ANNUAL REPORT 2013

ORAL HEALTH DIVISION
Ministry of Health Malaysia

MOH/K/GIG/13.2015/AR

ANNUAL REPORT

2013

ORAL HEALTH DIVISION
MINISTRY OF HEALTH MALAYSIA

December 2014

Contents

FOREWORD
PRINCIPAL DIRECTOR FOR ORAL HEALTH
MINISTRY OF HEALTH MALAYSIA

Year 2013 was a challenging year, with extra activities leading up to the 13th General Elections. Following the Elections, the year heralded the new line-up of top management, as we welcomed our new Honourable Minister of Health Datuk Seri Dr. S. Subramaniam, our new Honourable Deputy Minister of Health Dato' Seri Dr. Hilmi Yahya, our new Secretary General YBhg. Datuk Farida Mohd Ali, our new Director General of Health Malaysia, YBhg. Datuk Dr. Noor Hisham Abdullah, our new Deputy Director General of Health (Medical) YBhg. Datuk Dr. Jeyaindran Tan Sri Dr. Sinnadurai and our new Deputy Secretary General (Management) YBhg. Datuk Hasnah Haji Salleh.

Year 2013 also saw us supporting the first **Malaysian Dental Therapists' Scientific Conference & Trade Exhibition** which was held at Berjaya Times Square on 5-7 April 2013 with a big turnout of 630 delegates, including participants from Thailand and Singapore. The Oral Health Division also gave full support for the **35th Asia Pacific Dental Congress**, held in KLCC from 8-12 May 2014 by sponsoring 1,287 MOH oral health personnel to attend this prestigious event. The national level Oral Health Carnival with the theme ***'Gigi Ku Mutiara Ku'*** was officially launched by the Honourable Datin Paduka Seri Rosmah Mansor, wife of the Right Honourable Prime Minister and patron of PERMATA, on 6 October 2013 at Berjaya Times Square, Kuala Lumpur. This carnival was held in conjuction with the World Oral Health Day 2013. The Division also successfully conducted the important '**Seminar on Projection and Development of Oral Health Human Capital Needs for Malaysia till Year 2020**' for the dental profession on the 26-27 November 2013.

As the country faces an unprecedented increase in dental graduates, the Malaysian Dental Council (MDC) and the Dental Deans' Council prepared

a Cabinet Memorandum proposing a moratorium on dental undergraduate education. The dental profession also supported the establishment of the **National Conjoint Board for Dental Postgraduate Education** established under the Ministry of Education. In anticipation of the establishment of the National Specialist Register under the proposed Dental Act, the Division initiated a profession consensus on the general standards and criteria for the Specialists' Subcommittees under the College of Dental Specialists, Academy of Medicine Malaysia.

The Oral Health programme also finalized and submitted a proposal to enhance the Dental Surgery Assistant (DSA) scheme from U17, U22, U24 to U19, U24, U26. Concurrently, efforts proceeded towards the improvement of the DSA exit qualification from a Certificate to a Diploma qualification and steps were taken towards making degree courses available for dental nurses and technologists. The progamme also successfully convinced the Training Management Division to address the lack of tutors at the Penang Dental Training College, with recruitment of 23 dental nurses and 11 dental technologists as a 'trade off' to become tutors and concurrently pursue a BSc Biology degree programme at USM, Penang.

Focus was given to community programmes in Sabah and Sarawak under NBOS 6 and to oral healthcare of the elderly, single mothers and special groups under the 1Malaysia Family Care of NBOS 7. Training began for the implementation of our new **Gingival Index for Schoolchildren (GIS)** at primary care level. The programme also engaged Prof Helen Whelton of Cork University Ireland, Dean of the Graduate School, College of Medicine and Health, Professor of Dental Public Health & Preventive Dentistry and Director of WHO Collaborating Centre for Oral Health Services Research under a WHO consultancy, for the calibration of a core group of examiners on Deans' Fluorosis Index for enamel fluorosis research in 2013. The programme also began investing time and effort in social media through our webpage, Facebook and blog.

Resource constraints remain a yearly challenge. We were thankful to receive RM10 million in Development Funds in 2013, having received RM15 million in 2012. Year 2013 also saw the production of our first prototype mobile dental lab. The programme strengthened with the inclusion of dental components in the blueprints for future health complexes and applied for inclusion of a dental component in Minor Specialist Hospitals. There was establishment of dental clinics in the Urban Transformation Centres in Melaka and Pudu Sentral as well as mobile dental services in the Rural Transformation Centers of Wakaf Che Yeh and Gopeng, where the programme accommodated for flexi- and extended hours to provide oral health services.

Our draft Dental Bill was finalised and sent to the Attorney General's Chambers in December 2013 and the MDC continued with drafting the new Dental Regulations. There was a major change with the MDC shifting its premises from Complex E to Cyberjaya, as the Council needs more space for more human resource (to include the new secretariat for the future Dental Therapists' Committee) in preparation for the implementation of the new Dental Act.

As we share common values and goals, I thank each and every member of the Oral Health family for your contributions in 2013. Never lose sight of the ultimate reason for our existence in the MOH - serving the rakyat, and work towards fulfilling our Key Performance Indicators and the oral health goals of our National Oral Health Plan 2011-2020.

Dr. Khairiyah bt. Abd Muttalib
Principal Director of Oral Health
Ministry of Health Malaysia

HIGHLIGHTS 2013

National Level Oral Health Carnival, 6 October 2013

The National Level Oral Health Carnival with the theme '*Gigi Ku Mutiara Ku'* was successfully held on 6 October 2013 and was officially launched by the wife of the Hon. Prime Minister, who is the patron of PERMATA, at Berjaya Times Square, Kuala Lumpur. It was held in conjuction with the World Oral Health Day 2013 was accepted as the longest non-stop puppet show in the Malaysia Book of Records. Puppet shows have been shown to be an effective medium to deliver oral health messages to young children. Participation of young children from public and private kindergarden was overwhelming.

National Level Innovation Award, 2-4 July 2013

The National Level Innovation Awards MOH was held from 2-4 July in Melaka with the objective to inspire creativity and innovation among personnel in their daily task towards improving the service. The event was officiated by YBhg. Datuk Dr. Farida Mohd Ali the Secretary General of the Ministry of Health. A total of 51 projects comprising 21 products, 8 processes, 8 services and 8 technology; 13 were dental innovations. The second runner up under the product category was from the Periodontic Unit, Dental Clinic Jalan Masjid Kuching.

Fluoride Enamel Opacities Calibration Workshop, 24 February -1 March 2013

The Training of Trainers workshop on fluoride enamel opacities and Dean's Index was conducted at Sek. Men. Section 9 Shah Alam from 24 Februari to 1 March 2013 under the guidance of Professor Dr Helen Whelton, WHO Consultant and Director of the WHO Collaborating Centre for Oral Health Services Research, National University of Ireland. A total of 25 dental officers participated in this workshop. The training aimed to enhance skills in identifying and differentiating between fluoride and non-fluoride enamel opacities while standardizing and calibrating examiners for The 2013 Fluoride Enamel Opacities National Survey of 6 year-old school children in Malaysia.

HIGHLIGHTS 2013

1st Malaysian Dental Therapists' Conference, 5-7 April 2013

The first Malaysian Dental Therapists' Conference was held successfully at Berjaya Times Square, Kuala Lumpur on the 5-7 April 2013. Organized by the Malaysian Dental Nurses' Association in collaboration with the Oral Health Division, MOH and with the theme 'Future trends and Challenges' the event was graciously officiated by Dr. Khairiyah Abd. Muttalib, the Principal Director of Oral Health. A total of 630 delegates attended the conference including delegates from Singapore and Thailand.

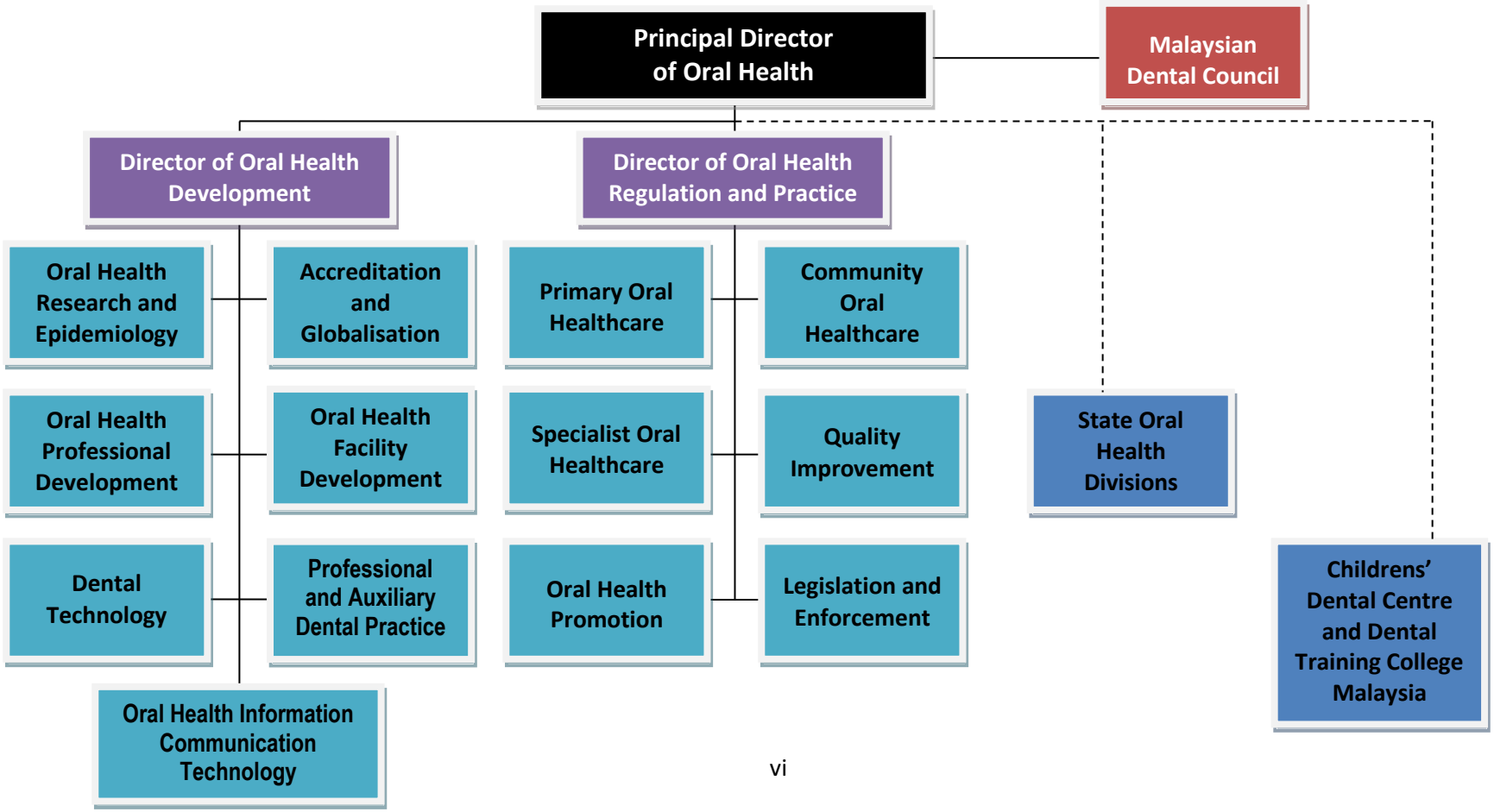
Walkathon Mouth Cancer Awareness Week, 17 November 2013

The Oral Health Division MOH in collaboration with the Oral Cancer Research and Coordinating Centre, University of Malaya (OCRCC), Universiti Teknologi Mara (UiTM) International Medical University (IMU), SEGi University, MAHSA University, Cancer Research Initiatives Foundation (CARIF), Malaysian Association for Dental Public Health Specialists, Malaysian Dental Association, Malaysian Private Dental Practitioners' Association, and the Malaysian Association of Oro-Maxillofacial Surgeons organized a walkathon on the 17 November 2013, in conjunction with the launch of the Mouth Cancer Awareness week 2013. 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 the awareness of the public and private dental practitioner on their roles in preventing and early detection of oral cancer.

Family Day, 15-16 December 2013

The OHD Family Day was held on the 15-16 December 2013 at Puteri Resort Ayer Keroh, Melaka. A total of 41 families of OHD staff had actively participated in several activites. The activities included team building and physical activities and also talks on financial management and audits. It is hoped that the event will promote closer ties between all personnel of the OHD. The Family Day is an annual event and symbolic to show appreciation to each and everyone in the OHD for their contribution in one way or another in keeping to the highest level of performance of the division.

ORGANISATION STRUCTURE
ORAL HEALTH DIVISION, MINISTRY OF HEALTH MALAYSIA



MANAGEMENT AND PROFESSIONAL STAFF
as of 1st MACH 2013

Principal Director of Oral Health
Dr Khairiyah Abd Muttalib

Director of Oral Health Development
Dr Jegarajan S.Pillay

Director of Oral Health Regulation & Practice
Dr Noor Aliyah Ismail

Personal Assistant
Cik Zatun Nakia Mahmud,
Pn Rosyatimah Redzuan,
Pn Halimah Abu Kassim

Oral Health Research and Epidemiology
Dr Yaw Siew Lian, Dr Natifah Che Salleh,
Dr Nurul Ashikin Abdullah, Pn. Fazida Buyong,
Pn. Nurulliyana Mohd Don

Oral Health Promotion
Dr Sharol Lail Sujak, Dr 'Atil athirah Supri,
Dr Hazrizul Azam Zama'at, Cik Kung Siew Gaik,
Pn Farizah Arshad, En Ganesan Karuppiah

Facility Development
Dr Mohd Rashid Baharon,
Dr Suhana Ismail,
Dr Raja Shazleen Raja Dzulkifli,
En Mohd Tohir Ibrahim,
Pn. Sulhana Ismail

Dental Technology
Dr Zainab Shamdol,
Dr Norliza Ismail

Oral Health Professional Development
Dr Salmiah Bustanuddin,
Dr Siti Zuriana Mohd Zamzuri,
Dr 'Ainun Mardhiah Meor Amir Hamzah

Quality Improvement
Dr Zurina Abu Bakar,
Dr Noor Akmal Muhamat,
Pn Zabidah Othman

Malaysian Dental Council
Dr Noormi Othman, Dr Sofiah Mat Ripen,
Dr Azliza Dato' Zabha, Dr Azlina Hashim,
Cik Khairulbariah Mohammad Lukman,
Pn Fazlina Abdullah Sani, En Yusrizal Mohd yusof,
Cik Nur Syhida Hamzah, En Hasan Harun

Oral Health Information Communication Technology
Dr Chu Geok Theng, Dr Mustaffa Jaapar,
Pn. Ismalisa Ismail, Pn Julaiha Mohd Sarif

Community Oral Healthcare
Dr Norlida Abdullah,
Dr Tan Ee Hong

Legislation & Enforcement
Dr Elise Monerasinghe,
Dr Haznita Zainal Abidin,
Dr Siti Kamilah Mohamad Kasim

Accreditation
Dr Rusni Mohd Yusoff,
Dr Norashikin Mustapha Yahya,
Cik Suriyanti Sudin

Primary Oral Healthcare
Dr Savithri a/p Vengadasalam,
Dr Cheng Lai Choo, Dr Nuryastri Md Mustafa
Pn Hayati Mohd Yasin

Specialist Oral Healthcare
Datin Dr Nooral Ziela Junid,
Dr Faizah Kamaruddin, Pn Norliza Jamalludin
Pn Azlina Linggam

Professional & Auxiliary Dental Practice
Dr Che Noor Aini Che Omar, Dr Rohayati Mohd Noor,
Pn Fatimah Rahman, En Abd Rahaman Jaafar,
Pn Haziah Hassan, Pn Sarina Othman

Management & Administrative
En Muhammad Nasrul Mohd Sati, En Hidzer Harun,
Pn Suzana Ahmad, Cik Zahratul Aini Paiman, Pn Nik Iwani Nik Mohd Azami, Pn Mastura Mohamad Amin,
Pn Kamariah Ibrahim, Pn Norulhuda Ghazali, En Mohd Fadzil Hamzah,
Pn Nurul Asyikin Muhamad, Pn Siti Almaisarah Abdullah Saimi, Pn Rahanah Mat Nor
Pn Umi Kalsom Azmi, Cik Nor Azimah Abd Manab, Pn Atika Anisa Mohd, En Mohamad Agil Mohamad Yusoff,
En Raymond Rengas, En Mohd Raszali Mahmud, Pn Rosilawani Ismail
En Azman Alias, En Mohammad Fuadht Shahrudin, En Mohd Sabre Omar

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-centred care and
the building of partnerships for health

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 2013, the Programme received a total adjusted operational allocation of RM617,228,401.00 (*Peruntukan yang Dipinda*) which was 13.8% above that of 2012 and 15.6% above that of 2011 **(Table 1).**

Table 1: Adjusted Operational Allocation, Oral Health Programme, 2010-2013

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

Source: Finance Division, MOH

Expenditures covered the following:

a. Existing Policies *(Dasar Sedia Ada)*
b. New Policies *(Dasar Baru)*
c. One-off Programmes/Activities
d. In-service Training (*Latihan Dalam Perkhidmatan),* and
e. MS ISO 9001 activities

The final expenditure of RM691,503,769.49 showed over-spending of 12.9% above the final adjusted allocation received for the year **(Table 2)**. This excess above the adjusted budget was due to the need for the Ministry to re-instate the *Bayaran Insentif Kesihatan Awam Pergigian (BIKAP)* to dental officers. The majority of the budget (99.1 % or RM685,266,714.81) was under Existing Policies (*Dasar Sedia Ada)*. In addition, RM199,000.00 of the operational budget for assets was used for the building of a mobile dental laboratory and RM69,500.00 for equipment for the Division.

Expenditure under Existing Policies (*Dasar Sedia Ada)* 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, 2013

Activity	Object Code	Final Adjusted Allocation (RM)	Final Expenditure (RM)	% Final Expenditure to Final Adjusted Allocations
Existing Policies *(Dasar Sedia Ada)*	050000	610,670,836.00	685,266,714.81	113.1
New Policies *(Dasar Baru)*	100500	905,300.00	899,742.88	99.4
One-off (Assets)	110100	2,390,490.00	2,086,313.41	87.3
In-service Training (*Latihan Dalam Perkhidmatan)*	010500	2,914,660.00	2,913,067.29	99.9
MS ISO 9001	010300	347,115.00	337,931.10	97.4
TOTAL	-	**617,228,401.00**	**691,503,769.49**	**112.9**

Source: Finance Division and Oral Health Division, MOH

2. FINANCIAL MANAGEMENT, ORAL HEALTH DIVISION

In 2013, the Division received RM3,950,424.00, of which 98.4% (RM3,887,235.70) 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 and Oral Health Carnival)
d) MS ISO 9001
e) One-off for Training
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 RM250,000.00 from MOH Management for the National Innovation Award which is an annual event and the Oral Health Carnival (*Wacana Boneka)* in 2013.

The MS ISO 9001:2008 fund of RM13,600.00 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 RM114,689.10 (97.9%) of the One-off allocation of RM117,164.00 was spent on assets for the MDC.

RM1,524,660.00 (50.8%) 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 2013, the Programme also received RM100,000.00, equal to that in 2012, under the 'One-off for Training' Development Fund of which 93.9% (RM93,994.22) was spent on 11 dental officers attending conferences and training abroad.

Table 3: Adjusted Financial Allocation and Expenditure, Oral Health Division, MOH, 2013

Activity	Object Code	Adjusted Allocation (RM)	Final Expenditures (RM)	% Final Expenditures to Initial Allocations
Management of Oral Health	050100	1,818,000.00	1,758,673.09	96.7
Primary Oral Healthcare	050200	227,000.00	226,991.44	100.0
MOH Management (Innovation Award and Oral Health Carnival)	010100	250,000.00	249,746.54	99.8
MS ISO 9001:2008	010300	13,600.00	13,566.00	99.8
One-off (assets)	110100	117,164.00	114,689.10	97.9
In-service Training	000105	1,524,660.00	1,523,569.53	99.9
TOTAL	**-**	**3,950,424.00**	**3,887,235.70**	**98.4**

Source: Oral Health Division, MOH

3. DEVELOPMENT FUNDS RECEIVED BY THE ORAL HEALTH PROGRAMME

In 2012, the Programme received RM15 million in Development Funds (BP 011; P42) to procure assets for dental activities. In 2013, the Programme was given RM10 million in Development Funds under Financial Code BP 011. The funds were disbursed to all the states.

The Programme also received RM3 Million for In-service Training, of which 97.1% (RM2,913,067.29) was spent; the other 2.9% having been left with the Training Management Division for use for attachments abroad.

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

The following development projects were in various states of approval and completion in 2013:

- Three dedicated dental projects were approved under Rolling Plan 1 of the 10th Malaysia Plan (10MP) - *Klinik Pakar Pergigian Kota Setar,* Kedah*, Klinik Pergigian Bau*, Sarawak and *Klinik Pergigian Pakar dan Makmal Mak Mandin,* Pulau Pinang

- Two dedicated dental projects were approved under Rolling Plan 2, 10MP - Public Water Fluoridation in Perak and Sabah

- Eight dedicated dental projects were approved under Rolling Plan 3, 10MP 2013 at a total cost of RM29.01 Million.
    - 6 projects for Mobile Dental Team for 6 states with a total of 45 teams were approved. The allocation of RM17,350,000.00 were received based on specification for portable dental units and vehicle.
    - One Mobile Dental Clinic (bus type) was approved for a 2- chair surgery for Perak
    - Standalone Dental Clinic KP Tanjung Karang, Selangor was approved.

- The design and room data for dental component in the new Health Clinic Type 3 Teja was reviewed – the proposed improvement was based on problems encountered in the standard plan of Health Clinic Type 3 Cermai.

Technical and Specification Adherence (TSA) for new development projects were provided as and when required.

3.2 Procurement of Assets (BP 011)

A total of 46 new assets for projects were proposed to the Development Division, MOH amounting to RM10 million, of which more than RM 7 Million were allocated to dental specialists.

3.3 Upgrading of Current Facilities (BP 06)

In addition, 42 dental facilities/projects under 'old and critical categories' were proposed for upgrading under Rolling Plan 3 of the 10MP.

3.4 Hospital and Health Clinic Support Services – MEET Project

The concession agreement at MOH level and *Unit Kerjasama Awam Swasta (UKAS)* was discussed and the cost of equipment was finalized in 2013. Verification of documents relating to oral health assets under the MEET project by Quantum Medical Solutions Bhd (QMS) was finalised by the Oral Health Division.

3.5 Dental Facilities in Urban and Rural Transformation Centres

Development of dental clinics in the Urban Transformation Centres (UTC) and Rural Transformation Centres (RTC) was monitored. At the end of 2013, six UTCs with dental clinics were in daily operation:

1. UTC Melaka
2. UTC Kuala Lumpur at Pudu Sentral
3. UTC Ipoh, Perak
4. Mini UTC Sentul
5. UTC Kuantan, Pahang
6. UTC Alor Setar, Kedah.

In addition, four Rural Transformation Centres (RTCs) were established in 2013 which included oral health services delivery to rural populations. Oral healthcare is provided through mobile dental teams and mobile dental clinics at:

1. RTC Gopeng, Perak
2. RTC Wakaf Che Yeh, Kota Bahru, Kelantan
3. RTC Kuala Linggi, Malacca
4. RTC Pekan, Pahang

3.6 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 requirements 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.

For the first time, specifications for a **prototype Mobile Dental Laboratory** was prepared and the mobile lab built in 2013 under *Dasar Sedia Ada* of the Programme at a total cost of RM239,030.00, including equipment.

3.7 Dental Equipment and Vehicles

The Secretary General approved the procurement of primary and specialist equipment and non-ambulance vehicles under the Development Budget amounting to RM10,805,798.00.

- new and replacement dental equipment were compiled and submitted to the Development Division, MOH
- the database on vehicles was updated to project the current number of vehicles, the number Beyond Economic Repair (BER) and those for replacement, and
- the proposal for vehicle norms based on dental facilities was sent to Planning 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 between information on facilities and human resource was finally established after two years of compilation on an MS Access programme.

3.9 Evaluation of Development Projects

The development of Dental Clinic Baling was chosen of an outcome study and presented to the Implementation and Coordination Unit, Prime Minister Department. The evaluation was well-accepted and scored 88.7%.

3.10 Training

Kursus Pembangunan dan Perkembangan Fasiliti Kesihatan Pergigian was held on 23 - 25 September 2013 at Best Western Dua Sentral Hotel, KL. 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 HR.

4. MONITORING STATE FINANCIAL MATTERS

The OHD also monitor allocation and expenditure at state level. In 2013, under Existing Policies (*Dasar Sedia Ada),* Sarawak received the highest allocation, followed by Selangor and Perak. All states spent more than their initial allocations, with Sarawak being the highest (136.5%), followed by Perlis (118.3%) and Sabah (117.2%) **(Table 4).** The overspending was due to increase in emoluments.

Table 4: Adjusted Budget Allocations and Expenditures under *Dasar Sedia Ada* by State and Institution, 2013

State	Adjusted Allocation (RM)	Final Expenditures (RM)	% Final Expenditure to Initial Allocation
Perlis	13,413,000.00	15,867,472.56	118.3
Kedah	42,717,717.00	45,152,860.00	105.7
Pulau Pinang	34,180,800.46	36,736,431.81	107.5
Perak	55,500,251.00	60,597,800.61	109.2
Selangor	59,835,449.40	64,195,056.45	107.3
Negeri Sembilan	34,118,380.00	38,165,582.96	111.9
Melaka	24,776,771.56	28,324,215.56	114.3
Johor	53,195,640.00	56,540,223.07	106.3
Pahang	43,379,340.00	48,913,920.23	112.8
Terengganu	35,253,900.00	39,656,227.44	112.5
Kelantan	41,059,017.00	46,264,639.05	112.7
Sabah	54,344,791.54	63,671,660.13	117.2
Sarawak	62,002,157.00	84,610,130.20	136.5
FT KL & Putrajaya	34,590,504.00	38,380,155.55	110.9
FT Labuan	2,916,460.00	2,945,541.50	101.0
OHD, MOH	8,595,000.00	9,240,335.54	107.5
KLPM	403,000.00	398,656.77	98.9
HKL	5,628,454.00	5,838,024.78	103.7
IMR	150,000.00	150,000.00	100.0
TOTAL	**606,058,402.96**	**686,069,918.21**	**113.2**

Source: Oral Health Division, MOH

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 15,278 posts for oral health personnel in the Ministry of Health in 2013, an increase of 15% from 13,315 in 2012. Out of 15,278 posts, 3,307 (22%) were dental officers' posts, of which 86% were filled (**Table 5)**.

Table 5: Oral Health Personnel in MOH, 2011 – 2013

CATEGORY	2011			2012			2013		
	Post	Filled	% vac	Post	Filled	% vac	Post	Filled	% vac
Dental Officers	2,219	2,094	6	2,721	2,461	10	3,307	2,844	14
Dental Nurse	2,803	2,562	9	2,815	2,574	9	2,835	2,626	7
Dental Technologist	937	815	13	943	858	9	987	892	10
Dental Surgery Assistants	3,474	3,173	9	3,583	3,422	4	3,981	3,503	12
Others	3,232	2,954	9	3,253	3,055	6	4,168	3,064	26
TOTAL	**12,665**	**11,598**	**8**	**13,315**	**12,370**	**7**	**15,278**	**12,929**	**15**

Source: Oral Health Division, MOH
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 180 (73.8%) 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, 2013

State	Dental Officers			Clinical Dental Specialists		
	Post	Filled	% vac	Post	Filled	% vac
West Malaysia	2,560	2,210	13.67	211	160	24.17
Sabah	219	215	1.83	13	9	30.77
FT Labuan	11	7	36.36	0	0	0.00
Sarawak	273	232	15.02	20	11	45.00
Total	3,063	2,664	13.03	244	180	26.23

Source: Oral Health Division, MOH
Vac= vacant *Inclusive of *Simpanan Dalam Latihan* & contract posts for non-retirees

1.2 New Posts Approved

A total of 1,201 new posts were approved in 2013 for the whole Programme **(Table 7)**, compared to 652 in 2012.

Table 7: New Posts Approved, 2013

CATEGORY OF PERSONNEL	NO. OF POSTS APPROVED
Dental Specialists	
• Grade U41/44/48/52/54	22
Dental Officers	
• Grade U41/44/48/52/54	564
Trainers (*Pengajar)*	
• Grade U41	1
• Grade U48	29
ICT Officers *(Pegawai Teknologi Maklumat)*	
• Grade F44	1
Dental Nurses	
• Grade U32	8
• Grade U36	10
• Grade U40	1
Dental Technologists	
• Grade U29/U32	15
• Grade U32	24
• Grade U36	5
Dental Surgery Assistants	
• Grade U17/U22	363
• Grade U22	26
• Grade U24	5
Support Staff	
• Assistant Executive Officer (*Penolong Pegawai Tadbir)*	1
• Administrative Assistant *(Pembantu Tadbir N17/N22)*	45
• Attendants (*Pembantu Perawatan Kesihatan Grade U3/U12)*	38
• Drivers *(Pemandu Kenderaan Bermotor R3/R6)*	43
TOTAL	**1,201**

Source: Oral Health Division, MOH

2. PROMOTION EXERCISES

A total of 618 dental officers from various grades were promoted. There was one promotion to JUSA Grade A and one to JUSA Grade B (**Table 8).** Twenty five clinical dental specialists were promoted to Special Grade C and two to Special Grade A in 2013.

Table 8: Promotion Exercise for Clinical Specialists and Dental Officers, 2013

Category	Grade										Total
	Special A	Special B	Special C (KUP)	JUSA A	JUSA B	JUSA C	U54	U52	U44	U48	
Clinical Specialist	2	-	25	-	-	-	14	1	-	-	42
Dental officer	-	-	-	1	1	-	16	60	404	136	618
Total	**2**	**-**	**25**	**1**	**1**	**-**	**30**	**61**	**404**	**136**	**660**

Source: Oral Health Division, MOH

For dental auxiliaries, 365 from various categories were also promoted (**Table 9**).

Table 9: Promotion Exercises for Dental Auxiliaries, 2013

Category	Grade								Total
	U40	U38	U36	U32	KUP U32	U29	U24	U22	
Dental Nurses	3	12	19	15	178	-	-	-	**227**
Dental Technologists	1	1	14	21	2	-	-	-	**39**
Dental Surgery Assistants	-	-	-	-	-	-	9	90	**99**
Total	**4**	**13**	**33**	**36**	**180**	**0**	**9**	**90**	**365**

Source: Oral Health Division, MOH

3. DENTAL SPECIALTIES IN THE MINISTRY OF HEALTH

There are nine dental specialty disciplines recognised under the Oral Health programme. These are Oro-Maxillofacial 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 5.2% from 276 in 2012 to 291 in 2013. Among these there were 111 Dental Public Health Specialists in MOH (38.1%) in 2013 (**Table 10).**

Table 10: Number of Dental Specialists in MOH, 2013

Discipline	OMFS	Orthodontics	Periodontics	Paediatric Dentistry	Oral Pathology / Oral Medicine	Restorative Dentistry	Special Needs Dentistry	Forensic Odontology	Dental Public Health	Total
2009	45	30	18	25	6	14	0	0	129	**267**
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**

Source: Oral Health Division, MOH

4. NETT GAIN/LOSS OF DENTAL OFFICERS

In 2013, a total of 693 dental officers joined the MOH, while 129 left the service for various reasons, resulting in an overall nett gain of 564 in the MOH. There has been a steady nett gain of dental officers in the MOH since 2005 **(Table 11).**

Table 11: Nett Gain/Loss of Dental Officers in MOH, 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Joined MOH	151	145	179	232	215	222	297	415	514	693
Left MOH	**24**	**56**	**78**	**107**	**84**	**81**	**104**	**105**	**96**	**129**
Retired (Compulsory)	6	7	10	20	9	2	10	13	3	1
Retired (Optional)	3	9	5	2	0	2	5	2	3	5
Resigned	12	32	48	73	54	54	72	82	89	122
Released with Permission	2	6	14	10	20	23	16	7	0	0
Other Reasons	1	2	1	2	1	0	1	1	1	1
Nett Gain/Loss	**127**	**89**	**101**	**125**	**131**	**141**	**193**	**310**	**418**	**564**

Source: Oral Health Division, MOH

5. DENTAL OFFICERS ON CONTRACT WITH THE MINISTRY

Dental officers are 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:

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

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 - 2013

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

Source: Oral Health Division, MOH

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 2013, there were 1,670 dental facilities with 3,067 dental units in the MOH **(Table 13).**

Table 13: Oral Health Facilities, MOH 2013

Facility Type	Facilities	Dental Units
Stand-alone Dental Clinics	52*	450
Dental Clinics in Health Centres	572	1336
Dental Clinics in Hospitals	66	340
School Dental Clinics	925	871
Mobile Dental Clinics	27	44
Mobile Dental Laboratories	1	-
1Malaysia Mobile Dental Clinics • Buses • Boats	 1 1	 1 0
Dental Clinic in 1Malaysia Clinics • Urban Transformation Centres (UTC) • Rural Transformation Centres (RTC)	 7 4	 12 0
Others: • Prisons/ *Maktab Rendah Sains MARA (MRSM) Pusat Serenti,* Handicapped Children's Centres and Children Spastic Centres.	14	13
Total	**1,670**	**3,067**

Source: Health Informatics Centre, MOH

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

In addition, there were 567 mobile dental teams, with an estimated 2,196 portable dental units **(Table 14**).

Table 14: Mobile Dental Teams, MOH 2013

Facility Type	Facilities	Dental Units
Mobile Dental Team • School Mobile Dental Teams (Primary and Secondary Schools) • Pre-School Mobile Dental Teams • Elderly & Special Needs Mobile Dental Teams	 428 136 3	
Total	**567**	**2196****

Source: Health Informatics Centre, MOH

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

Oral Health Development

Professional Development
Oral Health Promotion
Epidemiology and Research
Dental 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 19 March 2013:

a. Master of Restorative Dentistry (Conservative), *Universiti Sains Malaysia*
b. Master of Restorative Dentistry (Prosthodontics), *Universiti Sains Malaysia*
c. Master of Restorative Dentistry (Periodontics), *Universiti Sains Malaysia*
d. Master of Oral and Maxillofacial Surgery, *Universiti Sains Malaysia*
e. Master of Paediatric Dentistry, *Universiti Sains Malaysia*

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

The Medical Special Committee (*JKP*) endorsed the following post-graduate qualifications on 29 March 2013:

a. Master of Dental Public Health, *Universiti Sains Malaysia*
b. Doctor of Dental Public Health (DrDPH), *Universiti Sains Malaysia*
c. Doctor of Clinical Dentistry (Oral and Maxillofacial Surgery), *Universiti Kebangsaan Malaysia*
d. Doctor of Clinical Dentistry (Periodontology), *Universiti Kebangsaan Malaysia*
e. Doctor of Clinical Dentistry (Restorative Dentistry), *Universiti Kebangsaan Malaysia*
f. Doctor of Clinical Dentistry (Paediatric Dentistry), *Universiti Kebangsaan Malaysia*
g. Doctor of Clinical Dentistry (Orthodontics), *Universiti Kebangsaan Malaysia*

The *JKP* endorsed the following post-graduate qualifications on 5 September 2013:

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 (Orthodontics), *Universiti Teknologi Mara*
d. Doctor of Clinical Dentistry (Periodontology) University of Adelaide, Australia
e. Master of Science in Clinical Dentistry (Periodontology) University of Manchester, United Kingdom
f. Doctor of Clinical Dentistry (Periodontology) University of Otago, New Zealand
g. Diploma of Memberships in Restorative Dentistry (Prosthodontics) Royal College of Surgeons of England
h. Diploma of Memberships in Restorative Dentistry (Prosthodontics) Royal College of Physicians and Surgeons, Glasgow
i. Diploma of Memberships in Prosthodontics, Royal College of Surgeons Edinburgh

The JKP also endorsed the following post-graduate qualifications on 6 November 2013:

a. Doctor of Clinical Dentistry (Paediatric Dentistry), University of Melbourne, Australia
b. Master of Dental Surgery (Paediatric Dentistry) and Advanced Diploma in Paediatric Dentistry, University of Hong Kong

Holders of the post-graduate Diploma in Community Oral Health and Epidemiology must apply individually to the *JKP* for endorsement of their qualifications.

