



Oral Health Programme
Ministry of Health Malaysia



ANNUAL REPORT 2022



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FOREWORD

Principal Director of Oral Health Ministry of Health Malaysia

It gives me great pleasure to present the Annual Report of the Oral Health Programme (OHP) Ministry of Health (MOH) Malaysia for the year 2022. This report showcases the significant efforts, achievements and collaborations that have shaped our journey towards achieving improved oral health outcomes for all population.

Throughout the year, the OHP MOH Malaysia has been at the forefront of various strategic partnerships and events in the field of oral health. Our collaboration with esteemed organisations such as the World Health Organization (WHO) at the WHO Western Pacific Region Level, Japan's Ministry of Economy, Trade and Industry (METI), the 8th China-ASEAN Forum on Dentistry (CAFD), the 12th Asian Chief Dental Officers' Meeting 2022 (ACDOM) has reinforced our commitment to align our efforts with global oral health agendas and advancing our capabilities in implementing vital initiatives. These technical discussion sessions, the oral healthcare training programme, the forum on dentistry and ACDOM 2022 stand as shining examples of our collaborative spirit, internationally.

In the pursuit of elevating oral health services and promoting evidence-based practices, we have taken significant strides forward. The development and implementation of the National Oral Health Policy and National Oral Health Strategic Plan was approved by the Cabinet on 18 May 2022, which provides a roadmap to guide us towards a better oral health future for our nation. Besides, the National Oral Health Survey of Adults aged 15 and above has contributed valuable evidence and insight to continuously improved our services for the population. Likewise, the Kuantan Declaration 2022 on Sugar and Dental Caries-Cavities was announced in conjunction with the celebration of World Cavity-free Future Day 2022. This declaration urges all stakeholders to take urgent action aims for a cavity-free generation.

Our effort on oral health promotion and education remains the top priority in preventing oral diseases. MyBrushHour 2022 launched simultaneously nationwide, was an engaging activity to encourage, guide and increase the awareness on the proper tooth brushing technique, was carried out during the Oral Health Promotion Week 2022. Furthermore, recognition has been given to our Ikon Gigi (iGG) as part of Malaysia Health Community Agent (MyCHAMPION) in supporting the oral health of the communities.

We are proud to collaborate with Ministry of Education (MOE) and have initiated community service through the innovative concept of the Community Service in School Dental Clinics (PPKPS), where we extend dental services beyond school children to the teachers, school supporting staff and their family members. This has strengthened our relationship with other agencies and the community. It has expanded the reach of our services.

Our commitment to fostering a culture of quality and continuous improvement is evident in the Oral Health Programme Quality Convention 2022, where we celebrated excellence and innovation in oral health initiatives. Moreover, the Cochrane Oral Health Seminar 2022 and the Patient Safety Symposium 2022 have further enhanced our knowledge and practices, ensuring the highest standards in oral healthcare delivery.

As we move forward, we continue to build and strengthen the capacity of our dental specialists, engaging in efforts to gazette them and ensure they are well-distributed to meet the oral health needs of our population. Our dedication to dental education and accreditation is unwavering, as demonstrated by our commitment on improving dental degree programmes and the accreditation of Bachelor of Dental Surgery programmes.

On behalf of the Oral Health Programme, I extend my heartfelt gratitude to all stakeholders including our valued partners in public or private sectors as well as non-governmental organisations and associations, dental professionals and staffs, who have contributed to the success of our endeavors. Your dedication and support have been instrumental in shaping the landscape of oral health in Malaysia.

We are steadfast in our commitment to creating a society with improved oral health and overall well-being. We will continue to collaborate, innovate and strive for excellence in all aspects of oral healthcare, leaving no stone unturned in our pursuit of a healthier nation.

DR. NOORMI BINTI OTHMAN
PRINCIPAL DIRECTOR OF ORAL HEALTH
MINISTRY OF HEALTH MALAYSIA



VISION

A nation working together for better health

MISSION

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

- to facilitate and support the people to:
- 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 and healthcare system that is:

- equitable
- affordable
- efficient
- technologically appropriate
- environmentally adaptable
- customer centre
- innovative

with emphasis on:

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

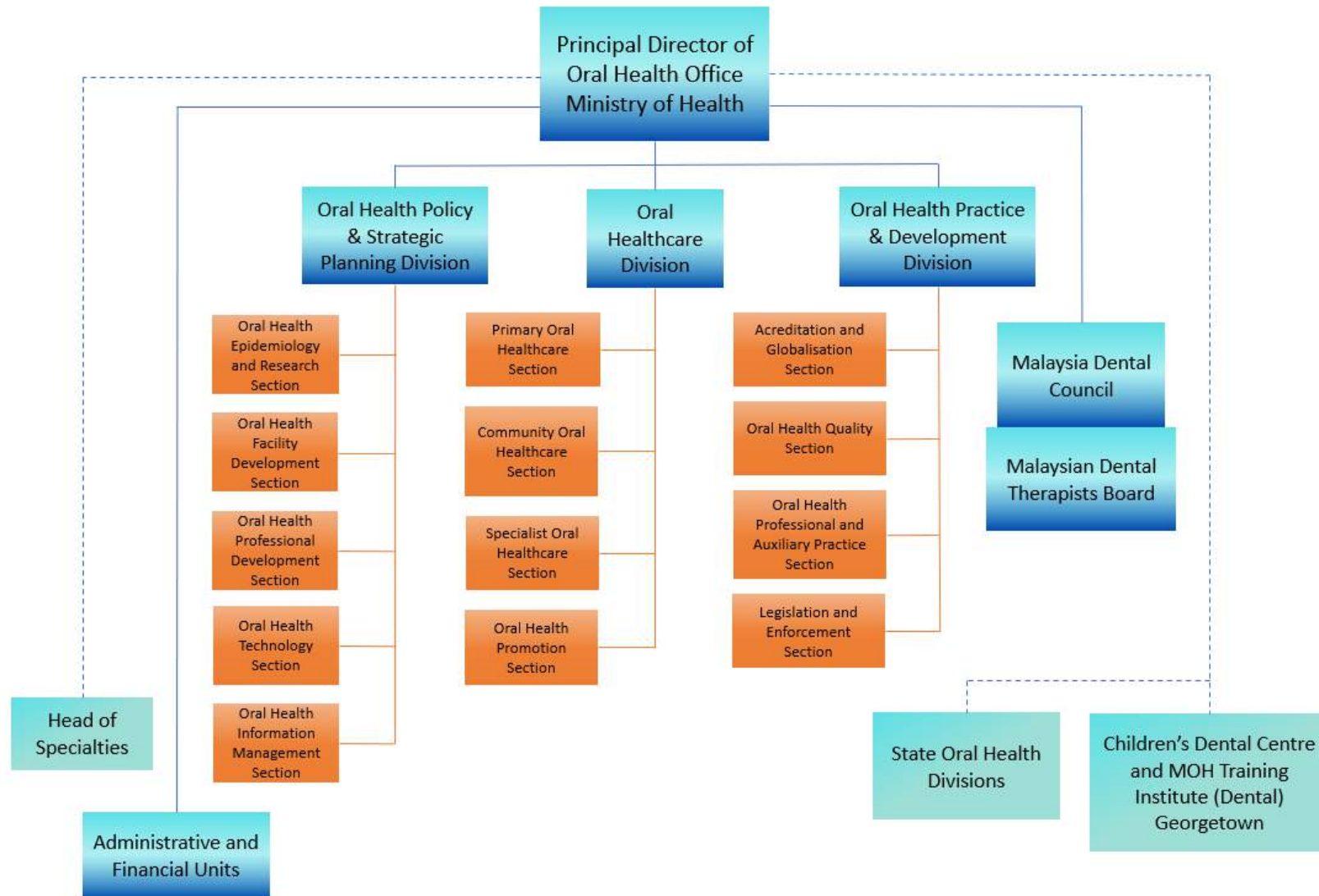
OBJECTIVE



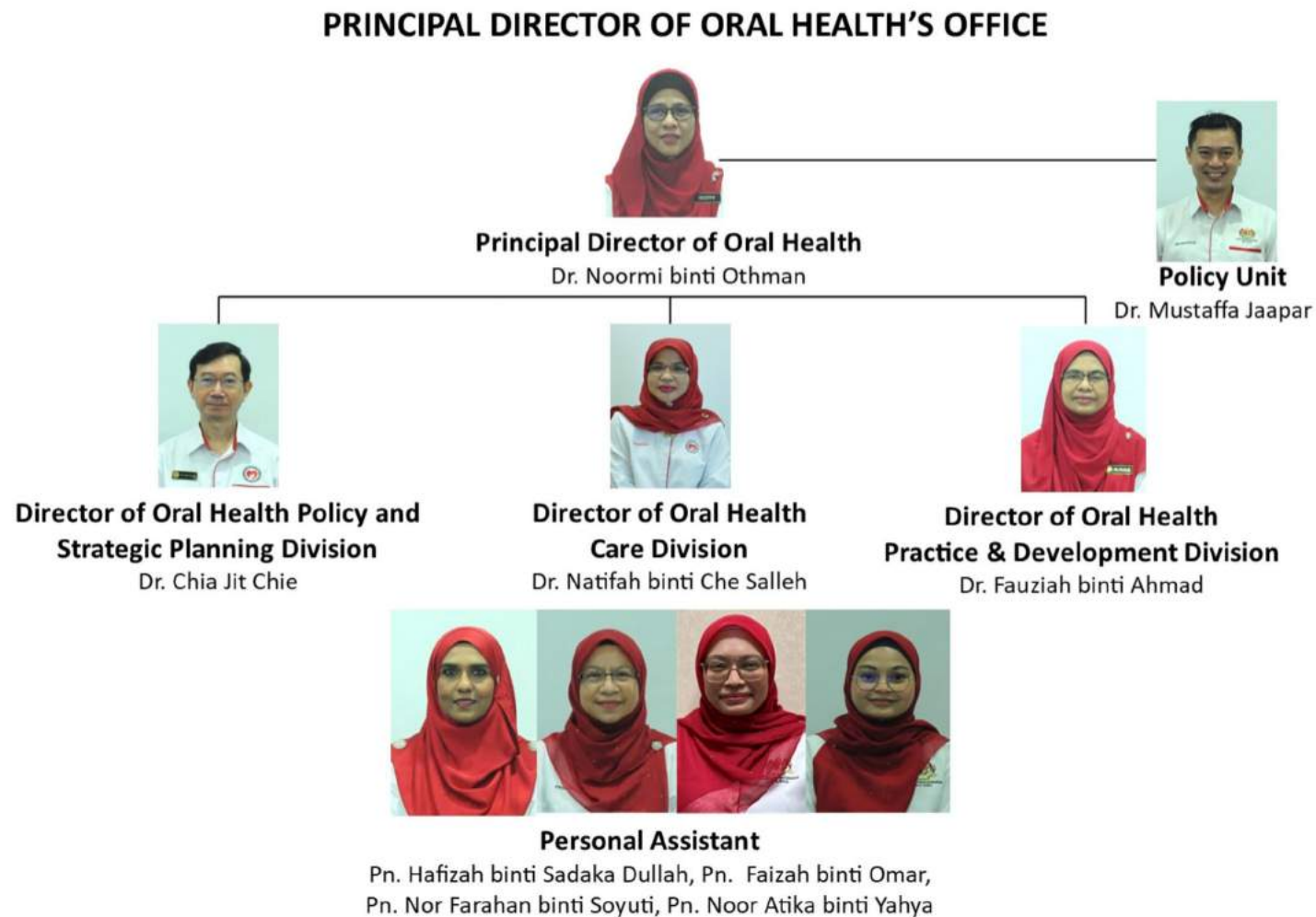
To improve the oral health status of Malaysians through collaboration with stakeholders of public and private sectors in promoting oral healthcare, clinical prevention, treatment and rehabilitation with emphasis on identified priority groups, including marginalised and vulnerable populations in such a way that the oral health status of the people will continually be in conformity with the socio-economic progress of the country.

