participation on health sector.

3. BILATERAL AND MULTILATERAL NEGOTIATIONS AMONG COUNTRIES

Dental technical input were provided to MITI memorandum to cabinet on ASEAN – China trade agreement whereby no offer is given under the dental services.

4. DENTAL HEALTH TOURISM

Several meetings organized by the Malaysian Healthcare Travel Council has been attended as follows:

- Updates on Health Tourism with private dental practitioners
- Dialogue sessions with YB Health Minister and YB Minister in the Prime Minister's Department with stakeholders

Technical input were provided on the review of advertising guidelines and on the Standards and Checklist for Accreditation of Dental Clinics

LEGISLATION AND ENFORCEMENT

The Legislation and Enforcement Section functions are:

LEGISLATION

- drafting laws and regulations pertaining to the practice of dentistry and matters relating to the practice of dentistry;
- giving input relating to the effect of other laws on the practice of dentistry;
- drafting and reviewing guidelines for the use of dental practitioners;

ENFORCEMENT

- ensuring compliance to Malaysian Dental Council guidelines in private dental clinics;
- facilitating registration and licensing of private healthcare facilities under the Private Healthcare Facilities and Services Act 1998 (Act 586);
- verifying applications and recommending private dental clinics for registration under the Private Healthcare Facilities and Services Act (Act 586) together with the Control of Medical Practice Unit;
- carrying out enforcement activities under the Private Healthcare Facilities and Services Act 1998 (Act 586);
- carrying out investigations and others activities as required by Malaysian Dental Council under the Dental Act 1971;

SAFETY AND HEALTH ACTIVITIES

- co-ordinating the Health and Safety audits in the Ministry of Health Malaysia dental clinics;
- monitoring the achievement of the Patient Safety Goals in Ministry of Health Malaysia facilities.

1. LEGISLATION

1.1 Dental Bill

The amendments to the Dental Act 1971 were completed and presented to the Minister of Health in 2012. The Dental Bill was sent to the Legal Advisor's office in January 2013 and to the Attorney General's Chambers for vetting in November 2013. In 2014 there were 4 meeting with the legal advisor and the AG's Chambers regarding the draft Bill.

1.2 Dental Regulations

The first meeting to draft the new Dental Regulations was held on 11 November 2013 and the draft was completed on 30 June 2014.

2. ENFORCEMENT ACTIVITIES

2.1 Registration of Private Dental Clinics

The registration of private dental clinics began on 1 May 2006, in which year 809 clinics applied for registration and 131 (16.2%) of the applications were approved. By the end of 2014 a total of 2051 clinics had been registered (**Table 90**).

Table 90: Number of Applications for Registration of Private Dental Clinics Approved and Cumulative Total of Clinics Registered, 2006 - 2014

Year	Total	Cumulative Total
2006	131	131
2007	937	1068
2008	368	1436
2009	101	1537
2010	66	1603
2011	102	1705
2012	134	1839
2013	90	1929
2014	122	2051

Source: Oral Health Division, MOH 2014.

This year 122 applications for registration were approved and 48 registrations were withdrawn or cancelled. This resulted in an overall increase of 74 clinics. The number of applications which have been approved and the number of registrations which had been cancelled during the year in each state is shown below (**Table 91**)

Table 91: Number of private Dental Clinics registered or closed in each State, 2014

No	State	Number of Dental Clinics					Operating on 31 Dec
		Operating on 01 Jan	Approved	Cancelled	Increase		
					No	%	
1.	Selangor	490	43	14	29	5.9	519
2.	FT Kuala Lumpur & Putrajaya	310	20	8	12	3.9	322
3.	Johor	175	16	4	12	6.9	187
4.	Sabah	99	7	4	3	3.0	102
5.	Terengganu	45	4	1	3	6.7	48
6.	Kedah	57	4	1	3	5.3	60
7.	Negeri Sembilan	45	3	0	3	6.3	48
8.	Melaka	39	6	4	2	5.1	41
9.	Pahang	45	3	1	2	4.4	47
10.	Sarawak	85	3	1	2	2.4	87
11.	Perlis	4	2	0	2	50.0	6
12.	Pulau Pinang	125	5	4	1	0.8	126
13.	Perak	114	4	4	0	0	114
14.	Kelantan	54	2	2	0	0	54
15.	FT Labuan	5	0	0	0	0	5
	Total	1692	122	48	74	4.4	1766