2. GAZETTEMENT OF DENTAL SPECIALISTS

2.1 Gazettement of Dental Public Health Specialists

Decisions on improving the JPA Memorandum for recognition of Dental Public Health Specialists (DPHS) were made on 4 October 2013 as follows:

a. to recognise DPHS in accordance with the proposed Dental Act.
b. to further clarify the role and function of DPHS – Specialists Insentive Payment (*Bayaran Insentif Pakar - BIP)* can only be given to specialists carrying out the DPHS role and function.
c. to present the career hierarchy pathway for DPHS to the Secretary General, Ministry of Health Malaysia.

The DPHS post-graduate training pathway was presented to the Director General of Health and then approved by the JKP on 5 December 2013. The **Guidelines for Gazettement of Dental Public Health Specialists in the MOH** was later approved by the Director General of Health on 31 December 2013.

There were 54 Dental Public Health Specialists gazetted in 2013 **(Table 15).**

Table 15: Dental Public Health Specialists Gazetted, 2013

No.	Name	Gazettement Date	Pre Gazettement Period	Posting
1.	Dr. Maryana bt. Musa	25.09.2013	2 years	*PKPD Kuala Langat*
2.	Dr. Hasni bt. Mat Zain	25.09.2013	2 years	*KP Ledang*
3.	Dr. Jessina Sharif bt. Othman	25.09.2013	3 years	*PKPD Jeli*
4.	Dr. Lydia Mason a/k Lionel	25.09.2013	4 years	*KP Kelana Jaya*
5.	Dr. Azilina bt. Abu Bakar	25.09.2013	4 years	*Pej. TPKN (G) Terangganu*
6.	Dr. Siti Zuriana bt. Mohd Zamzuri	25.09.2013	4 years	*Ibu Pejabat, KKM*
7.	Dr. Fauziah bt. Ahmad	25.09.2013	5 years	*PKPD Kulim, Kedah*
8.	Dr. Asmani bt. Abd Razak	25.09.2013	5 years	*PKPD Kuala Krai*
9.	Dr. Savithri a/p Vengadasalam	25.09.2013	5 years	*Ibu Pejabat, KKM*
10.	Dr. Noormi bt. Othman	25.09.2013	5 years	*Ibu Pejabat, KKM*
11.	Dr. Zainab bt. Shamdol	25.09.2013	5 years	*Ibu Pejabat, KKM*
12.	Dr. Salleh b. Zakaria	25.09.2013	5 years	*Ibu Pejabat, KKM*
13.	Dr. Nama Bibi Saerah bt. Abdul Karim	25.09.2013	7 years	*Pej TPKN(G) Perak*
14.	Dr. Habibah bt. Yaacob	25.09.2013	7 years	*KP Bandar Maharani*
15.	Dr. Kamariah bt. Seman	25.09.2013	7 years	*Pej TPKN(G) Kelantan*
16.	Dr. Wan Salina bt. Wan Sulaiman	25.09.2013	7 years	*KP Bachok, Kelantan*
17.	Dr. Rozihan bt. Mat Hasan	25.09.2013	8 years	*Pej. TPKN (G) Selangor*
18.	Dr. Rapeah bt. Mohd Yassin	25.09.2013	8 years	*Pej. TPKN (G) Pahang*
19.	Dr. Badariah bt. Thambi Chek	25.09.2013	8 years	*KPB Pasir Mas Kelantan*
20.	Dr. Misah bt. Ramli	25.09.2013	9 years	*PKPD Bernam*
21.	Dr. Nor Haslina bt. Mohd Hashim	25.09.2013	9 years	*PKPD Petaling*
22.	Dr. Norashikin bt. Mustapha Yahya	25.09.2013	9 years	*Ibu Pejabat, KKM*
23.	Dr. Tay Hong Luk	25.09.2013	9 years	*Pejabat TPKN(G) Perlis*
24.	Dr. Zurina bt. Abu Bakar	25.09.2013	9 years	*Ibu Pejabat, KKM*
25.	Dr Amdah bt. Mat	25.09.2013	10 years	*TPKN(G) Selangor*
26.	Dr. Mazlina bt. Mat Desa	25.09.2013	10 years	*TPKN(G) Selangor*
27.	Dr. Maznah bt. Mohd Nor	25.09.2013	10 years	*Pej TPKN (G) N.Sembilan*
28.	Dr. Natifah bt. Che Salleh	25.09.2013	10 years	*Ibu Pejabat, KKM*
29.	Dr. Norlida bt. Abdullah	25.09.2013	10 years	*Ibu Pejabat, KKM*
30.	Dr. Nurkurshiah bt. Selamat	25.09.2013	10 years	*KP Tapah, Perak*
31.	Dr. Rusli b. Ismail	25.09.2013	10 years	*TPKN (G) Terengganu*
32.	Dr. Sheila Rani Ramalingam	25.09.2013	10 years	*Pej. TPKN (G) Johor*
33.	Dr. Tan Ee Hong	25.09.2013	10 years	*Ibu Pejabat, KKM*
34.	Dr. Zaiton bt. Tahir	25.09.2013	10 years	*PKPD Kota Belud*
35.	Dr. Faizah bt. Kamaruddin	25.09.2013	10 years	*Ibu Pejabat, KKM*
36.	Dr. Fauziah bt. Md Nor	25.09.2013	11 years	*PKPD Gombak*
37.	Dr. Fauziah bt. Jaafar	25.09.2013	11 years	*Pej TPKN(G) P.Pinang*
38.	Dr. Morni bt. Abdul Rani	25.09.2013	11 years	*KBB Kuala Kubu Baru*
39.	Dr. Ong Ai Leng	25.09.2013	11 years	*KP Barat Daya, P.Pinang*
40.	Dr. Azizah bt. Mat	25.09.2013	12 years	*PKPD Sepang, Selangor*
41.	Dr. Siow Yon Yin	25.09.2013	12 years	*Pej TPKN(G) N.Sembilan*
42.	Dr. Leslie Sushil Kumar a/l D.Geoffrey	25.09.2013	14 years	*Pej. TPKN(G) WPKL*
43.	Dr. Syed Nasir b. Syed Alwi	25.09.2013	14 years	*KP Larut, Matang dan Selama*
44.	Datin Dr. Noralaini bt. Ismail	25.09.2013	17 years	*KP Putrajaya*
45.	Dr. Abdul Razak b. Osman	25.09.2013	18 years	*Pej TPKN(G) P.Pinang*
46.	Dr. Inderjit Kaur a/p Mahinder Singh	25.09.2013	19 years	*KP Kinta, Perak*
47.	Dr. Misliah bt. Ahmad	25.09.2013	19 years	*Pej. TPKN(G) WPKL*
48.	Dr. Dahari b. Dol Patah	25.09.2013	19 years	*KP Teluk Wanjah*
49.	Dr. Habesah bt. Sulaiman	25.09.2013	20 years	*Pej TPKN (G) Kelantan*
50.	Dr. Wardati bt. Abd. Malek	25.09.2013	25 years	*Pejabat TPKN (G) Perak*
51.	Datin Dr. Ho Saw Har	25.09.2013	26 years	*KP Jempol*
52.	Dr. S. Gunaseelan a/l Subramaniam	25.09.2013	29 years	*KP Larut, Matang dan Selama*
53.	Dr Andrew Eddy	24.12.2013	17 years	*Bah. Kota Samarahan*
54.	Dr Nurul Ashikin bt. Abdullah	24.12.2013	1 year	*Ibu Pejabat KKM*

Source: Oral Health Division, MOH

2.2 Gazettement of Clinical Dental Specialists

There were four meetings of the Dental Specialist Gazettement and Evaluation Committee [*Jawatankuasa Penilaian Pewartaan Pakar Pergigian (JPPPP)]* in 2013 (22 March, 29 May, 25 September, and 24 December) to assess and make recommendations to the JKP for gazettement of dental specialists in the MOH. Sixteen clinical specialists were gazetted in 2013 **(Table 16).**

Table 16: Dental Clinical Specialists Gazetted, 2013

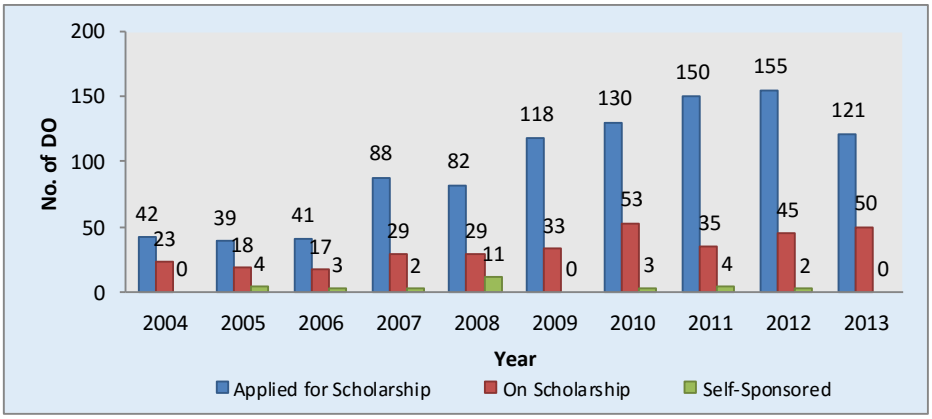
No.	Name	Pre-Gazettement Period	Gazettement Date	Posting Place
1	Dr G Krishana Ananda	6 months	03/03/2013	*Hosp Queen Elizabeth, Sabah*
2	Dr Sherrie Chong Mei Yee	9 months	02/06/2013	*Hosp Tengku Ampuan Rahimah*
3	Dr Hassiah bt. Salleh	6 months	03/03/2013	*Hosp Kuala Krai*
4	Dr Mohd Ridzuan b. Mohd Razi	12 months	20/09/2012	*Hosp Sultanah Aminah, Johor*
5	Dr Renukanth a/l Patabi Cheta Raman	6 months	03/03/2013	*Pusat Pakar Pergigian Jalan Zaaba*
6	Dr Tay Shieh Fung	12 months	15/09/2013	*KP Teluk Wanjah*
7	Dr Marina bt. Mubin	6 months	30/11/2013	*KP Peringgit*
8	Dr Ayros –Asmawati bt. Mohd Ayub	6 months	30/11/2013	*KP Hospital Sultanah Nur Zahirah*
9	Dr Shanti a/p Muniandy	6 months	12/12/2013	*KP Mak Mandin*
10	Dr Nur Laila Sofia bt. Ahmad	9 months	02/06/2013	*Pusat Pakar Pergigian Jln Zaaba,*
11	Dr Aswani bt. Che Ahmad	12 months	13/09/2013	*KP Jalan Mahmood, Kelantan*
12	Dr Albira bt. Sintian	6 months	18/09/2013	*KP Hosp Queen Elizabeth II, Sabah*
13	Dr Malathi a/[Deva Tata	6 months	18/09/2013	*Pusat Pakar Pergigian Jalan Zaaba*
14	Dr Juhaida bt. Salleh	6 months	18/09/2013	*Pusat Pakar Pergigian Jalan Zaaba*
15	Dr Farah Salwa bt. Abdul Rahim	6 months	18/09/2013	*KP Batu 2 1/2 Kemaman*
16	Dr Ainal Muaizzah bt. Anuar	12 months	14/11/2013	*KLPM*

Source: Oral Health Division, MOH

3. POST-GRADUATE TRAINING FOR DENTAL PROFESSIONALS

Out of 121 dental officers who applied (including 17 appealing from 2012/2013), 61 (50.4%) were offered Federal Scholarships for postgraduate training in 2013. Only 50 were taken up due to limited training slots (**Figure 1**).

Figure 1: Dental Officers Pursuing Post-graduate Training, 2004-2013



Source: Oral Health Division, MOH

38 pursued post-graduate training at local universities, while 12 went abroad, including those for 'Areas of Special Interest' **(Table 17**).

Table 17: Dental Officers Pursuing Postgraduate Training by Discipline, 2013

Discipline	On Scholarship		Total
	Local	Abroad	
1. Oral & Maxillofacial Surgery	7	-	7
2. Orthodontics	10	5	15
3. Periodontics	6	3	9
4. Paediatric Dentistry	6	2	8
5. Restorative Dentistry	3	-	3
6. Oral Pathology & Oral Medicine	-	-	0
7. Special Needs Dentistry	-	1	1
8. Dental Public Health	6	-	6
9. Area of Special Interest: Management of Oral Tumours and Rehabilitation	-	1	1
TOTAL	**38**	**12**	**50**

Source: Oral Health Division, MOH

40 dental officers completed post-graduate training in 2013 **(Table 18).**

Table 18: Dental Officers who Completed Post-graduate Training, 2013

Discipline	Local Universities	Abroad
1. Oral & Maxillofacial Surgery	7	1
2. Orthodontics	5	9
3. Periodontic	4	3
4. Paediatric Dentistry	1	2
5. Restorative Dentistry	-	1
6. Oral Pathology & Oral Medicine	1	-
7. Special Needs Dentistry	-	2
8. Dental Public Health	2	-
9. Areas of Special Interest a. Paediatric Oral Surgery b. Management and Rehabilitation of Oral Oncology		 1 1
TOTAL	**20**	**20**

Source: Oral Health Division, MOH

Six officers applied for extension of training up to 2014 - Paediatric Dentistry (2), Oral and Maxillofacial Surgery (2), Orthodontics (1) and Periodontics (1).

4. PROFESSIONAL DEVELOPMENT OF DENTAL AUXILIARIES

4.1 Post-Basic Training

In 2013, the post-basic training in Periodontics for dental nurses was conducted from June to December at the Children's Dental Centre and Dental Training College in Penang (KLPM). Out of 40 applicants, 25 were offered the course, but only 22 accepted and completed the course **(Table 19).**

Table 19: Dental Auxiliaries trained in Post-basic Courses, 2009-2013

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	-	-

Source: Oral Health Division, MOH

The findings of the National Oral Health Survey for Adults (NOHSA) 2010 showed an increase in periodontal treatment needs among adults. In view of this, the post-basic course in Periodontics for Dental Nurses was repeated in 2013.

The members of the *Mesyuarat Penambahbaikan Kurikulum Pengkhususan Pergigian Periodontik* (from the Oral Health Division, *Bahagian Pengurusan Latihan*, and KLPM) met on 25-26 February 2013 and a community-based component was incorporated into the post-basic Periodontics curriculum for dental nurses. A 'Training for Trainers' (TOT) course was held on 5 July 2013 involving periodontists from all states.

Guidelines were developed to clarify the scope for Local Preceptors (LP), including appointed dental officers at the *Pusat Latihan Amal* (PLA), who oversee candidates at Primary Care Clinics. Discussion on the log book *Pengkhususan Pergigian Periodontik* and briefing on the *Garis Panduan Pelaksanaan Latihan Jururawat Pergigian Pengkhususan Periodontik Di Pusat Latihan Amali* was held on 30 July 2013, following which the course was held from July-December 2013.

4.2 Topping up Curriculum for Dental Surgery Assistants

It was proposed that the duration of training for Dental Surgery Assistants (DSA) be extended from 2 to 2½ years to enable them to qualify for an upgrading of scheme from Certificate to Diploma as proposed by the Director General of Health, given also that the minimum entry requirement for the course would be raised from PMR to SPM. The proposal paper was submitted to the Human Resource Division on the 22 October 2012.

However, a meeting on 25 July 2013 with the Secretary General, Ministry of Health disagreed with the upgrading from Certificate to Diploma, which would mean the Creation of New Scheme (*Pewujudan Skim Baru)* but instead recommended 'topping up' the certificate curriculum to enable a Improvement of Scheme (*Penambahbaikan Skim)* for DSAs.

The follow-up discussion on 20 November 2013 among officers from the Oral Health Division, Children's Dental Centre and Malaysian Dental Training College Penang (KLPM) and Training Management Division made the following decisions:

a) **Duration for topping up -** to increase training duration from 2 to 2½ years with the topping up curriculum to include learning outcomes.

b) **Topping up course for personnel within the service**
KLPM proposed the implementation of distance learning with more theory components in the curriculum. A log book on project work will be included.

The District Dental Officer will act as the Local Preceptor. Number of students to each Local Preceptor will be determined according to seniority.

c) **Curriculum approval and expected effective date of implementation**

- The curriculum is expected to be completed in January 2014 and will be presented to the Principal Director of Oral Health and Board of Education in February 2014.
- Once approved by the Board of Education, the Human Resource Division MOH will prepare a proposal to be presented to the Human Resource Development Panel meeting (*Panel Pembangunan Sumber Manusia)* in March 2014.
- Upon agreement, a proposal will be brought to the Organisation Development Division, Public Service Department and subsequently to the Special Committee for Posts and Emolument *(Jawatankuasa Khas Perjawatan dan Gaji),* chaired by the Prime Minister, for the approval of posts for Dental Surgery Assistant Grade U19/24/26. The expected effective year for topping up the curriculum for the DSAs in the Ministry of Health Malaysia will be in 2014 or 2015.

4.3 Review of the 'Skim Perkhidmatan Bersepadu' for Dental Nurses and Dental Technologists in the Ministry of Health

The proposals for *Skim Perkhidmatan Bersepadu* for Dental Nurses and Dental Technologists were put on hold for an indefinite period of time, until the issue of Degrees for Dental Technologists and Dental Nurses is settled.

5. IN-SERVICE TRAINING FOR DENTAL PERSONNEL

From a total of RM2.95 million received in 2013, RM2,914,660 (98.8%) was allocated for in-service training in the country, while the remaining RM35,340 (1.2%) 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	4756	1,067,638.10	99.8
	Overseas	708,801.00	30	688,870.00	97.2
2008	Local	1,199,533.00	5424	1,192,942.16	99.8
	Overseas	733,800.00	23	711,252.12	96.9
2009	Local	1,253,000.00	3434	1,246,149.28	99.5
	Overseas	1,047,000.00	27	850,000.00	81.2
2010	Local	1,825,000.00	12433	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	14929	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

Source: Oral Health Division, MOH

5.1 Local In-Service Training

As of end October 2013, 23 Consultancy Training and Courses for Specialties were conducted and attended by 529 Dental Specialists and Dental Officers (**Table 21**).

Table 21: Consultancy Training & Courses for Specialties, 2013

Specialty	Training Topic	Consultant & Participants	Date	Expenses	Venue
Dental Public Health Specialists (DPHS)	TOT in Basic Statistical Methods in Oral Health Research	14 DPHS	17-19/3/2013	RM10,130	Hotel Concorde Inn, KLIA
	Calibration and Standardisation of Examiners for Enamel Opacities and Fluorosis Indices	25 DPHS	2-5/9/2013	RM15,375	Hotel Prime City, Kluang
	Training Workshop on Costing of Casemix System	5 DPHS	22-23/1/2013	RM5,000	*Pusat Perubatan Universiti Kebangsaan Malaysia*
	4th MADPHS Scientific Conference & AGM	71 DPHS	16-18/3/2013	RM8,520	Hotel Georgetown City, P.Pinang
	2nd Basic Stata Workshop on Statistical Methods in Medical and	2 DPHS	2-4/4/2013	RM1,000	*Universiti Sains Malaysia, Kelantan*

Specialty	Training Topic	Consultant & Participants	Date	Expenses	Venue
	Health Sciences Research				
	35th APDC 2013	179 DPHS & Dental officers	7-12/5/2013	RM89,000	KLCC
	Training Workshop on the Monitoring and Evaluation of Clinical Pathways	1 DPHS	22-23/5/2013	RM1,000	*Pusat Perubatan Universiti Kebangsaan Malaysia*
	Workshop on Healthcare Financing	2 DPHS	27-28/5/2013	RM800	*University Malaya*
	2nd Multivariable Stata Workshop	1 DPHS	2-4/9/2013	RM500	*Universiti Sains Malaysia, Kelantan*
	Incorporating DSLR Camera in Dental Practice	9 Dental Specialists and 1 Matron	7-8/10/2013	RM6,800	*Bahagian Kesihatan Pergigian KKM*
	1st National Conference for Cancer Research in Conjunction with 5th RCMM	2 DPHS and Oral Medicine and Oral Pathology Specialists	8-10/11/2013	RM1,100	Hotel The Royale Chulan, WPKL
	Symposium on Universal Health Coverage (MADPHS)	40 DPHS	6-7/12/2013	RM12,000	Hotel Swiss Garden, WPKL
	Human Resource Projection	40 DPHS	26-27/11/2013	RM32,190	Hotel Best Western Premier Dua Sentral WPKL
Oral Surgery	17th Annual Scientific Meeting MAOMS	9 Oral Surgeons	7-9/6/2013	RM4,500	Academy of Medicine Malaysia
	4th Intensive Microsurgery Course	9 Oral Surgeons	21-25/7/2013	RM14,800	Hospital Kuala Lumpur dan IMR
Orthodontics	Multidisciplinary Management of Hypodontia	50 Orthodontist, Paediatric Dental Specialists and Restorative Dental Specialists	17-19/3/2013	RM11,077	Hotel Best Western Premier Dua Sentral WPKL
	19th MAOISCTE 2013	37 Orthodontists	13-15/4/2013	RM29,600	Hotel Ramada, Melaka
Paediatrics	2nd Biennial Malaysian Association of Paediatric Dentistry (MAPD) Conference 2013	63 Paediatric Dental Specialists	9-11/3/2013	RM86,550	Hotel Premiera, WPKL

Specialty	Training Topic	Consultant & Participants	Date	Expenses	Venue
	Hands-on Skill Training (HOST) in Paediatric Oral Surgery	13 Paediatric Dental Specialists	23-25/6/2013	RM5,000	*Hospital Sungai Buloh*
Periodontics	Malaysian Society of Periodontology (MSP): EMS Falla; Non Surgical	9 Periodontists	4/7/2013	RM4,050	*Balai Ungku Aziz, Universiti Malaya*
	Masterclass Series: Resolving Implant Complications	2 Periodontists	28/11/2013	RM1,600	Hotel Boulevard, Midvalley, WPKL
Restorative Dentistry	3rd Malaysian Association of Prosthodontists (MAP) CPD Series 2013	3 Restorative Dental Specialists	13/9/2013	RM340	Hotel Felda Residence, Kuala Terengganu
Restorative Dentistry	Malaysian Endodontic Society (MES) Annual Scientific Meeting & AGM	18 Restorative Dental Specialists	24/11/2013	RM7,000	Hotel The Gardens & Residence, WPKL
Oral Medicine and Oral Pathology	1st Consensus Meeting on Oral Verrucous Papillary Terminology	4 OMOP Specialists	18-19/12/2013	RM1,600	Hotel The Royale Chulan, WPKL
Forensic Dentistry	11th Indo Pacific Association of Law, Medicine and Science (INPALMS) 2013 Conference	1 Forensic Dental Specialists	7-10/10/2013	RM500	Hotel Shangri-La, WPKL
	Forensic Odontology Disaster Preparedness Workshop 2013 – Southern Zone	11 Specialists: Oral Surgeons and Paediatric Dental Specialists	11-13/12/2013	RM15,602	Hotel New York, JB

Source: Oral Health Division, MOH

5.2 In-service Training Abroad

A total of RM35,340 was spent in 2013 for training/attachments abroad involving two dental professionals **(Table 22).**

Table 22: List of Overseas Courses/Attachment, 2013

No.	Course	Venue	Participant	Date
1.	Heath Care Consumption: Policy And Planning	Faculty of Economics, Chulalongkorn University	1. Dr. Salleh b. Zakaria 2. Dr. Zuhty bt. Hamzah	25 Nov – 20 Dis 2013 (26 days)

Source: Oral Health Division, MOH

5.3 'One-off' Courses

In 2013, there were seven courses/training abroad attended by dental professionals in MOH and which involved RM100,069 (**Table 23).**

Table 23: List of One-off Overseas Courses / Attachment, 2013

No.	Course	Venue	Date
1	5th Asian Chief Dental Officer Meeting (ACDOM)	Bali	9-11 Sept 2013
2	7th Asian Conference of Oral Health Promotion for Children 2013	Bali	9-11 Sept 2013
3	2nd Meeting of the International Association for Dental Research - Asia Pacific Region	Bangkok	21- 23 Aug 2013
4	FDI World Dental Congress 2013	Istanbul	29 Aug - 1 Sept 2013
5	CAP UHC Workshop on Universal Health Coverage and Information Systems to support UHC	Bangkok	19 – 23 Aug 2013
6	1st International Conference of Dental Regulators	Edinburgh	13 – 16 Oct 2013
7	21st International Conference on Oral Maxillofacial Surgery	Barcelona	21 – 24 Oct 2013

Source: Oral Health Division, MOH

5.4 Continuing Professional Development (CPD)

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

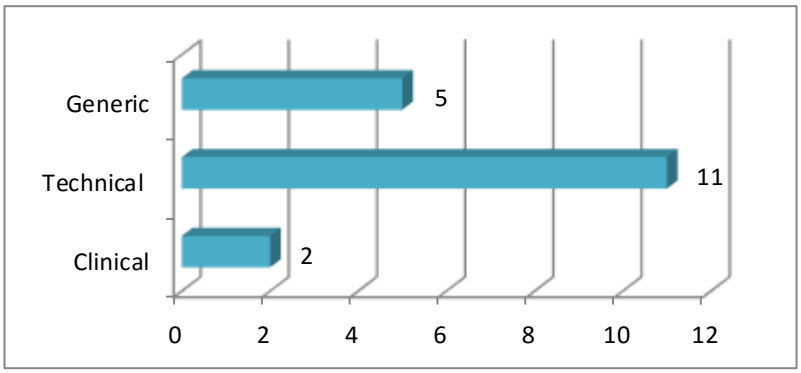
Table 24: List of CPD conducted in the Oral Health Division, 2013

No.	CPD Course
1	*Anugerah Pingat Perkhidmatan Cemerlang dan Pemberian Anugerah Perkhidmatan Cemerlang*
2	*Taklimat Deraf'* Dental Act' 2013 (4x)
3	*Peranan Petugas di Parlimen*
4	*Peranan Pegawai di Bahagian Kesihatan Pergigian*
5	*Berus Gigi*
6	*Taklimat eISO*
7	*Taklimat Pengurusan Kewangan dan Penemuan Audit Dalaman 2012/2013*
8	*Taklimat Kebakaran dan Kecemasan*
9	Preparation of memos
10	*Pelaksanaan 'Case Mix' di Hospital Malaysia*
11	*CPD Penggunaan Email 1GovUC*
12	Government Transformation Programme
13	Special Needs Dentistry: Global Networking and International Experience
14	Powerpoint Presentation
15	*Penulisan Memo*

Source: Oral Health Division, MOH

These CPD sessions comprised of three areas of the core competencies namely Clinical, Technical and Generic **(Figure 2**)

Figure 2: Number of CPD Sessions According to Areas of Core Competencies, 2013



Source: Oral Health Division, MOH

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:

i) ensure accuracy of CPD points claimed for each category of CPD
ii) prevent overlapping claims for CPD points
iii) 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 2013 and the second on 28 November 2013. At each exercise three auditors checked a random sample of log books **(Table 25)**. The sample comprised of eight dental officers, seven dental nurses and three dental technologists. The Audit Form for CPD programmes was used.

Summary of findings:

i. Dental personnel did not enter/update the name of their supervisors (4 officers/22.2%)
ii. There were errors in the CPD category, which affected the calculation of CPD points (6 officers/ 33.3%)
iii. There was duplication of CPD points (2 officers/11.1%).

iv. Officers did not include their supporting documents (e.g. claim certificates, letters of appointment)

Strategies for Improvement:

i. To distribute CPD booklets as a guide to all dental personnel who are involved in claiming CPD points
ii. To brief new dental personnel and appointed supervisors on the CPD system from time to time.

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.

Table 25: Findings of CPD Verification Audits, 2013

No.	Item	Total	Percentage
1	Name of supervisor	16	77.8
2	Supervisor's verification	14	94.4
3	Accuracy of category	12	66.7
4	Overlapping of creadit points claimed	2	11.1
5	Claiming credit points for core duties	0	0
6	Supervisor verifies claims for core duties	0	0
7	Percentage of log books which are regularly monitored by the supervisor	18	100.0
8	Supporting documents as suitable to the category for credit points claimed.	15	83.3
9	Overall grouping of credit points (total cumulative points, total actual points & selected categories) was correctly entered based on the PTK level.	14	77.7

Source: Oral Health Division, MOH

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

In 2013, 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 7 days of 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 (BPL). Reports on percentage of dental staff that attended ≥ 7 days of training per year are submitted every three (3) months to the BPL.

7. HUMAN RESOURCE PROJECTION SEMINAR FOR THE DENTAL PROFESSION

In 2007, the private sector expressed concerns on the possibility of oversupply of dentists. This concern spurred the exercise to utilise methodologies for oral health human resource projection.

In 2013, a **Seminar on Human Resource Projection for the Dental Profession** was organised by the Professional Development Section, on 26-27 November 2013 in Kuala Lumpur. The objectives were to:

a. provide awareness on the importance of determining future oral health human capital needs in Malaysia
b. share the methodologies used by the MOH in projecting the oral health human capital needs for dental practitioners in Malaysia
c. promote full commitment of all professionals and sectors in developing oral health human resource planning policies in the country

91 participants representing all stakeholders attended, including representatives from the Malaysian Dental Association (MDA), the Malaysian Private Dental Practitioners' Association (MPDPA), the Armed Forces Dental Health Service, the Childrens' Dental Centre and Dental Training College Malaysia and representatives from all dental faculties in the country.

The seminar comprised lectures and three plenary sessions. The methodology and assumptions used were deliberated upon. Projection of dental practitioners, dental specialists and dental auxiliaries were made.

Issues on compulsory service, optimising use of MOH facilities, FYDO training, critical shortage of Dental Surgery Assistants and post-graduate training were also discussed. Other areas of concern were maldistribution of dentists, lack of training capacity and career pathways for the different category of oral health personnel.

ORAL HEALTH PROMOTION

1. INTRA-AGENCY COLLABORATION

1.1 MyHealth Portal in Collaboration with the Health Online Unit HED, MOH

Identification of oral health topics, writers, accreditors, and editorial reviews

A total of 43 topics for editorial reviews were completed in 2013, of which 21 were in English and 22 in Bahasa Malaysia **(Table 26).**

Table 26: Oral Health Topics for MyHealth Portal, 2013

Editorial Reviews 2013	
Topics in English	**Topics in Bahasa Malaysia**
1. Side Effects of Orthodontic Treatment	*1. Menyelamatkan Gigi Anak Anda*
2. Home Oral Care for People with Intellectual Disabilities	*2. Jika Anda Memakai Alat Pendakap Ortodontik, Penjagaan Rapi di Rumah Adalah Amat Penting*
3. Dental Visit for Patients with Head and Neck Cancer	*3. Pencegahan Karies Gigi Melalui Rawatan Fluorida Topikal*
4. Radiotherapy and Oral Health	*4. Radiografi Pergigian*
5. Limitation of Mouth Opening	*5. Lawatan Pergigian untuk Pesakit Barah Kepala dan Leher*
6. Root Caries	*6. Masalah Gusi Di Kalangan Pesakit yang Mengalami Masalah Sistemik*
7. Oral Healthcare for the Dependent Elderly: Guide for Carers	*7. Kesan Penyalahgunaan Ubat pada Kesihatan Mulut*
8. Tongue Abnormalities	*8. Masalah Perubatan Perlu Di Laporkan Kepada Doktor Gigi Anda*
9. Illegal Dental Practice: Risk of Dental Treatment from Street Dentists	*9. Pembukaan Mulut Terhad*
10. Oral Tumour: A Possible Silent Killer	*10. Ketulan dan Bonjolan di Dalam Kavitii Oral*
11. Oral Lumps and Bumps	*11. Keabnormalan – Keabnormalan Lidah*
12. Restoration of Root Treated Teeth	*12. Kerosakan Gigi Di Peringkat Awal Kanak-kanak*
13. Common Tooth brushing Mistakes	*13. Karies Akar Gigi*
14. Periodontal Disease and Aesthetics	*14. Ubat-ubatan dan Kesihatan Mulut Kanak-kanak*
15. Tooth Whitening (Non-vital Teeth)	*15. Penjagaan Kesihatan Mulut Di Rumah bagi Golongan Orang Kurang Upaya Intelektual*
16. Medication and Oral Health In Children	*16. Kebergantungan Warga Emas Terhadap Penjagaan Kesihatan Pergigian : Rujukan Buat Penjaga*
17. Burning Mouth Syndrome	*17. Kesilapan Semasa Memberus Gigi*
18. Early Childhood Caries	*18. Radioterapi dan Kesihatan Oral*
19. Periodontal Disease Amongst Malaysians	*19. Rawatan Salur Akar*
20. Pregnancy and Oral Health	*20. Perkara-Perkara Yang Anda Perlu Tahu Sebelum Bertindik Di Dalam Mulut*
21. Root Canal Treatment	*21. Kesihatan Pergigian Ketika Mengandung*
	22. Karies Gigi

Source: Oral Health Division, MOH

'Ask the Expert' segment

This segment is set up to answer queries regarding oral health in the MyHealth Portal. In 2013, a total of 55 queries were received from the public and they were answered within 3 working days **(Table 27).**

Table 27: Number of Queries Received by Discipline, 2013

No	Discipline	Number of queries
1.	Oral Surgery	8
2.	Paediatric Dentistry	2
3.	Orthodontics	7
4.	Periodontics	5
5.	Restorative	10
6.	Oral Medicine & Oral Pathology	2
7.	Special Needs dentistry	0
8.	General	21
Total		**55**

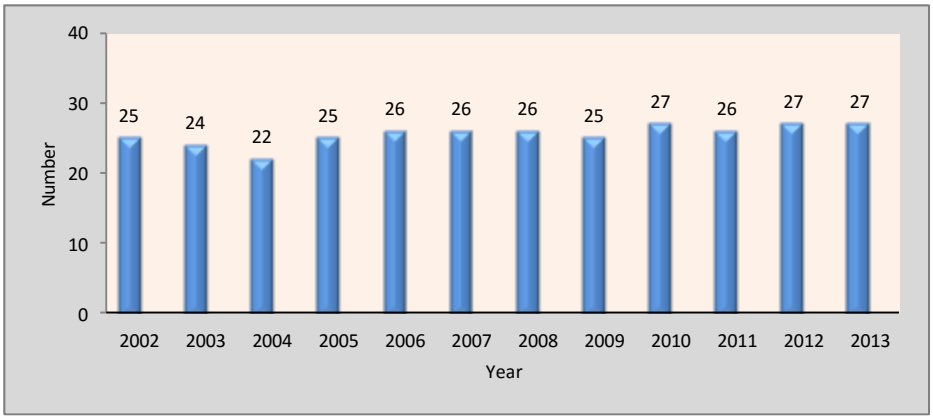
Source: Oral Health Division, MOH

2. INTER-AGENCY COLLABORATION

2.1 Oral Health Programme for Trainee Teachers

In 2013, a total of 27 teacher training institutions under the Ministry of Higher Education participated in this programme **(Figure 3).** The number of institutions has remained about the same since 2002.