ORGANISATION STRUCTURE

ORAL HEALTH PROGRAMME, MINISTRY OF HEALTH MALAYSIA



MANAGEMENT AND PROFESSIONAL STAFF (as of 1 November 2022)



ORAL HEALTH POLICY & STRATEGIC PLANNING DIVISION



ORAL HEALTH EPIDEMIOLOGY AND RESEARCH

Dr. Habibah Yacob @ Ya'akub, Dr. Suzana Sharif,
Dr. Nurulasmak Mohamed, Dr. Nur Syuhada Abu Bakar,
Pn. Norpahzila Wati Minhad, En. Syahrilsyahrizal Mohamad



ORAL HEALTH INFORMATION MANAGEMENT

Dr. Nurul Ashikin Husin, Dr. Suhana Ismail, Dr. Siti Zainab Omar,
Dr. Mohd Shukri Tolahah, Dr. Saiyida Athirah Abd Nasir, Pn. Norjanah Mohd Naw, En. Mohd Ridzwan Mansor, En. Gauthama Dasa a/l Edwin, Pn. Norliyana Mustaffa



ORAL HEALTH PROFESSIONAL DEVELOPMENT

Dr. Azilina Abu Bakar, Dr. Siti Zuriana Mohd Zamzuri,
Dr. Azliza Dato' Zabha, Dr. Noor Hasmin Mokhtar,
Dr. Yusmazatulina Yusoff, Dr. Siti Nadirah Mohd Said



ORAL HEALTH TECHNOLOGY

Dr. Sofiah Mat Ripen,
Dr. Aina Najwa Mohd Khairuddin,
Dr. Parveen a/p Thanabalen



ORAL HEALTH FACILITY DEVELOPMENT

Dr. Norliza Ismail, Dr. Zubaidah Japri, Dr. Azzida Abd Aziz,
Dr. Aslam Diyana Selamat, Dr. Ahmad Syahir Ahmad Zu Safiuddin,
En. Khairi Kasim, En. Zainudin Abdul Majid

ORAL HEALTHCARE DIVISION



ORAL HEALTH PROMOTION

Dr. Salleh bin Zakaria, Dr. Jamaliah Omar, Dr. Doryalisa Zakaria,
Dr. Muhammad Adib Jamil, Dr. Nor Azra Hanaffi, Pn. Haziah Hassan,
Pn. Norazizah Nordin, Pn. Khursiah Daud, Pn. Siti Zainaliza Hashim



COMMUNITY ORAL HEALTHCARE

Datin Dr. Nazita Yaacob, Dr. Nuryastri Md Mustafa,
Dr. Siti Nur Fatimah Abdul Halim, Dr. Siti Sarah Soraya Mohamad,
Pn. Maimun Che Amin



SPECIALIST ORAL HEALTHCARE

Dr. Rapeah Mohd Yassin, Dr. Fasya Rima Mohd Nabori,
Dr. Ku Amirah Ku Haris, Dr. Harathi a/p Dorairaja,
Pn. Azirah Muhammad, Pn. Umi Khairul Abdul Kadir



PRIMARY ORAL HEALTHCARE

Dr. Nurul Ashikin Abdullah, Dr. Lily Laura Azmi,
Dr. Siti Masnira Jamian, Pn. Noormalia Harun

ORAL HEALTH PRACTICE AND DEVELOPMENT DIVISION



ORAL HEALTH PROFESSIONAL AND AUXILIARY PRACTICE

Dr. Norashikin Mustapha Yahya, Dr. Mazura Mahat, Pn. Fatimah Rahman,
Pn. Normala Omar, En. Roslan Murad, Pn. Norliza Jamalludin,
Pn. Jeyandra Ghandi a/p Chelliah



ACCREDITATION AND GLOBALISATION

Datin Dr. Norinah Mustapha, Dr. Akmal Aida Othman,
Dr. Ili Mazlina Mukhtar, Pn. Nurhuda Arnie Azizan



LEGISLATION AND ENFORCEMENT

Dr. Haznita Zainal Abidin, Dr. Khadijah Wahab, Dr. Rosmaria Deraman,
Dr. Akmarliza Abdullah, Pn. Nora Abdullah,
Pn. Shabariah Che Mohd Yusoff



ORAL HEALTH QUALITY

Dr. Sheila Rani a/p Ramalingam, Dr. Nurul Aliya Norain,
Dr. Yap Chia Wei, Dr. Norhazimah Khairuddin, Pn. Siti Aisyah Jaafar

ADMINISTRATIVE AND FINANCIAL



En. Norazlan Ithnin, Pn. Ina Karina Zakaria, Pn. Fatimah Ma'amor, Pn. Suzalina Mohd Rosly, Pn. Jamilah Sha'ari, Pn. Atika Wahit,
Pn. Rasenah Jamari @ Haji Asmuni, Pn. Salasiya Atli, Pn. Nurul 'Amilin Balawi, Pn. Norzizah Salleh, Pn. Haslina Abdul Mutalip,
En. Shahrin Naim Saad, Pn. Nazifah Zawani Mohd Nasir, Pn. Siti Norzarim Siah Zainon, Pn. Noramirah Abd Razak,
Pn. Nurul Atiqah Alwee, Pn. Wan Ismawati Wan Yusoff, Pn. Norsyaza Ramli, Pn. Sarihasfara Hassannusi,
En. Muhammad Ariff Mat Jusoh, En. Mohd Razwin Safrudin, En. Ismail Majid, En. Zulhari Abd Muhid, En. Fadilla Hashim

HIGHLIGHTS OF 2022

COLLABORATION OF THE ORAL HEALTH PROGRAMME MINISTRY OF HEALTH (OHP MOH) WITH WORLD HEALTH ORGANIZATION (WHO)

OHP MOH participated in the Technical Discussion Session at the WHO Western Pacific Region Level held on 15 June 2022 organised by the WHO Collaborating Centre for Translation of Oral Health Science, Niigata University, Japan. The programme aims to inform the latest Global Oral Health Agenda (WHA75) pertaining to the Resolution on Oral Health (WHA 74.5), draft monitoring framework and the indicators involved. Malaysia has provided feedback on the draft of the Global Oral Health Action Plan and the feasibility of data collection in relation to the indicators. The participants comprised of Chief Dental Officers (CDOs) and focal points / persons from the MOH, the WHO Oral Health Programme, the WHO Western Pacific Regional Office and the WHO Member States.

The collaboration and leadership capacity of CDOs and other focal points for the implementation of WHA75 was strengthened through this discussion. Recent initiatives to promote oral health and sharing of experience from member states were deliberated. Malaysia's presentation entitled *Applying Global Strategy on Oral Health in Malaysia: Current Progress and Challenges* was delivered by the Principal Director (Oral Health) MOH. The feasibility of the draft monitoring framework and indicators involving member states as part of the draft Global Oral Health Action Plan and the five (5) key areas of the monitoring framework towards Universal Health Coverage (UHC) for Oral Health by 2030 were discussed. It comprises of evidence-based policy; oral health policy environment; oral disease prevention and control as integrated health services; outcomes and health & well-being.

MALAYSIA-JAPAN COOPERATION FOR THE ORAL HEALTHCARE TRAINING PROGRAMME 2022

The OHP MOH, the Ministry of Economy, Trade and Industry (METI) of Japan in cooperation with the Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS) organised the Oral Healthcare Training Programme 2022 at Eastin Hotel, Selangor on 1 & 2 November 2022. This programme aims to provide support in the development of oral healthcare policies in each country through sharing sessions between participants. A total of 36 delegates from Vietnam, Japan and Malaysia were present. A total of 314 participants consisting of public dental health specialists, policy makers, general dental practitioners, dental therapists in government sector as well as industry players from Malaysia attended the programme virtually.

8TH CHINA-ASEAN FORUM ON DENTISTRY

The OHP MOH as the Malaysian secretariat has collaborated with Guangxi Medical University to organise the 8th China-ASEAN Forum on Dentistry (CAFD) from 17 to 19 November 2022 in Nanning, Guangxi, China. With the theme *All on "Cloud Silk Road" for Oral Health*, the forum involved dental officers from China and ASEAN Member States, dental association representatives, dental specialists and dental students to discuss future development strategies for dentistry. The programme encouraged the exchange of knowledge, experience, latest research and cooperation between ASEAN Member States and China.