This year was the first time since registration began, that there was an increase in the number of clinics in Perlis. Selangor with 29.4% (519) of the registered clinics, had also the highest number of new clinics and the highest overall increase in number of clinics. Selangor and FT Kuala Lumpur & Putrajaya account for nearly half (47.6%) of the private dental clinics, and together have a rate of growth of over 4.9%. Perlis with 2 new clinics had the highest rate of growth (50%) followed by Johor (6.9%), Terengganu (6.7%) and Negeri Sembilan (6.3%).

2.2 Inspection of Dental Clinics

In 2014, 215 pre and post-registration inspections were carried out and 30 clinics with non-compliance had been revisited. The number of pre and post- registration visits and the subsequent number of surveillance visits to ensure compliance, is shown below for the last six years. (Table 92)

Table 92: Number of pre-registration, post-registration and surveillance inspections carried out (2009-2014).

Year	Pre-registration (%)	Post-registration (%)	Surveillance (%)
2009	68	157	17
2010	78	55	35
2011	20	118	30
2012	103	89	12
2013	106	92	6
2014	114	101	30

A certain percentage of the registered private dental clinics in each state are routinely inspected based on the number of clinics in the state and the size of the state. In 2014, 766 (43.4%) of the 1766 registered clinics were visited for a routine inspection (**Table 93**). Of these, 23 were re-visited for non-compliance.

Table 93: Number of Routine Inspection and Achievement of each State, 2014

No.	State	Number of Dental Clinics				
		No. on 1 Jan 2014	Percentage	Target	Achievement	Percentage Achievement
1.	Selangor	490	33	163	106	65.0
2.	FT Kuala Lumpur & Putrajaya	310	40	124	126	101.6
3.	Johor	175	50	88	90	102.3
4.	Pulau Pinang	125	50	63	42	66.7
5.	Perak	114	50	57	55	96.5
6.	Sabah	99	50	50	25	50.0
7.	Sarawak	85	50	43	46	114.0
8.	Kelantan	57	100	57	54	94.7
9.	Kedah	54	100	54	57	105.6
10.	Negeri Sembilan	45	100	45	46	102.2
11.	Pahang	45	100	45	41	91.1
12.	Melaka	45	100	45	35	77.8
13.	Terengganu	39	100	39	35	89.7
14.	Perlis	5	100	5	4	80.0
15.	FT Labuan	4	100	4	4	100
	Malaysia	1692	-	882	766	86.8

Overall the percentage achievement rose from 80.7% in 2013 to 86.8% and all states showed an improved achievement.

2.3 Complaints against Private Dental Clinics

The number of complaints received and enforcement activities in each state during the year 2014 is listed in **Table 94**. Although the total number of clinics increased by 4.4% from the previous year, the number of complaints decreased by 14.3%, and the enforcement activities decreased by 14.6%.

Table 94: Complaints Received and Enforcement Activities by State, 2014

No.	State	No. of Clinics	No. of Complaints Received	No. of Enforcement Activities	No. of Complaints Settled
1.	Perlis	6	-	-	-
2.	Kedah	60	2	3	1
3.	Pulau Pinang	126	-	-	-
4.	Perak	114	1	1	-
5.	Selangor	519	5	4	4
6.	FT Kuala Lumpur	320	6	14	3

7.	FT Putrajaya	2	-	-	-
8.	Negeri Sembilan	48	2	2	2
9.	Melaka	41	1	1	1
10.	Johor	187	2	3	1
11.	Pahang	47	2	10	2
12.	Terengganu	48	1	1	-
13.	Kelantan	54	-	-	-
14.	Sabah	102	-	-	-
15.	Sarawak	87	2	2	2
16.	FT Labuan	5	-	-	-
	Malaysia	1766	24	41	16

2.4 Enforcement Officers

In 2014 there were 39 enforcement officers in the states and 3 in the Oral Health Division, Ministry of Health Malaysia. These 42 officers carried out all the duties and functions of the national and state legislation and enforcement units as well as the registration of clinics under the Private Healthcare Facilities and Services Act.