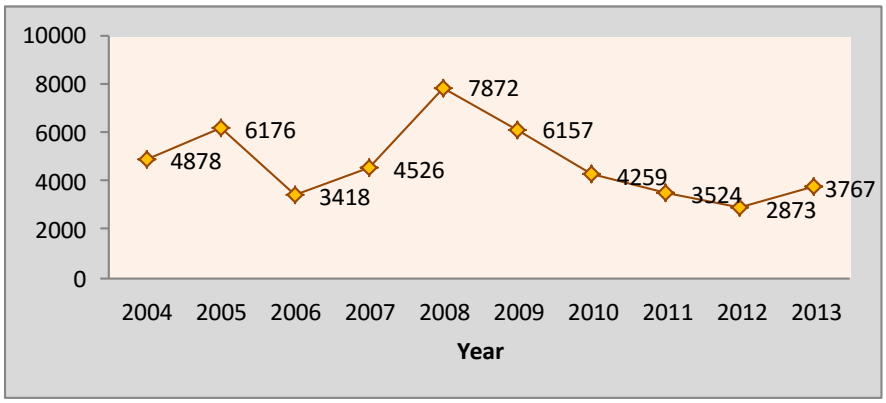
Figure 3: Number of Teacher Training Institutions which Participated in the Oral Health Programme, 2002-2013



Source: Oral Health Division, MOH

In 2013, 3,767 trainee teachers participated and this was an increase compared to previous 2 years (**Figure 4)**. This is due to the increased intake into the Diploma Programme (*Kursus Perguruan Lepasan Ijazah*).

Figure 4: Participation of Trainee Teachers in Oral Health Programme, 2004-2013



Source: Oral Health Division, MOH

2.2. Participation in Other Health Promotion Activities

The Oral Health Promotion Section participated in exhibitions at nine events in 2013 **(Table 28).**

Table 28: Oral Health Exhibitions, 2013

No	Event	Date	Location
1.	*MDA/FDI International Scientific Convention and Trade Exhibition*	12 - 13 Jan2013	Sunway Pyramid, USJ, Selangor
2.	*Help & Health Campaign*	26 - 28 Mar 2013	Multimedia University, Cyberjaya
3.	Pameran sempena SMART KIDS 2013	19 - 21 Apr 2013	Putra World Trade Centre, Kuala Lumpur
4.	35th Asia Pasific Dental Congress (APDC)	10 - 12 May 2013	KL Convention Centre, Kuala Lumpur
5.	*Karnival Kerjaya dan Keusahaan Graduan 2013*	14 - 16 Jun 2013	Putra World Trade Centre, Kuala Lumpur
6.	*Pameran sempena Majlis Anugerah Kantin Sekolah Bersih Peringkat Kebangsaan 2013*	5 Sept 2013	Hotel JW Marriot, Putrajaya
7.	*Kempen Bebas Merokok*	13 Oct 2013	One Utama Shopping Mall, PJ, Selangor
8.	*Minggu Kesedaran Kanser Mulut 2013*	17 Nov 2013	Taman Rekreasi Bukit Jalil, Selangor
9.	Help and Health Campaign 2013	4 - 5 Dec 2013	Multimedia University, Cyberjaya

Source: Oral Health Division, MOH

2.3. Visitors to the Oral Health Division

The OHD also received various visitors in 2013 (**Table 29).**

Table 29: Visitors to the Oral Health Division, 2013

No	Visitors	Date	No. of visitors
1.	Dental students from MAHSA University	18 Jan 2013	7
2.	Dental Faculty IIUM Kuantan	31 May 2013	1
3.	Dental Public Health Department UKM	12 Sept 2013	2
4.	Ministry of Health, Vietnam	11 Nov 2013	1
5.	Faculty of Dentistry, MAHSA University	25 Nov 2013	1

Source: Oral Health Division, MOH

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 2013:

1. *Mencegah adalah Lebih baik dari Merawat*
2. *Panduan Penjagaan Gigi Palsu.*
3. *Kesihatan Periodontium.*

Posters

Five new posters, sized 20" x 30", were printed and distributed to the states:

1. *Pertumbuhan Gigi Susu*
2. *Kerosakan Gigi*
3. *Rawatan Ortodontik*
4. *Rawatan Kanal Akar*
5. *Pertumbuhan Gigi Kekal*

Pamphlets

Two new pamphlets were developed and printed. Four existing pamphlets were improved, reviewed and also reprinted. All were distributed to the states:

1. *Penjagaan Gigi Kanak-kanak Berkeperluan Khas (baru)*
2. *Panduan Penjagaan Gigi Warga Emas (baru)*
3. *Kurangkan Pengambilan Gula (kaji semula)*
4. *Nikmati Makanan Anda (kaji semula)*
5. *Kesihatan Periodontium (kaji semula)*

6. *Anda Tidak Terkecuali Daripada Menghidapi Kanser Mulut (kaji semula)*

4. MONITORING AND EVALUATION

4.1 Oral Health Promotion Activities

In 2013, a total of 691,972 oral health promotion activities were carried out by dental officers and dental nurses in the states. There has been a steady increase in the number of oral health promotion activities from 2009 to 2012. However, a decrease in number of oral health promotion activities was reported in 2013 (**Table 30**).

Table 30: Oral Health Promotion Activities, 2009 – 2013

Activity	No. of Activities				
	2009	**2010**	**2011**	**2012**	**2013**
Tooth brushing Drill (TBD)	206,221	237,910	225,652	234,038	240,262
Dental health talk	238,548	282,135	305,740	342,137	371,262
In-service training	497	473	538	433	326
Role play	33,769	36,023	39,842	42,276	446,61
Puppet show	3,036	3,507	2,968	3,278	3,049
Exhibition /Campaign	2,754	3,370	3,823	4,278	4,633
TV/Radio (Mass Media)	44	53	40	46	55
Community Service	1,789	658	869	1,140	1,333
Others	30,448	50,587	65,355	80,278	26,721
Total	**517,106**	**614,716**	**644,827**	**707,904**	**691,972**

Source: Oral Health Division, MOH

There was an increase in participation of pre-school children in tooth brushing drills (TBD) from 2009 to 2013, although the percentage of pre-school children participating fluctuates (**Table 31**).

Table 31: Participants in Tooth Brushing Drills, 2009-2013

Year	Pre-school Children			Primary Schoolchildren		
	Participants	**Est. Pop**	**%**	**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

Source: Oral Health Division, MOH

Overall, the number of participants receiving oral health talks increased in 2013, and this is mirrored all target groups except primary school children (**Table 32**).

Table 32: Participants at Oral Health Talks, 2010-2013

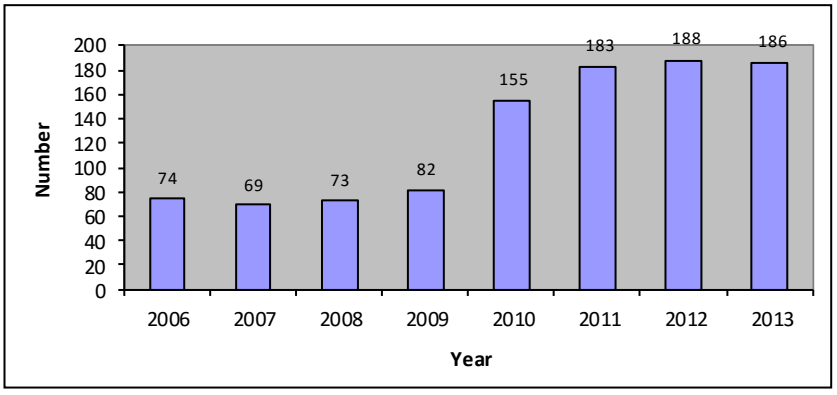
Target Group	Number Of Participants (% Population Reached)							
	2010	%	2011	%	2012	%	2013	%
Pre-school	578,269	71.9	592,865	57.8	601,880	57.4	618,782	61.9
Primary	2,773,074	95.9	2,736,709	95.5	2,697,395	92.6	2,640,506	83.4
Secondary	832,886	37.1	895,602	39.6	906,502	39.7	956,643	35.6
Antenatal	153,762	26.2	162,232	29.5	183,409	30.1	193,894	32.7
Adults	126,197	0.70	129,948	0.7	159,503	0.8	174,933	0.98
Total	**4,464,188**	**18.2**	**4,517,356**	**17.2**	**4,548,689**	**17.9**	**4,584,758**	**14.55**

Source: Oral Health Division, MOH

4.2 Oral Health Seminars for Teachers

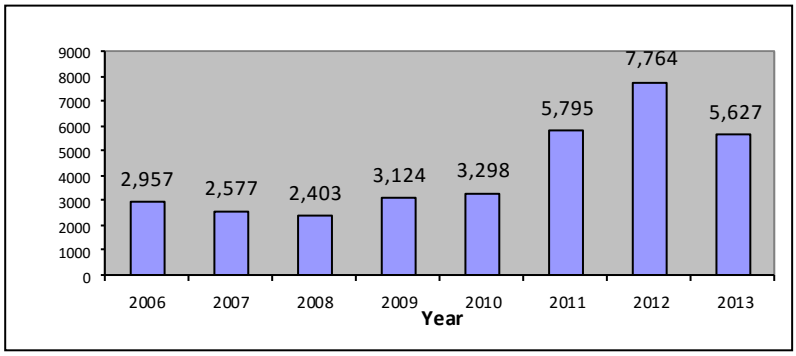
Seminars for teachers were organized at state and district levels to increase oral health awareness and enhance collaboration in the on-going efforts to improve the oral health of pre-school and schoolchildren. In 2013, 186 oral health seminars were organized by the states (**Figure 5**) and 5,627 teachers were involved in these seminars (**Figure 6**).

Figure 5: Number of Oral Health Seminars Conducted for Teachers, 2006-2013



Source: Oral Health Division, MOH

Figure 6: Number of Teachers Trained at Oral Health Seminars, 2006-2013



Source: Oral Health Division, MOH

There were 2,711 pre-school teachers from 2,157 government kindergartens, 906 teachers from 712 private kindergartens and 2,010 teachers from 744 childcare centres (TASKA) (**Table 33)**.

Table 33: Performance by State, 2013

State	No. of Seminars	Pre-schools				Childcare Centres		Health Personnel
		No. of teachers		No. of Pre-schools		Teachers	No. of Centres	
		Govt.	Private	Govt.	Private			
Perlis	5	77	20	77	20	18	18	25
Kedah	15	641	168	400	74	332	163	152
Penang	6	132	27	131	24	29	5	24
Perak	16	272	93	211	62	123	33	243
Selangor	38	302	369	217	357	548	218	151
WPKL	4	28	5	28	5	18	18	25
N. Sembilan	9	198	33	164	29	147	85	75
Melaka	4	55	2	52	1	26	4	0
Johor	16	180	67	168	65	33	29	201
Pahang	5	61	15	53	13	52	18	18
Terengganu	17	0	0	0	0	160	10	668
Kelantan	21	269	16	264	16	38	37	290
Sabah	8	160	51	152	37	35	31	208
Sarawak	20	313	26	218	6	381	35	2
Labuan	2	23	7	22	3	32	0	24
TOTAL	**186**	**2,711**	**906**	**2,157**	**712**	**2,010**	**744**	**1,969**

Source: Oral Health Division, MOH

Oral health seminars covered 98.0% of public and private pre-schools in 2013, a coverage that is significantly high since 2012 (**Table 34**). This augurs well for the early childhood and pre-school oral healthcare programmes.

Table 34: Coverage of Pre-schools for Oral Health Seminars, 2005 - 2013

Year	Govt. pre-schools			Private pre-schools			Total pre-schools	
	Covered	Total no.	% coverage	Covered	Total no.	% coverage	Covered	% 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	19,844	98.0

Source: Oral Health Division, MOH

5. TOBACCO CESSATION ACTIVITIES

Oral health education and counselling sessions for outpatients, schoolchildren and participants in training courses continue to emphasise tobacco cessation. A total of 85 training sessions involving 1,754 participants were conducted in 2013. Efforts were aimed at encouraging staff and patients to quit smoking. A total of 470 smokers were referred to Quit Smoking Clinics (QSC) of the MOH **(Table 35).**

Table 35: Tobacco Cessation Activities, 2006-2013

Year	Training / briefings / courses		Patients referred to MOH QSC
	No. of courses	No. of participants	
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

Source: Oral Health Division, MOH

6. DEVELOPMENT OF SOCIAL MEDIA

In tandem with the current trend of disseminating information through social media, the development of oral health information via this channel is on-going. The official social media accounts for OHD are:

- Facebook (27 Feb 2013)
- Blog (17 June 2013)
- YouTube (20 June 2013)
- Slideshare (13 Oct 2013)

ORAL HEALTH RESEARCH AND EPIDEMIOLOGY

Several research projects initiated prior to 2013 were continued. Focus was on National and Programme level research activities.

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 of Public Health (IPH), 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 initiated in 2012. The final report was submitted to the Institute for Health System Research, MOH for printing in 2013.

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

The Global School Health Survey (GSHS) was initiated in 2011. It was one of the four NHMS 2011-2014 topics for research led by the IPH, MOH in collaboration with the World Health Organisation (WHO). This survey was conducted to obtain information on the behavioral aspects in relation to health and oral health of school children aged 13-17 years.

In 2013, the draft reports of the Hygiene Module (which included oral health) was completed and submitted to IPH, MOH. The hygiene module was prepared for 17 draft reports - the WHO GSHS Report for Malaysia, Country Report and 15 state reports. In addition, the Oral Health Division with IPH, MOH, undertook the editing of the whole document for each of the above reports, to cover the following modules:

i) Alcohol Consumption
ii) Dietary Behaviours
iii) Drug Use
iv) Hygiene (Including Oral Hygiene)
v) Mental Health Problems
vi) Physical Activities
vii) Protective Factors

viii) Sexual Behaviours that Contribute to HIV Infection, Other STIs and Unintended Pregnancy
ix) Tobacco Use
x) Violence and Unintentional Injury

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

This survey was led by IPH, MOH in collaboration with the Institute of Health Systems Research (IHSR), MOH as the Principal Investigator for this module. This survey shall be conducted to obtain information on the community perception of the health care system in Malaysia and the health status of the Malaysian population aged 13 years and above.

In 2013, the Oral Health Division took part in the development and pre-testing of a questionnaire for various population groups. Questionnaire development will continue into 2014.

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

This survey was deferred to 2014 by IPH, MOH.

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 IPH, IHSR, 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 manuscripts of Phase I findings for journal publication was finalised in 2013.

The data collection for Phase II of the study was completed in June 2013. The data entry of Phase II was undertaken by the IPH, MOH and joint analysis will be conducted after data entry is completed.

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). The first NOHRI meeting was in March 2011. One meeting was held in 2013, on 22 April.

Since its inception the oral health research priorities for the 10th MP (2011-2015) have been identified and uploaded on the Oral Health Division MOH website. The database of abstracts was updated in May 2013 and any further update is dependent on submissions of information from NOHRI members. A proposal to improve the NOHRI web page was deferred to 2014 due to lack of IT resource personnel at the Oral Health Division, MOH.

2. PROGRAMME LEVEL RESEARCH PROJECTS

2.1 National Oral Health Survey of Adults (NOHSA 2010)

NOHSA 2010 is the country's fourth national adult oral health survey. Survey preparations began in the last quarter of 2008 and data collection was conducted in 2010. The initial report was finalised in 2012. In 2012, the weighted data analysis for NOHSA 2010 was begun and the report finalized for publication in December 2013.

The NOHSA 2010 Fact Sheet was distributed to delegates of the 35th Asia Pacific Dental Congress 2013 which was held in Kuala Lumpur in May 2013. In addition, 9 presentations (2 oral and 7 poster presentations) on NOHSA 2010 findings were undertaken in 2013:

Oral Presentations:

1. Jamalludin AR, Siew Lian Y, Khairiyah AM. Barshah AB, Tahir A, Norain AT, Natifah CS, Habibah Y, Nasruddin J, Roslan S, Rashidah E, Ishak AR. *NOHSA 2010 Methodology: Dispelling the Myth.* Paper presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
2. Siew Lian Y, Khairiyah AM, Jamalludin AR. *Malaysian Adult Oral Health Scenario: Changes Over A Decade.* Paper presented at the 101st FDI Annual World Dental Congress, Istanbul, Turki, August 2013.

Poster Presentations:

1. Asmani AR, Siew Lian Y, Khairiyah AM, Jamalludin AR, Nasruddin J. *Dentition status of Malaysian adults: Four decades on*. Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.

2. Habibah Y, Siew Lian Y, Khairiyah AM, Jamalludin AR, Nasruddin J, Rashidah E. *Caries status in Malaysian adults across four decades.* Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
3. Salleh Z, Rozihan H, Siew Lian Y, Khairiyah AM, Jamalludin AR, Nasruddin J, Rashidah E. *Adult periodontal health in Malaysia: Comparison between 2000 and 2010.* Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
4. Bibi Saerah N.A.K, Siew Lian Y, Khairiyah AM, Jamalludin AR. *The need for oral healthcare among adults in Malaysia.* Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
5. Khalidah K, Siew Lian Y, Khairiyah AM, Jamalludin AR, Ishak AR. *Oral cancer awareness in Malaysia: Findings from NOHSA 2010.* Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
6. Rapeah MY, Wan Salina WS, Siew Lian Y, Khairiyah AM, Jamalludin AR, Roslan S, Rashidah E. *Trends in oral healthcare utilization in Malaysia.* Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
7. Wan Salina WS, Siew Lian Y, Khairiyah AM, Jamalludin AR, Natifah CS, *Water filter usage among Malaysian households.* Poster presented at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.

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

The National Oral Health Survey of Pre-school Children (NOHPS 2015) is the country's third national survey for pre-school children and shall be conducted in 2015, ten years after the second pre-school children survey in 2005. In 2013, The National Steering Committee was established, with members from the Oral Health Division, MOH and the academia from public and private universities. Protocol development was initiated in 2013 and will be continued into 2014.

The benchmark examiner and the gold standard examiner for the survey were identified in 2013. Discussions on the indices to be used for the survey commenced in October 2013. Other preparations for NOHPS 2015 shall continue in 2014.

2.3 Costing of Dental Procedures in Selangor Dental Facilities

This study was initiated in 2009 as a multi-centre study in two urban and two rural public dental clinics in Selangor. In 2013, six manuscripts of survey findings for journal publications were initiated:

1. Dental macro-costing in public sector dental clinics in Selangor, Malaysia
2. Costing dental examinations and diagnosis procedures in public sector dental clinics in Selangor, Malaysia

3. Costing scaling and prophylaxis procedures in public sector dental clinics in Selangor, Malaysia
4. Costing fissure sealant procedures in public sector dental clinics in Selangor, Malaysia
5. Costing denture laboratory procedures in public sector dental clinics in Selangor, Malaysia
6. Costing denture fabrication in public sector dental clinics in Selangor, Malaysia

Completion of articles and submissions for journal publication will be carried out in 2014.

In 2013, two presentations were made at the 35th Asia Pacific Dental Congress 2013:

1. Khairiyah AM, Natifah CS, Ishak AR, Raja Latifah RJ, Morni AR, Mazlina MD, Rauzi I, Misah MR. *Cost of Examination & Diagnosis in Public Sector Dental Clinics.* Paper presented as oral presentation at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.
2. Khairiyah AM, Morni AR, Ishak AR, Raja Latifah RJ, Natifah CS, Mazlina MD, Rauzi I, Misah MR. *Cost of scaling and prophylaxis in government dental clinics.* Paper presented as poster presentation at 35th Asia Pacific Dental Congress, Kuala Lumpur, May 2013.

2.4 Costing of Dental Procedures in Sabah Dental Facilities

This study was initiated at the end of 2009 following the multi-centre costing study in Selangor. The objective was to estimate the cost of dental procedures in public dental clinics in Sabah. Costing of examination and diagnosis, scaling and prophylaxis and dental extractions was completed in 2013.

The draft manuscript for journal submission will be initiated in 2014. Data analysis for costing of dental restorations, denture laboratory processes and clinical denture procedures will continue in 2014.

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 the NOHSA 2010 for the state of Kelantan. The first draft of the report was completed in 2013 with input from two officers from the Oral Health Division, Kelantan and will be finalised for printing in 2014.

2.6 Fluoride Enamel Opacity Survey in 16 year-olds 2013 (FEO 2013)

The Fluoride Enamel Opacity Survey for 16 year-olds 2013 (FEO 2013) is the country's second FEO survey, carried out 14 years after the first survey in 1999. This survey is headed b y the Community Oral Healthcare Section, Oral Health Division, MOH with input from the Epidemiology and Oral Health Research Section, MOH and the Dental Faculty, University Malaya. The results of the study will be used for policy formulation for preventive oral health strategies on fluoride use.

The Epidemiology and Oral Health Research Section gave the following input to facilitate the conduct of the survey:

- Calculation of sample size with a statistician from University College Cork, Ireland as consultant
- Hands-on training on sampling of schools and school children for the study using the Statistical Packages for the Social Sciences (SPSS) software and MS Excel

3. PUBLICATION OF COMPENDIUM OF ABSTRACTS

3.1 Publication of Compendium of Abstracts 2012

A total of 91 abstracts were received from the states for 2012. Of these, 53 were papers/posters presented at scientific meetings, 12 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 2012 was completed in 2013 and will be distributed in 2014.

3.2 Compilation for Compendium of Abstracts 2013

Calls for submission of reports of research activities and abstracts papers presented or published in the year 2013 were made. Submissions will be compiled and published in the 'Compendium of Abstracts 2013'. As of December 2013, a total of 61 research abstracts have been received and preparation of Compendium of Abstracts 2013 initiated. Efforts towards the completion of this document for publication will continue into 2014.

4. HUMAN RESOURCE DEVELOPMENT AND CAPACITY BUILDING

4.1 The Basic Statistical Packages for the Social Sciences (SPSS) Workshop

This workshop was organised in collaboration with the IPH, MOH in April 2013 for identified data analysis core team members of NOHPS 2015. In addition, 14 Dental Public Health Officers were trained as there is a need to expand the pool of officers with statistical expertise in the states. The curriculum included an overview of research methodology, basic statistics and statistical tools towards strengthening research capacity among Dental Public Health Officers in the Oral Health Division.

4.2 Other Courses

In line with capacity building for oral health research, four (4) DPHS were identified for training in research methodologies in 2013 as follows:

- Dr. Nurrul Ashikin Abdullah and Dr. Norliza Ismail from Oral Health Division, MOH attended the Basic STATA Course at *Universiti Sains Malaysia* on 2 - 4 April 2013
- Dr. Nor Azlina Hashim from Oral Health Division, MOH attended the Statistic and Research Methodology Course at Universiti Sains Malaysia on 28 – 30 April 2013
- Dr. Atil Athirah Supri from Oral Health Division, MOH attended the Basic Research Methodology Course at INTAN (Bukit Kiara) on 6 – 7 May 2013
- Dr. Nurrul Ashikin Abdullah from Oral Health Division, MOH attended the Intermediate Multivariate STATA Course on 2 – 4 September 2013 at Universiti Sains Malaysia

5. OTHER ORAL HEALTH RESEARCH ACTIVITIES

Other oral health research activities conducted in 2013 are listed below:

- Two discussion were held with Dr. Nurrul Asyikin Yahya from the Faculty of Dentistry, UKM regarding her PhD proposal Project "The 5 A's Model in Behavioural Therapy vs Brief Advice on Smoking Cessation Delivered by Dentists in a Dental Setting: A Randomised Control Trial".

- 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 Dr.

Rozihan Husin in Selangor. Abstract preparation for presentation was initiated and will continue in 2014.

- Update of country data for Malaysia in the WHO Country Area Profile Programme (CAPP) was done and the data was sent to the World Health Organisation (WHO) in July 2013.

- The Oral Health Division is a permanent member of the *Jawatankuasa Kelulusan Etika Perubatan, Fakulti Pergigian, Universiti Malaya.* This committee examines research proposals by the academia and by undergraduate and postgraduate students in the university to ensure ethical conduct of research. In 2013, Dr. Yaw Siew Lian represented the Oral Health Division at all three research ethics approval meetings of the University.

6. HEALTH SYSTEMS RESEARCH (HSR) FOR ORAL HEALTH

Monitoring of health systems research conducted by the states began in 1999 (**Table 36).** There were 983 topics identified by the states and institution over that period. Of the identified projects, 629 (64.0%) were successfully completed.

Table 36: Status of Health Systems Research Projects, 1999 – 2013

Year	Proposed	Completed		Cancelled		In progress	
	N	%	n	%	n	%	n
1999	71	45.1	32	54.9	39	0	0
2000	59	44.1	26	55.9	33	0	0
2001	51	66.7	34	33.3	17	0	0
2002	58	58.6	34	41.4	24	0	0
2003	24	58.3	14	41.7	10	0	0
2004	38	57.9	22	44.4	16	0	0
2005	38	89.5	34	10.5	4	0	0
2006	45	80.0	36	20.0	9	0	0
2007	70	62.9	44	27.1	19	10.0	7
2008	86	81.4	70	10.5	9	8.1	7
2009	93	79.6	74	17.2	16	3.2	3
2010	85	64.7	55	16.5	14	18.8	16
2011	70	68.6	48	7.1	5	24.3	17
2012	101	67.3	68	7.9	8	24.8	25
2013	94	40.4	38	10.6	10	48.9	46
Total	**983**	**64.0**	**629**	**23.7**	**233**	**12.3**	**121**

Source: Oral Health Division, MOH

The majority of the states/institutions had completed at least 50% of their proposed research projects (**Table 37).** In 2013, another 121 (12.3%) projects were on-going and 233 (23.7%) 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 and competing roles and priorities. Uncompleted projects will continue in 2014.

Table 37: Status of Health Systems Research Projects by State/Institution, 1999–2013

State/Institution	Proposed	Completed		Cancelled		In progress	
	N	n	(%)	n	(%)	n	(%)
Perlis	22	12	54.5	4	18.2	6	27.3
Kedah	91	70	76.9	12	13.2	9	9.9
P.Pinang	43	25	58.1	11	25.6	7	16.3
PPKK and KLPM	23	12	52.2	8	34.8	3	13.0
Perak	71	42	59.2	20	28.2	9	12.7
Selangor	60	19	31.7	29	48.3	12	20.0
WPKL	39	22	56.4	10	25.6	7	17.9
HKL/ Paediatric	36	33	91.7	1	2.8	2	5.6
HKL/ Oral Surgery	28	24	85.7	1	3.6	3	10.7
N. Sembilan	50	27	54.0	15	30.0	8	16.0
Melaka	65	30	46.2	22	33.8	13	20.0
Johor	120	101	84.2	10	9.9	9	7.5
Pahang	78	43	55.1	32	41.0	3	3.8
Terengganu	56	40	71.4	12	21.4	4	7.1
Kelantan	59	36	61.0	15	25.4	8	13.6
Sarawak	73	44	60.3	14	19.2	15	20.5
Sabah	69	49	71.0	17	24.6	3	4.3
FT Labuan	0	0	0.0	0	0.0	0	0.0
ALL	**983**	**629**	**64.0**	**233**	**23.7**	**121**	**12.3**

Source: Oral Health Division, MOH

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 endeavour, state research teams have either published or presented the completed research project findings at accredited meetings or conferences held locally and internationally.

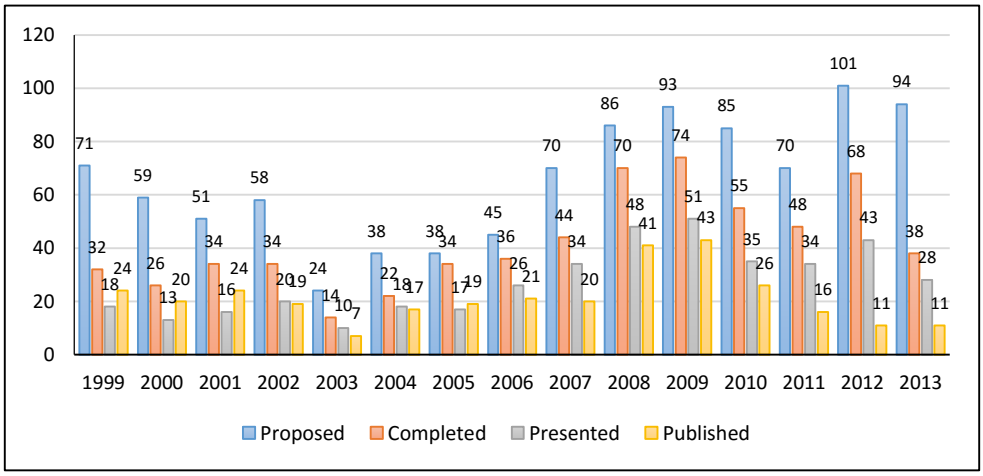
Of the 629 completed projects, more than two thirds have been presented (411, 65.3%) and slightly more than half have been published (319, 50.7%) **(Table 38).**

Table 38: HSR Projects by State/Institution, 1999-2013

State/Institution	Proposed	Completed		Presented		Published	
	N	n	(%)	n	(%)	n	(%)
Johor	120	101	84.2	91	90.1	55	54.5
Kedah	91	70	76.9	24	34.3	34	48.6
Sabah	69	49	71.0	29	59.2	13	26.5
Sarawak	73	44	60.3	22	50.0	3	6.8
Pahang	78	43	55.1	29	67.4	18	41.9
Perak	71	42	59.2	26	61.9	31	73.8
Terengganu	56	40	71.4	36	90.0	37	92.5
Kelantan	59	36	61.0	21	58.3	20	55.6
HKL/ Paediatric	36	33	91.7	31	93.9	11	33.3
Melaka	65	30	46.2	21	70.0	12	40.0
N. Sembilan	50	27	54.0	24	88.9	25	92.6
P. Pinang	43	25	58.1	17	68.0	20	80.0
HKL/Oral Surgery	28	24	85.7	10	41.7	16	66.7
WPKL	39	22	56.4	13	59.1	12	54.5
Selangor	60	19	31.7	5	26.3	2	10.5
Perlis	22	12	54.5	9	75.0	4	33.3
PPKK & KLPM	23	12	52.2	3	25.0	6	50.0
WP Labuan	0	0	0	0	0	0	0
ALL	**983**	**629**	**64.0**	**411**	**65.3**	**319**	**50.7**

Source: Oral Health Division, MOH

Figure 7: Number of HSR Projects, 1999-2013



Source: Oral Health Division, MOH

DENTAL TECHNOLOGY

1. CLINICAL PRACTICE GUIDELINES (CPG)

The Dental Technology Section is the secretariat for the development of dental CPGs in the management of various oral conditions/diseases and works in collaboration with the Malaysian Health Technology Section (MaHTAS) Ministry of Health, Malaysia.

Management of Chronic Periodontitis (2nd edition)

The 2nd Edition of the CPG on Management of Chronic Periodontitis was successfully completed and uploaded into the MOH website. Printed copies were distributed to the states in November 2013.

Management of Anterior Crossbite in Mixed Dentition (2nd edition)

The draft of this CPG was presented at the Health Technology Assessment Council meeting on 10 June 2013, by Dr Rozaimah Shafie. The CPG was accepted with no amendments. Printing of the final copy will be done in 2014.

Management of Ameloblastoma (New)

The draft document was sent to reviewers for feedback. Due to competing activities the draft is still in the development phase.

Orthodontic Management of Developmentally Missing Incisors (New)

This new CPG was successfully printed and uploaded into the MOH website. Copies of the printed CPG were distributed to the states in September 2013.

Management of Periodontal Abscesses (2nd edition)

Initiation of review of this CPG began in November 2013. A literature search was conducted and the evidence table prepared. Work on this document will continue in 2014.

2. LITERATURE SEARCHES

Literature searches were conducted to assist CPG development groups and policy makers. Continual scanning for information on dental products in the market continues.

3. APPROVED PURCHASE PRICE LIST (APPL)

The APPL activities in 2013 included attending meetings coordinated by the Procurement and Privatisation Division, MOH to discuss matters related to the supply of items to MOH by Pharmaniaga Logistics Sdn. Bhd. APPL issues include delivery time, penalty on late delivery, product shelf life and complaints regarding products.

Product Technical Assessment

In 2013, technical assessment was conducted from 1-24 October 2013 on 21 samples of dental products under the APPL 2014-2017. The assessment was carried out at the Putrajaya Dental Clinic and the Putrajaya Hospital. OHD technical assessment committee meetings were conducted and proposals made for products that met the specifications. Consensus statements were sent to the Procurement and Privatisation Division MOH.

Management of Complaints for APPL items

The APPL log of complaints was updated in 2013. As of October 2013 there were 19 complaints made on various dental products under APPL. Pharmaniaga Logistics Sdn. Bhd. took the responsibility of communicating with product suppliers to improve the quality of products and/or other shortfalls. Follow-ups to the complainants and corrective actions were noted.

Verification on penalty claims for late deliveries through Government LPO on APPL products (2011-2012)

The input from 18 dental cost centres of 11 states on verification for penalty claims to Pharmaniaga Logistics Sdn. Bhd. through Government LPO deliveries 2011-2012 to Procurement and Privatisation Division MOH were monitored.

Verification on quantity and total cost of APPL products purchased from 1 June 2010 until 31 January 2011.

The verification of quantity and total costs of APPL items purchased from 1 June 2010 to 31 January 2011 from 59 dental costs centres in 12 states to the Procurement and Privatisation Division MOH were monitored.

4. MEDICAL DEVICE

Officers of this Section attended various activities conducted by the Medical Device Authority. An awareness session was conducted on 31 December 2013 for DrDPH USM postgraduate students attached at the Oral Health Division MOH.

5. GUIDELINES ON THE USE OF GLASS IONOMER CEMENTS

A working group was established in February 2013 at the OHD to facilitate the development of this document. Members consist of Paediatric Dental Specialists, Restorative Dental Specialists and Dental Public Health Specialists. A literature search and discussions were conducted. The stand of the American Academy of Paediatric Dentistry was given due attention. Preparation of the document continues into 2014.

6. HUMAN RESOURCE PROJECTION (HRP)

HRP using the Service Target Method and the Health Needs Method was undertaken. HRP methodology and assumptions were presented at the HRP Seminar on 26-27 November 2013, Kuala Lumpur. This event was attended by representatives from the MOH, the army, academia and the private sector. Several discussions refined assumptions used. HRP activities continued into 2014.

7. MINAMATA CONVENTION ON MERCURY

Dr Zainab Shamdol attended several meetings and workshops coordinated by the Ministry of Natural Resources and Environment in 2013. The Division provided input for the draft “Minamata Convention on Mercury”. Dental amalgam comes under the mercury-added products and provisions are for measures to phase down, not phase out, dental amalgam, taking into account domestic circumstances and relevant international guidance. Related activities continue into 2014.

8. INQUIRIES

The Oral Health Technology Section also handles inquiries from various agencies:

Mercury contamination

The Section provided information to the Consumer Association of Penang in relation to mercury contamination and the MOH plans regarding the Minamata treaty to minimize use of dental amalgam and promote use of cost-effective as well as clinically-effective mercury-free alternatives for dental restorations.