TACKLING ORAL HEALTH DISEASES IN MALAYSIA THROUGH COLLABORATION WITH ASIAN COUNTRIES

The OHP MOH as the Malaysian Secretariat has jointly organised the 12th Asian Chief Dental Officers' Meeting 2022 (ACDOM) together with the Bureau of Dental Health, Ministry of Public Health and the Dental Health Foundation, Thailand. ACDOM took place from 26 to 28 March 2022 in Phuket, Thailand with the theme *The Global Strategy on Oral Health. What Impact on The Oral Health Agenda in The Asia Region Towards 2030?* which was attended by CDOs from nine (9) countries namely Thailand as host, Malaysia (as co-secretariat), India, Indonesia, Lao People's Democratic Republic (Lao PDR), Nepal, Philippines, Sri Lanka and Vietnam.

Through ACDOM, the aspects given attention for regional cooperation include: issues and challenges in oral healthcare and the dental profession; strengthening regional cooperation and cooperation between Asian countries; improving knowledge and expertise; sharing of best practices, strategies and policies for population health; promoting evidence-based research in public health dentistry; and supporting the activities of the World Health Organization-Global Oral Health (WHO-GOH).

NATIONAL ORAL HEALTH POLICY (NOHP) AND NATIONAL ORAL HEALTH STRATEGIC PLAN 2022 – 2030

NOHP is the first ever national policy developed by the OHP MOH in collaboration with the dental fraternity and key stakeholders. This document acts as a reference towards a better oral health outcome and quality of life for all Malaysians. This policy was approved by the Cabinet on 18 May 2022 and implemented via the National Oral Health Strategic Plan 2022-2030. The monitoring of the strategic plan achievements will be undertaken annually with all stakeholders to improve and strengthen the implementation in order to achieve the stated goals by 2030.

NATIONAL HEALTH AND MORBIDITY SURVEY 2020: NATIONAL ORAL HEALTH SURVEY FOR ADULTS 2020 (NHMS 2020: NOHSA 2020)

NHMS 2020: NOHSA 2020 is the fourth national oral health survey of adults aged 15 and above which is conducted periodically every 10 years. For the first time, this survey was conducted under the NHMS cluster in collaboration with the Institute for Public Health (IPH). The survey was supposed to be conducted in 2020, however it was delayed due to the COVID-19 pandemic. This survey has a response rate of 82.5 per cent in 2022 with a total of 16,173 respondents who were successfully examined and interviewed by 65 state research teams trained specifically for this survey. The findings of this survey will be used as baseline data in the National Oral Health Strategic Plan 2022-2030.

Image 1.1
Field Data Collection for NHMS 2020: NOHSA 2020



Source: Oral Health Programme, MOH



WORLD CAVITY-FREE FUTURE DAY 2022

A Symposium on “Sugar and Early Childhood Caries” was held in conjunction with the celebration of World Cavity-free Future Day 2022 at the International Islamic University Malaysia, Kuantan, Pahang on 31 October 2022. The symposium was hosted by the Alliance for a Cavity Free Future Malaysia Chapter with the theme *Let's Get Brushing!* This global organisation aims for a cavity-free generation in 2026 in Malaysia.

Kuantan Declaration 2022 on Sugar and Dental Caries-Cavities was also announced during this celebration. The declaration urges the need for urgent action by the Malaysian Government, non-governmental organisations and private sectors to come together in protecting and promoting the health of all Malaysians.

IMPLEMENTATION OF PROOF OF CONCEPT (POC) IN FABRICATING DENTURES USING 3D TECHNOLOGY

Timely delivery of dentures particularly to the elderly is a challenge in busy dental clinics as the process requires between five (5) to seven (7) visits. As a standard procedure, all dental technologists in 531 government dental laboratories employ the conventional method to fabricate dentures. In year 2022, the OHP MOH has introduced an initiative to fabricate dentures using 3D printing technology. This initiative was implemented as POC for three (3) months in two (2) dental clinics, namely Bandar Botanik Dental Clinic, Klang, Selangor and Kuala Lumpur Dental Clinic, FT of Kuala Lumpur from 15 August to 15 November 2022.

Image 1.2
POC of Denture Production Using 3D Technology



Source: Oral Health Programme, MOH

The POC approach was done in collaboration with two (2) private companies providing 3D technology equipment and free training throughout the POC period. Through this initiative, a total of 150 patients have received their dentures in a shorter time period with an average of less than two (2) weeks as compared to the existing period which is around eight (8) to 10 weeks. Meanwhile for simpler cases, patients were able to get their dentures fitted within one (1) week. In addition, the frequency of visits could also be shortened from five (5) visits to only two (2) visits.

EXPANDING THE IMPLEMENTATION OF THE ELECTRONIC MEDICAL RECORD (EMR) SYSTEM

Teleprimary Care - Oral Health Clinical Information System (TPC-OHCIS) is a clinical information system that are currently used in 31 dental clinics in Negeri Sembilan. In year 2022, the procurement process for the Deployment, Configuration and Testing of TPC-OHCIS project at 23 dental clinics with the necessary IT infrastructure in Johor, Selangor and FT of Kuala Lumpur was initiated with installation in year 2023. As part of the project preparation, a Change Management *and* User Awareness Workshop was conducted in June 2022.

COMMUNITY SERVICE IN SCHOOL DENTAL CLINIC (PPKPS)

The concept of PPKPS was introduced in schools with School Dental Clinics (SDC) where the delivery of dental services is not only limited to school children but is also extended to the teachers, supporting staffs and their family members. The rationale for the PPKPS initiative is to optimise the use of dental facilities in SDC, expand the role of dental staff in SDC and promote oral health services to the local community.

In July 2022, the PPKPS pilot project was carried out in 30 schools involving seven (7) states. Approval was granted by the Ministry of Education (MOE) for the PPKPS pilot project through to April 2023. Following this, 30 SDCs were selected based on a number of criteria, namely complete dental equipment and assets, water supply and electrical power source that complies with the standards, adequate human resources as well as the approval and permission from the school authorities. The scope of services delivered through PPKPS includes promotion and prevention of dental diseases, basic dental treatment and referrals for specific cases for further management. 70 additional SDCs were identified in 20 December 2022, bringing the total number of 100 PPKPS in 2023.

Image 1.3
Officiating and Visits to SDC with PPKPS



Source: Oral Health Programme, MOH

PERIODONTAL SCREENING FOR SECONDARY SCHOOL CHILDREN (15-17 YEARS OLD)

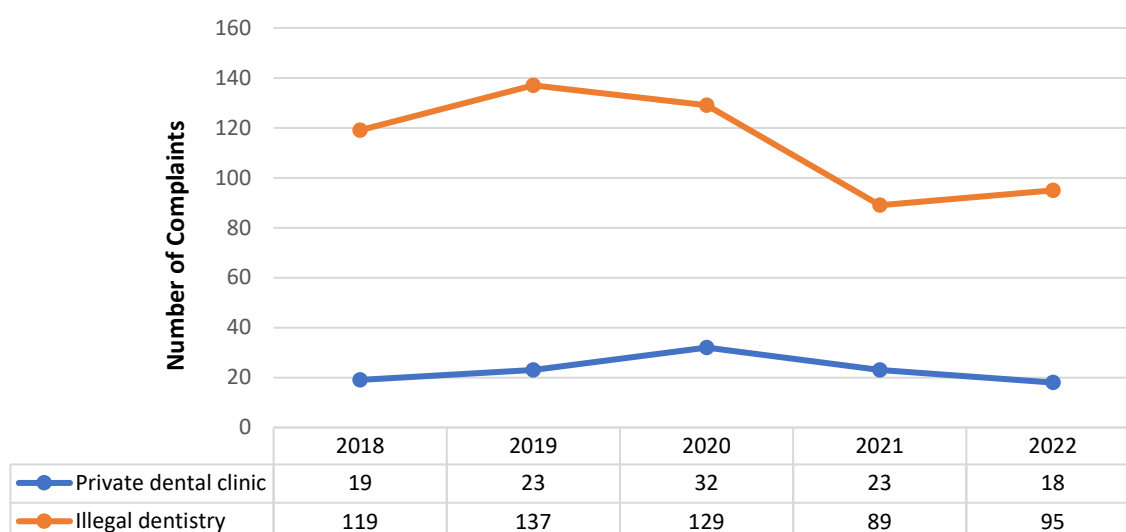
Periodontal disease is one of the most common oral diseases contributing to the global burden of chronic disease and is associated with cardiovascular diseases (CVDs), diabetes and chronic obstructive pulmonary diseases (COPDs) through tobacco use, particularly smoking. In year 2022, a feasibility study was conducted in four (4) secondary schools in Selangor on the implementation of periodontal screening as part of incremental dental care among 15 to 17 years old school children. The study was carried out from August to October 2022 involving eight (8) dental officers with 416 students being screened.

The benefit of periodontal screening would far outweigh the cost of periodontal probe. As such, implementation of periodontal screening year 2023 will start in stages, to enable enough time for states to purchase additional periodontal probes. With the introduction of periodontal screening among secondary school children, management and treatment are tailored to individual periodontal conditions. It is hoped that the prevalence of severe periodontitis among Malaysian will be reduced in NOHSA 2030.

ENFORCEMENT OF THE DENTAL ACT 2018 [ACT 804]

After 50 years of the Dental Act 1971 [Act 51] regulating the nation's dental practice, 1 January 2022 marks the pivotal date when the Dental Act 2018 [Act 804] was enforced to replace Act 51, in line with the development of practice and technology in the field of dentistry. However, three (3) provisions from the Act will come into force on 1 January 2025. Throughout the year 2022, a total of 113 complaints have been received, of which 95 complaints due to illegal dental practices while the rest were related to patient dissatisfaction with private dental clinics (**Figure 1.1**).