2.5 Enforcement Courses

During the year the enforcement officers attended various courses organized by the Oral Health Division, the Private Medical Practice Control Division (CKAPS) and the various State Private Medical Practice Control Units (UKAPS) and others Divisions. These courses were aimed at updating knowledge, reinforcing procedures and guidelines and improving skills of the enforcement officers, in order to carry out their surveillance and enforcement activities. The list of courses organised at national and state level are stated in **Table 95** and **Table 96**.

Table 95: Courses at National level

No.	Title of Course	Date	Duration	Organizer	No of Officers
1.	Bengkel Penyediaan SOP Penguatkuasaan Akta 586	7-10 April	4 days	OHD, KKM	1
2.	Bengkel Audit Keselamatan dan Kesihatan Pekerjaan	7-8 May	2 days	OHD, KKM	1
3.	Persidangan Penguatkuasaan Kementerian Kesihatan Malaysia	26-29 May	4 days	KKM	10
4.	Kursus Kawalan Infeksi untuk Inspektor Perubatan UKAPS/CKAPS	12-14 Aug	3 days	CKAPS	1
5.	Seminar 'Conduct of Disciplinary Inquiries'	18-19 Aug	2 days	MDC	4
6.	Patient Safety Conference 2014	27-28 Aug	2 days	Patient Safety Council	1
7.	Bengkel Memproses Permohonan Pendaftaran Klinik Swasta	7-10 Sept	4 days	CKAPS	6
8.	Kursus Pengurusan Aduan	12-15 Oct	4 days	CKAPS	10

Table 96: Courses at State level

No.	Title of Course	Date	Duration	Organiser	No of Officers
1.	Taklimat & Pengisian Data PSG Online	27 Jan	1 day	OHD, Melaka	2
2.	Kursus Keselamatan dan Kesihatan Pekerjaan	25-26 Feb	2 days	JKN, WP KL	1
3.	Kursus Pengendalian Eksibit dan Stor Eksibit Bagi Pegawai Penguatkuasa peringkat Zon Pantai Timur	21 April	1 day	UKAPS, Terengganu	1
4.	Kursus Pengendalian Fotografi Forensik Komprehensif utk Pegawai Pergigian Penguatkuasa	27-30 April	4 days	UKAPS, Johor	2
5.	Kursus Keselamatan dan Kesihatan Pekerjaan	22 May	1 days	JKN, Perak	1
6.	Bengkel Pendakwaan Bagi Kes-Kes Sebutan dan Kes Perbicaraan bagi Pegawai Pendakwa UKAPS dan CKAPS, KKM	16-19 June	4 days	UKAPS, Kedah	1
7.	Kursus Kawalan Infeksi & Rangkaian Sejuk untuk Kemudahan & Perkhidmatan Jagaan Swasta NSDK	23 Aug	1 day	UKAPS, NS	1
8.	Kursus Pendakwaan Pelaksanaan Peruntukan Baru Kanun Tatacara Jenayah	18-19 Aug	2 days	Pharmacy Div, Johor	1
9.	Bengkel Pendakwaan kes serbuan dan kes perbicaraan bagi Peg Pendakwa UKAPS/CKAPS	25-28 Aug	4 days	UKAPS Kedah	4

3. SAFETY & HEALTH ACTIVITIES

3.1 Status Report for Safety and Health Audit

3.1.1 Distribution of facilities

A total of 807 out of 1866 facilities (43.2%) in 12 states, 2 federal territories and one (1) training college were audited in 2014. This is above the target of 33.3% or 1/3 of the facilities. The highest percentage of facilities visited was 100% in the Dental Training College (DTC), followed by 97% in Johor and the lowest was in Sarawak (22.1%) as shown in **Table 97**.