Fake braces

A press statement was prepared for The STAR on 22 January 2013 to caution the public on the use of fake braces, as they are not prescribed by qualified orthodontists and are not meant for treatment, in the face of reports of health risks.

Colour of squares on toothpaste tubes denotes chemical contents

The Section responded to Astro Radio Network Newsroom in September 2013, that the colour coding at the end of toothpaste tube does not denote chemical contents. The markings actually help in the crimping process where they are detected by a machine which orientates the tube at the exact position for crimping in one particular direction.

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 24.5 % in 2012 to 25.6% in 2013 (**Table 39)**.

The health services for the Orang Asli came under MOH purview from 1 January 2012. In 2013, a total of 40,463 Orang Asli utilised primary oral healthcare compared to 36,048 in 2012 – a 12.2% increase. A total of 93 Orang Asli primary schools covering 19,595 schoolchildren were visited.

Table 39: Percentage Utilisation of Primary Oral Healthcare by Category of Patients, 2009-2013

Year	Pre-School	Primary School	Secondary School	Antenatal	Adults	Elderly	Overall
2009	18.5	97.3	75.6	25.5	6.0	5.7	22.7
2010	20.7	98.0	80.5	34.6	7.1	6.1	23.3
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	34.5	6.8	7.6	25.6

Source: Health Informatics Centre, MOH

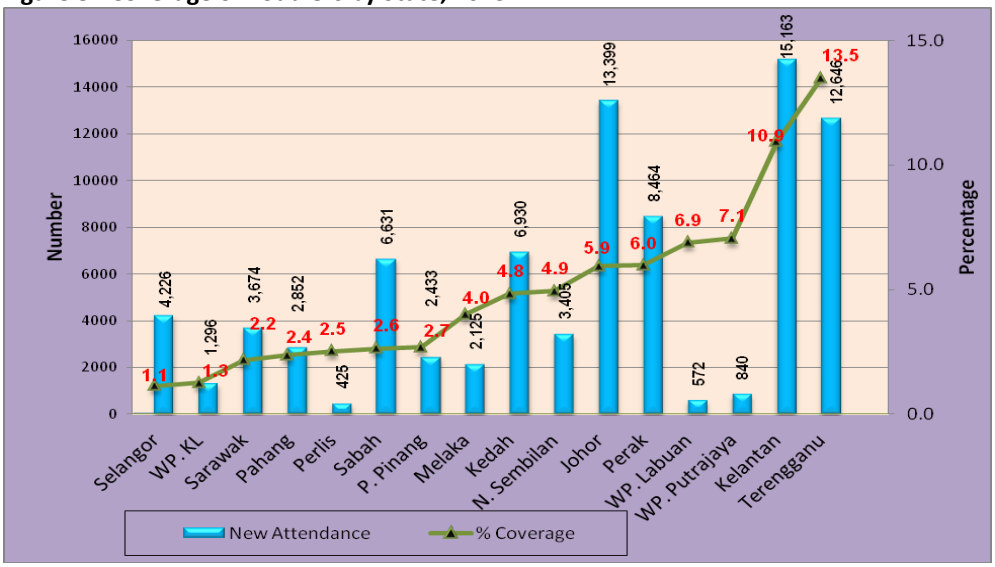
1. EARLY CHILDHOOD ORAL HEALTHCARE FOR TODDLERS

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, 545 (81.6%) of the 668 *Taska Permata* were visited in 2013, and 42.2% (6,177/14,650) of toddlers examined. Awareness sessions on oral health were held for 101 childcare providers from 57 *Taska Permata* in 2013. In addition, *Taska Permata* in Sabah and Sarawak were provided with 1,335 oral health kits.

In 2013, an overall 4.2% (85,081) of the toddler population were given primary oral healthcare. The state of Terengganu recorded the highest coverage (13.5%) (**Figure 8**).

Figure 8: Coverage of Toddlers by State, 2013

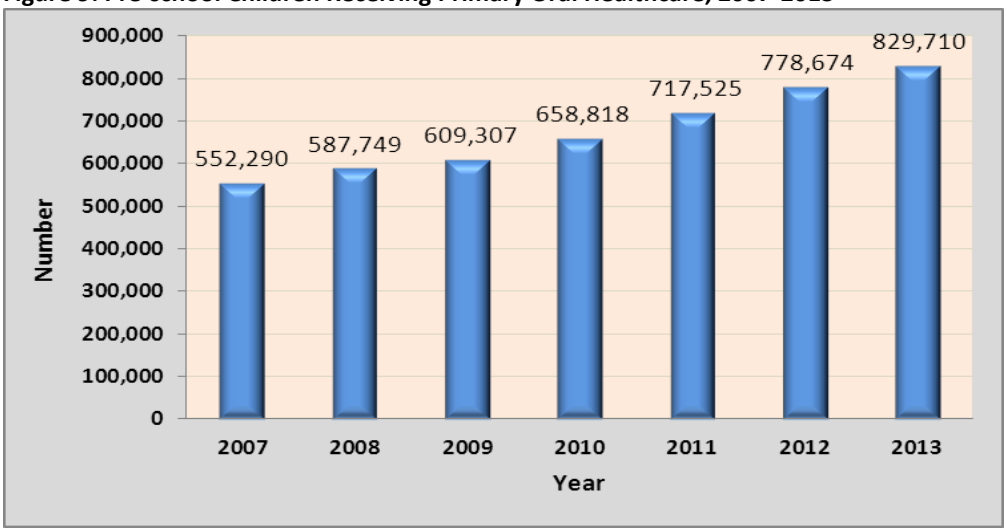


Source: Health Informatics Centre, MOH

2. ORAL HEALTHCARE FOR PRE-SCHOOL CHILDREN

In 2013, a total of 829,710 pre-school children were given primary oral healthcare compared to 778,674 in 2012 **(Figure 9)** - a 6.5% increase in coverage.

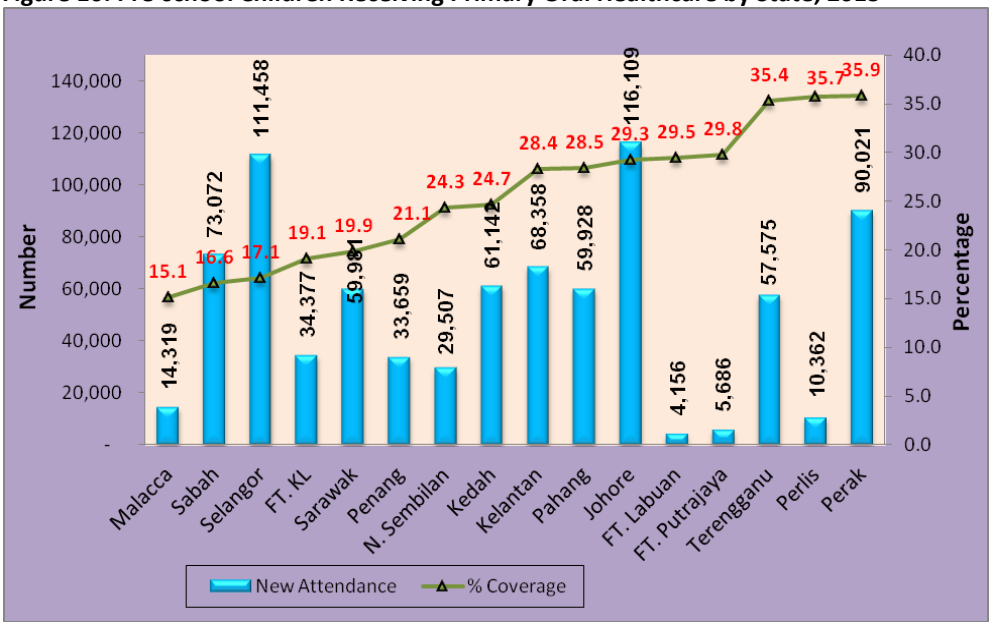
Figure 9: Pre-school Children Receiving Primary Oral Healthcare, 2007-2013



Source: Health Informatics Centre, MOH

The states of Perak, Perlis and Terengganu **(Figure 10)** recorded the highest coverage of pre-school children receiving primary oral healthcare.

Figure 10: Pre-school Children Receiving Primary Oral Healthcare by State, 2013



Source: Health Informatics Centre, MOH

3. ORAL HEALTHCARE FOR SCHOOLCHILDREN

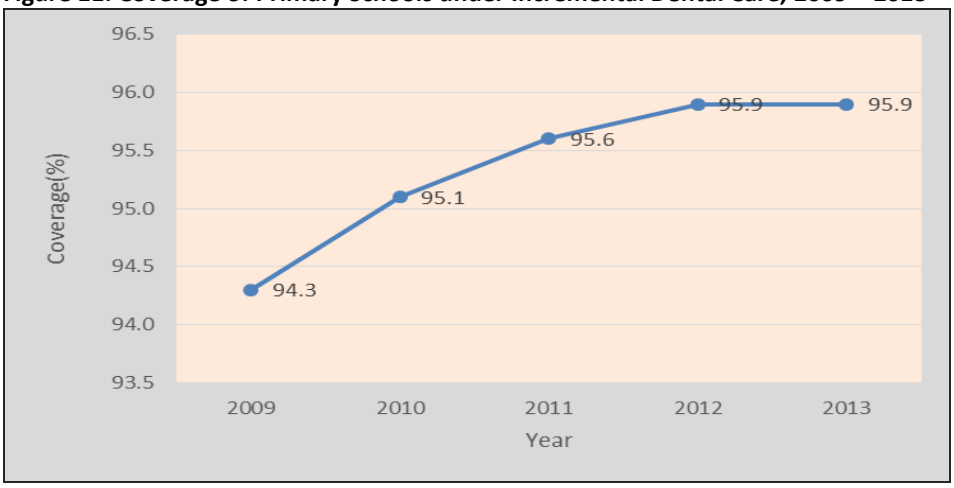
The oral health status of schoolchildren has improved over the years. Hence, the Oral Health Division is piloting a project of 2-year recall visits for schoolchildren identified as 'low risk'. The project was piloted in 8 primary and 8 secondary schools in Johor and in 5 primary and 5 secondary schools in FT KL. If successful and feasible, the project will be expanded to the whole of 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. A GIS operational manual for dental officers and dental nurses was developed. Calibration sessions for national, state and district levels were conducted from June to December 2013 to ensure that all clinical operators have a common understanding in applying the Index.

- **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 2008 to 2012, the achievement plateaued in 2013 **(Figure 11)**.

Figure 11: Coverage of Primary Schools under Incremental Dental Care, 2009 – 2013



Source: Health Informatics Centre, MOH

This plateauing is the result of the majority of states having achieved the set target (99.4%) for coverage of primary schools in 2013. The exceptions were Sabah (82.4%) and Sarawak (89.9%) which were below target and reported a drop in coverage **(Table 40)**.

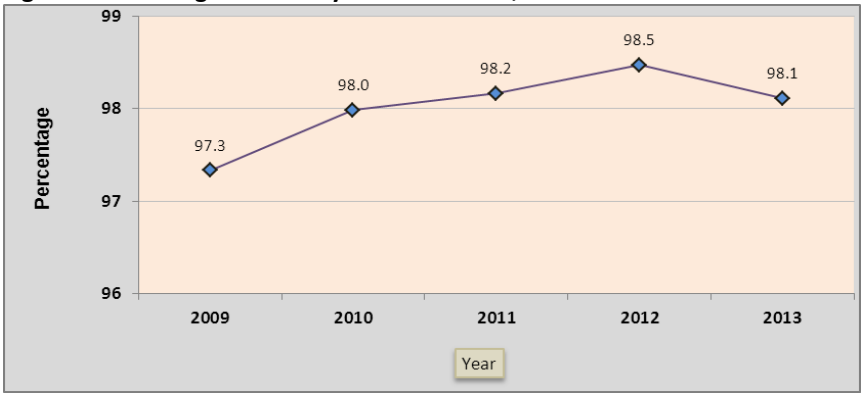
Table 40: Coverage of Primary Schools under Incremental Dental Care by State, 2009 – 2013

State	Percent Coverage of Primary Schools				
	2009	2010	2011	2012	2013
Perlis	100	100	100	100	100
Kedah	99.6	99.4	100	99.1	100
Pulau Pinang	98.8	95.1	100	99.6	100
Perak	99.8	100	97.8	99.4	99.7
Selangor	99.2	99.5	99.5	99.8	99.7
FTKL	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	100	99.6	100	99.6	100
Terengganu	99.7	98.9	99.7	99.7	100
Kelantan	81.6	92.6	96.3	98.8	99.5
Sabah	82.6	83.2	84.0	83.5	82.4
Sarawak	87.4	88.6	89.7	90.0	89.9
FT Labuan	100	100	100	100	100
MALAYSIA	**94.0**	**95.1**	**95.6**	**95.9**	**95.9**

Source: Health Informatics Centre, MOH

The coverage for primary schoolchildren has exceeded 95% over the past 5 years with 98.1% of primary schoolchildren examined in 2013 **(Figure 12).** Of these, 33.9% were caries-free and 67.4% did not require any treatment.

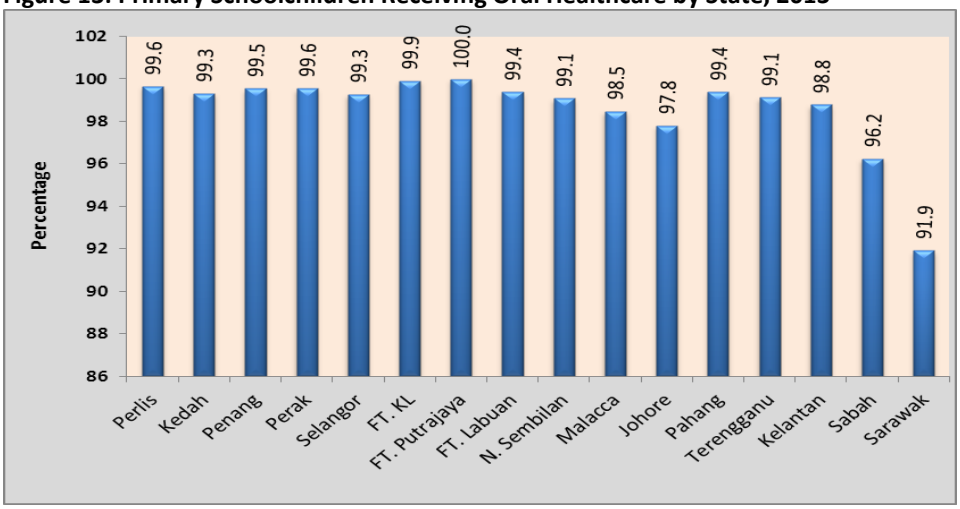
Figure 12: Coverage of Primary Schoolchildren, 2009-2013



Source: Health Informatics Centre, MOH

All states except Johor (97.8%), Sabah (96.2%) and Sarawak (91.9%) achieved coverage of 98.5% and more **(Figure 13)**.

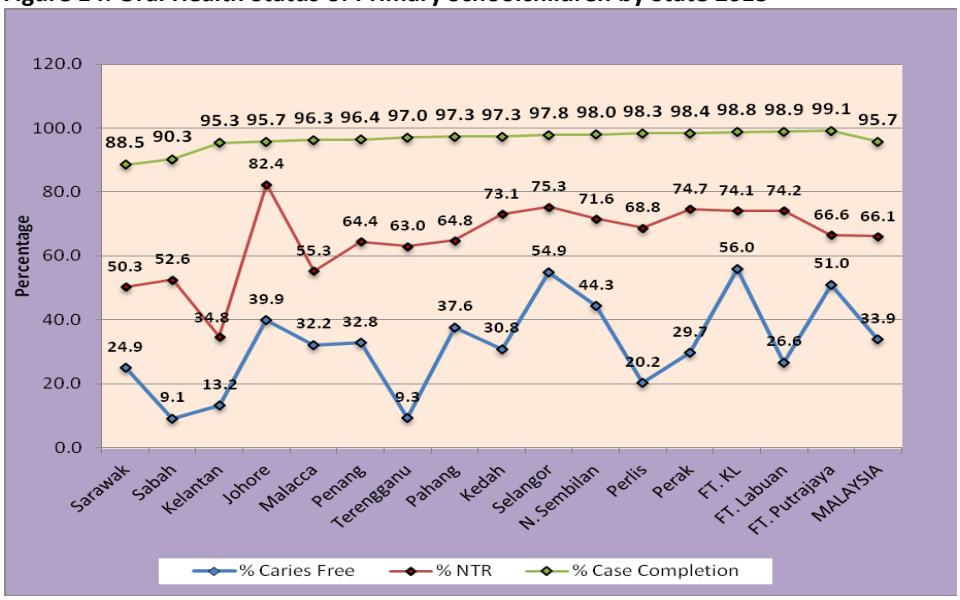
Figure 13: Primary Schoolchildren Receiving Oral Healthcare by State, 2013



Source: Health Informatics Centre, MOH

In 2013, about 95.7% of primary schoolchildren were rendered orally-fit (case completion) **(Figure 14)**.

Figure 14: Oral Health Status of Primary Schoolchildren by State 2013



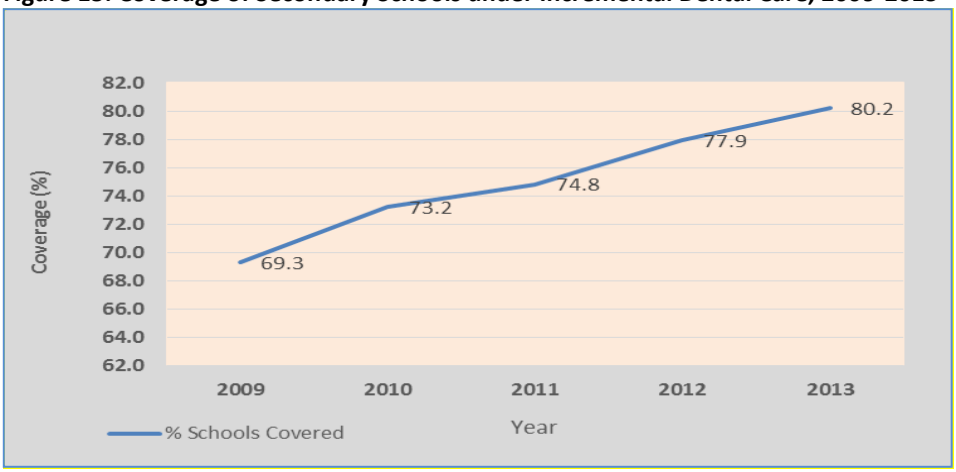
Source: Health Informatics Centre, MOH

All states achieved more than 96% case completion among primary schoolchildren except for Johor, Kelantan, Sabah and Sarawak. FT Putrajaya showed the highest percentage of case completion followed by FT Labuan and FT Kuala Lumpur at 99.1%, 98.9% and 98.8% 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 80.2% of the secondary schools covered in 2013 **(Figure 15)**.

Figure 15: Coverage of Secondary Schools under Incremental Dental Care, 2009-2013



Source: Health Informatics Centre, MOH

The majority of states achieved above 92% secondary school coverage in 2013 except for Sarawak, Sabah, Kelantan, Selangor and Terengganu **(Table 41)**.

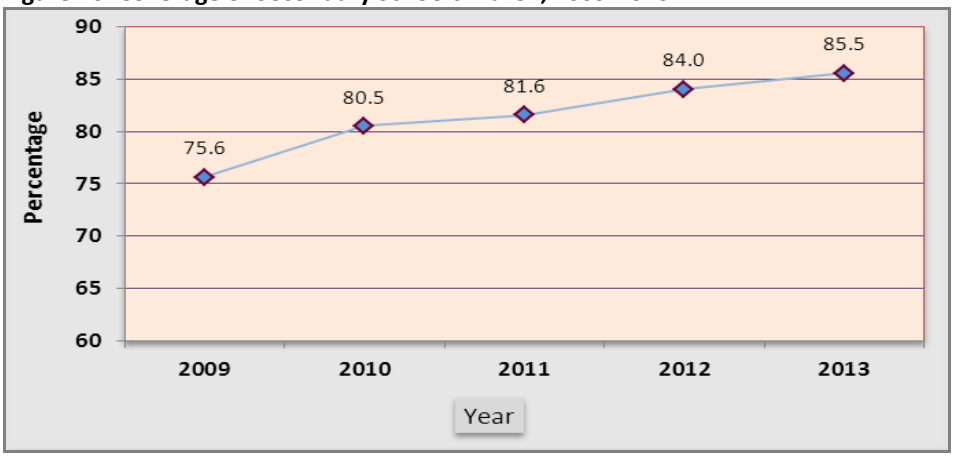
Table 41: Percentage of Secondary School Coverage under Incremental Dental Care by State, 2008-2013

State	Percent Secondary Schools Covered					
	2008	2009	2010	2011	2012	2013
Perlis	100	89.7	96.6	100	100	100
Kedah	71.7	77.8	83.9	82.5	92	93.6
Pulau Pinang	74.8	88.8	84.9	95.1	97.6	99.2
Perak	94.3	91.1	97.6	96.9	99.2	99.6
Selangor	61.9	72.8	79.3	75.4	82.8	83.3
FTKL	97.8	100	100	100	100	100
FT Putrajaya	100	100	100	100	100	100
N.Sembilan	75.2	93.4	100	100	100	100
Melaka	91.8	100	100	100	100	100
Johor	100	100	100	100	100	100
Pahang	95	97.5	97.1	100	100	100
Terengganu	56.8	57.9	64.5	68.1	75.5	87.2
Kelantan	22.8	28.6	33.2	38.3	42.8	49.8
Sabah	10.3	18.5	21.3	27	31	29.2
Sarawak	10.3	8.6	14.4	16.7	15.4	24.7
FT Labuan	100	100	100	100	100	100
MALAYSIA	**61.2**	**69.4**	**73.2**	**74.8**	**77.9**	**80.2**

Source: Health Informatics Centre, MOH

In 2013, 85.5% of secondary school children were seen, an improvement from the previous years **(Figure 16)**.

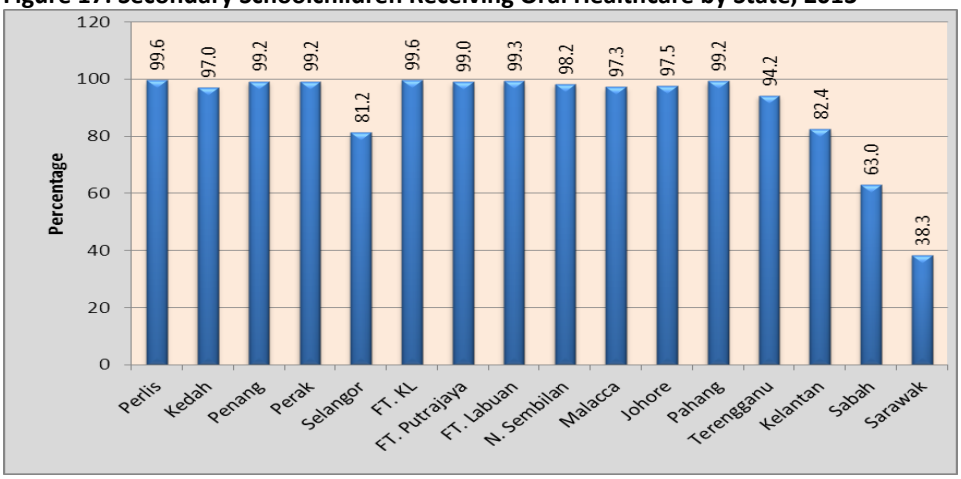
Figure 16: Coverage of Secondary Schoolchildren, 2009-2013



Source: Health Informatics Centre, MOH

Four states – Sarawak, Sabah, Selangor and Kelantan - recorded coverage of secondary schoolchildren below the target of 84% **(Figure 17).**

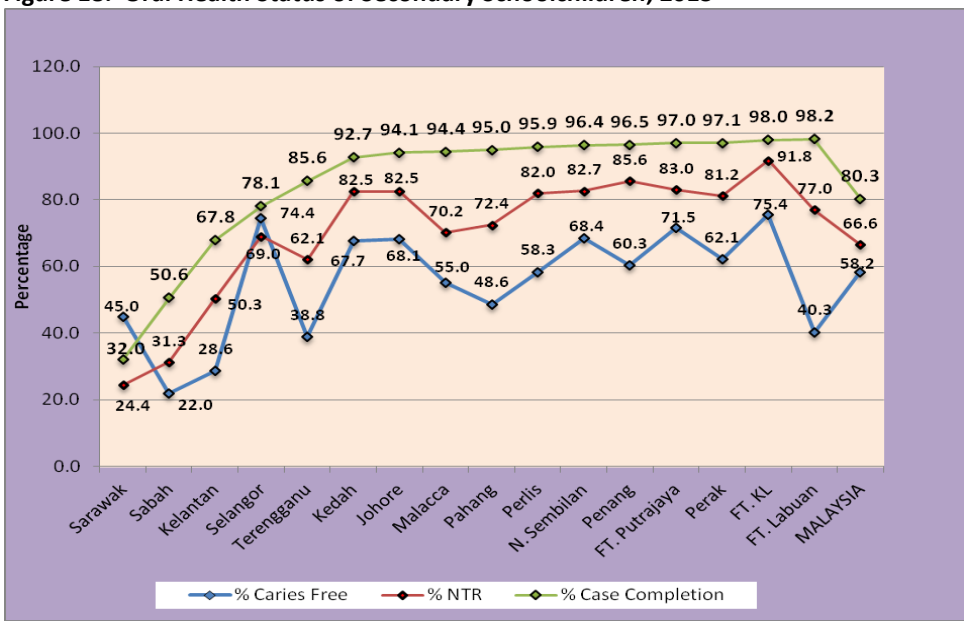
Figure 17: Secondary Schoolchildren Receiving Oral Healthcare by State, 2013



Source: Health Informatics Centre, MOH

In 2013, about 80.3% of secondary schoolchildren were rendered orally-fit **(Figure 18)** while 58.2% were caries-free and 66.6% did not require any treatment. Five states - Sarawak, Sabah, Kelantan, Selangor and Terengganu - recorded below 90% case completion among secondary schoolchildren.

Figure 18: Oral Health Status of Secondary Schoolchildren, 2013

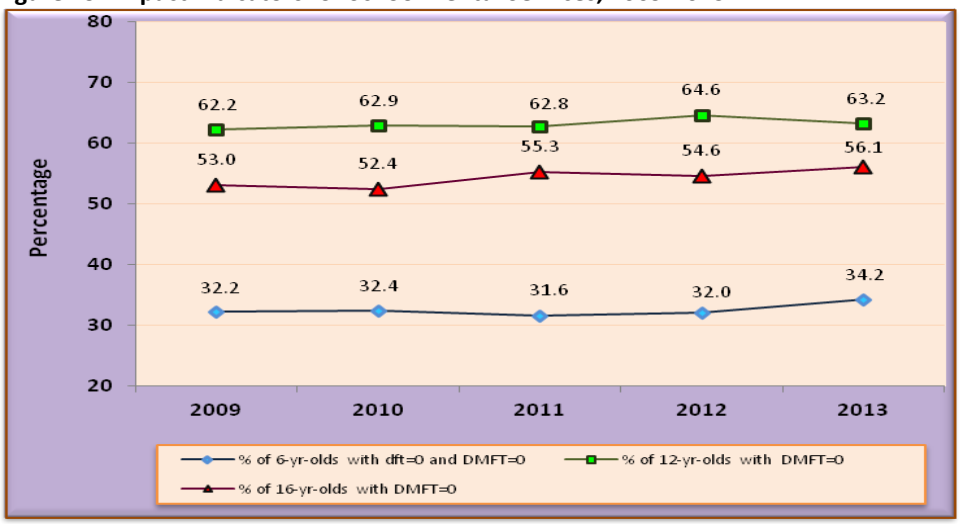


Source: Health Informatics Centre, MOH

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

The percentage of children with caries-free status among the 6 and 16-year-olds showed a slight increase from 2012, while it showed a decrease for 12-years-old **(Figure 19)**.

Figure 19: Impact Indicators for School Dental Services, 2009-2013



Source: Health Informatics Centre, MOH

FT KL showed the highest percentage of 12-year olds who were caries-free followed by FT Putrajaya **(Table 42)**. Almost all states, except for Kelantan, FT Labuan and Sabah, showed a decrease in caries-free 12-year-olds compared to 2012.

Table 42: Percentage of Caries-Free 12-year-olds by State, 2008-2013

State	Percent Caries-Free					
	2008	2009	2010	2011	2012	2013
Perlis	66.90	68.14	70.46	70.48	72.45	70.99
Kedah	64.73	67.12	69.38	69.50	72.20	71.53
P. Pinang	61.38	64.72	66.77	67.04	70.83	69.99
Perak	65.59	67.57	69.55	69.70	72.14	70.46
Selangor	75.91	78.75	79.13	79.12	80.70	78.80
FT Kuala Lumpur	75.80	77.95	80.03	79.43	81.87	81.86
FT Putrajaya	78.27	75.37	79.96	79.90	82.88	79.50
Negeri Sembilan	71.30	73.61	74.81	75.25	77.52	76.07
Melaka	62.82	65.00	66.42	64.80	65.62	63.98

State	Percent Caries-Free					
	2008	2009	2010	2011	2012	2013
Johor	71.96	74.28	74.49	74.31	76.21	74.19
Pahang	58.07	60.24	61.00	61.48	61.31	59.35
Terengganu	47.76	49.73	47.67	45.21	45.19	42.90
Kelantan	29.07	30.56	29.59	30.55	31.97	34.62
Sabah	29.29	30.42	29.91	30.42	31.16	33.20
Sarawak	51.28	51.05	53.11	52.71	52.48	49.08
FT Labuan	54.25	57.30	54.35	52.09	54.92	55.63
Malaysia	**60.36**	**62.25**	**62.89**	**62.79**	**64.64**	**63.21**

Source: Health Informatics Centre, MOH

FT KL also showed the highest percentage of caries-free 16-year-olds while Sabah and Kelantan reported the lowest **(Table 43)**. In 2013, the states of Perlis, Sarawak and FT Putrajaya recorded a drop in caries-free 16-year-olds.

Table 43: Percentage of Caries Free 16-year olds by State 2008 – 2013

State	2008	2009	2010	2011	2012	2013
Perlis	53.79	52.10	49.50	56.15	58.10	56.83
Kedah	58.77	59.02	58.32	64.50	64.28	65.50
Pulau Pinang	49.53	52.36	53.01	56.30	55.31	56.78
Perak	49.70	51.34	51.81	56.62	56.26	59.19
Selangor	64.03	66.75	66.52	69.38	70.38	72.30
FT Kuala Lumpur	67.33	68.35	67.10	71.60	71.54	73.35
FT Putrajaya	67.54	67.06	64.60	65.09	71.81	67.73
N Sembilan	56.56	60.27	59.87	64.21	63.12	66.63
Melaka	52.57	52.41	51.30	53.70	52.00	53.27
Johor	55.84	59.23	59.36	63.02	62.66	64.77
Pahang	41.46	41.98	43.04	45.72	45.20	46.03
Terengganu	37.02	38.85	38.69	38.96	37.00	37.99
Kelantan	27.68	30.48	28.95	29.30	26.05	27.53
Sabah	17.41	15.72	17.63	17.12	18.37	19.23
Sarawak	33.85	36.60	38.61	42.99	41.69	41.63
FT Labuan	35.79	32.95	34.92	35.52	34.07	35.71
MALAYSIA	**50.91**	**53.03**	**52.37**	**55.30**	**54.56**	**56.12**

Source: Health Informatics Centre, MOH

The mean DMFT score for 12-year-olds has remained below 1, and mean DMFT has decreased among the 16-year-olds **(Table 44)**.

Table 44: Mean DMFT Score for 12 and 16-year-olds, 2008-2013

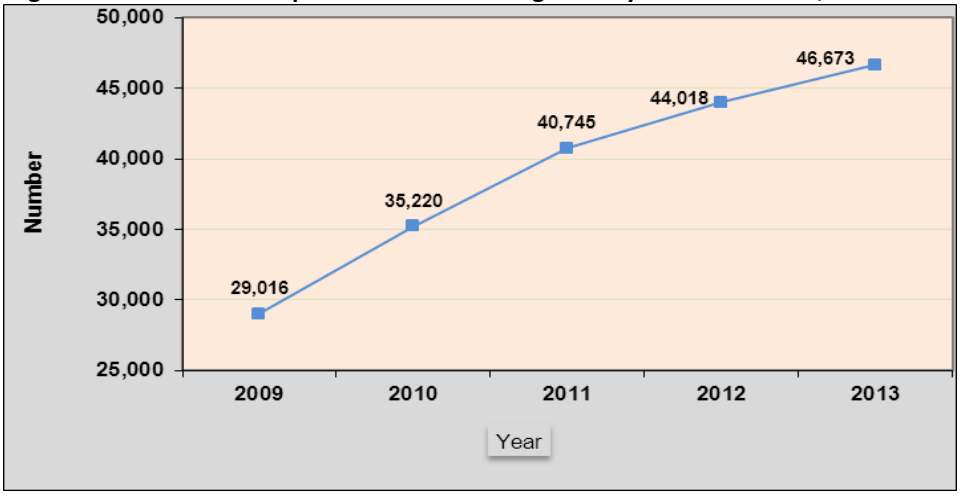
Age	2008	2009	2010	2011	2012	2013
12-yr-olds	1.01	0.97	0.96	0.96	0.89	0.91
16-yr-olds	1.48	1.40	1.44	1.37	1.32	1.30

Source: Health Informatics Centre, MOH

• 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 7 (NBOS 7) initiative in 2012 which prioritised health services to special needs children, the elderly and single mothers. In 2013, a total of 48,511 special needs children received oral healthcare **(Figure 20).**

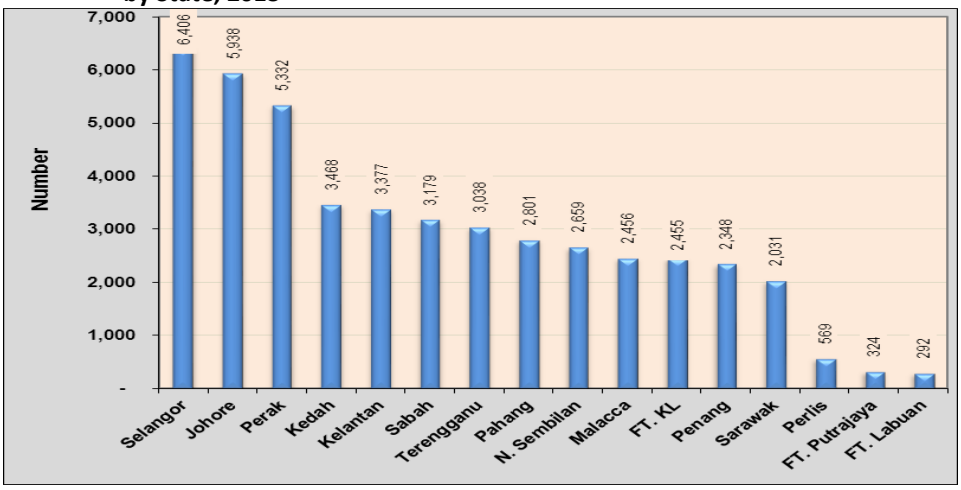
Figure 20: Children with Special Needs Receiving Primary Oral Healthcare, 2009-2013



Source: Health Informatics Centre, MOH

The highest number of special needs children was seen in Selangor followed by Johor and Perak **(Figure 21).**

Figure 21: Children with Special Needs Receiving Primary Oral Healthcare by State, 2013

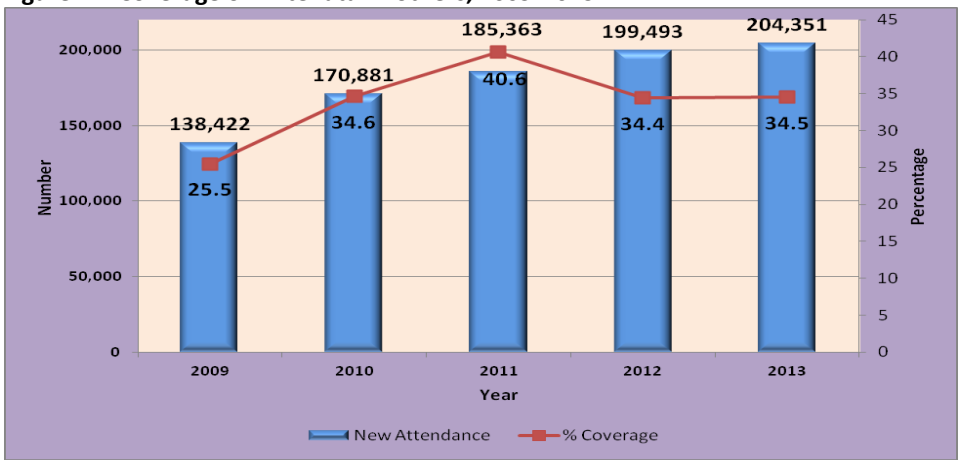


Source: Health Informatics Centre, MOH

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 22).**

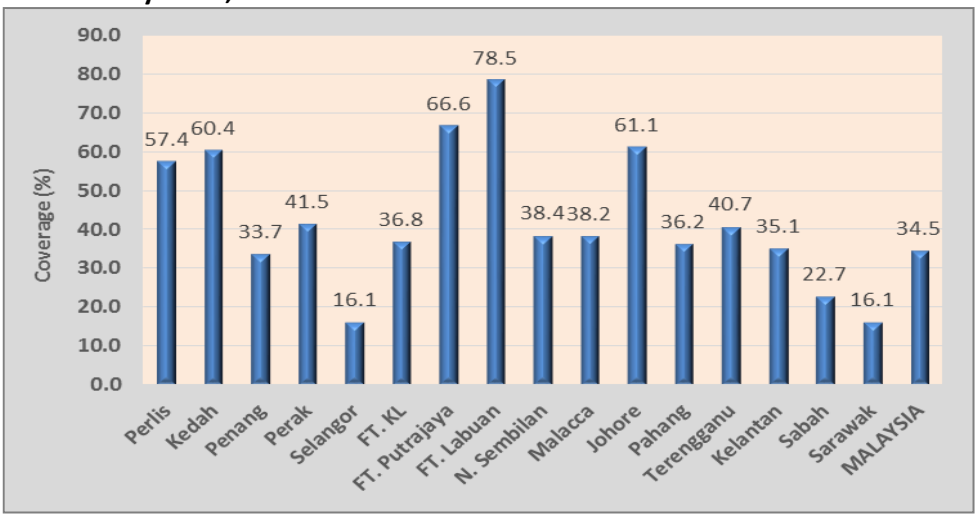
Figure 22: Coverage of Antenatal Mothers, 2009-2013



Source: Health Informatics Centre, MOH

The highest percentage of antenatal mothers who sought dental care was in FT Labuan, followed by FT Putrajaya and Johot **(Figure 23)**.