Figure 1.1
Complaints from Year 2018 to 2022



Source: Oral Health Programme, MOH

A total of 23 raids involving illegal practices within unregistered premises were successfully conducted. Various methods are used to publicise and disseminate information related to illegal dental practice activities that need to be eradicated, especially in creating public awareness of the dangers of this activity. Collaboration has been done with the printed media such as national newspapers (*Harian Metro*, *The Star* and *Sinar Harian*) and electronic media such as coverage by the 999 TV Programme for several series of raids as well as interviews on the *Malaysia Hari Ini* (MHI) TV Programme on TV3 and on several radio stations.

The highlight for 2022 was the beginning of a strategic collaboration with the e-commerce company, Shopee Malaysia being one of the main platforms for selling products online. As the result of the discussion held on 13 December 2022, Shopee Malaysia agreed to work hand in hand with OHP MOH in curbing the illegal dental practices by restricting the sale of dental equipment on their platform and to support efforts to enhance awareness regarding professional dental services to the people.

PATIENT SAFETY SYMPOSIUM 2022

The OHP MOH held an inaugural Patient Safety Symposium on 23 May 2022 with the theme *Patient Safety, Our Priority*. This one-day event was conducted successfully via hybrid mode which enabled discussion on patient safety issues and also served as a medium for sharing incident reports among representatives from all states, federal territories and institutes.

The main objective of the symposium was to increase awareness of patient safety, besides providing wider exposure regarding incidents involving dental patients since year 2019. The specific objectives were to present and share the analyses of the incident reports from year 2019 to 2022, recommend implementation of improvements at state and OHP MOH levels and to obtain a resolution to avoid the repetition of sentinel cases.

ORAL HEALTH PROGRAMME QUALITY CONVENTION 2022

The OHP MOH successfully conducted the second biennial Oral Health Programme Quality Convention from 10 to 11 May 2022. The Oral Health Programme Quality Convention 2022 was mainly organised on a competitive stage; whereby the three (3) main quality improvement initiatives namely; Innovations, New Horizon Innovative and Creative Circles (KIK *Horizon Baru*) and Quality Assurance (QA) projects were evaluated by a pool of honourable panellists respectively. There was active participation from all 13 states, three (3) federal territories and the Children's Dental Centre and MOH Training Institute (Dental), Pulau Pinang, Malaysia. This convention aimed to provide exposure and awareness to participants on producing quality projects which meet the standard criteria and scoring schemes.

Table 1.1
Winners of Oral Health Programme Quality Convention 2022

Category	Place	Project Name	Organisation
Innovation	First	Portable Waterline System (PWLS)	PKPD Yan, Kedah
	Second	OKU Assessment and Examinations Tool (O.A.T)	PKPD Besut, Terengganu
	Third	Denplify	PKPD Muar, Johor
Innovative and Creative Group New Horizon (KIK)	First	A-Muse-C	PKPD Gua Musang, Kelantan
	Second	Smart Sink	PKPD Kuala Kangsar, Perak
	Third	Smart Smile Wheel (SSW)	PKPD Jempol, Negeri Sembilan
Quality Assurance (QA)	First	To Reduce Pain in Adult Patients During Local Anaesthesia in e Chemor Dental Clinic	PKPD Kinta, Perak
	Second	Put A Full Stop to Fake Braces! Achieving Zero Number of Fake Braces Usage Among School Children in SMK Pantai	PKP Zon Lembah Pantai, FT Kuala Lumpur & Putrajaya
	Third	Towards Increase of Appropriate Antibiotic Prescriptions in Baling Dental Clinic	PKPD Baling, Kedah

PKPD = Pejabat Kesihatan Pergigian Daerah
Source: Oral Health Programme, MOH

COCHRANE SEMINAR ON ORAL HEALTH

OHP MOH collaborated with Cochrane Malaysia in organising Cochrane Oral Health Seminar for dental officers in public and private sectors on the 3 and 10 August 2022. The seminar aimed to provide exposure on Cochrane Library and systematic reviews, empowering knowledge of Cochrane systematic reviews of clinical cases and improving delivery of dental health services to citizens in both public and private sectors.

The online seminar was conducted over two (2) sessions with 206 participants during the first session on 3 August 2022 and 104 participants during the second session on 10 August 2022. These seminars were beneficial for all dental officers in understanding the use of Cochrane systematic reviews in daily clinical cases thus, helping each category of participants to empower appropriate systematic review searches on the Cochrane Library website.

GLOBALISATION AND LIBERALISATION OF ORAL HEALTH SERVICES

The ASEAN Joint Coordinating Committee on Dental Practitioner (AJCCD) virtual meeting was held on 9 February 2022 and 28 October 2022. The meetings were held twice a year to discuss matters related to facilitating cooperation in Mutual Recognition Agreement (MRA) on Dental Practitioners. In addition, officers from the Oral Health Accreditation and Globalisation Section also attended a workshop on foreign equity participation in private healthcare facilities from 8 to 9 June 2022 in Putrajaya. Among the issues discussed were the proposed improvement of the Foreign Equity Participation Policy from the policy agreed in 2015. This section was also involved in providing feedback for dental services in bilateral or multilateral negotiations between Malaysia and countries such as Türkiye, United Kingdom and the European Free Trade Association (EFTA). Input was also provided for the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA) negotiations.

ACCREDITATION OF POST-GRADUATE DENTAL DEGREE PROGRAMME

With the enforcement of the Dental Act 2018 [Act 804] from 1 January 2022, the duties and role as secretariat to the Joint Technical Committee for Evaluation of Dental Specialist Programme (JTCE DSP) was handed over by the Malaysian Qualifications Agency (MQA) to the Oral Health Accreditation and Globalisation Section. The newly formed committee is chaired by the Director of Oral Health Policy and Strategic Planning Division. The Code of Practice for Programme Accreditation - Post-graduate (COPPA-PG) Committee was established to develop the COPPA - Dental Specialty Programme document which will serve as the main reference for the Panel of Assessors and Higher Education Provider (HEP) during the accreditation process of a dental specialty programme.

PROPOSAL FOR LATERAL ENTRY OF DENTAL OFFICERS

Proposal paper for application of lateral entry requirement for the Dental Officer's scheme in MOH was submitted to the Central Agencies for approval with the existing provision to be amended for the creation of grade UG41, UG43/44, UG47/48, UG51/52, UG53/54 and Specialist UG55/56. The creation of lateral entry requirement will:

- i. Provide more space for MOH and Public Services Commission (PSC) to identify and select the best talents from the market towards strengthening the delivery of the services in accordance to today's and future needs;
- ii. Enable permanent or contract appointments to be offered at a higher grade, taking into consideration relevant experience, academic qualifications and the rate for the job; and
- iii. Enable PSC to offer appointment that is parallel to the officer's career pathway.

EXTENSION OF CONTRACT FOR DENTAL OFFICERS

Beginning year 2022, contract Dental Officers who have completed compulsory services have been offered extension of contract for a further two (2) years for continuity of services and preparation for specialist training. Officers who received training offers will be offered extension of contract for further maximum of four (4) years to complete their training. This decision was agreed upon during the Ministries Council Meeting on 14 July 2021.

DEVELOPMENT PROJECTS UNDER MALAYSIA PLAN (MP)

There were 12 development projects were brought forward from 10MP and 11MP in several number of states as follows:

- i. Standalone Dental Clinics:
 - Bukit Selambau Dental Clinic, Kedah;
 - Tanjung Karang Dental Clinic and District Oral Health Office, Kuala Selangor, Selangor;
 - Kluang Dental Clinic, Johor;
 - Pasir Akar Dental Clinic, Besut, Terengganu;
 - Daro Dental Clinic, Mukah, Sarawak;
 - Tronoh Dental Clinic, Kinta, Perak;
 - Pusat Pakar Pergigian Negeri Sembilan; and
 - Pusat Pakar Pergigian Sabah.
- ii. Health Clinic (Type 3) and *Klinik Pakar Pergigian* Precinct 6, Putrajaya;
- iii. Upgrading Paediatric Dental Department, Melaka Hospital; and
- iv. Upgrading six (6) Health Clinic (Type 5) to include dental component in Sarawak:
 - Braang Bayur Health Clinic, Kuching;
 - Asajaya Health Clinic, Samarahan;
 - Kabong Health Clinic, Betong;
 - Pusa Health Clinic, Betong;
 - Jepak Health Clinic, Bintulu; and
 - Sungai Asap Health Clinic, Belaga, Kapit.

In addition to the projects under the Malaysia Plan, there are four (4) projects under the Public-Private Initiatives (PPP) scheme namely:

- i. Redevelopment of Cahaya Suria Dental Clinic (*Pusat Pakar Pergigian Kuala Lumpur*);
- ii. Redevelopment of Dental Clinic at Dato' Keramat Health Clinic;
- iii. *Kompleks Institut Penyelidikan Kesihatan Bersepadu* (IPKB) Project 2 - Land Swap of Bangsar Dental Clinic; and
- iv. Hospital Cyberjaya, Selangor.

GAZETTEMET OF SPECIALISTS IN ORAL HEALTHCARE

There is a requirement for Public Health Dental Officer and Clinical Dental Specialist in MOH to be gazetted as Dental Specialists. There are nine (9) dental specialties in MOH, namely Oral and Maxillofacial Surgery, Orthodontics, Paediatric Dentistry, Periodontics, Oral Pathology and Oral Medicine, Restorative Dentistry, Special Care Dentistry, Forensic Dentistry and Dental Public Health. A total of 52 Dental Specialists were gazetted in year 2022, bringing to a total of 465 Dental Specialists serving in MOH with 24 per cent increment within 5 years (**Table 1.2**). Even though there is an increase in the number of Dental Specialists every year, it is still not enough to cater to the needs of MOH and the country. Therefore, slots for *Hadiah Latihan Persekutuan* (HLP) need to be increased for MOH dental specialty training.