Table 97: Distribution of Audited Facilities by State – 2014

No	State	No. of Districts	No. of Dental Facilities			% Audited in 2013	% Audited in 2012
			Total	Audited	% Audited		
1	Perlis	2	54	19	35.2	34.6	35
2	Kedah	10	8	7	87.5	75.0	75
3	Pulau Pinang	5	146	86	58.9	82.0	99
4	Perak	9	197	70	35.5	36.5	32
5	Selangor	10	117	39	33.3	15.8	25
6	FT KL & Putrajaya	4	134	56	41.8	57.8	27

7	Negeri Sembilan	7	89	25	28.1	26.6	34
8	Melaka	3	84	28	33.3	47.7	18
9	Johor	10	100	97	97.0	48.8	36
10	Pahang	11	167	100	59.9	13.5	46
11	Terengganu	7	113	27	23.9	32.7	81
12	Kelantan *	10	(188)	n.a	n.a	98.4	65
13	Sabah	9	191	66	34.6	41.1	92
14	Sarawak	12	281	62	22.1	19.3	33
15	FT Labuan	1	8	7	87.5	75.0	75
16	Dental Training College (DTC)	-	12	12	100	-	-
Total		110	1866	807	43.2	42.7	38

* Kelantan is not included in the report, as the returns were lost in the devastating floods in November 2014.

Of the 807 facilities that were audited, 520 were audited in the area of Management (Mobile Dental Team and Mobile Dental Clinics are not audited in this area), all were audited for Infection Control procedures and 804 were audited for Amalgam Usage (3 centralised laboratories were not audited in this area). A total of 300 facilities had x-ray services and 282 had laboratories (including the 3 centralised laboratories) (Table 98).

Table 98: Type of Facilities Audited by State – 2014

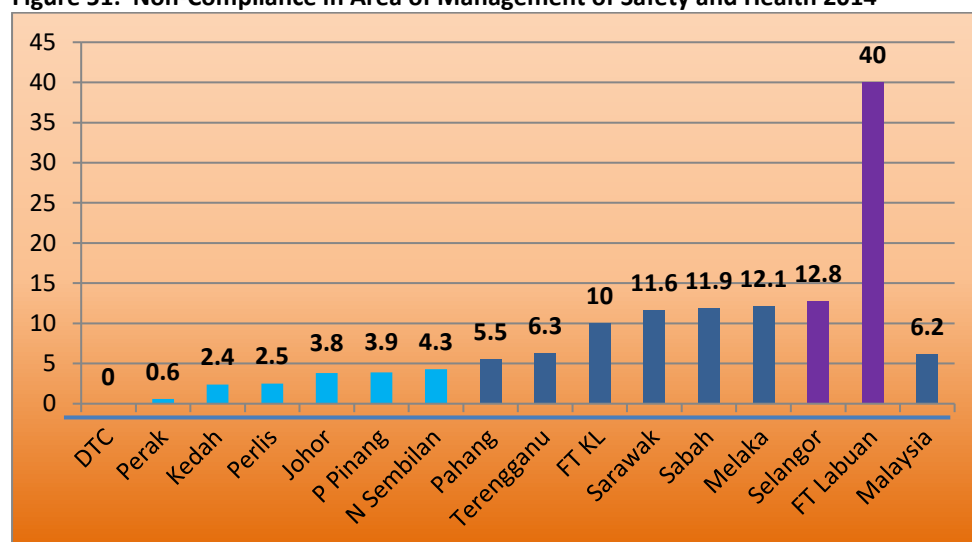
State	No. of Facilities		Areas audited				
	Total	Audited	Management	Infection Control	Amalgam Usage	Radiation Safety	Laboratory Safety
Perlis	54	19	19	19	19	3	3
Kedah	173	113	56	113	113	34	36
P. Pinang	146	86	36	86	86	26	18
Perak	197	70	57	70	70	26	27
Selangor	117	39	39	39	39	32	32
FT KL	134	56	26	56	54	26	13
N Sembilan	89	25	20	25	25	20	20
Melaka	84	28	11	28	28	10	10
Johor	100	97	97	97	97	56	59
Pahang	167	100	41	100	100	20	20
Terengganu	113	27	18	27	27	17	17
Kelantan*	(188)	n.a	n.a	n.a	n.a	n.a	n.a
Sabah	191	66	56	66	66	20	18
Sarawak	281	62	42	62	62	8	7
FT Labuan	8	7	1	7	7	1	1
DTC	12	12	1	12	11	1	1
Total	1866	807	520	807	804	300	282