Figure 23: Antenatal Mothers Receiving Primary Oral Healthcare by State, 2013



Source: Health Informatics Centre, MOH

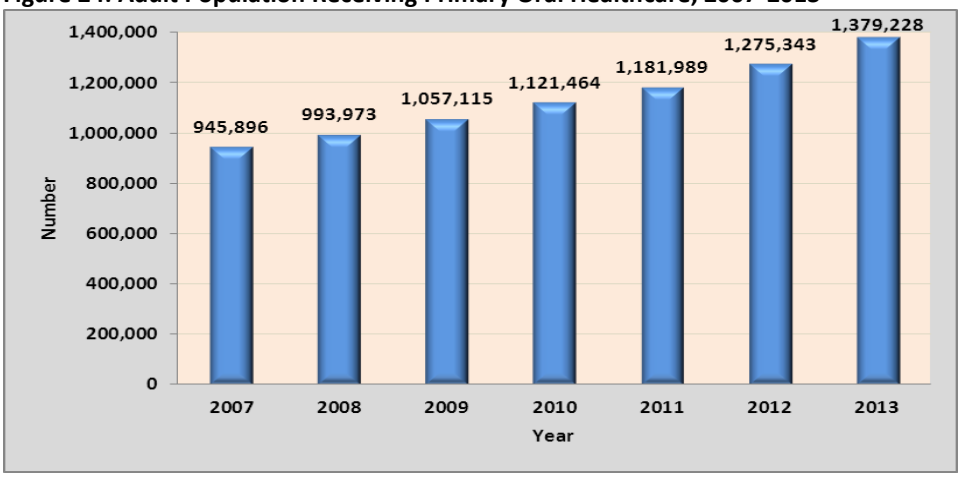
5. ORAL HEALTHCARE FOR ADULTS

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 and Sabah, whereas RTCs are located in Perak (Gopeng), Kelantan (Wakaf Che Yeh), Melaka (Kuala Linggi) and Pekan (Pahang). A total of 56,364 people utilised the UTCs and 1,491 utilized the RTCs in 2013 compared to 4,892 and 912 respectively in 2012.

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 93.2% (345/370) of dental clinics with 2 or more dental officers offer daily outpatient services.

In 2013, adult utilisation of primary oral healthcare increased by 8.1% from 2012 **(Figure 24)** with the highest number in Johor and Selangor**.** To further improve accessibility to oral healthcare services, in 2003 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.

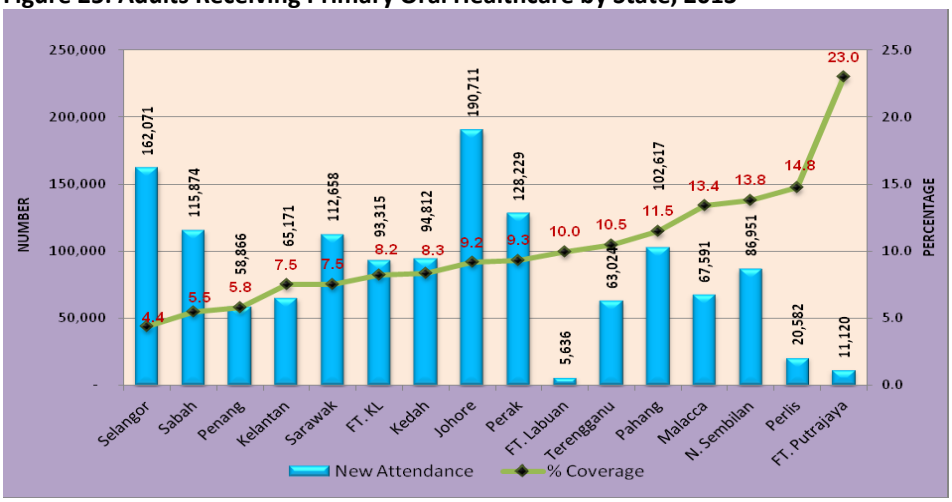
Figure 24: Adult Population Receiving Primary Oral Healthcare, 2007-2013



Source: Health Informatics Centre, MOH

A total of 7.8% of the adult population aged 18 - 59 years received primary oral healthcare in 2013. FT Putrajaya recorded the highest percentage while Selangor recorded the lowest **(Figure 25)**.

Figure 25: Adults Receiving Primary Oral Healthcare by State, 2013



Source: Health Informatics Centre, MOH

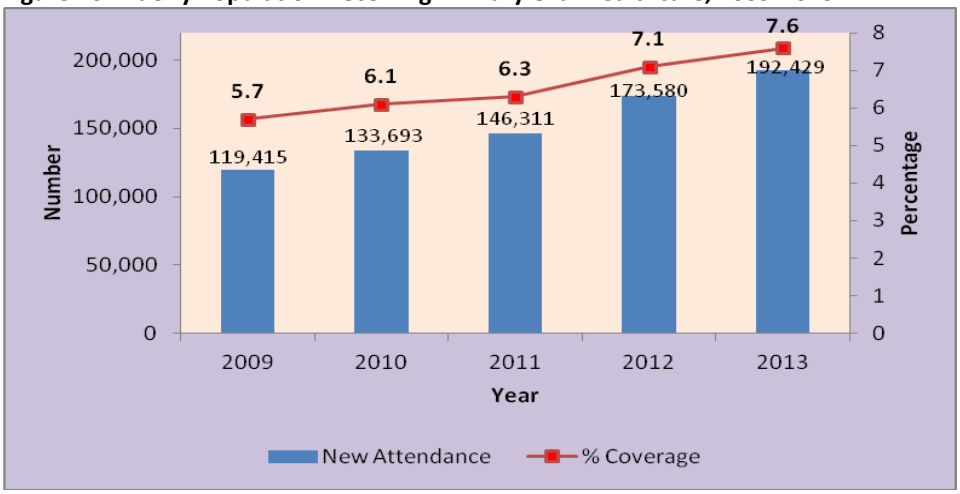
6. Oral Healthcare for the Elderly

Malaysia is expected to reach ageing nation status by 2030, when those aged 60 and above make up 15% of the population. In 2013, the number of elderly was 2.5 million, representing 8.6% of the total Malaysian population of 29.7 million and is expected to reach 3.4 million by year 2020. This necessitates a focus on a oral healthcare needs of the elderly.

Oral healthcare 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 2013, a total of 7.6% (192,429) of the elderly sought oral healthcare in MOH facilities (**Figure 26**). Of these, 4,816 elderly were treated in 188 institutions.

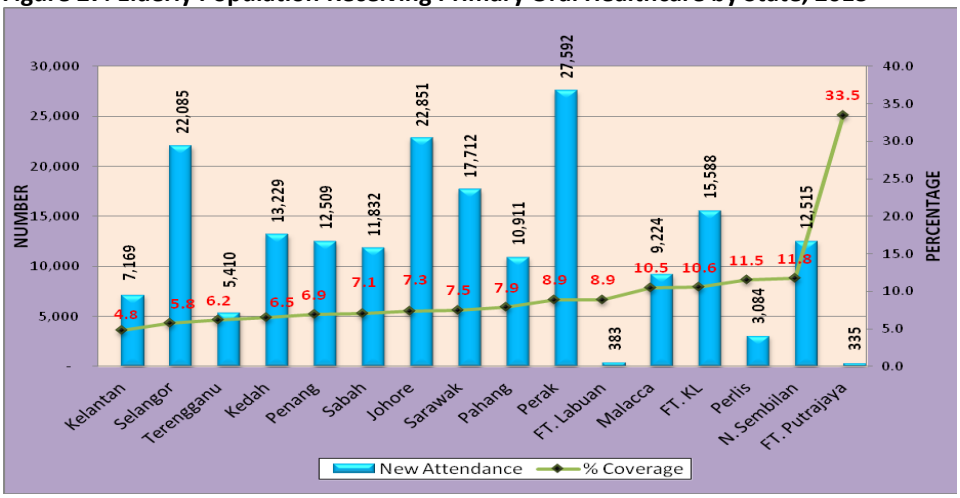
Figure 26: Elderly Population Receiving Primary Oral Healthcare, 2009-2013



Source: Health Informatics Centre, MOH

The highest coverage of elderly was in FT Putrajaya, followed by Negeri Sembilan and Perlis **(Figure 27)**.

Figure 27: Elderly Population Receiving Primary Oral Healthcare by State, 2013



Source: Health Informatics Centre, MOH

Despite an increase in the elderly population utilising oral healthcare facilities, their oral health status is still far from satisfactory. Only 36.9% of 60-year-olds had 20 or more teeth **(Table 45)**. This is far from the targeted goal of 60% in the National Oral Health Plan 2011-2020.

Table 45: Oral Health Status of the Elderly by Age Group, 2013

Age group (yr)	Average no. of teeth present		Edentulous (%)		With 20 or more teeth (%)	
	2012	2013	2012	2013	2012	2013
60	14.6	14.9	11	10.2	34.9	36.9
65	13.8	13.2	14.4	13.9	28.7	28.9
75 and above	9.5	9.6	26.1	25.1	16.9	16.9

Source: Health Informatics Centre, MOH

SPECIALIST ORAL HEALTHCARE

1. DENTAL SPECIALIST SERVICES

There are eight clinical dental specialties in the MOH - Oral Surgery, Orthodontics, Pediatric Dentistry, Periodontics, Oral Medicine & Oral Pathology, Restorative Dentistry, Special Needs Dentistry and Forensic Odontology.

In 2013, there were 190 clinical dental specialists and 119 Dental Public Health Specialists in the MOH, Malaysia **(Table 46).**

Table 46: Number of Dental Specialists in MOH, 2009-2013

Year / Discipline	2009	2010	2011	2012	2013
Oral Surgery	45	45	45 (*4)	48 (*3)	55 (*3)
Orthodontics	30	32	25 (*5)	34 (*6)	46 (*4)
Paediatric Dentistry	25	25	27	29	33
Periodontics	18	19	20	21	24
Oral Medicine & Oral Pathology	6	8	9	9	9
Restorative Dentistry	14	14	16	17	20
Special Needs Dentistry	0	0	0	2	2
Forensic Dentistry	0	0	0	1	1
Total Clinical Specialists	**138**	**143**	**142 (*9)**	**161 (*9)**	**190 (*7)**
Dental Public Health	129	129	123	122	119

Source: Oral Health Division, MOH
(Not including of post-graduates undergoing specialty gazettement)
**Contract Dental Specialists*

Six oral health specialist services were established in eight facilities in 2013 **(Table 47).**

Table 47: New Specialty Services Established, 2013

Specialty	Hospital / Dental Facilities
1. Oral Surgery	Lahad Datu Hospital, Sabah Keningau Hospital, Sabah
2. Paediatric Dentistry	Kuala Krai Hospital, Kelantan
3. Special Needs Dentistry	Kajang Hospital, Selangor
4. Orthodontics	Dental Clinic Changlun Jitra, Kedah
5. Periodontics	Dental Clinic Kangar, Perlis
6. Restorative Dentistry	Dental Clinic Kota Bharu, Kelantan Dental Clinic Bakar Arang, Sg Petani, Kedah

Source: Oral Health Division, MOH

2. DENTAL SPECIALTY ACTIVITIES

2.1 Dental Specialists' Meetings

Dental Specialists' meetings for each discipline were held in 2013 to discuss Key Performance Indicators, indicators for the National Indicator Approach, Patient Safety Indicators and the establishment of Centres for Management of Specific Dental Conditions. In 2013, five meetings were held **(Table 48).**

Table 48: Dental Specialists' Meetings, 2013

Date	Venue	Specialty
1. 16-18 March 2013	Georgetown City Hotel, Pulau Pinang	Dental Public Health
2. 28-29 April 2013	Sama-Sama Hotel, KLIA, Sepang	Oral Surgery Oral Medicine & Oral Pathology Periodontics
3. 10-12 April 2013	Avillion Legacy Hotel, Melaka	Orthodontics
4. 2-4 April 2013	Aseania Resort & Spa Langkawi	Restorative Dentistry, Paediatric Dentistry
5. 22-24 Sept 2013	Avillion Admiral Cove Hotel, Port Dickson	Combined Dental Specialists' Meeting

Source: Oral Health Division, MOH

Combined Dental Specialists' Meeting,
Hotel Avillion Admiral Cove, Port Dickson, Negeri Sembilan
22-24 September 2013.

2.2 Monitoring of the Specialist Oral Healthcare Programme

Generally, the dental specialists' workload is reflected as number of patients seen per specialist in a year **(Table 49).** There was an increase in workload for Paediatric Dentistry, Oral Surgery, Orthodontics and Oral Pathology/Oral Medicine. However there was a decrease noted for Restorative Dentistry and Periodontics.

Table 49: Workload of Dental Specialist by Discipline, 2010-2013

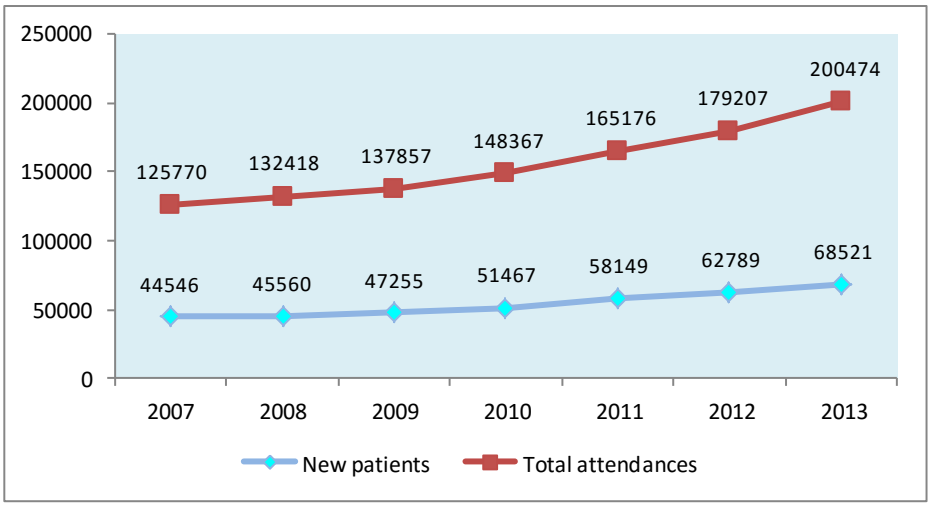
No.	Specialty	Workload			
		2010	2011	2012	2013
1	Paediatric Dentistry	1:2,979	1:3,264	1:3,144	1:3,400
2	Oral Surgery	1:2,799	1:2,950	1:2,950	1:3,182
3	Orthodontics	1:3,235	1:2,754	1: 2,362	1:2,788
4	Restorative Dentistry	1:1,244	1:1,332	1:1,495	1:1,376
5	Periodontics	1:1,374	1:1,494	1:1,627	1:1,222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

Source: Oral Health Division, MOH

2.2.1 Oral Surgery

There was an increasing trend in new patients and total attendance over the last 6 years for Oral Surgery (2008 - 2013) **(Figure 28).**

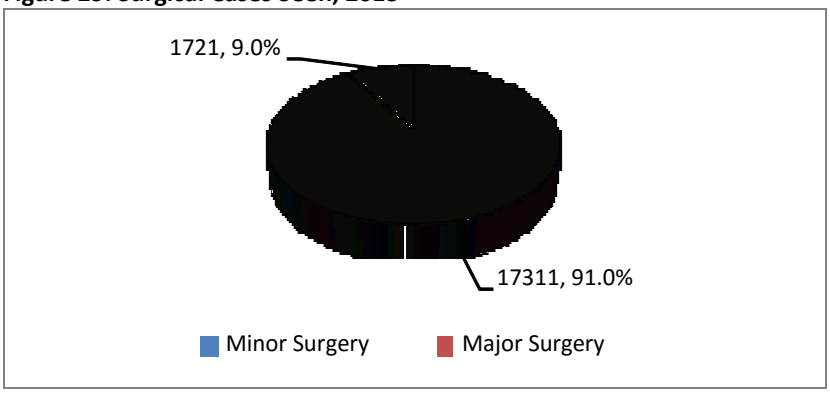
Figure 28: New Patients and Total Attendance for Oral Surgery, 2008-2013



Source: Health Informatics Centre, MOH

Of the oral surgeries performed in 2013 by the MOH Oral Surgeons, 91.0% (17,311) were minor surgical cases, such as pre-prosthetic and pre-orthodontic procedures, removal of impacted teeth, biopsies, excision/ablative surgeries and removal of retained/displaced roots. Major surgery cases (1,721; 9.0%) consist of removal of malignant lesions, secondary or primary facial reconstruction, cleft lip and palate, orthognathic surgery and distraction osteogenesis **(Figure 29).**

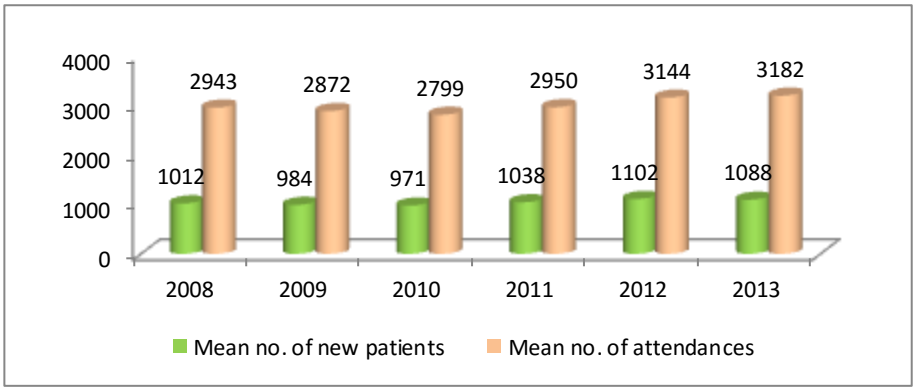
Figure 29: Surgical Cases Seen, 2013



Source: Health Informatics Centre, MOH

On average, an Oral Surgeon treats 3,182 patients a year, each patient coming for three visits **(Figure 30).**

Figure 30: Mean Number of Patients Seen Per Oral Surgeon, 2008 – 2013

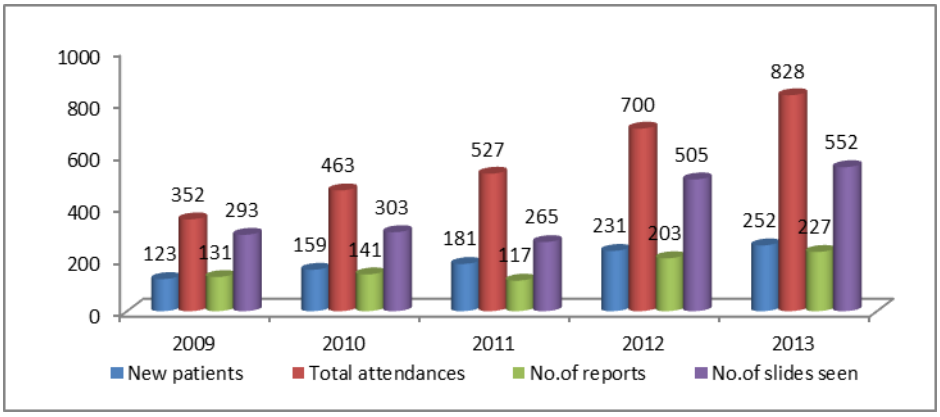


Source: Health Informatics Centre, MOH

2.2.2 Oral Medicine and Oral Pathology

The attendance for Oral Medicine & Oral Pathology (OMOP) has increased steadily over the years. In 2013, the total attendance had increased to 828 per OMOP specialist compared to 700 in the previous year. The number of reports and slides for oral pathology had increased to 779 per specialist in 2013 **(Figure 31).**

Figure 31: Number of Patients, Reports and Slides Seen Per OMOP Specialist, 2008 – 2013

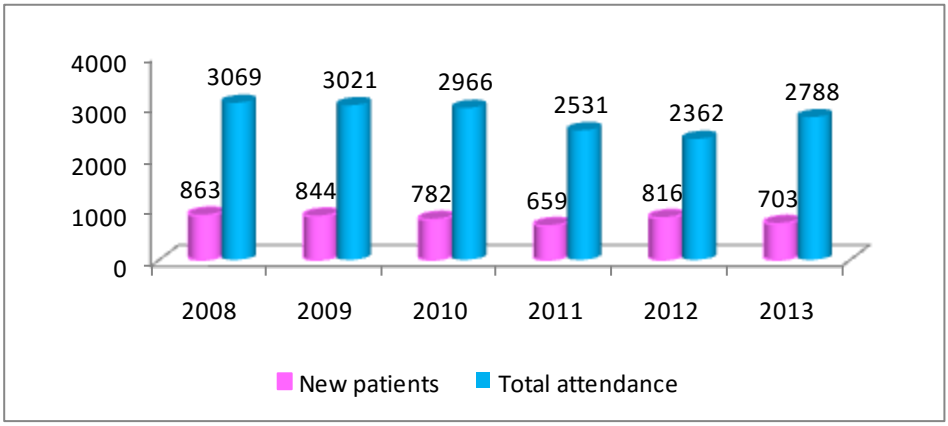


Source: Health Informatics Centre, MOH

2.2.3 Orthodontics

There was an increase in total attendance in 2013 compared to 2012. However, new cases dropped slightly from 816 per Orthodontist in 2012 to 703 per Orthodontist in 2013 **(Figure 32).**

Figure 32: New Patients and Total Attendance for Orthodontics, 2008-2013



Source: Health Informatics Centre, MOH

Over the years there has been a gradual increase in cases on the waiting lists (Consultation II). Concurrently, there was an increase in active treatment cases completed and patients issued with removable and fixed appliances. In 2013, a total of 7,471 patients were treated with fixed appliances and 5,669 patients with removable appliances **(Table 50).**

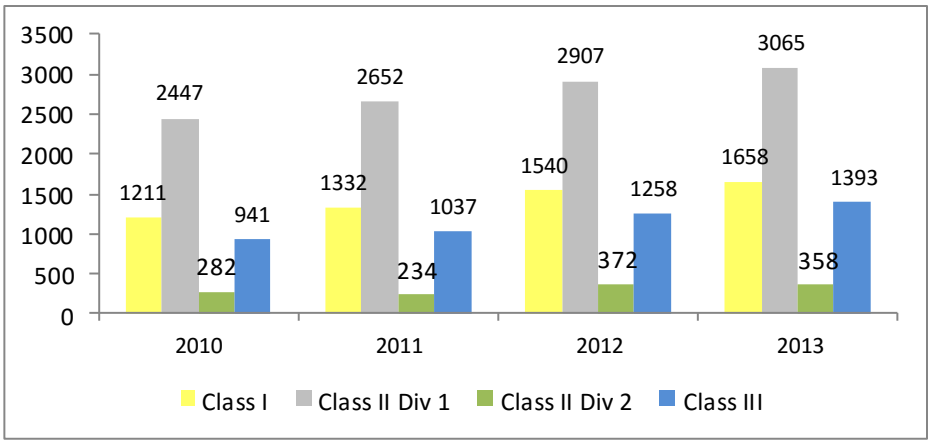
Table 50: Items of Care for Orthodontic Cases, 2009-2013

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

Source: Health Informatics Centre, MOH

In 2013, the majority of malocclusion seen by MOH Orthodontists were Class II Div I cases. There has been an increasing trend in Class II Div 1, Class 1 and Class III cases over the last 4 years **(Figure 33).**

Figure 33: Types of Malocclusion Seen, 2010-2013

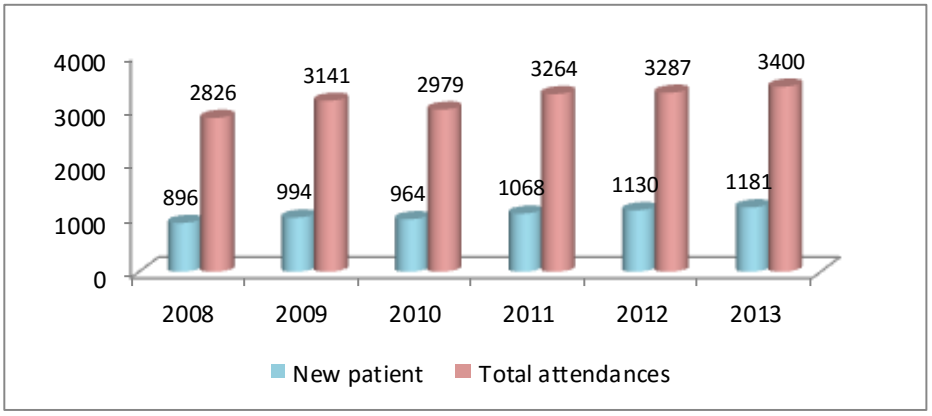


Source: Health Informatics Centre, MOH

2.2.4 Paediatric Dentistry

Paediatric Dental Specialists attend to children below the age of 17 years. There has been a steady increase in new patients and total attendance over the past 6 years **(Figure 34).** The increase was noted in all age groups.

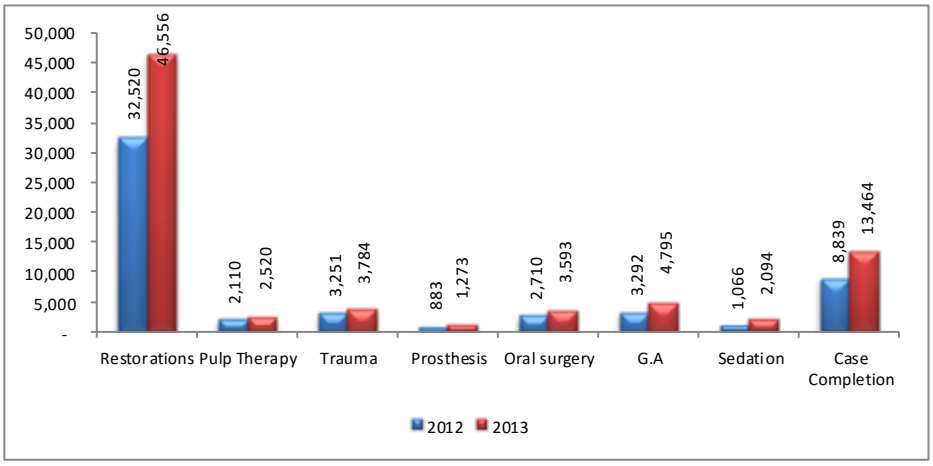
Figure 34: New Patients and Total Attendance for Paediatric Dental Specialty, 2008-2013



Source: Health Informatics Centre, MOH

More than half of the treatment performed by Paediatric Dental Specialists were restorations (**Figure 35).** Some required general anaesthesia or sedation. On average, each patient makes 3 visits a year.

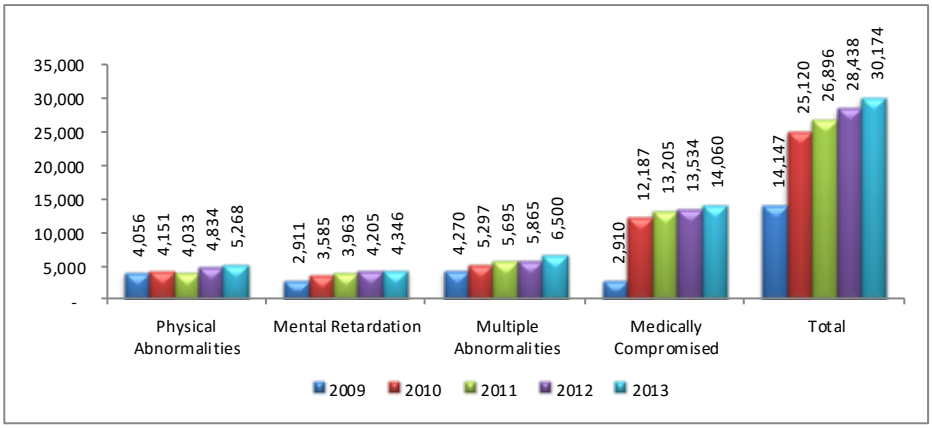
Figure 35: Treatment Rendered by Paediatric Dental Specialists, 2013



Source: Health Informatics Centre, MOH

Paediatric Dental Specialists also manages children with special needs. These patients are categorised under the following groups: physical abnormalities, mental retardation, multiple abnormalities and medically-compromised. In 2013, there was an overall increase in all cases **(Figure 36).** Management of these challenging patients include preventive and curative care.

Figure 36: Dental Paediatric Patients According to Conditions, 2009-2013

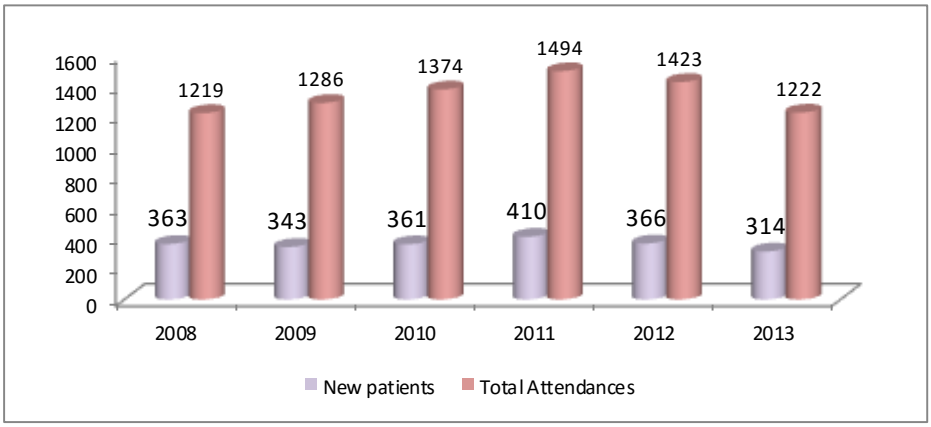


Source: Health Informatics Centre, MOH

2.2.5 Periodontics

The number of new patients and total attendance per Periodontist has decreased in the last 2 years **(Figure 37).**

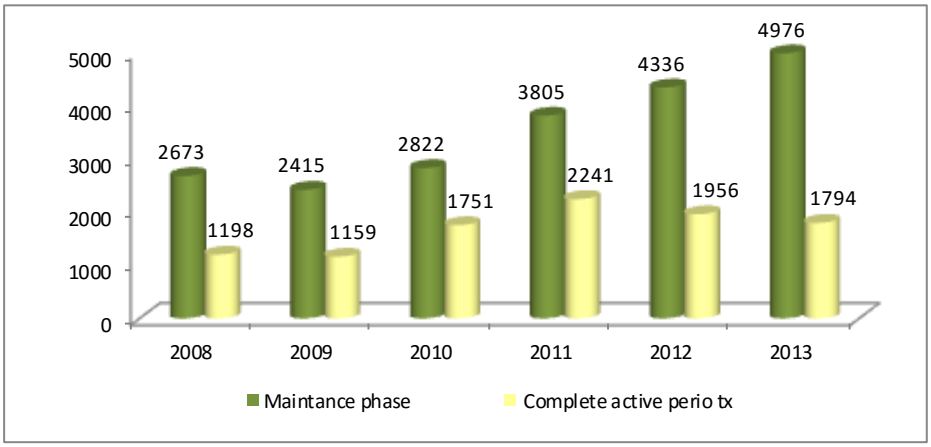
Figure 37: New Patients and Total Attendance for Periodontic Specialist Care, 2009-2013



Source: Health Informatics Centre, MOH

But these numbers are commensurate with the number under the maintenance phase which has steadily increased from 2008 to 2013 **(Figure 38).**

Figure 38: Cases in Maintenance Phase and Completed Cases, 2008-2013



Source: Health Informatics Centre, MOH

2.2.6 Restorative Dentistry

There were 20 Restorative Dental Specialists in MOH in 2013. The new patients and total attendance at restorative clinics has increased steadily in the last 4 years. In 2013, the highest attendance was among those in the 30 - 59 year age group **(Table 51).** On average, each patient made three visits a year to the specialist.