Table 1.2
Dental Specialists Serving in MOH from Year 2018 to 2022

Specialty	Year				
	2018	2019	2020	2021	2022
Hospital Based Specialist					
Oral and Maxillofacial Surgery	77	81	84	90	101
Paediatric Dentistry	45	46	49	53	58
Oral Pathology and Oral Medicine	15	15	15	17	19
Special Care Dentistry	6	6	7	6	7
Forensic Dentistry	1	2	3	3	4
Non-Hospital Based Specialist					
Orthodontics	70	70	80	81	90
Periodontics	41	44	49	58	68
Restorative Dentistry	34	37	40	46	49
Dental Public Health	86	80	72	70	69
Total Number of Dental Specialist	375	381	399	424	465

Note: Not inclusive of dental specialist undergoing gazettement

Source: Oral Health Programme, MOH

MAPPING OF SPECIALISTS IN ORAL HEALTHCARE

The mapping of specialist services was done to ensure appropriate distribution of existing specialists based on needs and also to identify future training requirements for all specialties. The expansion of six (6) dental specialist services was undertaken for 15 dental facilities in 2022 (**Table 1.3**).

Table 1.3
Expansion of Specialist in Oral Healthcare Services in Year 2022

Specialty	Facilities
Oral and Maxillofacial Surgery	Hospital Cyberjaya, Selangor
Pediatric Dentistry	Hospital Cyberjaya, Selangor Hospital Keningau, Sabah Hospital Tawau, Sabah
Forensic Dentistry	Hospital Tengku Ampuan Afzan, Pahang
Orthodontics	Klinik Pergigian Pakar Jalan Putra, Perak Klinik Pergigian Jasin, Melaka Klinik Pergigian Ulu Tiram, Johor Klinik Pergigian Penambang, Kelantan Klinik Pergigian Pasir Puteh, Kelantan Klinik Pergigian Tudan, Sarawak
Periodontics	Klinik Pergigian Air Putih, Pulau Pinang Klinik Pergigian Sandakan, Sabah
Restorative Dentistry	Klinik Pergigian Bandar Perda, Pulau Pinang Klinik Pergigian Sandakan, Sabah

Source: Oral Health Programme, MOH

Service data has been collected through Health Informatics and Management System (HIMS), except for Special Care Dentistry and Forensic Dentistry which are still being done manually. The workload of dental specialists was reflected by the ratio of specialists to patients. Overall,

the COVID-19 pandemic had an impact on the Specialist Oral Healthcare services from year 2020 to 2021. However, the successful nationwide vaccination programme has enabled the services to resume as usual in year 2022 (**Table 1.4**).

Table 1.4
Workload of Dental Specialist by Disciplines from Year 2017 to 2022

Oral Health Specialty	Year					
	2017	2018	2019	2020	2021	2022
Hospital Based Specialist						
Oral and Maxillofacial Surgery	3,554	3,680	3,716	2,986	2,471	2,977
Paediatric Dentistry	3,005	2,854	2,541	2,044	1,749	2,179
Oral Pathology and Oral Medicine	833	864	951	770	648	767
Special Care Dentistry	1,159*	1,297*	1,413*	819*	892*	1,166
Forensic Dentistry	141*	110*	88*	59*	63*	102
Non-Hospital Based Specialist						
Orthodontics	3,556	3,423	3,711	2,026	2,436	2,703
Periodontics	1,466	1,349	1,373	712	805	1,008
Restorative Dentistry	1,294	1,308	1,327	1,228	828	1,025

Note: *Oral Health Programme, MOH

Source: Health Informatics and Management System, MOH

AGENDA NASIONAL MALAYSIA SIHAT (ANMS): MYCHAMPION – IKON GIGI (iGG)

Malaysia Health Community Agent (MyCHAMPION) is a collaboration of volunteer services across ministries and agencies in an effort to empower communities on healthy living and taking charge of their own oral health. Ikon Gigi (iGG), volunteer under the OHP MOH is also included under MyCHAMPION. In year 2022, a total of 194 iGG have registered as MyCHAMPION and were trained with specific modules using *Buku Ke Arah Kesejahteraan Kesihatan: Peranan MyCHAMPION*. This module contains information related to oral health that covers the topics of effective toothbrushing, the proper use of dental floss and oral health services provided by the MOH.

ORAL HEALTH PROMOTION WEEK (MPKP) 2022

MPKP with the theme *Cegah dan Rawat, Serlah Senyuman Sihat* was successfully organised from 28 July to 3 August 2022. The MPKP 2022 was launched virtually by the Principal Director (Oral Health) through the official OHP MOH Facebook Live on 28 July 2022. The event was a joint collaboration between OHP MOH and Perlis Oral Health Division.

MyBrushHour 2022 was one of the activities in the run-up to MPKP. This activity was well received by the public and was carried out on 5 July 2022 simultaneously throughout Malaysia involving 1,433 various facilities including government dental clinics, schools and kindergartens with 68,559 participants. The activity aims to encourage, guide and increase the awareness of the Malaysian community about the importance of maintaining good oral health by educating on the proper technique of tooth brushing.

ACCREDITATION OF BACHELOR OF DENTAL SURGERY PROGRAMME

In year 2022, accreditation assessments through physical visits have resumed after being conducted online throughout the pandemic. A total of one (1) assessment for the renewal of the accreditation certificate and six (6) accreditation compliance assessments have been carried out. All reports were presented at the Joint Technical Accreditation Committee (JTAC) meeting held every two (2) months. A total of seven (7) recommendation papers were submitted by JTAC to the Malaysian Dental Council (MDC) following the accreditation evaluation reports presented. In addition to that, proposal papers were prepared, related to applications for curriculum review, evaluation for temporary accreditation, application for the addition or amendment of student intake quota and proposal paper for the credit transfer application.

The COPPA Committee organised a workshop to finalise the COPPA document on 23 to 25 March 2022. The updated COPPA document named COPPA BDS 2.1 was certified at the fourth MDC meeting on 2 August 2022. Upon completion of the COPPA BDS 2.1 review, a workshop to train the Panels of Assessors (accreditation assessment) based on the standards and criteria in COPPA BDS 2.1 was held on 5 to 7 October 2022 in Ipoh, Perak.

This workshop is important to meet the critical need for additional dental specialists trained to carry out the accreditation assessment of dental degree programmes, which is currently very small in number. The number of Panels of Assessors has decreased with the retirement of some trained panels. The workshop successfully trained a new panel of assessors in addition to enhancing the skills of the existing panel of assessors. A total of 14 Dental Specialists from the MOH and 26 Dental Specialists from 13 local HEP, making a total of 40 Dental Specialists from various fields of expertise participated in the workshop.



RESOURCE MANAGEMENT

FINANCIAL RESOURCE MANAGEMENT

Budget Management

In year 2022, OHP MOH received a total operational allocation of RM984,699,100 which was 0.67 per cent increase as compared to allocation received in year 2021 (**Table 2.1**).

Table 2.1
Operational Allocation, OHP MOH, 2018 to 2022

Year	Emolument (RM)	Services (RM)	Asset (RM)	Total (RM)
2018	808,421,900.00	101,636,285.00	-	910,058,185.00
2019	843,683,100.00	104,483,376.00	-	948,166,476.00
2020	883,980,900.00	105,993,700.00	-	989,974,600.00
2021	906,813,800.00	71,735,000.00	-	978,188,800.00
2022	910,325,200.00	74,373,900.00	-	984,699,100.00

Source: Account Division, MOH

Overall, in year 2022 OHP MOH had over spent i.e. 102.16 per cent of the allocated budget (**Table 2.2**). Budget allocation under the Existing Policy (*Dasar Sedia Ada*) were divided into four (4) programme codes as below:

- 040100 Management
- 040200 Primary Oral Healthcare
- 040300 Community Oral Healthcare
- 040400 Specialist Oral Healthcare

Table 2.2
Adjusted Budget Allocation and Final Expenditures, OHP MOH, 2022

Programme	Programme Code	Adjusted Allocation (RM)	Final Expenditure (RM)	Percentage of Final Expenditure to Adjusted Allocation (%)
Management	040100	110,890,778.19	114,119,759.73	102.91
Primary Oral Healthcare	040200	713,026,611.98	725,940,812.75	101.81
Community Oral Healthcare	040300	58,858,042.06	61,226,672.01	104.02
Specialist Oral Healthcare	040400	169,494,989.01	173,698,744.82	102.48
Total		1,052,270,421.24	1,074,985,989.31	102.16

Source: Financial Unit, Oral Health Programme, MOH 2022

Budget Allocation and Expenditure by State

In year 2022, under *Dasar Sedia Ada*, Sarawak state received the highest allocation, followed by Selangor and Sabah. A total of 14 states or institutions spent more than their initial allocation due to the increase in expenditure (**Table 2.3**).

Table 2.3
Adjusted Budget Allocations and Final Expenditures Under Existing Policies by State and Institution, 2022

State / Institution	Adjusted Allocation (RM)	Final Expenditure (RM)	Percentage of Final Expenditure to Adjusted Allocation (%)
Perlis	20,972,429.96	21,030,169.24	100.28
Kedah	71,991,695.19	73,401,596.54	101.96
Pulau Pinang	59,669,681.32	59,669,681.32	100.00
Perak	91,018,652.31	93,968,860.70	103.24
Selangor	100,052,599.74	106,178,656.15	106.12
Negeri Sembilan	59,805,844.00	61,229,871.00	102.38
Melaka	45,879,888.44	46,760,223.03	101.92
Johor	86,876,509.82	89,488,241.96	103.01
Pahang	79,930,144.67	82,134,121.94	102.76
Terengganu	72,154,778.52	72,263,666.69	100.15
Kelantan	79,716,597.19	80,640,257.13	101.16
Sabah	93,826,875.91	94,489,764.73	100.71
Sarawak	104,994,696.13	107,788,536.18	102.66
FT KL & Putrajaya	59,457,798.04	59,581,137.53	100.21
FT Labuan	4,262,131.96	4,701,107.13	110.30
OHP MOH	14,402,695.58	14,402,695.58	100.00
PPKK & ILKKM	145,259.97	145,259.97	100.00
HKL	7,072,892.91	7,072,892.91	100.00
IMR	20,296.00	20,296.00	100.00
IKN	18,953.58	18,953.58	100.00
Total	1,052,270,421.24	1,074,985,989.31	102.16

PPKK & ILKKM = Pusat Pergigian Kanak-Kanak dan Institut Latihan Kementerian Kesihatan Malaysia (Pergigian)

HKL = Hospital Kuala Lumpur

IMR = Institute Medical Research

IKN = National Cancer Institute

Source: Financial Unit, Oral Health Programme, MOH 2022

Allocation for Medicine Supply & Privatisation Concession of Medicines

In year 2022, OHP MOH received adjusted budget allocation of RM67,146,979.52 (**Table 2.4**) for two (2) projects listed below:

- 080700 Medicine Supply – RM59,497,931.53
- 990100 Privatisation Concession of Medicines – RM7,749,298.64

The OHP MOH spent a total of RM67,248,766.57 in year 2022, which was 100.15 per cent of its adjusted allocation.