* Kelantan is not included in the report, as the returns were lost in the devastating floods in November 2014.

3.2 Compliance in area of Management of Safety and Health, 2014

The highest percentage of non-compliance in the area of management of safety and health was in FT Labuan (40% - 6/15 items), (but only one facility was audited in the area of management), followed by Selangor (12.8% - 75/585 items), Melaka (12.1% - 20/420 items), Sabah (11.9% - 100/990 items) and Sarawak (11.6% - 73/930 items).

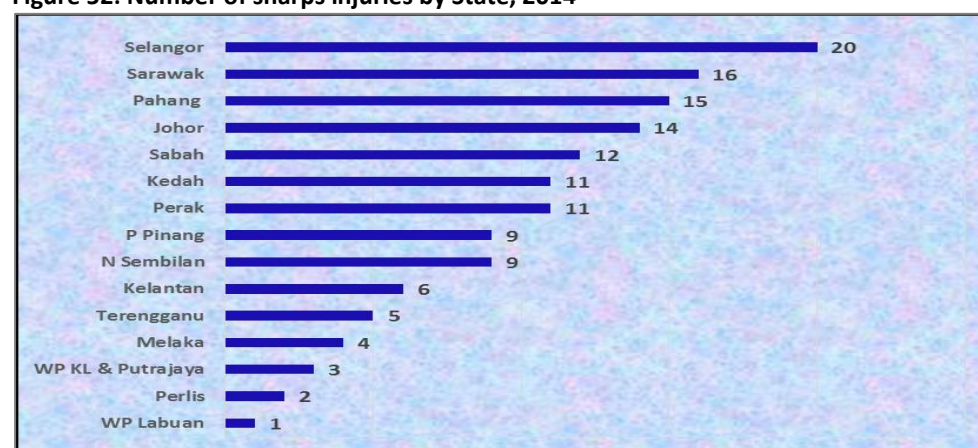
Figure 51: Non-Compliance in Area of Management of Safety and Health 2014



3.3 Sharps Injuries

In a dental clinic, sharps injuries constitute a portion of occupational safety and health which cannot be ignored, and in 2014 there were 138 sharps injuries recorded (**Figure 52**).

Figure 52: Number of sharps injuries by State, 2014



CHALLENGES AND FUTURE DIRECTION

The MOH is committed to provide safe and quality oral healthcare to the population through a comprehensive network of oral health facilities. There is a need to further increase the accessibility to oral healthcare through collaborative efforts with different agencies under the National Blue Ocean Strategy which includes UTCs, RTCs, 1Malaysia Family Care (NBOS7), Mobile CTC (NBOS8) and 1MRSCS. The delivery of outreach oral health services also need to be further strengthened through the optimal utilization of Mobile Dental Clinics, Mobile Dental Teams as well as the Mobile Dental Lab.

Effort needs to be intensified to tackle the high disease burden of periodontal disease among adults. Good team work among all stake holders is very much needed in preventing and managing periodontal disease. There is a need to relook at our current strategies and more focus needs to be directed towards oral health promotion in prevention and control of oral diseases. Strengthening multi-sectoral partnerships and the provision of real time information relevant to the younger generation via social media should be given more emphasis. At the same time, efforts to strengthen the capacity and capability of oral health personnel to deliver effective oral health messages need to be continued.