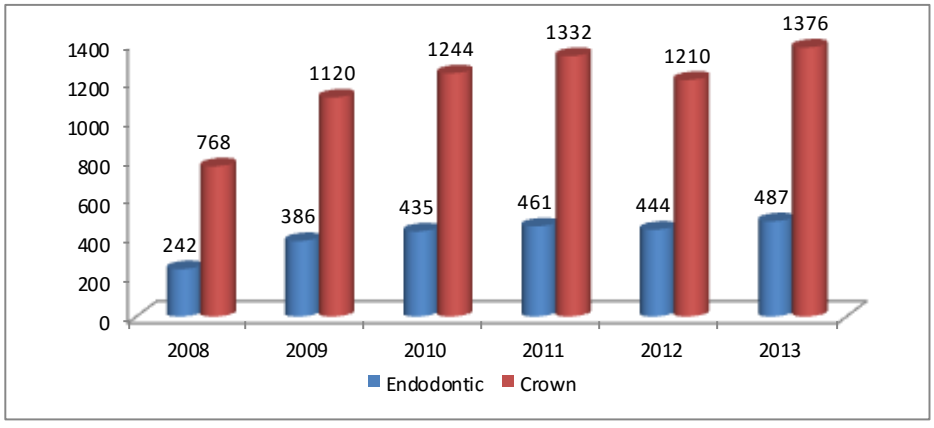
Table 51: New Patients and Total Attendance for the Restorative Dental Specialty, 2010 – 2013

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

Source: Health Informatics Centre, MOH

The number of endodontic and crown cases seen by the Restorative Dental Specialists has increased in 2013 compared to 2012 **(Figure 39).**

Figure 39: Endodontic and Crown Cases Seen, 2008 – 2013



Source: Health Informatics Centre, MOH

2.2.7 Special Need Dentistry

Special Need Dentistry (SND) services began in early 2011 with two specialists. One more joined the MOH in 2013. As of 2013, SND Units were established in *Hospital Kuala Lumpur (HKL), Hospital Kaja*ng and *Hospital Seberang Jaya*. The planning for SND Unit in *Hospital Rehabilitasi Cheras* is ongoing and the unit will be established in 2014.

2.2.8 Forensic Odontology

The Forensic Odontology Unit was established in HKL with a specialist working closely with the General Forensic Department in HKL. Capacity is still limited but the MOH specialists work in close collaboration with forensic odontologists in the Armed Forces and in academia. All in, Malaysia has five forensic odontologists.

COMMUNITY ORAL HEALTHCARE

1. FLUORIDATION OF THE PUBLIC WATER SUPPLY

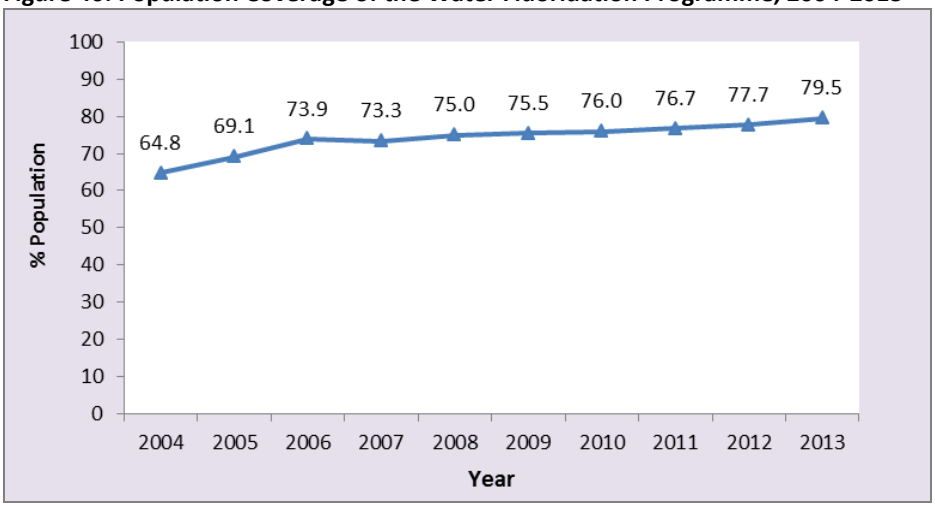
1.1 Population Coverage

Fluoridation of the 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, income and education levels.

The coverage and maintenance of optimum levels of fluoride at water treatment plants and reticulation points still remain a challenge for some states, in particular Sabah, Sarawak, Kelantan and Pahang.

The estimated population receiving fluoridated water has increased from 77.7% in 2012 to 79.5% in 2013 **(Figure 40)**.

Figure 40: Population Coverage of the Water Fluoridation Programme, 2004-2013



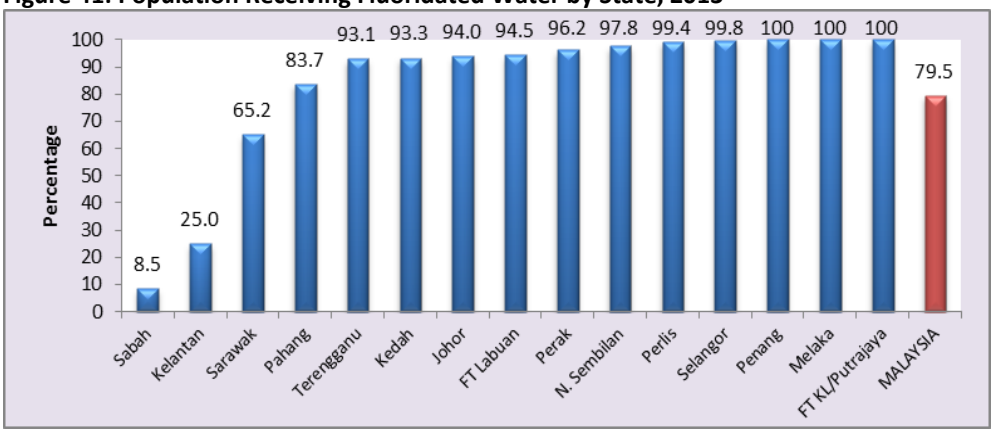
Source: State Oral Health Departments

All states achieved over 90% population coverage except for Pahang, Sarawak, Kelantan and Sabah **(Figure 41)**.

In Sabah, the State Cabinate Committee approval to re-activate the water fluoridation programme was received on 6 October 2010. However, the installation of fluoride feeders and implementation of the programme continue to be challenges, due to issues such as funding and technical

problems. Sabah achieved a breakthrough in improving population coverage of fluoridated water in 2013, with 8.5% of the population receiving fluoridated water **(Figure 41).**

Figure 41: Population Receiving Fluoridated Water by State, 2013



Source: State Oral Health Departments

1.2 Water Treatment Plants (WTP)

In 2013, there were a total of 452 WTP in Malaysia **(Table 52).** Most WTP are fully privatised except for those in Perlis, Perak, Sabah, Sarawak and the Federal Territory of Labuan.

Table 52: Number of Water Treatment Plants by Sector, 2013

State	Government	Water Board	Private	Total
Perlis	3	0	0	3
Kedah	0	0	36	36
Pulau Pinang	0	0	9	9
Perak	0	41	5	46
Selangor	0	0	30	30
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	74	74
Terengganu	0	0	14	14
Kelantan	0	0	27	27
Sabah	36	0	19	55
FT Labuan	4	0	1	5
Sarawak	63	7	5	75
Malaysia	**106**	**48**	**298**	**452**

Source: State Oral Health Departments

Of the total number of WTP, 65.5% (296) have been installed with fluoride feeders **(Table 53)**. Among those with feeders, 275 (92.9%) were active while 22 (7.1%) were inactive due to lack of resources to purchase fluoride compounds or technical problems such as fluoride feeders that require repairs or replacement.

In 2013, all WTP in Perlis, Penang, Federal Territory of Kuala Lumpur/Putrajaya, and Melaka were producing fluoridated water. However, less than 50% of WTP in Sarawak, Federal Territory of Labuan (FT Labuan), Kelantan, and Sabah produced fluoridated water **(Table 53)**.

Table 53: WTP with Active Fluoride Feeders by State, 2013

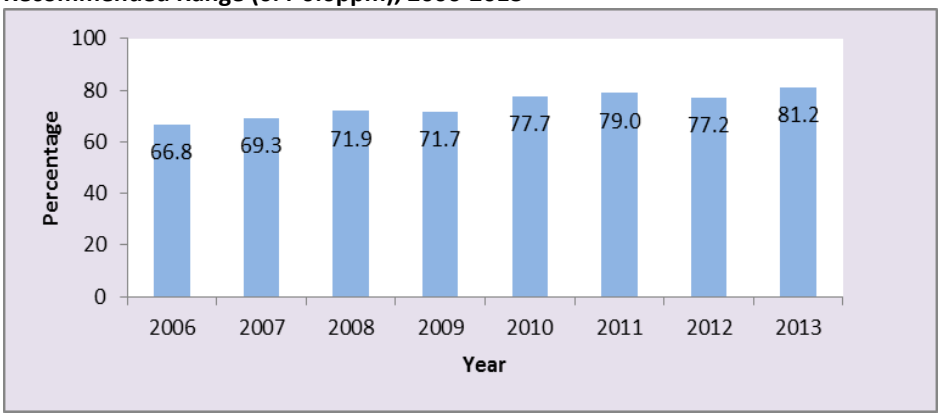
State	No. of WTP	WTP with Fluoride Feeders		Active Fluoride Feeders		WTP Producing fluoridated water (%)
		No.	%	No.	%	
Perlis	3	3	100.0	3	100.0	100.0
Kedah	36	32	88.9	32	100.0	88.9
Penang	9	9	100.0	9	100.0	100.0
Perak	46	43	93.5	43	100.0	93.5
Selangor	30	29	96.7	29	100.0	96.7
FTKL/ Putrajaya	3	3	100.0	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	32	71.1	32	100.0	84.2
Pahang	74	50	67.6	43	86.0	58.1
Terengganu	14	13	92.9	13	100	92.9
Kelantan	27	3	11.1	3	100.0	11.1
Sabah	55	12	21.8	8	66.7	14.5
FT Labuan	5	4	100.0	1	20.0	20.0
Sarawak	75	34	45.3	28	82.4	37.3
MALAYSIA	**452**	**296**	**65.5**	**275**	**92.9**	**60.8**

Source: State Oral Health Departments

1.3 Maintaining Fluoride Levels in Public Water Supplies

Maintenance of fluoride levels within the recommended 0.4 – 0.6 ppm is important to achieve optimum benefit for control and prevention of dental caries while ensuring health and safety. In 2013, 81.2% of readings taken at reticulation points conformed to the recommended range, a slight improvement compared to 2012 **(Figure 42)**.

Figure 42: Conformance of Fluoride Levels in Public Water Supplies to the Recommended Range (0.4-0.6ppm), 2006-2013



Source: State Oral Health Departments

Nine out of 15 states (Perlis, Kedah, Penang, Perak, Selangor, FT Kuala Lumpur/Putrajaya, Negeri Sembilan, Johor and Pahang) complied with the National Indicator Approach (NIA) standards for lower (not more than 25% of readings below 0.4 ppm) and upper limits (not more than 7% of the readings exceeding 0.6 ppm) of fluoride level in public water supplies **(Table 54)**.

Table 54: **Fluoride Levels at Reticulation Points by State, 2013**

States	Total no. of Readings	Fluoride Readings					
		0.4 - 0.6 ppm		< 0.4 ppm (Std. < 25%)		> 0.6 ppm (Std. < 7%)	
		No.	%	No.	%	No.	%
Perlis	478	433	90.6	40	8.4	5	1.0
Kedah	467	418	89.5	36	7.7	13	2.8
Penang	395	325	82.3	57	14.4	13	3.3
Perak	2007	1927	96.0	80	4.0	0	0.0
Selangor	1204	1193	99.1	11	0.9	0	0.0
FTKL/Putrajaya	1406	1394	99.1	10	0.7	2	0.1
N. Sembilan	944	941	99.7	2	0.2	1	0.1
Melaka	384	207	53.9	163	42.4	14	3.6
Johor	1736	1668	96.1	54	3.1	14	0.8
Pahang	1736	1568	90.3	95	5.5	73	4.2
Terengganu	648	365	56.3	210	32.4	73	11.3
Kelantan	1050	159	15.1	829	79.0	62	5.9
Sabah	419	146	34.8	264	63.0	9	2.1
Sarawak	726	344	47.4	357	49.2	25	3.4
FT Labuan	143	66	46.2	72	50.3	5	3.5
Malaysia	**13,743**	**11,154**	**81.2**	**2,280**	**16.6**	**309**	**2.2**

Source: Oral Health Division, MOH

Six states did not comply with the standard for lower limit (below 0.4 ppm) of fluoride level, the highest being Kelantan with 79.0% non-compliance. Terengganu was the only state which did not comply with the standard for upper limit (exceeding 0.6 ppm).

1.4 Annual Operating Budget for the Fluoridation Programme

The government funds only the government-operated WTPs. In 2013, more than RM1.5 million was spent on this programme **(Table 55).** However, some government funds were used for monitoring fluoride levels at reticulation points in WTP operated by the private sector.

Table 55: Government Funded Fluoridation Programme by State, 2013

State	Annual Operating Budget		Development Fund (MP-10)		Total RM	Total RM Spent
	RM Received	RM Spent	RM Received	RM Spent		
Perlis	80,000.00	79,955.00	-	-	80,000.00	79,955.00
Perak	620,350.00	620,275.00	-	-	620,350.00	620,275.00
Sabah	200,000.00	200,000.00	-	-	200,000.00	200,000.00
Sarawak	400,000.00	400,000.00	2,660,000.00	295,350.00	3,060,000.00	3,060,000.00
MALAYSIA	**1,300,350.00**	**1,300,230.00**	**2,660,000.00**	**295,350.00**	**3,960,350.00**	**1,595,580.00**

Source: State Oral Health Departments

1.5 Interagency Collaboration

The Oral Health Division continues to collaborate with various agencies to strengthen and expand community water fluoridation. Visits to WTPs and meetings were conducted with relevant agencies at national and state levels. Various implementation issues were discussed and these included fluoride levels in public water supplies, conformance of fluoride levels within the recommended levels, and supply and storage of fluoride compounds.

1.6 Training and Public Awareness

Recognising that knowledge and understanding of the benefits of water fluoridation is crucial, training is conducted each year for health personnel as well as personnel from WTPs. In 2013, 36 training sessions were conducted, including hands-on training on the use of colorimeters.

Prof. Helen Whelton from the University of Cork, Ireland was engaged to conduct a training and calibration session from 24 February to 1 March 2013 on enamel opacities indices. The funding for this training came from *Latihan Dalam Perkhidmatan* and the World Health Organisation Programme Proposal Budget 2012-2013. A Gold Standard for the Dean's Index for Fluorosis was identified.

2. PRIMARY PREVENTION & EARLY DETECTION OF ORAL PRE-CANCERS & CANCER

Oral cancer remains a major health concern in Malaysia. The Oral Health Division emphasises collaboration to ensure the success of the Primary Prevention & Early Detection of Oral Pre-Cancers & Cancer programme.

2.1 Screening during Outreach Programmes

In 2013, 473 high-risk *kampung*/estates/communities were visited, where 10,581 residents aged 20 years and above were screened for oral lesions. A total of 7,737 participants were given dental health education **(Table 56)**.

Table 56: Oral Cancer and Pre-cancer Screening and Prevention Programme, 2013

Estates/Villages visited		No. screened	Exhibitions	Dental Health Education	
New	Repeat			Talks	Participants
413	60	10,581	312	1, 053	7, 737

Source: State Oral Health Departments

Of those examined, 51 had oral lesions but only 33 were referred to oral surgeons for further investigation and management. Referral compliance is an on-going problem and of those referred, only 2 (6.1%) were finally seen by Oral Surgeons (**Table 57**).

Table 57: Participants Screened and Referred by State, 2013

State	Examined		Attendance	With Lesion		Referred	Seen by Surgeons	
	New	Repeat		n	%		n	%
Kedah	2,052	0	2, 052	2	0.1	2	0	0
Penang	627	29	656	4	0.6	2	0	0
Perak	686	10	696	1	0.1	1	1	100
Selangor	876	0	876	6	0.7	6	1	16.7
N. Sembilan	752	0	752	6	0.8	1	0	0
Melaka	490	0	490	9	1.8	0	0	0
Johor	910	0	910	0	0	0	0	0
Pahang	738	0	738	0	0	0	0	0
Terengganu	1, 125	0	1, 125	0	0	0	0	0
Kelantan	29	0	29	1	3.5	0	0	0
Pen. Malaysia	**8, 285**	**39**	**8, 324**	**29**	**0.4**	**12**	**2**	**25**
Sabah	1, 304	0	1, 304	17	1.3	17	0	0
Sarawak	948	0	948	5	0.8	4	0	0
FT Labuan	5	0	5	0	0	0	0	0
Malaysia	**10, 542**	**39**	**10, 581**	**51**	**0.5**	**33**	**2**	**6.1**

Source: State Oral Health Departments
Not listed - states with no community programmes (Perlis, FT KL/Putrajaya)

The number screened in 2013 was less than in 2012. Only two cases were seen by oral surgeons compared to 15 in 2012 (**Table 58**). The two cases, one each from Perak and Selangor were diagnosed as having 'Other Pathology' and both were benign.

Table 58: Number Screened and Referred for Oral Lesions, 2007-2013

Year	Examined		Attendance	With Lesion		Referred	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**

Source: State Oral Health Departments

Of the malignant cases reported over the 11 years from 2003 to 2013, 31 (25%) were detected at Stage 3 and 48 (39%) at Stage 4 **(Table 59)**. However, none of the patients screened had late stage oral cancer.

Table 59: Clinical and Histological Diagnosis of Referred Cases, 2003 – 2013

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	0	2	2
2012	16	3	2	1	2	6	2	0	0	0	2	0	0	0	2	0	0	1	3	4	2	4
2013	**2**	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0
Total	**280**	**36**	**8**	**31**	**17**	**133**	**62**	**24**	**14**	**31**	**48**	**4**	**20**	**3**	**97**	**17**	**4**	**13**	**19**	**23**	**40**	**124**

Source: State Oral Health Departments

**Histological diagnosis only available for cases where biopsy was done*

2.2 Opportunistic Screening

In 2013, a total of 46,830 walk-in patients were screened and 19,888 patients were given dental health education in MOH dental clinics **(Table 60)**.

Table 60: Oral Cancer and Pre-cancer Screening for Walk-in Patients, 2013

No. of patients screened	No. of Exhibitions held	Dental Health Talks	
		Talks given	Participants
46, 830	352	2, 558	19, 888

Source: State Oral Health Departments

Walk-in patients were highest in Kedah and lowest in FT Labuan. Out of 196 referred, 60.7% (119) were seen by surgeons. Terengganu, Perak and Selangor reported high numbers of patients seen by oral surgeons in 2013 (**Table 61).**

Table 61: Walk-in Patients Screened and Referred by State, 2013

State	Examined		Attendance	With Lesion		Referred	Seen by Surgeons	
	New	Repeat		n	%		n	%
Perlis	513	0	513	1	0.2	0	0	-
Kedah	20, 854	0	20, 854	10	0.05	10	10	100.0
Penang	1, 731	0	1, 731	8	0.5	4	4	100.0
Perak	3, 920	3	3, 923	56	1.4	35	22	62.7
FT KL & Putrajaya	2, 437	0	2, 437	72	3.0	39	10	25.6
Selangor	994	0	994	30	3.0	30	15	50.0
N. Sembilan	460	0	460	9	2.0	6	6	100.0
Melaka	1, 413	3	1, 416	9	0.6	9	6	66.7
Johore	5, 421	0	5, 421	24	0.4	16	11	68.8
Pahang	1, 070	0	1, 070	0	0	3	3	100.0
Terengganu	3, 328	0	3, 328	50	1.8	28	27	96.4
Kelantan	2, 862	0	2, 862	0	0	0	0	-
Pen. Malaysia	**45, 003**	**6**	**45, 009**	**269**	**0.6**	**180**	**114**	**63.3**
Sabah	1, 122	0	1, 122	15	1.3	15	4	26.7
Sarawak	599	0	599	0	0	0	0	-
FT Labuan	100	0	100	14	14.0	1	1	100.0
Total	**46, 824**	**6**	**46, 830**	**298**	**0.6**	**196**	**119**	**60.7**

Source: State Oral Health Departments

Of 119 walk-in patients seen by oral surgeons, four were found with Stage 3 and 10 with Stage 4. Together, Kedah and Kelantan had 6 cases at Stage 4.

A higher number of malignant cases was detected among patients screened in the dental clinics **(Table 62)** compared to screening at high risk communities **(Table 59).**

Table 62: Clinical and Histological Diagnosis of Referred Cases (Walk-in patients),2013

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 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	10	0	0	1	0	6	3	1	0	1	3	0	0	1	4	0	0	0	1	5	0	5
Penang	4	0	0	0	1	1	2	2	0	0	0	0	0	0	2	0	0	1	0	1	0	3
Perak	22	6	1	6	1	3	5	1	0	1	1	1	2	0	2	2	0	0	2	19	1	2
FT KL/ Putrajaya	10	1	0	4	0	0	5	0	0	0	0	0	0	0	0	4	0	0	3	10	0	0
Selangor	15	1	1	3	0	8	2	0	0	0	1	0	1	0	3	2	0	0	0	8	0	7
Negeri Sembilan	6	0	0	1	0	3	2	0	0	0	0	0	0	3	1	0	0	0	1	3	0	3
Melaka	6	0	0	2	0	2	2	0	0	0	0	0	0	0	0	1	0	0	0	2	2	2
Johor	11	0	0	2	0	5	4	1	2	2	0	0	0	1	3	0	0	0	1	5	1	5
Pahang	3	0	0	0	0	1	2	0	0	0	1	0	0	0	1	0	0	0	0	2	0	1
Terengganu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kelantan	27	1	0	3	0	8	15	1	0	0	3	0	0	0	6	3	0	3	12	18	0	9
Pen. M'sia	**114**	**9**	**2**	**22**	**2**	**37**	**42**	**6**	**2**	**4**	**9**	**1**	**3**	**5**	**22**	**12**	**0**	**4**	**20**	**73**	**4**	**37**
Sabah	4	0	0	0	0	4	0	0	3	0	1	0	0	0	4	0	0	0	0	0	0	4
Sarawak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F.T Labuan	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1
Malaysia	**119**	**9**	**2**	**22**	**2**	**42**	**42**	**6**	**6**	**4**	**10**	**1**	**3**	**5**	**27**	**12**	**0**	**4**	**20**	**73**	**4**	**42**

Source: State Oral Health Departments

**Histological diagnosis only available for cases where biopsy was done*

2.3 Mouth Cancer Awareness Week

The national Mouth Cancer Awareness Week was launched on 17 November 2013 at *Taman Rekreasi Bukit Jalil*, in collaboration with the Oral Cancer Research & Coordinating Centre (OCRCC), University of Malaya. For the first time, members from the Malaysian Dental Association and the Malaysian Private Dental Practitioners' Association participated, together with the Dental Faculties of Universities (UiTM, MAHSA University, IMU), the Cancer Research Initiatives Foundation (CARIF), the Malaysian Association of Oral Maxillo-facial Surgeons (MAOMS), BP Healthcare and Takaful Malaysia.

Various activities to increase oral cancer awareness were held in the states during the Mouth Cancer Awareness Week from 17-23 November 2013. Activities included screening (18,591), awareness campaigns (572), health education talks (817), radio slots (4) and counselling of individuals with risk habits (6,979).

The activities held are listed below **(Table 63)**. A competition to create an oral cancer promotion video was organised among dental undergraduates. MAHSA University took first place, followed by UiTM and IMU.

Table 63: Mouth Cancer Awareness Week Activities by State, 2013

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
	Total Attendance	Group		Individual					
		n	Participants	No. held					
Perlis	151	1	33	0	0	0	3	0	30
Kedah	2930	107	1633	865	1	0	75	5	1550
Penang	506	12	185	37	0	0	10	0	46
Perak	1391	77	1325	455	1	0	95	0	220
Selangor	1016	126	3081	829	0	0	84	6	618
FTKL/Putrajaya	2239	135	1867	0	0	0	14	54	2042
N Sembilan	353	25	416	144	0	0	43	3	739
Melaka	2064	24	2376	103	0	0	17	0	403
Johor	837	23	374	147	0	0	22	0	318
Pahang	1549	22	306	591	1	0	37	10	359
Terengganu	1016	11	242	706	0	0	28	0	19
Kelantan	521	67	901	183	0	0	41	0	347
Sabah	1838	63	2396	17	1	0	43	0	17
Sarawak	1834	111	2489	80	0	0	55	6	228
FT Labuan	13	9	195	0	0	0	1	0	0
HKL	45	4	102	43	0	0	1	0	43
CDC, DTCM**	288	0	0	0	0	0	2	0	0
OHD, MOH	0	0	0	0	0	0	1	1	0
Total	**18591**	**817**	**17921**	**4200**	**4**	**0**	**572**	**85**	**6979**

Source: State Oral Health Departments
** Example: Stop smoking/ chewing betel quid / drinking alcohol*
*** Childrens' Dental Centre, Dental Training College, Malaysia*

2.4 Training

In 2013, 32 courses on primary prevention and early detection of oral cancer were conducted in the states involving 714 dental officers **(Table 64)**.

Table 64: Training on Oral Cancer by State, 2013

States	Oral Cancer Training	
	Courses	Dental officers
Perlis	1	5
Kedah	7	125
Penang	3	57
Perak	2	72
FT KL/Putrajaya	1	18
Selangor	1	81
N. Sembilan	8	144
Melaka	3	66
Johor	1	19
Pahang	2	64
Terengganu	1	36
Kelantan	1	22
Pen. Malaysia	**31**	**709**
Sabah	0	0
Sarawak	1	5
FT Labuan	0	0
Malaysia	**32**	**714**

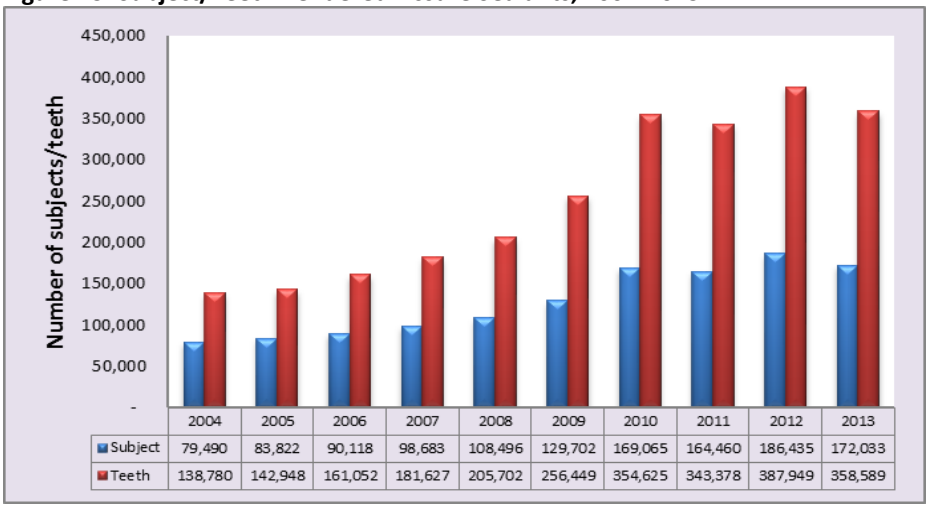
Source: State Oral Health Departments

3. CLINICAL PREVENTION

3.1 Fissure Sealant Programme

There is an increasing trend in fissure sealants (FS) placed from 2004 to 2010. However, the number of FS placed fluctuated from 2011 to 2013 (**Figure 43).**

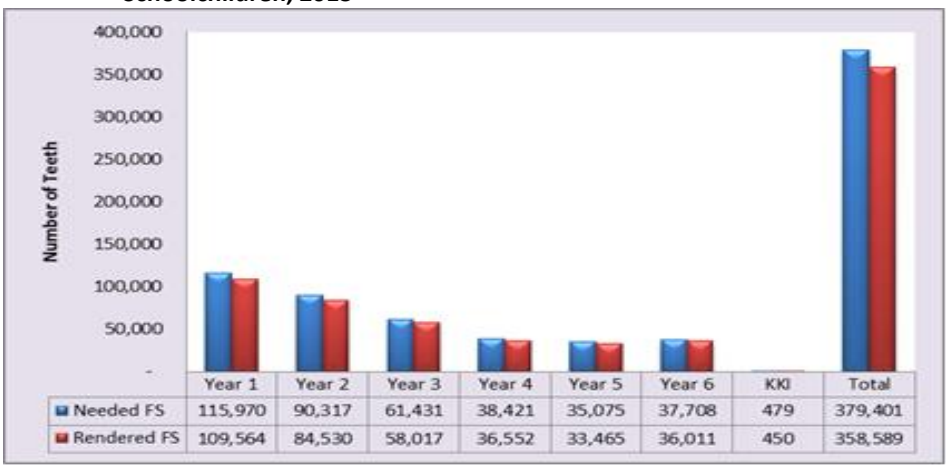
Figure 43: Subject/Teeth Rendered Fissure Sealants, 2004-2013



Source: State Oral Health Departments

A total of 379,401 of the teeth examined required FS, of which 94.5% were sealed. More than half were Year 1 and 2 primary schoolchildren (**Figure 44).**

Figure 44: Teeth which Required and FS Placed among Year 1 to 6 Primary Schoolchildren, 2013



Source: State Oral Health Departments
**KKI=kanak-kanak istimewa*

Over the last 5 years, children in need who had FS placed increased from 92.1% in 2009 to 94.7% in 2013 (**Table 65**). Teeth in need which had FS placed fluctuated between 90.7% and 94.6%. The achievement in the last 3 years is close to the set standard of 95% of those needing FS had FS placed.

Table 65: Provision of Fissure Sealants, 2009-2013

Year	No. of Children			No. of Teeth		
	Need FS	Rendered FS		Need FS	Rendered FS	
	n	n	%	n	n	%
2009	140,762	129,702	92.1	275,618	256,449	93.1
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

Source: State Oral Health Departments

Since 2004, the percentage of decayed and filled teeth that were posterior teeth fluctuated between 66.0% and 71.6% **(Table 66)**. Most of the lesions (58.4% - 64.8%) were occlusal lesions, and this justifies the need for FS to be included in the incremental dental care programme in primary schools.

Table 66: Trend 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	%
2004	436,840	288,382	66.0	255,270	58.4	148,458	34.0
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

Source: State Oral Health Departments

* *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

3.2 Fluoride Varnish Project

To further strengthen the **Early Childhood Oral Healthcare programme**, use of fluoride varnish (FV) was introduced for toddlers in 2011 and piloted in Sabah, Kelantan, and Terengganu. Additional funds were allocated for the purchase of FV for this pilot project, and data collection forms were improved based on feedback. In 2013, a total of 24,384 high risk toddlers had FV applied in Kelantan, Terengganu and Sabah **(Table 67).**

Table 67: The Fluoride Varnish Project, 2011-2013

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	2,590	46.8	7,661	6,988	91.2	6,402	6,232	97.3	19,593	15,810	80.7
2013	8,037	3,000	37.3	10,699	10,004	93.5	12,147	11,380	93.7	30,883	24,384	79.0

Source: State Oral Health Departments

Attrition rates were high among children who had applied FV in 2011, with only 29.1%, (Kelantan), 9.2% (Terengganu) and 4.0% (Sabah) completing the recommended 4 applications in 2 years (**Table 68**).

Table 68: Attrition Rate for Fluoride Varnish Application for Cohort, 2011-2013

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	4,337	1650	956	57.9	682	41.3	480	29.1	317	19.2
Terengganu	6,141	5612	2765	49.3	973	17.3	519	9.2	412	7.3
Sabah	3,896	3866	1063	27.5	381	9.9	153	4.0	125	3.2
TOTAL	**14,374**	**11,128**	**4,784**	**43.0**	**2,036**	**18.3**	**1,152**	**10.0**	**854**	**7.7**

Source: State Oral Health Departments

3.3 School-Based Fluoride Mouth Rinsing Programme

The school-based fluoride mouth rinsing (FMR) programme is carried out in Sabah, Sarawak and Kelantan. In 2013, the programme was undertaken for Year 2 to Year 6 children in selected schools in non-fluoridated areas. In total, 71 schools and 27,054 students benefited from this programme **(Table 69).**

Table 69: Schools and Students Participating in FMR Programme, 2013

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

Source: State Oral Health Departments

There was a drop in the number of schools and schoolchildren involved in the FMR programme in 2013. It is recommended that the FMR Programme be continued in communities which do not receive fluoridated water.

QUALITY IMPROVEMENT INITIATIVES

1. QUALITY ASSURANCE PROGRAMME (QAP)

The National Quality Assurance Programme (QAP) was one of the initial quality initiatives introduced to institutionalise a culture of quality in the Ministry of Health (MOH). The objective of the QAP is to improve the quality, efficiency and effectiveness of the delivery of health services. The QAP also facilitates the planned and systematic evaluation of services. The goal is to ensure that, within the constraints of available resources, the patient, his family and the community obtain the 'optimum achievable benefit' from MOH services.

The Oral Health Programme monitors indicators under the National Indicator Approach (NIA) and the District/Hospital Specific Approach (DSA/HSA). These indicators are periodically reviewed to ensure relevance and appropriateness.

1.1 National Indicator Approach (NIA)

In 2013, four NIA indicators were monitored to measure the performance of primary and community oral health services (**Table 70)** compared to 5 indicators monitored in previous years. The indicator 'Percentage of 16-year-old schoolchildren free from gingivitis' monitored from 1997 was 'dropped' in 2013 as the data reported was not consistent with the findings from the National Oral Heath Survey of Schoolchildren 2007 (NOHSS 2007). However, states or districts that have not achieved the standard were advised recommended to adopt the indicator under the District Specific Approach (DSA).

Table 70: Achievement of NIA indicators, 2012-2013

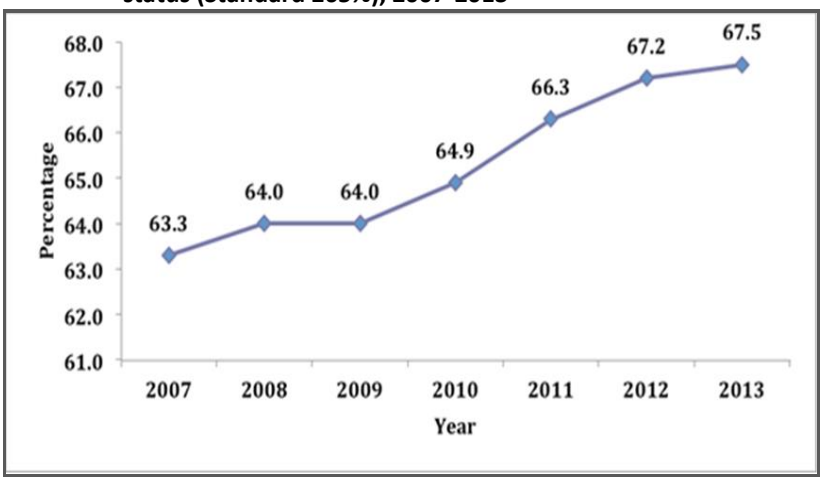
Indicator	Standard	Achievement	
		2012	2013
1. Percentage of primary schoolchildren maintaining orally-fit status	≥ 65%	67.2%	67.5%
2. Percentage of secondary schoolchildren maintaining orally-fit status	≥ 80%	77.8%	78.1%
3. Percentage non-conformance of fluoride level at reticulation points (Level < 0.4ppm)	≤ 25%	20.8%	16.5%
4. Percentage non-conformance of fluoride level at reticulation points (Level > 0.6ppm)	≤ 7%	2.0%	2.2%

Source: Oral Health Division, MOH

This is the fourth year where NIA indicators 1 and 2 were monitored based on the new standards that were set in 2010. Three out of the four NIA indicators achieved their targets. Indicator 2, although still below the set standard, showed a slight improvement (**Table 70**).