Table 2.4
Adjusted Budget Allocations and Final Expenditures for Medicine Supply & Privatisation Concession of Medicines OHP MOH, 2022

Activity	Activity Code	Adjusted Allocation (RM)	Final Expenditures (RM)	Percentage of Final Expenditures to Adjusted Allocation (%)
Medicine Supply	080700	59,400,251.76	59,499,467.93	100.17
Privatisation Concession of Medicines	990100	7,746,727.76	7,749,298.64	100.03
Total		67,146,979.52	67,248,766.57	100.15

Source: Financial Unit, Oral Health Programme, MOH 2022

Oral Health Programme Development Allocation

In year 2022, a total of RM71,714,945.56 spent under the development allocation of OHP MOH. **Table 2.5** shows the breakdown of expenses in each activity under the development allocation.

Table 2.5
Adjusted Budget Allocations and Final Expenditures for Development OHP MOH, 2022

Activity	Activity Code	Adjusted Allocation (RM)	Final Expenditures (RM)	Percentage of Final Expenditures to Initial Allocations (%)
In-service Training	00105	996,508.83	996,508.83	100.00
Research & Development (NHMS 2020: NOHSA 2020)	00500	407,174.46	406,900.63	99.93
Modifications & Repairs	00600	4,653,807.07	4,414,307.07	94.85
Medical Equipment Enhancement Tenure (MEET)	01100	38,305,743.02	37,826,218.55	98.75
Upgraded Medical & Non-Medical Equipment	01100	15,369,144.00	15,369,144.00	100.00
Mobile Dental Team Equipment	01100	7,124,106.83	6,977,706.48	97.95
Mobile Dental Clinic	01100	5,724,160.00	5,724,160.00	100.00
Total		72,580,644.21	71,714,945.56	98.81

Source: Financial Unit, Oral Health Programme, MOH 2022

HUMAN RESOURCE MANAGEMENT

A successful health system depends on the provision of effective, efficient, accessible, sustainable and high quality services by a workforce that is sufficient in number, appropriately trained and equitably distributed. As of December 2022, there is a total of 17,892 posts for all categories of staff under Programme 4: Oral Health; an increase of 3 per cent as compared to year 2021.

Dental Officer

On 29 January 2022, the Government has agreed to approve an additional of 4,186 permanent posts for Medical Officer, Dental Officer and Pharmacy Officer scheme in year 2022 and a further additional 1,500 posts from year 2023 to 2025. As of December 2022, only about 10 per cent of dental officer posts is still vacant (**Table 2.6**) and the percentage of filled posts was lower in East Malaysia as compared to the Peninsular Malaysia with Sarawak having the least number of filled posts (**Table 2.7**).

Table 2.6
Status of Dental Officer Posts, 2018 to 2022

Year	P	F	Percentage F (%)
2018	3,839	3,095	80.6
2019	3,847	3,051	79.3
2020	3,866	3,499	90.5
2021	3,863	3,511	90.9
2022	4,305	3,842	89.2

P = Posts F = Filled
Source: Oral Health Programme, MOH

Table 2.7
Status of Dental Officer Posts at State/ Hospital/Institution, 2022

State/ Hospital/ Institutions	P	F	Percentage F (%)
Perlis	84	75	89.3
Kedah	280	254	90.7
Pulau Pinang	220	198	90.0
Perak	345	317	91.9
Selangor	440	406	92.3
FT KL & Putrajaya	226	209	92.5
Negeri Sembilan	241	222	92.1
Melaka	202	187	92.6
Johor	446	379	85.0
Pahang	376	343	91.2
Terengganu	318	294	92.5
Kelantan	326	305	93.6
Total Peninsular Malaysia	3,504	3,189	91.0

State/ Hospital/ Institutions	P	F	Percentage F (%)
Sabah	302	252	83.4
Sarawak	357	267	74.8
FT Labuan	23	21	91.3
Total East Malaysia	682	540	79.2
HKL	23	23	100.0
IKN	3	3	100.0
HTA	11	11	100.0
OHP MOH	34	33	97.1
Total Hospital /Institution	71	70	98.6
Malaysia	4,257	3,799	89.2

P = Posts

F=Filled

HKL = Hospital Kuala Lumpur

IKN = National Cancer Institute

HTA = Hospital Tuanku Azizah

Source: Oral Health Programme, MOH 2022

In year 2022, the appointment exercise of new contract dental officers increased from three (3) to four (4) times a year (**Table 2.8**). The distribution takes into consideration the number of vacant posts available and the number of population in each state (**Table 2.9**).

Table 2.8
New Dental Officers Appointed on Contract Basis in MOH, 2018 to 2022

Cohort	Year				
	2018	2019	2020	2021	2022
First cohort	708	566	503	516	384
Second cohort	286	390	260	539	347
Third cohort	130	217	101	48	118
Fourth cohort					146
Total	1,124	1,173	864	1,103	995

Source: Oral Health Programme, MOH 2022

Table 2.9
Distribution of Contract Dental Officers, 2018 to 2022

State/ Institution	Year					
	2018	2019	2020	2021	2022	Total
Perlis	36	26	9	26	25	155
Kedah	71	81	55	79	73	458
Pulau Pinang	82	46	51	68	48	388
Perak	69	112	74	76	98	541
Selangor	132	129	138	101	92	760
FT KL & Putrajaya	65	72	44	42	106	411
Negeri Sembilan	77	80	63	103	65	451
Melaka	62	60	44	69	66	384

State/ Institution	Year					
	2018	2019	2020	2021	2022	Total
Johor	127	124	90	131	106	763
Pahang	92	97	69	74	83	489
Terengganu	107	88	75	93	41	496
Kelantan	87	107	49	98	53	477
Total Peninsular	1,007	1,022	761	960	856	5,773
Sabah	56	93	50	68	76	403
Sarawak	54	44	52	68	54	364
FT Labuan	7	14	1	7	9	48
Total East Malaysia	117	151	103	143	139	815
Malaysia	1,124	1,173	864	1,103	995	6,588

Source: Oral Health Programme, MOH 2022

With the additional 300 new permanent posts received in year 2022, a total of 460 permanent placement was offered to contract Dental Officers batch 2017 to 2019 cohorts who were still in the service. Of the 640 candidates who interviewed for permanent placement, 454 (71%) were offered positions. However, only 415 (91%) accepted the offer and reported duty as permanent dental officer. Those who turned down the offer had their contract extended for another two (2) years. A total of 1,386 of the best talents from nine cohorts were appointed on a permanent basis (**Table 2.10**).

Table 2.10
Contract Dental Officers Appointed on Permanent Basis in MOH

Cohort	Number Appointed on Contract	Permanent Appointment				
		First Exercise	Second Exercise	By Interview	Total	Percentage (%)
First cohort 2017	526	161	20	11	192	36.5
Second cohort 2017	441	142	17	8	167	37.9
Third cohort 2017	362	128	13	22	163	45.0
First cohort 2018	708	243	13	19	275	38.8
Secod cohort 2018	286	108	-	18	126	44.1
Third cohort 2018	130	46	-	23	69	53.1
First cohort 2019	566	-	-	75	75	13.3
Second cohort 2019	390	-	-	140	140	35.9
Third cohort 2019	217	-	-	90	90	41.5
Total	3,626	917	63	406	1,297	35.8

Source: Oral Health Programme, MOH 2022

Attrition of Dental Officers

In year 2022, a total of 1,401 dental officers joined the MOH, while 686 left the service due to various reasons. This resulted in a net gain of 715 officers (**Table 2.11**).

Table 2.11
Nett Gain/ Loss of Dental Officers in MOH, 2018 to 2022

Reasons	Year				
	2018	2019	2020	2021	2022
New Intake	1,124	1,334	1,414	1,274	1,401
Attrition					
• Retired (Compulsory)	13	18	24	5	3
• Retired (Optional)	12	5	5	2	1
• Resigned	414	487	347	475	661
• Other Reasons	4	2	2	69	21
Total	443	512	378	551	686
Net Gain/ Loss	681	822	1,036	723	715

Source: Oral Health Programme, MOH 2022

Dental Specialist

The number of clinical dental specialists has increased from 427 in year 2021 to 465 in year 2022. However, the number of Dental Public Health Specialists remain almost the same due to the lack of new dental public health graduates entering the service (**Table 2.12**).

Table 2.12
Number of Dental Specialists in MOH, 2018 to 2022

Year	Hospital-Based					Non-Hospital-Based				Total
	Clinical								Dental Public Health	
	Oral & Maxillo-facial Surgery	Paediatric Dentistry	Oral Pathology & Oral Medicine	Special Needs Dentistry	Forensic Odontology	Orthodontic	Periodontics	Restorative Dentistry		
2018	77	45	14	5	1	69	42	31	85	369
2019	81	46	15	6	2	70	44	37	80	381
2020	84	49	15	7	3	80	50	40	71	399
2021	90	54	17	7	3	81	58	46	71	427
2022	99	59	19	7	4	88	67	47	75	465

(Exclude dental specialists undergoing gazettement)

Source: Oral Health Programme, MOH

The number of clinical specialist posts is inadequate to accommodate the increasing number of clinical specialist in the service. On the contrary, the number of vacant posts for Dental Public Health (DPH) remain high due to high attrition (**Table 2.13**). The distribution of posts and specialists is shown in **Table 2.14**. On 29 January 2022, the government approved an additional of 70 dental specialist posts for MOH, to be filled starting in year 2023.