The exponential rise of dental officers joining MOH for compulsory service is another challenge which needs urgent attention. The lack of infrastructure and equipment coupled with the shortage of DSAs are indeed pressing issues. There is a need to look at alternatives such as reducing the compulsory service to one year or to propose vocational training upon graduation at Institutes of Higher Education, Ministry of Defence or even accredited private clinics.

MAJOR EVENTS 2014

DATE	EVENTS
20 Jan	Perbincangan Strategi Menyemarakkan 'Mouth Self Examination' di Komuniti
7 Feb	Mesyuarat Jawatankuasa Teknikal Akreditasi Pergigian (JKTAP)
9-10 Feb	Mesyuarat KPK Khas
11-12 Feb	Bengkel Membangunkan 'Video Viral' MSE
17-18 Feb	Mesyuarat JDPKP 1/2014
18 Feb	Taklimat Amalan 5S
19 Feb	Taklimat Interaktif eISO dan Awareness ISO
25 Feb	Perbincangan Pengemaskinian dan Dokumentasi Process Mapping BKP
27-28 Feb	Mesyuarat Pakar OPOM
5-6 Mar	NOHPS 2015 Clinical Calibration of Bench Mark Examiner / Gold Standard
11 Mar	Mesyuarat JK Pemandu NOHPS 2015 Bil 1/2014
11 Mar	Mesyuarat JK Pemandu OHCS dan eKL(Pergigian) Bil 1/2014
13 Mar	Mesyuarat Kajian Semula Pengurusan 1/2014
18 Mar	Mesyuarat JK Pemandu FEO 2014 Bil 1/2014
26-27 Mar	Mesyuarat Pakar Pergigian Kesihatan Awam
28 Mar	Mesyuarat JK Penempatan & Pertukaran Pegawai Pergigian 1/2014
31 Mar – 1 April	Mesyuarat Pakar Bedah Mulut & Forensic Odontology
3 Apr	Mesyuarat JK Pemandu NOHPS 2015 Bil 2/2014
14-16 Apr	Bengkel Mengkaji Semula Garis Panduan Akreditasi Program Pengajian Pergigian
15 Apr	Mesyuarat JK Kaji Semula Garis Panduan Program Kanser Mulut
18 Apr	Mesyuarat JK Pemandu NOHPS 2015 Bil 2/2014
22 Apr	Mesyuarat JDPKP 2/2014
28 Apr	Mesyuarat Jawatankuasa Teknikal Akreditasi Pergigian (JKTAP)
29-30 Apr	Mesyuarat Pakar Pergigian Pediatrik
5-6 May	Seminar on Oral Health Capital Projection
5-6 May	Calibration of Gold Standard & Benchmark Examiners for NOHPS 2015
8 May	Mesyuarat Search Committee BKP Bil 2/2014
8-9 May	Mesyuarat Pakar Restoratif
14-15 May	Mesyuarat Pakar Periodontologi & Special Needs Dentistry
15 May	Mesyuarat Pengarah Kanan Kesihatan Pergigian bersama Majlis Dekan-Dekan Fakulti Pergigian Malaysia
19 May	Mesyuarat JK Penilaian MPM
27 May	Mesyuarat MPM 106 (2/2014)
26-27 May	Mesyuarat Pakar Orthodontik
29 May	Mesyuarat Search Committee BKP Bil 3/2014
3-6 June	Bengkel Kajian Kualitatif dan Kuantitatif bagi Aktiviti Bahan Promosi Kesihatan Pergigian
9-10 June	Mesyuarat JDPKP 3/2014
12 June	Mesyuarat Jawatankuasa Penilaian dan Pewartaan Pakar-Pakar Pergigian
17 June	Mesyuarat Jawatankuasa Teknikal Akreditasi Pergigian (JKTAP)
20 June	Mesyuarat JK Penempatan & Pertukaran Pegawai Pergigian 2/2014
22-23 June	Mesyuarat KPK Khas
4-5 August	Mesyuarat JDPKP 4/2014
11 August	Pelancaran Minggu Kesedaran Kanser Mulut 2014, Mouth Cancer Awareness Walk