At national level, the proportion of primary schoolchildren who were orally-fit continued to increase. There was gradual improvement from 63.3% in 2007 to 67.5% in 2013 (**Figure 45**).

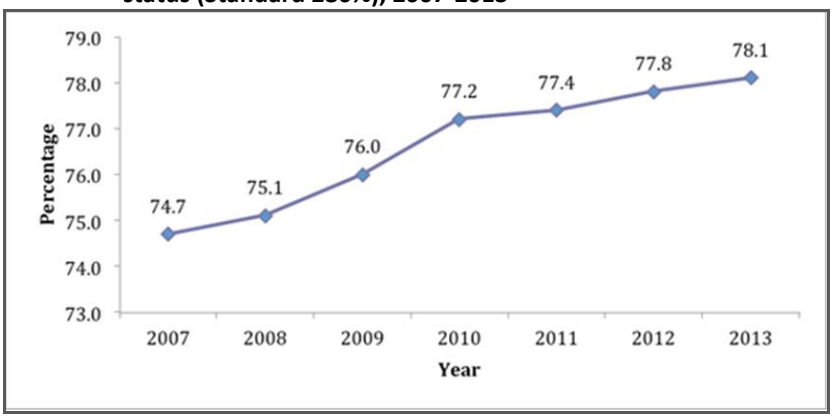
Figure 45: Indicator 1 - Percentage of primary schoolchildren maintaining orally-fit status (Standard ≥65%), 2007-2013



Source: Oral Health Division, MOH

The percentage of secondary schoolchildren who were orally-fit showed a gradual improvement from 74.7% in 2007 to 78.1% in 2013 **(Figure 46).**

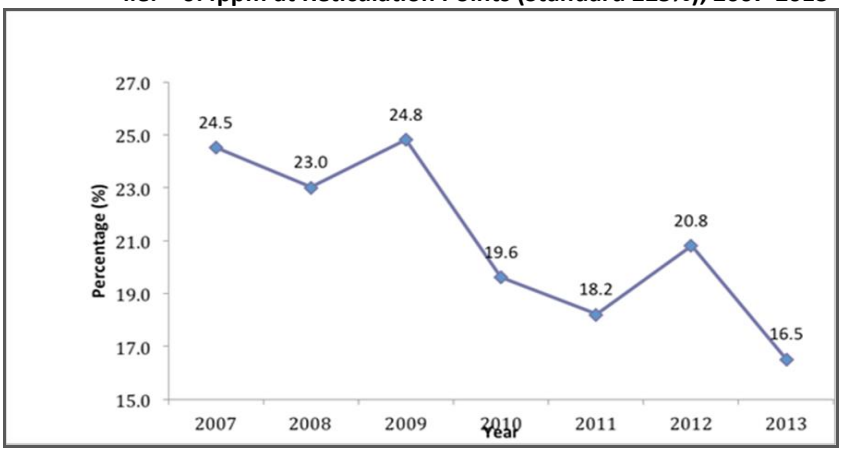
Figure 46: **Indicator 2 - Percentage of secondary schoolchildren maintaining orally-fit status (Standard ≥80%), 2007-2013**



Source: Oral Health Division, MOH

From 2007, non-conformance of fluoride levels i.e. <0.4ppm, did not exceed the set standard. However, achievements fluctuated from 24.5% (2007) to 20.8% (2012). In 2013, the achievement of 16.5% was the best since 2007 (**Figure 47**).

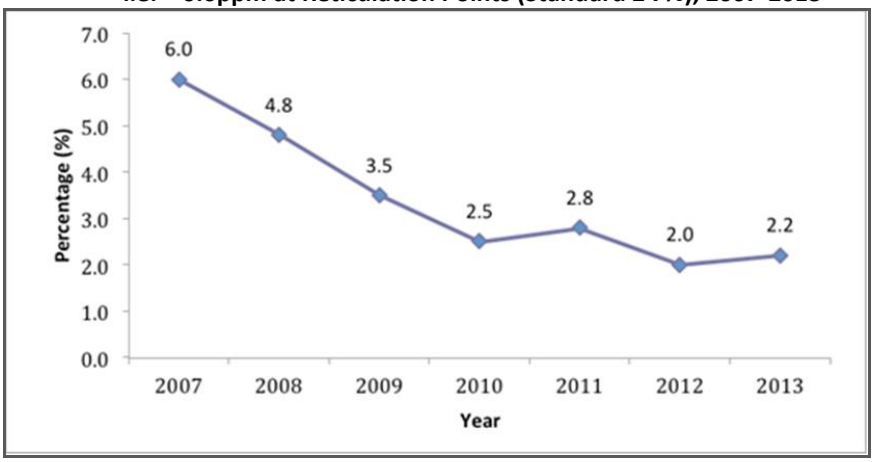
Figure 47: Indicator 3 - Percentage of Non-Conformance of Fluoride Levels i.e. < 0.4ppm at Reticulation Points (Standard ≤25%), 2007-2013



Source: Oral Health Division, MOH

Non-conformance of fluoride levels i.e. >0.6 ppm, has decreased, dropping from 6.0% in 2007 to 2.2% in 2013 (**Figure 48**).

Figure 48: Indicator 4 - Percentage of Non-Conformance of Fluoride Levels i.e. >0.6ppm at Reticulation Points (Standard ≤ 7%), 2007-2013



Source: Oral Health Division, MOH

1.2 District Specific Approach (DSA)

All states are at liberty to develop their own District Specific Approach (DSA) indicators. As in previous years, the indicator adopted by all states except for Johor and Sarawak pertained to the ante-natal programme.

All states have specific DSA indicators for each district. However, Kedah, Negeri Sembilan, Melaka, Pahang, Kelantan, Terengganu and Sarawak have the same indicators for the whole state (State Specific Approach).

Other DSA indicators commonly adopted related to oral health services for toddlers, pre-school children, and primary and secondary schoolchildren. Some states had other indicators:

- children with special needs
- case completion for adults outpatients
- government pre-school children treated
- toddlers given fluoride varnish applications and fissure sealants
- needle stick injuries
- rejected x-rays
- X+M/100
- D/100
- mean DMFT
- repeat fillings on anterior / posterior permanent teeth
- private kindergarten pre-school children treated
- patients turning up for appointments but not treated

1.3 Quality Assurance Projects/Studies

Oral health personnel are actively involved in QA projects/studies. In 2013, a total of 27 projects were completed and 55 projects will continue to 2014. Johor has the highest number of completed QA projects (7) followed by Perak (6). Many of these projects were presented at various conventions. Several received awards at regional and state level. In 2013, Selangor won 1st place for the QA poster '*Meningkatkan Keberkesanan Pengendalian Peralatan Tajam*' at the Selangor State Health Department Innovation Carnival 2013.

2. MS ISO 9001: 2008

2.1 Certification Status

Nationwide, out of 633 dental clinics with primary oral healthcare, 496 (78.4%) are ISO-certified **(Table 71).** The drop in percentage of MS ISO certified clinics compared to 2012 was due to the change in definition of the denominator adopted at the *Mesyuarat Jawatan Dasar dan Perancangan Kesihatan Pergigian Bil. 6/2012* - from 'clinics with dental officers' posts' to 'clinics providing primary oral health care'.

Table 71: MS ISO 9001:2008 Certification Status by State, District and Facility

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	13.6.11-12.6.14	AR 3676
Kedah	11	11	100.0	57	57	100.0	08.08.11-07.08.14	AR 4665
P Pinang	5	5	100.0	23	28	82.1	28.10.12 - 29.10.15	AR 5028
Perak	10	10	100.0	58	71	81.6	26.10.10 - 09.10.13	AR 4449
Selangor	9	9	100.00	42	62	67.7	27.01.11- 26.01.14	AR 3530
WP KL	5	5	100.0	14	15	93.3	27.01.11 - 26.01.14	AR 3531
N. Sembilan	7	7	100.0	39	39	100.0	10.01.12 -16.01.15	AR 3889
Melaka	3	3	100.0	15	26	57.7	25.02.11 - 24.02.14	AR 3569
Johor	10	10	100	87	87	100.0	21.01.11 - 20.01.14	AR 5365
Pahang	11	11	100.0	34	71	47.9	02.05.12 - 20.03.15	AR 3949
Kelantan	10	10	100.0	36	63	57.1	28.04.12 -11.04.15	AR 3975
Terengganu	7	7	100.0	44	44	100.0	03.02.11- 02.02.15	AR 5591
Sabah	9	9	100.0	18	32	56.3	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**	**477**	**605**	**78.8**	-	-
DISTRICT CERTIFICATION								
Sarawak	10	11	90.9	19	28	67.9	**Refer Table 3**	
Malaysia	**110**	**111**	**99.0**	**496**	**633**	**78.4**	-	-

Source: Oral Health Division, MOH

Sarawak has expanded its certification scope to Kapit Division, making a total of 10 out of 11 divisions (90.0%) divisions MS ISO-certified. Sarawak is the only state that still has the original MS ISO 9001:2008 District Certification (**Table 72).**

Table 72: MS ISO 9001:2008 District Certification Status for Sarawak, 2013

District/ Division	Location	Certification Period	Registration No.
Kuching	KP Jln Masjid KP Tanah Puteh KP Kota Sentosa KP Lundu	30.12.10 - 29.12.13	AR 3494
Kuching	KP Pakar, Hospital Umum Sarawak	11.11.11 - 04.11.13	AR 3436
Sri Aman	KP Sri Aman	03.01.13 - 01.04.13	AR 3175
Samarahan	KP Samarahan KP Serian KP Simunjan	08.04.12 - 15.12.14	AR 3858
Miri	KP Jalan Merbau KP Tudan	06.01.12 - 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	-	-	-

Source: Oral Health Division, MOH

2.2 Quality Management System

In 2013, there were no funds for the expansion of the electronic Quality Management System (eQMS), thus the number of states using the system remained 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 Children's Dental Centre & Malaysian Dental Training College also utilize the eQMS. The system is supported by a central server placed at the Health Informatics Centre, MOH.

Changes/improvements were made to the eQMS at the Oral Health Division in terms of function and user-friendliness in 2013:

- activated "date for review" column - for users to view status of quality procedures;
- added "add/remove row" function - for editing quality procedures;
- added "source container" - for users to store original documents;
- allowed for updates of Quality Manual appendix by Administrator; and
- tightened security of user password.

Twelve *Prosedur Kerja* out of 51 were reviewed in 2013. In addition, there were five new procedures - one each from Primary Oral Healthcare, Specialist Oral Healthcare, Community Oral Healthcare, Oral Health Information System and Legislation & Enforcement Sections. The new procedures were:

i. Prosedur Kerja Perancangan, Pengurusan Pelaksanaan, Pemantauan dan Penilaian Program Penjagaan Kesihatan Pergigian Masyarakat

ii. Prosedur Perancangan, Pengurusan Pelaksanaan, Pemantauan dan Penilaian Program Penjagaan Kesihatan Pergigian Primer

iii. Prosedur Perancangan, Pengurusan Pelaksanaan, Pemantauan dan Penilaian Program Penjagaan Kesihatan Pergigian Kepakaran

iv. Prosedur Pemantauan Perkhidmatan Sokongan Serah Urus Bagi Pengurusan Teknologi Maklumat

v. Prosedur Pelaksanaan Pemeriksaan Pemantauan Klinik Pergigian Swasta

2.3 Technical Advisor for Certification Body

In 2013, the Program arranged for technical advisors from among senior dental officers to assist Certification Bodies in auditing sites undergoing surveillance or recertification audits. Five sites underwent recertification audits, one for compliance and 17 for surveillance (**Table 73**). All sites received their certification.

Table 73: List of MS ISO Audit by Certification Body, 2013

Place of Audit	Date	Type of Audit	Certification Body
Recertification			
Kelantan	3-4 June 2013	Recertification	SIRIM
Bintulu, Sarawak	9-11 Sept 2013	Recertification	SIRIM
Kuching, Sarawak	11-15 Nov 2013	Recertification	SIRIM
Johor	17-20 Dec 2013	Recertification	SIRIM
Selangor	23-27 Dec 2013	Recertification	SIRIM
Compliance			
Kapit, Sarawak	7-8 Nov 2013	Compliance	SIRIM
Surveillance			
Sarikei, Sarawak	1-3 Apr 2013	Surveillance	SIRIM
Perlis	4-5 Apr 2013	Surveillance	SIRIM

Place of Audit	Date	Type of Audit	Certification Body
Pahang	22-24 Apr 2013	Surveillance	SIRIM
Kedah	2-4 Sept 2013	Surveillance	SIRIM
Mukah, Sarawak	12-13 Sept 2013	Surveillance	SIRIM
Perak	23-26 Sept 2013	Surveillance	SIRIM
WP KL & Putrajaya	29-31 Oct 2013	Surveillance	SIRIM
Melaka	6-8 Nov 2013	Surveillance	SIRIM
Sibu, Sarawak	11-13 Nov 2013	Surveillance	SIRIM
Oral Health Division, MOH	18 Nov 2013	Surveillance	CI Certification
Terengganu	18-20 Nov 2013	Surveillance	SIRIM
Limbang, Sarawak	20-22 Nov 2013	Surveillance	SIRIM
Pulau Pinang	20-22 Nov 2013	Surveillance	SIRIM
Sri Aman, Sarawak	25-27 Nov 2013	Surveillance	SIRIM
Negeri Sembilan	25-27 Nov 2013	Surveillance	SIRIM
WP Labuan	26-27 Nov 2013	Surveillance	SIRIM
Sabah	16-17 Dec 2013	Surveillance	SIRIM

Source: Oral Health Division, MOH

3. OTHER QUALITY IMPROVEMENT ACTIVITIES

3.1 Innovation

Innovation is one of the quality initiatives actively undertaken by oral health personnel. In 2013, a total of 61 innovation projects (including one each from the Childrens' Dental Centre & Malaysian Dental Training College and the Paediatric Dental Departmentt, Institute Paediatric Hospital Kuala Lumpur) were completed; 29 were continued into 2014. However, the number of completed projects (61) in 2013 was lower compared to 2012 (77).

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

- *Retraktor Mulut* , Sarawak - second place (product category) at *Anugerah Inovasi Peringkat Kebangsaan KKM 2013*
- Dental Smart Learning Tool, Pulau Pinang - first place (product category) at *Konvensyen KIK dan Inovasi Peringkat JKN Pulau Pinang.*

3.2 National Awards for Innovation 2013, MOH

The National Innovation Awards, MOH for 2013 was held in Melaka from 3-5 July 2013. The Convention is held to give recognition to innovations by MOH personnel, to inspire creativity and innovation in their daily work, to share the application of useful innovations and to improve services through adoption of innovations.

The event was officiated by YBhg. Datuk Farida Mohd Ali, the Secretary General of the Ministry of Health. This was the second year in which the

awards were divided into four categories, i.e. Product, Process, Service and Technology. A total of 51 teams (27 Product, 8 Process, 8 Service and 8 Technology) competed for the awards. Judges constituted a good mix of eminent personalities from the public and private sectors.

Winners **(Table 74)** received a certificate and cash prize of RM5000, RM3000 and RM 2000 for 1st, 2nd and 3rd places respectively.

Table 74: Winners of National Innovation Awards, 2013

Position	Project	Organisation/State
Product		
1st	Secure ETT	*Jabatan Kecemasan dan Trauma Hospital Segamat Johor*
2nd	*Retraktor Mulut*	*Unit Periodontik, Klinik Pergigian Jalan Masjid, Kuching Sarawak*
3rd	*Kejora Multipurpose*	*Hospital Tampin Negeri Sembilan*
Process		
1st	*Penambahbaikan Teknik Pengambilan X-ray Lumbar di atas Troli*	*Hospital Pasir Mas Kelantan*
2nd	Easy Slide Box	*Pejabat Kesihatan Daerah Dungun Terengganu*
3rd	*Celik Servix*	*Pejabat Kesihatan Daerah Pontian Johor*
Service		
1st	*Menu* Post-Natal Delight	*Jabatan Dietetik, Hospital Bukit Mertajam, Pulau Pinang*
2nd	Quit Pacchetto	*Klinik Kesihatan Seberang Jaya, Seberang Perai Tengah Pulau Pinang*
3rd	*Album Dikir Farmasi dan Animasi : Melangkah Mendekati Pelanggan Secara Hiburan dan Senibudaya*	*Cawangan Penguatkuasa Farmasi, Jabatan Kesihatan Negeri Kelantan*
Technology		
1st	*Sistem Maklumat Pendaftaran Pesakit Secara Online*	*Unit Sistem Maklumat, Hospital Tuanku Fauziah Kangar Perlis*
2nd	*Laman Web Sumber O&G@SGH*	*Jabatan Obstetrik dan Ginekologi, Hospital Umum, Sarawak*
3rd	*Sistem Sampelan Zon Borneo*	*Cawangan Penguatkuasa Farmasi, Jabatan Kesihatan Negeri Sarawak*

Source: Oral Health Division, MOH

Thirteen of the innovation projects were dental projects:

i. COLDePol-Fendi - *Bahagian Kesihatan Pergigian, Jabatan Kesihatan WPKL & Putrajaya*
ii. Modified Pedi-Wrap - *Jabatan Pergigian Pediatrik, Hospital Kuala Lumpur*
iii. Zinc Oxide Eugenol Squeezer - *Pejabat Pergigian Daerah Alor Gajah, Melaka*
iv. *Retraktor Mulut - Unit Periodontik, Klinik Pergigian Jalan Masjid, Sarawak*
v. *Lampu LED Jimat Tenaga - Klinik Pergigian, Kuala Kubu Baru, Selangor*
vi. Handpiece Holder Spray - *Pejabat Pergigian Bahagian Limbang, Sarawak*
vii. Set-up Soldering Iron Kit - *Klinik Pergigian Sultan Mahmud, Kuala Terengganu*
viii. Corina - *Pejabat Kesihatan Pergigian, Seberang Prai Selatan, Pulau Pinang*
ix. Head Rest for Wheelchair - *Klinik Pergigian Port Dickson, Negeri Sembilan*
x. Dental Impression Holder - *Klinik Pergigian Lekir, Manjung, Perak*

xi. *Zon Keluarga Sejahtera - Pejabat Pergigian Daerah Batu Pahat, Johor*
xii. Portable Dental Spitoon - *Bahagian Kesihatan Pergigian, Perlis*
xiii. *Sistem Informasi Patologi Mulut - Unit Stomatologi, Institut Penyelidikan Perubatan, Kuala Lumpur*

3.3 Innovative and Creative Circle (ICC)

In 2013, 18 ICC projects were completed and another 26 continued into 2014. Dental ICC projects that won awards at state and national level were:

i. SMART Portable Trolley Suction Unit *(Pergigian Pulau Pinang): Konvensyen KIK dan Inovasi Peringkat JKN Pulau Pinang 2013 - Anugerah Emas*
ii. *Kedatangan Toddler Ke Klinik Pergigian Daerah Marang Tidak Mencapai Sasaran (Terengganu): Konvensyen KIK Kebangsaan 2013 - Anugerah Gangsa*

3.4 Key Performance Indicators (KPI) 2013

Altogether, 22 KPIs were monitored by the Oral Health Programme in 2013 (**Table 75**). Five new KPIs were introduced while two from the previous year were dropped.

All the KPIs achieved the targets set for 2013, except for the following, which nevertheless, achieved more than 90% of the 2013 target:

- Percentage of dental clinics with a full-time dental officer (74.7% of 75.0%)
- Percentage of Health Clinics with a dental facility component (72.5% of 75.0%)
- Percentage of primary schools treated under the Incremental Dental Care (99.1% of 99.4%)
- Percentage of primary schoolchildren treated (98.1% of 98.5%)
- Percentage of primary schoolchildren rendered orally-fit (over enrolment) (95.7% of 96.0%)
- Percentage of patients aged 60 years and above who received dentures within 8 weeks (41.9% vs. target of 42.0%)
- Percentage of customers satisfied with services received (94.0% of 95.0%)
- Percentage of dental clinics with MS ISO certification (78.4% of 83.6%)

Three KPIs - KPI 3, 8 and 18 **(Table 75)** were also chosen as KPIs for the Director-General of Health, monitored by the Public Services Department. The percentage of health clinics with a dental facility component (KPI 4) was also a KPI for the Minister of Health.

Table 75: Key Performance Indicators 2013, Oral Health Programme, MOH

KPI	Target 2013	Achievement	
		2012	2013
1. Percentage of dental clinics with a full-time dental officer	75.0%	71.5%	74.7%
2. Percentage of dental clinics with a full-time dental officer providing daily outpatient services	75.0%	76.3%	86.5%
3. Percentage of dental clinics with 2 or more full-time dental officers providing daily outpatient services	90.0%	87.9%	93.2%
4. Percentage of Health Clinics with a dental facility component	75.0%	71.7%	72.5%
5. Number of dental facilities implementing a shift system	5	2	7
6. Percentage of primary schools treated under the incremental dental care programme	99.4%	99.4%	99.1%
7. Percentage of primary schoolchildren treated	98.5%	98.5%	98.1%
8. Percentage of secondary schools treated under the incremental dental care programme	92.0%	91.6%	93.0%
9. Percentage of secondary schoolchildren treated	84.0%	84.0%	85.5%
10. Percentage of primary schoolchildren rendered orally-fit (over new attendances)	97.4%	97.4%	97.5%
11. Percentage of primary schoolchildren rendered orally-fit (over enrolment)	96.0%	95.9%	95.7%
12. Percentage of secondary schoolchildren rendered orally-fit (over new attendances)	93.6%	93.3%	93.8%
13. Percentage of secondary schoolchildren rendered orally-fit (over enrolment)	78.4%	78.4%	80.3%
14. Percentage of population receiving a fluoridated water supply	76.7%	77.7%	79.5%
15. Percentage of outpatients seen within 30 minutes by the dental officer (DO)	≥ 80%	81.9%	85.2%
16. Percentage of appointments seen within 30 minutes by the DO	≥ 90%	89.7%	90.8%
17. Percentage of dental clinics with waiting list for dentures exceeding 3 months	≤ 10.0%	9.7%	9.7%
18. Percentage of patients who received dentures within 3 months	55.0%	51.8%	59.9%
19. Percentage of patients aged 60 years and above who received dentures within 8 weeks	42.0%	40.5%	41.9%
20. Percentage of customers satisfied with services received	95.0%	94.2%	94.0%
21. Percentage of dental clinics with MS ISO certification	83.6%	83.6%	78.4%
22. Percentage of dental staff with 7 days training per year	85%	80.8%	85.7%

Source: Health Informatics Centre and Oral Health Division, MOH

3.5 Client Satisfaction Surveys

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 2013, more than 90% of patients expressed satisfaction except for the states of Perak, Federal Territory Kuala Lumpur and Selangor. The highest score was in Perlis (100%), followed by Sarawak (99.0%) and Pahang (98.6%). Overall, an average of 94.8% of patients involved 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 76)**. This is one of the KPI indicators of the Secretary General of Health and is uploaded in the MOH web site.

Table 76: Clients' Charter of the Ministry of Health

Core Clients' Charter	Indicator	Target	Achieve-ment
Taraf Perkhidmatan	*1. Pesakit luar dipanggil untuk rawatan oleh pegawai pergigian dalam tempoh 30 minit*	78% of patients	85.2 %
Maklumat Perkhidmatan	*2. Pesakit berpuas hati dengan perkhidmatan pergigian yang diberikan*	90%	92.0%
	3. Sijil Pendaftaran Pegawai Pergigian disediakan dalam tempoh 7 hari bekerja dari tarikh permohonan lengkap diterima	95%	100%

Source: Oral Health Division, MOH

The second is the Clients' Charter for the Oral Health Division MOH **(Table 77)**.

Table 77: Clients' Charter of Oral Health Division

No.	Client's Charter Indicator	Target	Achievement
1a	*Semua pelanggan dilayan oleh petugas kaunter dengan mesra*	80.0%	100%
1a	*Semua pelanggan dilayan oleh petugas kaunter dengan cekap*	80.0%	100%
2	*Semua pelanggan diberi maklumat mengenai perkhidmatan yang disediakan*	80.0%	92.0%
3	*Semua pelanggan yang ada temujanji akan dapat berjumpa dengan pegawai berkenaan dalam 15 minit*	80.0%	100%

Source: Oral Health Division, MOH

Reports were submitted to the Clients' Charter Secretariat, Pharmaceutical Services Division MOH quarterly, six-monthly and yearly.

3.7 *Amalan 5S*

Amalan 5S was successfully implemented in the Ministry of Health Headquarters with certification by the *Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia* (MAMPU) valid from 1 June 2012 - 1 June 2014.

In 2013, activities for *Amalan 5S* at the Oral Health Division MOH were:

- *Audit Dalam 5S* Bil. 1/2013 – 4 June 2013
- *Audit 5S KKM* Bil. 1/2013 – 18 June 2013
- *Audit Dalam 5S* Bil. 2/2013 – 11 November 2013
- *Audit 5S KKM* Bil. 2/2013 – 14 November 2013
- *Gotong Royong 5S* – 31 May 2013 and 8 November 2013
- Four personnel attended *Amalan 5S* training organised by *Bahagian Khidmat Pengurusan* on 3 September 2013.

3.8 Incident Reporting and Root Cause Analysis

Since the implementation of Incident Reporting and Root Cause Analysis in 2013, incidents that have been reported relate to clinical procedures and patient falls. Reporting of incidents is done quarterly.

Root Cause Analysis is carried out where there is a need to institute necessary remedial measures to prevent recurrence. Ten mandatory reportable incidents identified for health/dental clinics were:

i. Incidents related to any clinical procedures in health/dental clinics
ii. Malfunction / intentional or accidental misuse of equipment / incidents related to use of equipment that occur during treatment or diagnosis of a patient
iii. Assault or battery of patients by employees and / or contractors (e.g. security personnel) including physical, mental or emotional abuse, mistreatment or harmful neglect of any patient
iv. Investigation error
v. Diagnostic error
vi. Decision-making error
vii. Medication error resulting in a serious adverse event / death
viii. Patient falls (while seeking treatment in health/dental clinic)
ix. Patient death or serious disability due to an electric shock which occurred while he/she was at the health/dental clinic
x. Fire in health/dental clinic resulting in death or injury

3.9 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 assessment is carried out every two years. The objectives are:

- to evaluate and measure the performance of government agencies (*menilai dan mengukur prestasi agensi kerajaan berada pada tahap yang cemerlang*)
- 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.

Input from the Oral Health Division covered the core functions - formulation of policy, implementation, and monitoring and evaluation of services. Various aspects of client management such as the Clients' Charter, management of complaints, customer satisfaction surveys and promotion activities have been improved.

In preparation for the SSR assessment in 2014, the activities which were carried out were;

- 7 October 2013 - *Mesyuarat Persediaan Penarafan Bintang (Star Rating) Komponen B bagi Kementerian Kesihatan Malaysia*
- 2 December 2013 - Briefing on myPrestasi by *Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU)*
- 18 – 21 November 2013 and 16-19 December 2013 - *Bengkel Pemantauan dan Penilaian Dasar/Program/Aktiviti Kementerian Kesihatan Malaysia*. The output of the workshop was an Evaluation Report on the School Dental Programme.

4. TRAINING

4.1 MS ISO

Training in MS ISO is done to continually update the knowledge and skills of personnel and also to train new personnel. The majority of states conducted courses on ISO awareness and training in internal audits. Many of the training sessions were 'in-house' due to limited funds for ISO training.

4.2 Quality Assurance

Training on QA for the Oral Health Programme was undertaken at regional, state and district levels. Training was also carried out in collaboration with State Health Departments and the Institute of Health System Research. In 2013, forty two (42) courses related to quality assurance were conducted involving 1,319 participants.

4.3 Corporate Culture

Activities and courses related to Corporate Culture were carried out by the State Oral Health Departments or in collaboration with the State Health/District Health Departments or hospitals. A total of 7,468 oral health personnel attended various corporate culture courses organised in 2013.

4.4 Root Cause Analysis – Training of Trainers

The 'Workshop on Root Cause Analysis – Training of Trainers' was conducted on 25-27 March 2013, and was attended by 35 participants in the state. Trainers were from the Secretariat for Incident Reporting, Medical Development Division, MOH. The objectives of this workshop were to:

- introduce Incident Reporting
- train personnel in the use of the Incident Reporting form and Incident Reporting matrix
- train personnel in investigation measures for Incident Reporting through Root Cause Analysis

5. RECOGNITION FOR OUTSTANDING PERFORMANCE

Several State Oral Health Programmes received recognition for their outstanding performance in the following areas:

- Kedah - *Anugerah Kewangan Naziran eSPKB September 2012-Ogos 2013 – Tahap Cemerlang*
- Pulau Pinang - *Anugerah Naziran Kewangan eSPKB – Sijil Cemerlang*
- Tawau, Sabah - *Anugerah Naziran Cemerlang*
- FT Labuan - *Anugerah Naziran Cemerlang*
- *Pejabat Pergigian* Bintulu, Sarawak - *Anugerah PTJ terbaik Kategori Sederhana Besar Peringkat Jabatan Akautan Negeri Bahagian Bintulu*
- *Pejabat Pergigian* Mukah, Sarawak - *Anugerah PTJ Cemerlang Peringkat JKN Sarawak*

ORAL HEALTH INFORMATION AND COMMUNICATION TECHNOLOGY

The role of the Oral Health Information and Communication Technology section is as follows:

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

1. ORAL HEALTH CLINICAL INFORMATION SYSTEM

The Oral Health Programme, MOH has embarked on developing the Oral Health Clinical Information System (OHCIS) to improve and modernise the public sector oral health services. The OHCIS is a client-based, patient-centric integrated software solution which covers primary oral health care, secondary oral health care and school oral health services. Beginning in 2009, OHCIS has been implemented in ten clinics in Johor and one in Selangor. Currently, OHCIS is in the maintenance phase.

1.1 Standard Operating Procedures for OHCIS implementation

Eight Standard Operating Procedures (SOP) have been developed to reduce errors in the implementation of OHCIS and disruptions in service delivery:

- Registration
- Billing
- Outpatient Services
- School Health Services
- Dental Laboratory
- Merging of Duplication Data
- State System Administration
- Clinic System Administration

1.2 "Proof of Concept" (POC) Project

A Memorandum between the Ministry of Health and the Ministry of Science, Technology and Innovation (MOSTI) was signed in February 2013 aimed at strengthening and developing cooperation between the two parties in the development and deployment of healthcare IT. The Oral Health Programme and the Family Health Development Division were involved in the "Proof of Concept" (POC) project for Tele-Primary Care (TPC) and OHCIS. User acceptance tests on various modules based on MIMOS technologies, including cloud computing technology, were tested. The outcome of the project supports the way forward for TPC and OHCIS, that is, to develop a web-based clinical information system with cloud computing for primary oral health care in the clinics.

1.3 e-KL (Dental)

The e-KL project was implemented, under the purview of IMD, in 2009 to provide SMS appointment services to patients in the Klang Valley. Only 10 dental clinics - 4 in the Federal Territory Kuala Lumpur and 6 in Selangor are involved in this project. The system is now under the stabilization and maintenance phase.

Patients are notified of their next appointment, and an SMS reminder is sent to their mobile phone 2 days before the appointment.

Two Standard Operating Procedures (SOP) were developed for registration and appointments.

1.4 Oral Health Division Webpage

A survey on the Oral Health Division webpage was conducted in 2013 among users in the states. Based on the feedback, improvements were made to the display, contents on "Career" and link created to *e-Penyata* and Institutions of Higher Learning.

1.5 Training

Eight training sessions were conducted by the ICT Section in 2013 **(Table 78).**

Table 78: Training in ICT, 2013

Course	Date	Purpose	Participants	Outcome
1. Oral Health Data Workshop	19-21 Feb 2013	Training on OH Data collection in MS Excel	60	Data collection implemented nationwide
2. SOP OHCIS Workshop	17-18 Apr 2013	To develop SOP	20	8 SOPs developed
3. eKL(Pergigian) SOP Workshop	14-15 May 2013	To develop SOP	49	2 SOPs developed
4. OHCIS User Training	11-12 June 2013	To train new users and refresh current users	56	Enhance use of OHCIS
5. OHCIS Enhancement Workshop (1)	26-27 June 2013	To identify OHCIS enhancement To identify OHCIS (Specialist modules) enhancement	24	Enhancements documented for new application
6. OHCIS Enhancement Workshop (2)	9 Sept 2013	To identify OHCIS enhancement To identify OHCIS (Specialist modules) enhancement	13	Documented new application
7. MS Access 2007 Course	17-18 Sept 2013	To equip staff with knowledge for data base development	16	8 sample data bases presented at end of training
8. OHCIS System Administrator	6 Nov 2013	Refresher course on role of OHCIS system administrator	19	Enhance roles of system administrators

Source: Oral Health Division, MOH

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 Programmes

Institutions given approval to start:

- The Allianze University College of Medical Sciences (AUCMS): approval to start the Doctor of Dental Surgery (DDS) programme with an annual intake of 50 students at the 101st Malaysian Dental Council (MDC) Meeting on 21 February 2013.

- The Vinayaka Missions International University College (VMIUC): approval to start the Bachelor of Dental Surgery (BDS) programme with an annual intake of 50 students at the 103rd MDC Meeting on 2 September 2013.

The Cyberjaya University College of Medical Sciences (CUCMS) application to conduct Bachelor of Dental Surgery (BDS) programme was rejected at the 102nd MDC Meeting on 2 June 2013.

One (1) application was received from Pusrawi International College of Medical Sciences (PICOMS) to conduct an undergraduate dental degree programme in collaboration with Jordan University of Science and Technology (JUST). The accreditation process will start in 2014.

1.2 Dental Auxiliary Programmes

The Penang International Dental College (PIDC) was given approval to start the Dental Surgery Assistant (DSA) Certificate programme at the 101st MDC Meeting on 21 February 2013.

AIMST University was given conditional approval to start the Bachelor of Dental Technology (BDent Tech) Programme at the 102nd MDC Meeting on 2 June 2013.

The *Institut Latihan Angkatan Tentera Malaysia (INSAN*) was given approval to start the Dental Technology (DT) Diploma Programme at the 103rd MDC Meeting on 2 September 2013.

2. Monitoring and Evaluation of Compliance of Dental Programmes to the Accreditation Standards

The 2nd surveillance accreditation visit for Melaka-Manipal Medical College (MMMC) BDS programme was conducted on 2-3 January 2013. MMMC was given approval to continue the programme at the 101st MDC Meeting.

The 1st surveillance accreditation visit for SEGi University BDS programme was conducted on 10-11 September 2013. SEGi University was given approval to continue conducting the programme at the 104th MDC Meeting.

2.1 Re-accreditation of Dental Programmes

2.1.1 Undergraduate Dental Degree Programmes

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

- AIMST University BDS programme on 6-7 March 2013 - reaccreditation given for 2 years from 13 August 2013 – 12 August 2015 at the 102nd MDC Meeting.

- Universiti Teknologi MARA (UiTM) BDS programme on 18 and 22 July 2013 - reaccreditation given for 5 years from 1 November 2013 – 31 October 2018 at the 103rd MDC Meeting.