Table 2.13
Status of Dental Specialist Posts, 2018 to 2022

Year	Clinical Dental Specialist			DPH Specialist		
	P	F	Percentage F (%)	P	F	Percentage F (%)
2018	244	284	116.4	94	85	90.4
2019	244	301	123.4	94	80	85.1
2020	361	328	90.9	97	71	73.2
2021	329	404	122.8	96	77	80.2
2022	339	432	127.4	95	75	78.9

P = Posts F=Filled

Source: Oral Health Programme, MOH 2022

Table 2.14
Dental Specialist Posts at State/ Hospital/ Institution, 2022

State/ Hospital/ Institution	Clinical Dental Specialist			DPH Specialist		
	P	F	Percentage F (%)	P	F	Percentage F (%)
4.0 Activity - Oral Health Programme						
Perlis	6	6	100.0	2	1	50.0
Kedah	20	28	140.0	4	3	75.0
Pulau Pinang	22	26	118.2	4	4	100.0
Perak	25	35	140.0	6	4	66.7
Selangor	55	55	100.0	9	6	66.7
FT KL & Putrajaya	25	31	124.0	5	3	60.0
Negeri Sembilan	20	22	110.0	4	4	100.0
Melaka	16	18	112.5	4	3	75.0
Johor	33	45	136.4	7	6	85.7
Pahang	20	32	160.0	4	4	100.0
Terengganu	16	20	125.0	3	4	133.3
Kelantan	21	25	119.0	6	2	33.3
Total Peninsular	279	343	122.9	58	44	75.9
Sabah	22	36	163.6	5	4	80.0
Sarawak	17	30	176.5	2	3	150.0
FT Labuan	0	0	0.0	0	1	0.0
Total East Malaysia	39	66	169.2	7	8	114.3
HKL	7	10	142.9	0	0	0.0
IKN	2	2	100.0	0	0	0.0
HTA	8	5	62.5	0	0	0.0
OHP MOH	0	0	0.0	28	23	82.1
Total Hospital & Institution	17	17	100.0	28	23	17.0
Malaysia	335	426	127.2	93	75	80.6

State/ Hospital/ Institution	Clinical Dental Specialist			DPH Specialist		
	P	F	Percentage F (%)	P	F	Percentage F (%)
Other Programme Activity (1.0 Pengurusan and 6.0 NIH)						
PPKK & ILKKM	1	1	100.0	0	1	0.0
NIH/IMR	3	4	133.3	0	0	0.0
NIH/CRC	0	1	0.0	0	0	0.0

P = Posts F = Filled

HKL = Hospital Kuala Lumpur

IKN = National Cancer Institute

HTA = Hospital Tuanku Azizah

PPKK & ILKKM = Pusat Pergigian Kanak-Kanak dan Institut Latihan Kementerian Kesihatan Malaysia (Pergigian)

NIH/IMR = National Institute of Health / Institute Medical Research

NIH/CRC = National Institute of Health / Clinical Research Centre

Source: Oral Health Programme, MOH 2022

Attrition of Dental Specialist

A total of 49 dental officers were gazetted as specialist in year 2022 while 21 officers left the service due to various reasons. This resulted in a net gain of 28 specialists. Net gain and losses of dental specialist between year 2017 to 2022 is shown in **Table 2.15**.

Table 2.15
Gazettement and Attrition of Dental Specialist, 2018 to 2022

Gazetted/ Attrition	Year				
	2018	2019	2020	2021	2022
Gazetted as Specialist	43	30	32	37	49
Attrition					
• Retired (Compulsory)	10	15	19	6	8
• Retired (Optional)	4	1	2	1	7
• Resigned/ Released with Permission	10	11	1	3	6
• Other Reasons	2	1	2	1	0
Total	26	28	24	11	21
Net Gain/ Loss	17	2	8	26	28

Source: Oral Health Programme, MOH 2022

Dental Auxilliaries and Support Staff

In year 2022, 94.9 per cent of permanent posts for dental auxiliaries and support staff has been filled (**Table 2.16**). The posts filled in Sabah, Sarawak and FT Labuan almost reached 100 per cent as compared to Peninsular Malaysia. Distribution of posts and auxiliaries is shown in **Table 2.17**.

Table 2.16
Status of Dental Auxilliaries Posts, 2022

Category	P	F	
		Number	Percentage (%)
Dental Therapist	3,030	2,869	94.7

Category	P	F	
		Number	Percentage (%)
Dental Technologist	1,061	1,027	96.8
Dental Surgery Assistant	4,480	4,324	96.5
Total	8,571	8,220	95.9
Support Staff	2,671	2,447	91.6
Total	11,242	10,667	94.9

P = Posts F = Filled

Source: Oral Health Programme, MOH 2022

Table 2.17
Status of Dental Auxilliaries Posts at State / Hospital /Institution, 2022

State/ Hospital/ Institution	Dental Therapist			Dental Technologist			Dental Surgery Assistant		
	P	F	Percentage F (%)	P	F	Percentage F (%)	P	F	Percentage F (%)
4.0 Activity - Oral Health Programme									
Perlis	62	62	100	23	23	100	97	95	97.9
Kedah	184	173	94.0	73	71	97.3	258	255	98.8
Pulau Pinang	191	178	93.2	47	43	91.5	282	274	97.2
Perak	253	234	92.5	87	84	96.6	376	370	98.4
Selangor	264	243	92.0	106	101	95.3	473	443	93.7
FT KL & Putrajaya	146	136	93.2	51	51	100	265	255	96.2
Negeri Sembilan	141	131	92.9	59	59	100	233	224	96.1
Melaka	118	109	92.4	41	40	97.6	215	212	98.6
Johor	206	190	92.2	81	74	91.4	410	370	90.2
Pahang	212	203	95.8	68	64	94.1	354	344	97.2
Terengganu	162	155	95.7	83	79	95.2	319	309	96.9
Kelantan	207	203	98.1	90	88	97.8	294	285	96.9
Total Peninsular	2,146	2,017	94.0	809	777	96.0	3,576	3,436	96.1
Sabah	382	376	98.4	104	103	99.0	364	360	98.9
Sarawak	435	415	95.4	124	124	100	439	432	98.4
FT Labuan	15	14	93.3	3	3	100	16	16	100
Total East Malaysia	832	805	96.8	231	230	99.6	819	808	98.7
HKL	5	5	100	7	6	85.7	38	37	97.4
IKN	0	0	0	0	0	0	2	2	100
HTA	6	4	66.7	3	3	100	19	18	94.7
OHP MOH	16	15	93.8	3	3	100	0	0	0
Total Hospital, Programme & Institution	27	24	88.9	13	12	92.3	59	57	96.6
Malaysia	3,005	2,846	94.7	1,053	1,019	96.8	4,454	4,301	96.6

State/ Hospital/ Institution	Dental Therapist			Dental Technologist			Dental Surgery Assistant		
	P	F	Percentage F (%)	P	F	Percentage F (%)	P	F	Percentage F (%)
Other Programme Activity (1.0 - <i>Pengurusan</i> and 6.0 - NIH)									
PPKK & ILKMM	25	23	92.0	8	8	100	23	21	91.3
NIH/IMR	0	0	0	0	0	0	3	2	66.7

P = Posts F = Filled

HKL = Hospital Kuala Lumpur

IKN = National Cancer Institute

HTA = Hospital Tuanku Azizah

PPKK & ILKMM = Pusat Pergigian Kanak-Kanak dan Institut Latihan Kementerian Kesihatan Malaysia (Pergigian)

NIH/IMR = National Institute of Health / Institute Medical Research

Source: Oral Health Programme, MOH 2022

Starting from March 2019, all dental auxilliary trainees graduated from PPKK & ILKMM, Pulau Pinang were recruited on contract basis for a period of [two (2) + two (2)] years. A total of 268 Dental Surgery Assistants (DSAs) from three (3) cohorts have been appointed while 42 Dental Technologists were appointed on contract basis starting from year 2022 (**Table 2.18**). Distribution of contract DSA and Dental Technologists is shown in **Table 2.19** and **Table 2.20**.

Table 2.18
Contract Dental Auxilliaries in MOH, 2019 to 2022

Cohort	Dental Technologist				Dental Surgery Assistant			
	2019	2020	2021	2022	2019	2020	2021	2022
First cohort	29	42	No appointment	42	124	138	103	98
Second cohort	-	15		-	123	133	92	92
Third cohort				-	-	-	-	78
Total	29	57		42	247	271	195	268

Source: Oral Health Programme, MOH

Table 2.19
Distribution of Contract Dental Surgery Assistants, 2020 to 2022

State/ Institution	2020		2021		2022		
	Cohort 1 (13.01.2020)	Cohort 2 (15.07.2020)	Cohort 1 (15.03.2021)	Cohort 2 (15.07.2021)	Cohort 1 (03.01.2022)	Cohort 2 (21.03.2022)	Cohort 3 (18.07.2022)
Perlis	0	1	1	0	3	4	1
Kedah	5	4	8	10	4	5	7
Pulau Pinang	4	1	4	3	2	2	2
PPKK & ILKMM	0	2	0	1	3	3	4
Perak	2	5	2	0	18	15	6
Selangor	19	22	26	18	3	3	2
FT KL & Putrajaya	9	9	4	6	8	7	9
Negeri Sembilan	10	20	12	8	0	1	4
Melaka	13	7	2	3	25	24	5
Johor	32	23	22	18	6	7	3
Pahang	6	8	8	13	2	1	12