11 August	Kursus Pemantapan Penyelaras Aduan
11-14 August	IADR-SEAIDE Scientific Meeting
14-16 August	6th Asian Chief Dental Officers Meeting (ACDOM) 2014
18-19 August	Seminar MPM
20 August	Mesyuarat Pemfluoridaan Bekalan Air 1/2014
21 August	Mesyuarat J/kuasa Pemandu Kajiselidik NOHPS 2015
21 August	Mesyuarat Pemandu OHCIS & eKL(Pergigian) Bil 2/2014
28 August	Mesyuarat Jawatankuasa Teknikal Akreditasi Pergigian (JKTAP)
2-4 Sept	Anugerah Inovasi Peringkat Kebangsaan KKM
7-9 Sept	Mesyuarat Pegawai Penguatkuasa Pergigian Bil 1/2014
11 Sept	Mesyuarat Jawatankuasa Penilaian dan Pewartaan Pakar-Pakar Pergigian
18 Sept	Mesyuarat Majlis Pergigian Malaysia
19 Sept	Mesyuarat NPHPS Steering Committee
21-22 Sept	Mesyuarat KPK Khas
26 Sept	Mesy JK Penempatan & Pertukaran Pegawai Pergigian 3/2014
29-30 Sept	Mesyuarat JDPKP
13-15 Oct	Bengkel Pemantapan Projek Inovasi Pergigian
17 Oct	Mesyuarat NOHRI Bil 1/2014
10-12 Nov	Oral Health Research Conference
12-14 Nov	Mesyuarat Keselamatan dan Kesihatan Pekerjaan Pergigian Bil 1/2014
25-26 Nov	Kursus Effective QMR
17 Nov	Mesyuarat MPM 108 (4/2014)
16 Dec	Mesyuarat Jawatankuasa Teknikal Akreditasi Pergigian (JKTAP)
17-18 Dec	National Oral Health Survey of Pre School 2015 (NOHPS 2015): Exposure and Consensus For NOHPS 2015 Protocol
18 Dec	Mesyuarat Pemandu OHCIS & eKL (Pergigian) Bil 3/2014
19 Dec	Mesy JK Penempatan & Pertukaran Pegawai Pergigian 4/2014

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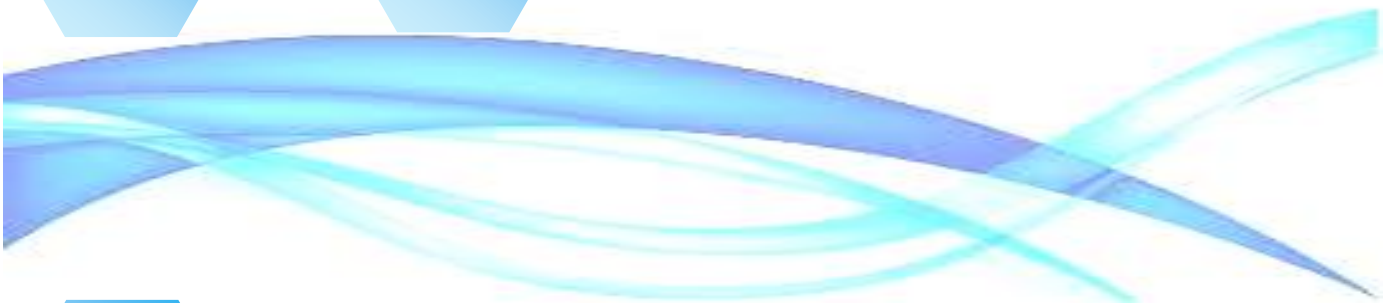
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ACKNOWLEDGEMENT

The Editorial Committee acknowledges the following officers for their contributions in the production of this Annual Report 2014. All data presented have been updated as of 31 December 2014.

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