- The Penang International Dental College (PIDC) BDS programme on 23 – 24 July 2013 - reaccreditation given for 5 years from 1 November 2013 – 31 October 2018 at the 103rd MDC Meeting.

- Universiti Sains Malaysia (USM) DDS programme on 1-2 October 2013 - reaccreditation given for 5 years from 15 April 2014 – 14 April 2019 at the 104th MDC Meeting.

2.1.2 Dental Auxiliary Programmes

Re-accreditation assessment visits for dental auxiliary programmes were made as follows:

- SEGi University Dental Surgery Assistant (DSA) Certificate programme on 22 January 2013 - reaccreditation given for 3 years from 23 March 2013 – 22 March 2016 at Joint Accreditation Technical Committee for Dental Programme (*JKTAP*) meeting Bil 1/2013 on 13 Februari 2013.

- MAHSA University DSA Certificate programme on 16 April 2013 - reaccreditation given for 2 years from 20 October 2012 – 19 October 2014.

- MAHSA University Dental Technology Diploma programme on 2 July 2013 - reaccreditation given for 3 years from 27 October 2013 – 26 October 2016.

2.1.3 Additional / Follow-Up Surveillance Visit

Surveillance visits that were made:

- 26 March 2013 - to evaluate the capacity of MAHSA University DDS programme to maintain an annual intake of 75 students – approval to continue intake of 75 students from 2013/2014 academic session onwards at the 102nd MDC Meeting.

- 12 June 2013 - to evaluate the readiness of AUCMS DDS programme to take its first cohort of students – approval for first intake of 50 students starting March 2014 at the 103rd MDC Meeting.

2.1.4 Guidelines for Accreditation of Dental Programmes

The draft 'Criteria and Standards for Accreditation of Operating Dental Auxiliaries Degree Programmes' was prepared but the Malaysian Dental Council members at its 104th Meeting deferred indefinitely a decision on the document.

Review of the accreditation guidelines for the DSA Certificate Programme and DT Diploma Programme will continue in 2014.

Review of the accreditation guidelines for undergraduate Dental Degree Programmes and the Terms of Reference (TOR) of the Joint Accreditation Technical Committee for Dental Programmes (JKTAP) will also continue in 2014.

2.1.5 Meetings of the Joint Accreditation Technical Committee for Dental Programmes

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

Six meetings were held in 2013:

i. *JKTAP* 1/2013 – 13th February 2013
ii. *JKTAP* 2/2013 – 30th April 2013

iii. *JKTAP* 3/2013 – 24th June 2013
iv. *JKTAP* 4/2013 – 30th August 2013
v. *JKTAP* 5/2013 – 1st November 2013
vi. *JKTAP* 6/2013 – 20th December 2013

2.1.6 Preparation of Accreditation Reports / Papers for Tabling to Malaysian Dental Council

Five recommendations of the JKTAP were presented for endorsement at the 101st MDC Meeting on 21 February 2013:

i. AUCMS DDS programme – Provisional Accreditation
ii. MMMC BDS programme – 2nd Surveillance Visit
iii. PIDC DSA Certificate programme - Provisional Accreditation
iv. SEGi DSA Certificate programme – Reaccreditation approval
v. Criteria for Credit Transfer for Undergraduate Degree Programmes at Institutions of Higher Education

Five recommendations of the JKTAP were presented for endorsement at the 102nd MDC Meeting on 3 June 2013:

i. AIMST BDent Tech programme – Provisional Accreditation
ii. AIMST BDS programme – Reaccreditation
iii. MAHSA DDS programme – Follow up visit to evaluate the readiness to maintain intake of 75 students from the approved quota of 50 students
iv. MAHSA DSA Certificate programme – Reaccreditation
v. CUCMS BDS (Hons) programme – Provisional Accreditation

Five recommendations of the JKTAP were presented for endorsement at the 103rd MDC Meeting on 2 September 2013:

i. VMIUC BDS programme - Provisional Accreditation
ii. INSAN Diploma in Dental Technology programme - Provisional Accreditation
iii. AUCMS DDS programme – Monitoring Visit Prior to First Students Intake
iv. PIDC BDS programme – Reaccreditation
v. UiTM BDS programme – Reaccreditation

Two recommendations of the JKTAP were presented for endorsement at the 104th MDC Meeting on 3 December 2013:

i. USM DDS programme - Reaccreditation evaluation visit
ii. SEGi BDS programme – 1st compliance evaluation visit

3. 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

An MoA for the use of MOH hospitals and dental clinics was signed between MOH and SEGi University for a period of five years from 1 December 2013 to 30 November 2018.

3.1 Attachment of Dental Students at MOH Facilities

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

One application for clinical posting from International Medical University (IMU) was approved.

Eighty applications for elective attachments from foreign dental students were approved – Al-Azhar University, Alexandria University, Mansoura University, Tanta University of Egypt, University of Dundee, UK and University of Otago, New Zealand.

GLOBALISATION AND LIBERALISATION OF ORAL HEALTHCARE SERVICES

1. ASEAN Framework Agreement on Services (AFAS)

The proposed 9th Package Schedule of Specific Commitments (SOC) for dental specialist services was finalised and forwarded to the Ministry of International Trade and Industry (MITI) in 2013.

Country websites of ASEAN Member states (AMS) were updated for exchange of information on domestic rules and regulations pertaining to mobility of dental practitioners.

Preparations for review of the Mutual Recognition Arrangement (MRA) for dental practitioners were made prior to the 9th AJCCD (ASEAN Joint Coordinating Committee on Dental Practitioners) meeting. The roadmap for implementation of the ASEAN MRA for Dental Practitioners for Malaysia was completed and presented at the 9th AJCCD meeting in Brunei on 2 July 2013.

Discussions on the future plans for the AJCCD and end goal for 2015 were held at the 10th AJCCD meeting, at Luang Prabang, Lao PDR on 23 November 2013.

Discussions with the HSSWG (Healthcare Services Sectoral Working Group) ensued in Brunei on 3 January 2013 and 3 July 2013 and in Lao PDR on 26 November 2013.

2. Autonomous Liberalisation

Discussions with MITI and representatives from WTO on trade in services policy review 2014 for Malaysia included updates on 100% foreign equity for stand-alone medical and dental specialist clinics, as of June 2012.

3. Bilateral and Multilateral Negotiations among Countries

The following technical input was given to the MITI memorandum to cabinet:

- ASEAN – India trade agreement - no offer under dental services
- ASEAN – China trade agreement - no offer under dental services
- ASEAN – Japan Comprehensive Partnership (AJCEP) - no offer under dental services

4. Dental Health Tourism

The Programme provided technical input to the Policy and International Relations Division of MOH on health tourism:

- To look into a self-regulatory framework to fulfill the requirements of medical/dental advertisements
- To review medical/dental services guidelines to effectively market healthcare services
- To develop a framework for the supervision of health facilitators to ensure good ethical practice.

LEGISLATION AND ENFORCEMENT

The Legislation and Enforcement Section has responsibility in three areas:

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

Enforcement
- ensuring that the provisions of the various Acts under the Ministry of Health Malaysia are adhered to by all dental practitioners and in all dental clinics
- verifying applications and recommending private dental clinics for registration under the Private Healthcare Facilities and Services Act (Act 586)
- ensuring that post-registration inspections of private dental clinics are carried out
- investigating into complaints against private dental clinics and dental practitioners, and
- coordinating dental enforcement activities nationwide.

Safety & Health Activities
- coordinating the Occupational Safety and Health audits in MOH dental clinics
- coordinating the activities and returns relating to patient safety and the Patient Safety Goals

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 MOH Legal Advisor's Office in January 2013 and to the Attorney General's Chambers in November 2013.

1.2 New Dental Regulations

The draft of the new Dental Regulations was begun by a committee of 15 dental surgeons and 2 dental nurses. The first meeting was held on 11 November 2013 and efforts will continue into 2014.

2. ENFORCEMENT

2.1 Registration of Private Dental Clinics

The registration of private dental clinics began on 1 May 2006 with the highest number of approved applications in 2007**.** By the end of 2013, a total of 1,929 private dental clinics had been registered **(Table 79).**

Table 79: Number of Private Dental Clinics Approved for Registration, 2006-2013

Year	Private Dental Clinics Approved for Registration	Cumulative Number Registered
2006	131	131
2007	937	1068
2008	368	1436
2009	101	1537
2010	66	1603
2011	102	1705
2012	134	1839
2013	90	1929

Source: Oral Health Division, MOH

2.2 Operating Private Dental Clinics

Overall, there were 1,692 operating dental clinics in 2013 (**Table 80).** There were 90 approved registrations in 2013 and 50 dental clinic registrations were cancelled.

By December 2013, new registered clinics were highest in Selangor (23), followed by FT Kuala Lumpur & Putrajaya (14) and Pulau Pinang (5). However, cancelled registrations of existing clinics were highest in Negeri Sembilan (5), Melaka (3) and Pahang (2).

Table 80: Operating Private Dental Clinics by State, 2013

No.	State	Operating on 1-1-2013	Approved in 2013	Cancelled in 2013	Nett gain/loss in 2013	Operating on 31-12-13	% Increase
1.	Perlis	4	0	0	0	4	-
2.	Kedah	54	4	1	3	57	5.6
3.	Pulau Pinang	120	7	2	5	125	4.2
4.	Perak	114	2	2	0	114	-
5.	Selangor	467	29	6	23	490	4.9
6.	FT Kuala Lumpur & Putrajaya	296	25	11	14	310	4.7
7.	N Sembilan	50	0	5	-5	45	-10.0
8.	Melaka	42	0	3	-3	39	-7.1
9.	Johor	176	8	9	-1	175	-0.6
10.	Pahang	47	1	3	-2	45	-4.3
11.	Terengganu	42	3	0	3	45	7.1
12.	Kelantan	55	2	3	-1	54	-1.8
13.	Sabah	98	4	3	1	99	1.0
14.	Sarawak	83	4	2	2	85	2.4
15.	FT Labuan	4	1	0	1	5	25.0
Total		**1,652**	**90**	**50**	**40**	**1,692**	**2.4**

Source: Oral Health Division, MOH

2.3 Inspection of Private Dental Clinics

A certain number of registered private dental clinics were targeted for routine inspection in each state based on number and the size of the state. In 2013, 698 private dental clinics were visited **(Table 81).**

Table 81: Routine Inspection of Private Dental Clinics by State, 2013

No.	State	No. of Clinics (Jan 2013)	No. of Routine Inspection		
			Target	Achievement	
				n	%
1.	Perlis	4	4	4	100
2.	Kedah	54	54	54	100
3.	Pulau Pinang	120	60	10	16.7
4.	Perak	114	57	57	100
5.	Selangor	467	155	105	68.2
6.	FT KL & Putrajaya	296	118	124	105.1
7.	N. Sembilan	50	50	46	98.0
8.	Melaka	42	42	34	80.9
9.	Johor	176	88	98	111.4
10.	Pahang	47	47	42	102.4
11.	Terengganu	42	42	37	88.1
12.	Kelantan	55	55	33	60.0
13.	Sabah	98	49	32	65.3
14.	Sarawak	83	42	18	42.9
15.	FT Labuan	4	4	4	100
	Total	**1,652**	**866**	**698**	**80.7**

Source: Oral Health Division, MOH

2.4 Complaints against Dental Clinics

The number of complaints received reduced from 86 in 2011 to 28 in 2013 (**Table 82)**. Various enforcement activities were carried out in relation to the complaints to ensure compliance to legislation and guidelines. In 2013, the enforcement officers had carried out 48 activities and settled 13 complaint cases.

Table 82: Complaints Received and Settled, 2013

State	No. of Clinics	No. of Complaints Received	No. of Enforcement Activities	No. of Complaints Settled
2009	1,179	29	27	29
2010	1,505	23	36	15
2011	1,547	86	64	34
2012	1,652	40	58	11
2013	1,692	28	48	13

Source: Oral Health Division, MOH

2.5 Enforcement Officers

In 2013, there were 32 state enforcement officers and 3 in the Oral Health Division, Ministry of Health Malaysia (**Table 83**). These 35 officers undertook the duties and functions of national and state legislation and enforcement units as well as the registration of clinics under the Private Healthcare Facilities and Services Act 1998. The enforcement officers were:

Table 83: Enforcement Officers 2013

State	No.	Officers
Perlis	1.	Dr. Rohana bt Mat Arip
	2.	Dr. Izwan b Abd Hamid
Kedah	3.	Dr. Hjh. Farehah bt Othman
	4.	Dr. Ahmad Fadhil b Mohamad Shahidi
Pulau Pinang	5.	Dr. Asnil b Md Zain
	6.	Dr. Muhammad Azhan b Jamail
Perak	7.	Dr. Faryna bt Md. Yaakub
	8.	Dr. Nur Azlina bt Omar
Selangor	9.	Dr. Amdah bt Mat
	10.	Dr. Nor Haslina bt Mohd Hashim
	11.	Dr. Kamariah bt Omar
	12.	Dr. Muhamad b Mahadi
FT KL & Putrajaya	13.	Dr. Rohani bt Che Awang
	14.	Dr. Feisol b Abd Rahman
Negeri Sembilan	15.	Dr. Rosnah bt Atan

State	No.	Officers
Melaka	16.	Dr. Khadijah bt Wahab
	17.	Dr. Nor Azlida bt Abu Bakar
Johor	18.	Dr. Sheila Rani a/p Ramalingam
	19.	Dr. Sabarina bt Omar
	20.	Dr Sabrina Julia bt Mohamad Jeffry
Pahang	21.	Dr. Noor Azizan bt Mohd Ghazali
	22.	Dr. Ester Pricilla Yanga
	23.	Dr. Noor Ismazura bt Ismail
Terengganu	24.	Dr. Nor Azura bt Juhari
	25.	Dr Marsita Hasniza bt Mohamad
Kelantan	26.	Dr. Azuar Zuriati bt Ab Aziz
	27.	Dr. Ahmad Barhanudin b Mohamed
Sabah	28.	Dr. Norinah bt Mustapha
	29.	Dr. Chung Ken Tet
	30.	Dr. Rokiah bt Aziz
Sarawak	31.	Dr. Roslina bt Mohd Fadzillah Mah
FT Labuan	32.	Dr. Nors'adah bt Abdul Aziz
Oral Health Div.	33.	Dr. Elise Monerasinghe
	34.	Dr. Haznita bt Zainal Abidin
	35.	Dr. Siti Kamilah bt Kasim

Source: Oral Health Division, MOH

2.6 Enforcement Courses

In 2013, the enforcement officers attended various courses organised by the Oral Health Division, the Private Medical Practice Control Division (CKAPS) and the various State Private Medical Practice Control Units (UKAPS) and other Divisions (**Table 84).** These courses were aimed at updating knowledge, reinforcing procedures and guidelines and improving skills to undertake more effective surveillance and enforcement activities.

Table 84: Courses at National and State Level, 2013

Title of Course	Date 2013	Organiser	No. of Officers
NATIONAL LEVEL			
1. *Bengkel* Root Cause Analysis Training of Trainers	24 – 25 Mar	OHD, KKM	2
2. Kursus Pembinaan Sahsiah & Jati Diri ke Arah Pembentukan Insan Berintegriti CKAPS & UKAPS	28 – 31 Mar	CKAPS	1
3. Kursus Penyediaan Kertas Siasatan	6 – 9 May	CKAPS	7
4. Konvensyen Nasional & Mesyuarat Saintifik	3 – 5 Sept	UKAPS Selangor &	5

	UKAPS Malaysia		KL	
5.	*Kursus Risikan, Intipan dan Serbuan bagi Pegawai Penguatkuasa*	7 – 10 Oct	CKAPS	2
6.	*Kursus Tanggungjawab Susulan dalam Perkhidmatan*	23 – 24 Oct	OHD, KKM	25
7.	*Bengkel Pemurniaan Proses Kerja, Halatuju dan Pelan Tindakan CKAPS & UKAPS*	8 – 10 Nov	CKAPS	6
8.	*Kursus dalam Penguatkusaan Farmasi*	6 Nov	Pahang Pharmacy Unit	2
9.	Law, Ethics and Medicine Friends or Foes? Conference	23 – 24 Nov	Medico legal Society of Malaysia	3
10.	Master of Enforcement Law	12/9/2011 – 28/2/2013	UiTM Shah Alam	1
11.	Medico-Legal Forum	23 Nov	Hospital Melaka	1
STATE LEVEL				
1.	*Kursus Asas Pendakwaan*	17 – May	UKAPS Perlis	1
2.	*Kursus Pemantapan Nilai dan Pengurusan Perkhidmatan*	21 – 22 May	UKAPS P Pinang	2
3.	*Tatacara Pengambaran di Tempat Kejadian*	27 June	UKAPS Pahang	2
4.	*Bengkel Tatacara Penggambaran di Tempat Kejadian – OPS Bogus Kebangsaan*	27 June	UKAPS Pahang	1
5.	*Kursus Lanjutan Pendakwaan bagi Pegawai Penyiasat & Pegawai Pendakwa*	23-26 Sept	UKAPS Kedah	4
6.	*Kursus Intipan Risikan dan Serbuan untuk Pegawai UKAPS*	7 Oct	UKAPS Kedah	1
7.	Taklimat Management of an Internal Inquiry & Medico-Legal Issues	12 Nov	UKAPS Pahang	1
8.	Master of Enforcement Law	23 -25 Oct	UKAPS P Pinang	3

Source: Oral Health Division, MOH

3. SAFETY & HEALTH ACTIVITIES

3.1 Standard Operating Procedures for the Disposal of Hypodermic Needles

Due to concerns on injuries from used hypodermic needles, an **addendum** to the **Guidelines for Infection Control in Dental Practice** on **Disposal of Hypodermic Needles** was drafted. The committee of 5 dental officers who began this task in July 2012 completed the draft in November 2013 and the draft was endorsed by the Malaysian Dental Council at the 104th Meeting on 3 December 2013. The addendum is an advisory to dental practitioners on specific methods to dispose of hypodermic needles and recap dental needles.

3.2 Position Statement on the Use of Dental Amalgam

The **Position Statement on the Use of Dental Amalgam** was endorsed by the Malaysian Dental Council on 3 June 2013 at the 102nd Meeting. It was published and distributed to clinics at state and district level.

3.3 Safety and Health Audit

A total of 962 out of 2,254 (42.7%) MOH dental facilities were audited in 2013 **(Table 85)**. The highest percentage of facilities visited was in Kelantan (98.4%) and the lowest in Pahang (13.5%).

Table 85: Audited Government Dental Facilities by State, 2013

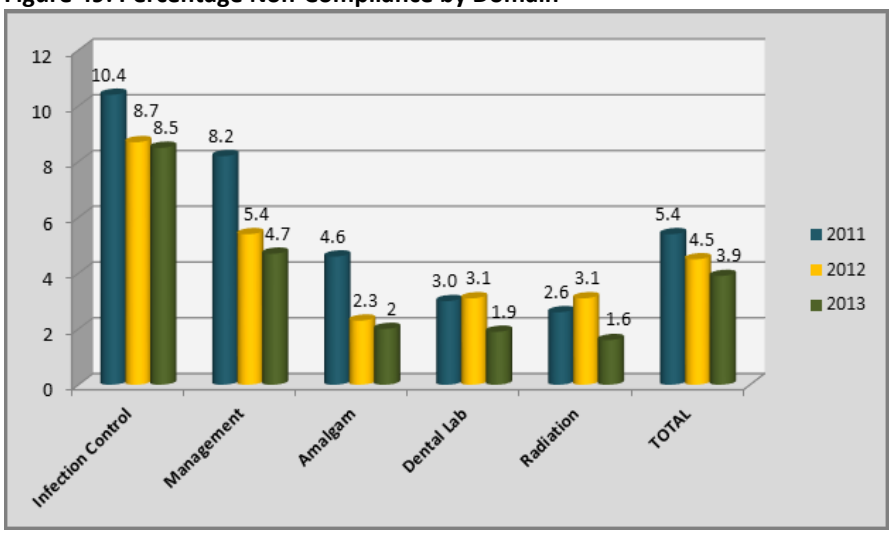
No	State	No of Dental Facilities		
		Total	Audited	% Audited
1	Kelantan	188	185	98.4
2	Pulau Pinang	139	114	82.0
3	FT Labuan	8	6	75.0
4	FT KL & Putrajaya	109	63	57.8
5	Kedah	170	90	52.9
6	Johor	217	106	48.8
7	Melaka	86	41	47.7
9	Sabah	197	81	41.1
8	Perak	230	84	36.5
10	Perlis	52	18	34.6
13	Terengganu	113	37	32.7
11	Negeri Sembilan	124	33	26.6
12	Sarawak	280	54	19.3
14	Selangor	171	27	15.8
15	Pahang	170	23	13.5
	Total	**2,254**	**962**	**42.7**

Source: Oral Health Division, MOH

3.3.1 Compliance to Safety and Health in Government Dental Clinics

Overall, there was a decreasing trend of the total non-compliance rate from 5.4% in 2011 to 3.9% in 2013 **(Figure 49).** In 2013, the highest non-compliance was recorded in the domain of infection control (8.5%), followed by management of safety and health (4.7%), and handling of amalgam (2.0%).

Figure 49: Percentage Non-Compliance by Domain

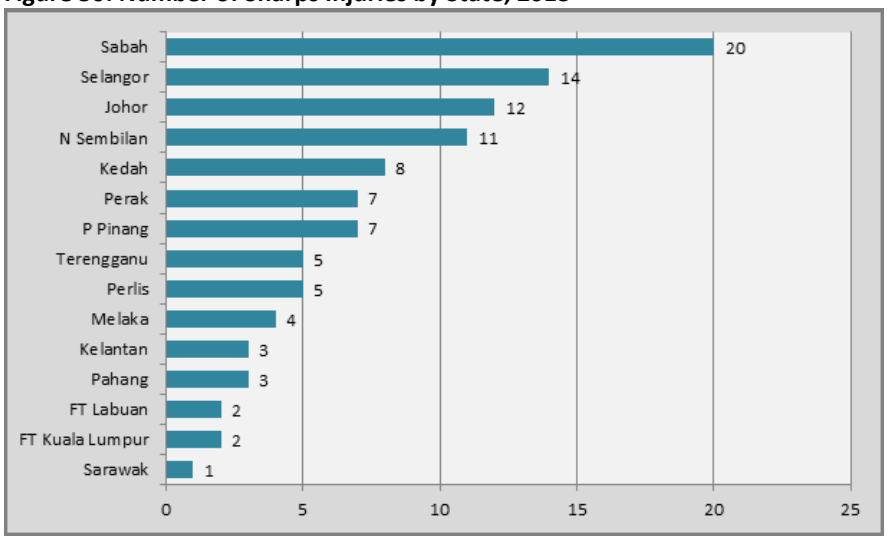


Source: Oral Health Division, MOH

3.4 Sharps Injuries

In dental clinics, sharps injuries constitute a portion of occupational safety and health which cannot be ignored. In 2013, there were 104 sharps injuries recorded **(Figure 50).** Of these, 20 reports were from Sabah, followed by Selangor (14) and Johor (12).

Figure 50: Number of Sharps Injuries by State, 2013



Source: Oral Health Division, MOH

3.5 Patient Safety Goals

The National Patient Safety Council formulated several Patient Safety Goals to monitor patient safety in hospitals and clinics in Malaysia.

Overall, there are 13 goals and 19 indicators on patient safety to be monitored. Of these, five goals and seven indicators were deemed relevant for dental clinics. Achievements of all indicators are as shown in **Table 86.**

Table 86: Patient Safety Goals and Indicators for Dental Clinics, 2013

Goal	Performance Indicator	Target (%)	Achievement (%)
1. To implement Clinical Governance	1. Percentage of staff who have undergone awareness training on Clinical Governance	20	53.9
2. To implement "Clean Care is Safer Care"	2. Hand Hygiene Compliance rate	75	89.0
3. To Improve medication safety	3. Incidence of actual medication errors 4. Incidence of near miss medication errors	zero zero	zero zero
4. To minimise the risk of patient falls	5. Incidence of adult patients who fall 6. Incidence of paediatric patients who fall	1 3	0 0
5. To implement Patient Safety Incident Reporting and Learning System	7. Implementation of an Incident Reporting and Learning System.	100	100

Source: Oral Health Division, MOH

CHALLENGES AND FUTURE DIRECTION

Recognition of Dental Public Health Specialists

The career pathway for Dental Public Health Specialists (DPHS) requires much consideration. The DPHS contribution and productivity to the organisational direction and the accomplishment of goals and objectives need due recognition. In addition, the need for future training of DPHS as Subject Matter Experts must be proposed.

Oral Health Human Resource Projections

Further justification for types and skill mix of various categories of oral healthcare providers at different levels of care are required. The Programme has used the Oral Health Needs Method and Service Target Models since 2008 to off-set the crude provider to population ratios that are used for dentists and dental nurses. Alongside efforts in the MOH for HR projections, the oral health programme has been asked to consider the use of Workload Indicators of Staffing Need (WISN). More time and data mining are required to justify the use of proxy data and assumptions made for each method. Still unresolved is the need to project the number of dental specialists by discipline required for Malaysia.

Reaching out to the Population

Innovation and creativity to increase accessibility to oral healthcare need to be given emphasis. Imbalance of human resource and infrastructure justifies the need for more mobile dental clinics and dental labs. From 2012 to 2013, the Oral Health Programme saw a 15.6% increase in dental officer numbers. The increasing number of dental graduates coming into the MOH to fulfil compulsory service presents more challenges to the programme. It redirects focus towards the need for compulsory service and its duration, while considering variations in training seen among new graduates from local institutions and abroad.

Key Performance Indicators

Dental clinics providing daily outpatient services must be given more focus. Visiting clinics and clinics with one dental officer need to be upgraded to provide daily outpatient services. Shortage of supporting staff must also be addressed in order for these clinics to conduct daily outpatient services. In clinics with long waiting lists for dentures and delivery of dentures, it is timely to look into the usage of Mobile Dental Labs and Centralised Labs. To reduce the waiting list for appointments, privileging dental officers to conduct simple specialist procedures is

also an area of importance. Hopefully, this will help to shorten the waiting list for follow-up procedures in both the primary care and the non-hospital based specialist clinics.

Preparing the MDC for new role and function under the proposed Dental Act

Re-structuring of Malaysian Dental Council (MDC) is inevitable with its expanded function and scope as stipulated in the new Dental Act, and efforts include acquiring additional resources; a vehicle, new office space and more staff.

New committees need to be established: a) The Dental Specialist Evaluation Committee, to replace the existing National Credentialing Committee, to make recommendations for specialist recognition and registration. b) The Dental Qualifying Committee will replace the Dental Evaluation Committee in handling graduates with unrecognised qualifications.

There is a need to discuss the pathway for the Professional Qualifying Examination and a Complaints Committee to triage complaints that come to the Council. Investigation procedures will be revised, focusing on more transparent and efficient processes and remove duplication of steps at Preliminary Investigation Committee and Council Inquiry levels.

There is also a need to establish the Dental Committee for Public Information aimed to assist dental practitioners in advertising their services in the mass media.

The new Dental Act will allow dental nurses to practice in the private sector, after registering with the Malaysian Dental Therapists Board and obtaining an Annual Practicing Certificates (APC). Renewal of an APC will require a minimum number of CPD points. The Dental Regulations will be review after the Dental Act is finalised.

The challenge of addressing high oral health needs at both ends of the age spectrum

Though the oral health programmes and activities have led to substantial improvements in the oral health status of schoolchildren, there is still a high burden of dental caries among the very young and the elderly. With the increasing life expectancy of the population, there is a need for a structured oral healthcare programme for adults and treatment modalities will have to cater to the elderly as well. Recent survey findings also show that about 6 in 10 adults had sought care because of dental problems and only 2 in 10 had made a visit for preventive reasons. These facts suggest that oral health has a low priority among adults. To ensure sustainability of oral health improvements, there needs to be enhanced

community participation and empowerment in taking the responsibility for their own oral health. There is also a need to break down silos and to enhance public private participation for oral health gains of the population.

Addressing population periodontal disease

Although the clinical burden of periodontal disease is known to be substantial, it is not reflected in an increasing need for complex periodontal treatment. The majority of treatment needed is simple procedures and management with microbial agents.

Periodontal procedures could be performed by general dental practitioners without a formal speciality qualification, if given adequate training. In addition, dental nurses with post-basic training in periodontics could be better utilised to provide non-surgical treatment, such as debridement and chairside health education.

There is also a need for early detection and management of periodontal disease through multi-sectorial and multi-collaborative efforts.

Engaging and empowering the population

The curative modalities of dental treatment are more costly compared to preventive measures. The most cost-effective way to ensure optimal dental health is through prevention, education and behavioural modification. Efforts need to be focused on strengthening the water fluoridation programme especially to the poor and underserved sectors of the population.

Efforts also need to be focused towards multi-sectorial approaches in oral health promotion activities aimed at increasing community participation towards self-care. A review of policies, and guidelines and monitoring of outcomes should be conducted to ensure the delivery of quality care.

MAJOR EVENTS 2013

DATE	***EVENTS***
13 Feb	*Mesyuarat JK Teknikal Akreditasi Pergigian Bil. 1/2013*
18 Feb	*Mesyuarat KPK Khas 1/2013*
21 Feb	*Mesyuarat Majlis Pergigian Malaysia Bil 101*
24 Feb-1 Mar	*Bengkel* ToT for Enamel Opacities Indices (Prof Helen Whelton)
1Mar	*Mesyuarat* Search Committee *BKP Bil.1/2013*
4 Mar	*Perbincangan* Process Mapping
12 Mar	*Mesyuarat JK Pemandu OHCIS dan eKL(Pergigian) Bil 1/2013*
16-18 Mar	*Mesyuarat Pakar Pergigan Kesihatan Awam Bil. 1/2013*
19-21 Mar	*Bengkel Akreditasi Program Pergigian untuk Panel Penilai*
25-27 Mar	*Bengkel* Root Cause Analysis - Training of Trainers
28 Mar	Process Map Documentation Pre- Audit
2-5 Apr	*Mesyuarat Pakar Pergigian Restoratif*
10-12 Apr	*Mesyuarat Pakar Ortodontik*
12 April	*Mesy JK Penempatan & Pertukaran Pegawai Pergigian 1/2013*
15-16 Apr	*Mesyuarat JDPKP 2/2013*
17-19 Apr	*Bengkel SPSS*
22 Apr	*Mesyuarat NOHRI*
28-30 Apr	*Mesy Pakar Bedah Mulut*
28-30 apr	*Mesyuarat Pakar Patologi & Perubatan Mulut*
28-30 Apr	*Mesyuarat Pakar Periodontik*
13 May	*Mesyuarat Pembukaan Audit Dalaman ISO BKP 1/2013*
13 May	*Mesyuarat* Search Committee *BKP Bil.2/2013*
15 May	*Mesyuarat KPK Khas 2/2013*
3 June	*Mesyuarat Majlis Pergigian Malaysia Bil 102*
6 June	*Mesy JK Penempatan & Pertukaran Pegawai Pergigian 2/2013*
11-12 June	*Latihan OHCIS*
17 June	*Mesyuarat KPK Khas 3/2013*
!7-20 June	Training of Trainers on Standardisation and Calibration of Examiners on Gingival Index for Schoolchildren
18 June	*Mesyuarat JK Pemandu OHCIS dan eKL(Pergigian) Bil 2/2013*
24 June	*Mesyuarat JK Teknikal Akreditasi Pergigian Bil. 3/2013*
25 June	Show Case Dentistry Management System
26-28 June	*Bengkel* Enhancement OHCIS
1-2 July	*Mesyuarat JDPKP 3/2013*

DATE	***EVENTS***
1-4 July	Training of Trainers on Standardisation and Calibration of Examiners on Gingival Index for Schoolchildren
2-4 July	*Anugerah Inovasi Peringkat Kebangsaan 2013 KKM*
3-5 July	*Mesyuarat* ASEAN MRA (AJCCD & HSSWG)
9 July	*Mesyuarat JK Induk Hari Kesihatan Pergigian Sedunia*
26 July	*Mesyuarat JK Pemandu NOHSA 2010*
29 July	*Mesyuarat Kajian Semula Pengurusan (MKSP)*
31 July	MS ISO: Process Mapping
1 Aug	*Mesyuarat JK Pemandu Kajian* Fluoride Enamel Opacities among 16-year-old School Children 2013 *Bil 1/2013*
21-22 Aug	*Taklimat* Exposure and Consensus on the Survey Intruments for Fluoride Enamel Opacities among 16-year-old School Children 2013
30 Aug	*Mesyuarat JK Teknikal Akreditasi Pergigian Bil. 4/2013*
2 Sept	*Mesyuarat Majlis Pergigian Malaysia Bil 103*
2-5 Sept	Calibration and Standardisation of Examiners for Fluoride Enamel Opacities among 16-year-old School Children 2013
6 Sept	*Mesyuarat* Search Committee *BKP Bil.2/2013*
9-11 Sept	5th Asian Chief Dental Officers Meeting 2013
10 Sept	*Mesyuarat JK Pemandu OHCIS dan eKL(Pergigian) Bil 3/2013*
22-24 Sept	*Mesyuarat Kepakaran Pergigian* (Combined Specialist Meeting)
26 Sept	*Mesy JK Penempatan & Pertukaran Pegawai Pergigian 3/2013*
2-3 Oct	*Mesyuarat JK Koordinasi 1Care*
3 Oct	*Kajiselidik Epidemiologi Kesihatan Pergigian Kanak-Kanak Pra-Sekolah Peringkat Kebangsaan Tahun 2015 (NOHPS 2015):Perbincangan Indeks* 'Dental Caries and Oral Cleanliness'
6 Oct	*Karnival Kesihatan Pergigian: Gigiku Mutiaraku*
21-23 Oct	Training of Trainers in Safety and Health
23-24 Oct	Course for State Enforcement Officers
30 Oct	ToT Infection Control for DSA
7 Nov	*Mesyuarat Penyelaras Negeri bagi Program* Fluoride Varnish for Toddlers
11-13 Nov	National Public Health Conference 2013 - Public Private Partnership Towards Achieving Universal Health Coverage
17 Nov	Mouth Cancer Awareness Walkathon 2013
18 Nov	*Audit* Surveillance MS ISO - *Pembukaan dan Penutup*
19 Nov	*Mesyuarat Penyelaras Negeri Program Kanser Mulut*
26-27 Nov	*Seminar on* Human Capital Projection for the Dental Profession
2 Dec	*Mesyuarat JK Pemandu Kajiselidik* National Oral Health Survey of Pre schoolchildren 2015 (NOHPS 2015)
2 Dec	*Mesyuarat Jawatankuasa Eksekutif* National Oral Health Plan (NOHP) 2011-2020

DATE	***EVENTS***
5 Dec	*Mesyuarat Membincang Format* Data Entry *bagi Kaji Selidik* Fluoride Enamel Opacities
12 Dec	*Mesyuarat JK Penilaian dan Pewartaan Pakar-pakar Pergigian*
12 Dec	*Mesyuarat Kaukus Dekan*
19 Dec	*Mesyuarat JK Pemandu OHCIS dan eKL(Pergigian) Bil 4/2013*
26 Dec	*Mesyuarat JK Inovasi*
31 Dec	*Mesyuarat Pengurusan Aset*

EDITORIAL COMMITTEE 2013

ACKNOWLEDGEMENT

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The Editorial Committee acknowledges the following officers for their contributions in the production of this Annual Report 2013. All data presented have been updated as of 31 December 2013.

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