State/ Institution	2020		2021		2022		
	Cohort 1 (13.01.2020)	Cohort 2 (15.07.2020)	Cohort 1 (15.03.2021)	Cohort 2 (15.07.2021)	Cohort 1 (03.01.2022)	Cohort 2 (21.03.2022)	Cohort 3 (18.07.2022)
Terengganu	20	14	0	2	22	20	11
Kelantan	15	17	10	9	3	4	1
Total Peninsular	135	133	99	91	96	92	66
Sabah	0	0	0	0	0	0	3
Sarawak	0	0	1	0	0	0	2
FT Labuan	3	0	1	1	2	0	1
Total East Malaysia	3	0	2	1	2	0	6
HKL	0	0	1	0	0	0	2
IKN	0	0	1	0	0	0	2
HTA	0	0	0	0	0	0	0
PPKK & ILKKM	0	2	0	1	0	0	2
Total Hospital & Institution Malaysia	0	0	2	0	0	0	6
Malaysia	138	133	103	92	98	92	78

PPKK & ILKKM = Pusat Pergigian Kanak-Kanak dan Institut Latihan Kementerian Kesihatan Malaysia (Pergigian)

HKL = Hospital Kuala Lumpur

IKN = National Cancer Institute

HTA = Hospital Tuanku Azizah

Source: Oral Health Programme, MOH

Table 2.20
Distribution of Contract Dental Technologists, 2019 to 2022

State	2019	2020		2021	2022
	Cohort 1 (18.03.2019)	Cohort 1 (13.01.2020)	Cohort 2 (15.06.2020)		Cohort 1 (3.1.2022)
Perlis	0	0	1	No intake	0
Kedah	2	3	1		3
Pulau Pinang	2	3	0		2
PPKK & ILKKM	0	0	0		
Perak	4	6	1		3
Selangor	6	9	2		5
FT KL & Putrajaya	2	4	1		4
Negeri Sembilan	2	5	1		2
Melaka	1	4	1		2
Johor	3	4	1		3
Pahang	2	3	1		4
Terengganu	3	1	1		3
Kelantan	0	-	1		3
Total Peninsular	27	42	12		34
Sabah	1	0	1		4
Sarawak	1	0	2		3
FT Labuan	-	0	-		0

State	2019	2020		2021	2022
	Cohort 1 (18.03.2019)	Cohort 1 (13.01.2020)	Cohort 2 (15.06.2020)		Cohort 1 (3.1.2022)
Total East Malaysia	2	0	3		7
HKL	0	0	0		1
Malaysia	29	42	15		42

PPKK & ILKMM = Pusat Pergigian Kanak-Kanak dan Institut Latihan Kementerian Kesihatan Malaysia (Pergigian)

HKL = Hospital Kuala Lumpur

Source: Oral Health Programme, MOH

Following the completion of their two-year contracts, all Dental Technologists and 95 per cent of DSAs were offered permanent positions (**Table 2.21**).

Table 2.21
Contract Dental Auxiliaries Appointed on Permanent Basis in MOH, 2022

Cohort/ Year	Dental Technologist		Dental Surgery Assistant	
	Number	Percentage (%)	Number	Percentage (%)
Cohort 1/2019	29	100.0	124	100.0
Cohort 2/2019	-	-	121	98.4
Cohort 1/2020	42	100.0	136	98.6
Cohort 2/2020	15	100.0	126	94.7
Cohort 1/2021	-	-	98	95.1
Cohort 1/2022	41	100.0	-	-
Total	86	100.0	605	61.7

Source: Oral Health Programme, MOH

ORAL HEALTH FACILITY DEVELOPMENT

Oral Health Facilities

Oral healthcare services in Malaysia are provided in a variety of settings, including health clinics, standalone clinics, hospitals, schools and institutions. In addition to these traditional settings, oral healthcare services are also provided through mobile dental clinics and mobile dental teams. These services are designed to reach people who live in rural areas or who have difficulty accessing traditional dental care settings.

In year 2022, the MOH had a total of 1,727 oral health facilities (**Table 2.22**), including 632 mobile dental teams (**Table 2.23**).

Table 2.22
Oral Health Facilities by Type in MOH, 2022

Facility	Number of Facility
Stand-alone Dental Clinic	63
Dental Clinics in Health Centres / MCHC	592
Dental Clinics in Community Clinic	1
Dental Clinics in Hospitals	75
School Dental Clinics	911
Dental Clinics in UTC / RTC	26
Others: IMR, Prisons, <i>Pusat Serenti</i> , Handicapped Children Centres, Children Spastic Centres, <i>Puspanita</i> , <i>Perbadanan</i>	20
Total (Static facilities)	1,688
Mobile Dental Clinics	35
Mobile Dental Laboratories	4
Total (Mobile facilities)	39
Total	1,727

MCHC = Maternal and Child Health Clinic

UTC = Urban Transformation Centres

RTC = Rural Transformation Centres

Source: *Taburan Fasilitas Kesihatan Pergigian, 2022*, Health Informatics Centre, MOH

Table 2.23
Mobile Dental Teams in MOH, 2022

Mobile Dental Team	Number of Mobile Dental Team
School Mobile Dental Teams (Primary and Secondary Schools)	491
Pre-School Mobile Dental Teams	137
Elderly & Special Needs Mobile Dental Teams	4
Total	632

Source: *Taburan Fasilitas Kesihatan Pergigian, 2022*, Health Informatics Centre, MOH

Oral Health Development Projects Under The Twelfth Malaysia Plan (12MP)

The 12MP is the five-year development plan for Malaysia which covers the year 2021-2025. The MOH will continue to improve people's health by providing universal access to quality

healthcare through the development of healthcare facilities. In year 2022, under the Second Rolling Plan (RP2), several oral health projects were approved as listed below:

- i. *Pusat Pakar Pergigian Terengganu*;
- ii. 16 Mobile Dental Teams for 11 states; and
- iii. Four (4) Mobile Dental Clinics i.e. one (1) for Pahang and two (2) for Kelantan.

Procurement of assets for all Mobile Dental Teams were completed in year 2022. However, the procurement process of the Mobile Dental Clinic will continue in year 2023.

In addition, 12 development projects were brought forward from 10MP and 11MP in several number of states as follows:

- v. Standalone Dental Clinics:
 - Bukit Selambau Dental Clinic, Kedah;
 - Tanjung Karang Dental Clinic and District Oral Health Office, Kuala Selangor, Selangor;
 - Kluang Dental Clinic, Johor;
 - Pasir Akar Dental Clinic, Besut, Terengganu;
 - Daro Dental Clinic, Mukah, Sarawak;
 - Tronoh Dental Clinic, Kinta, Perak;
 - Pusat Pakar Pergigian Negeri Sembilan; and
 - Pusat Pakar Pergigian Sabah.
- vi. Health Clinic (Type 3) and *Klinik Pakar Pergigian* Precinct 6, Putrajaya;
- vii. Upgrading Paediatric Dental Department, Melaka Hospital; and
- viii. Upgrading six (6) Health Clinic (Type 5) to include dental component in Sarawak:
 - Braang Bayur Health Clinic, Kuching;
 - Asajaya Health Clinic, Samarahan;
 - Kabong Health Clinic, Betong;
 - Pusa Health Clinic, Betong;
 - Jepak Health Clinic, Bintulu; and
 - Sungai Asap Health Clinic, Belaga, Kapit.

Development Projects Under Public Private Partnership (PPP)

In addition to the projects under the Malaysia Plan, there are four (4) projects under the Public-Private Initiatives (PPP) scheme namely:

- v. Redevelopment of Cahaya Suria Dental Clinic (*Pusat Pakar Pergigian Kuala Lumpur*);
- vi. Redevelopment of Dental Clinic at Dato' Keramat Health Clinic;
- vii. *Kompleks Institut Penyelidikan Kesihatan Bersepadu (IPKB)* Project 2 - Land Swap of Bangsar Dental Clinic; and
- viii. Hospital Cyberjaya, Selangor.

In year 2022, five (5) projects were completed and successfully handed over to end-users for operation (**Table 2.24**).

Table 2.24
Completed Dental Development Projects, 2022

No.	Health Facility Development Projects	Date Completed
i.	Tronoh Dental Clinic, Perak	8 June 2022
ii.	Pasir Akar Dental Clinic, Terengganu	21 June 2022
iii.	Kluang Dental Clinic, Johor	8 December 2022
iv.	Upgrading six (6) Health Clinic (Type 5) with no dental component in Sarawak	Assets procurement completed for all projects
v.	Cyberjaya Hospital, Selangor	11 November 2022

Source: Taburan Fasiliti Kesihatan Pergigian, 2022, Health Informatics Centre, MOH

A total of four (4) Mobile Dental Clinics approved under the First Rolling Plan (RP1) of the 12MP (2021) were completed and delivered to Negeri Sembilan, Sabah, and Sarawak. Negeri Sembilan and Sabah received one Mobile Dental Clinic respectively while the remaining four (4) Mobile Dental Clinics were delivered to Sarawak (**Image 2.1**).

Image 2.1
Completed Mobile Dental Clinic Projects, 2022



Mobile Dental Clinic (with two (2) Dental Chairs), Oral Health Division Sabah



Mobile Dental Clinics (with one (1) Dental Chair), Oral Health Division Negeri Sembilan and Sarawak

Source: Oral Health Programme, MOH 2022

Procurement of Medical and Non-Medical Equipment

In year 2022, the OHP MOH received RM15 million under the Development Budget for procurement of new and to replace and upgrade medical and non-medical equipment. The budget was allocated as follows:

- RM5,415,000 for the purchase of Dental Chair Cum Units (Officer);
- RM2,990,000 for the purchase of Dental Chair Cum Units (Specialist); and
- RM6,595,000 for the purchase of various medical equipment for 17 states/ administrative centres.

The procurement of Dental Chair Cum Unit (DCCU) was done through central tender at OHP MOH for 23 units of DCCU (Specialist) and 57 units of DCCU (Officer). All purchases were completed in year 2022.

Norms and Guidelines for New Facilities

The Standard List of Equipment and Specifications of Dental Equipment for new dental facilities were reviewed and updated to meet the new norms as follows:

- i. Standard List of Equipment for:
 - All types of Dental Clinics (inclusive of Dental Lab);
 - Non-Hospital Based Dental Specialist Clinic (inclusive of Dental Lab);
 - Hospital Based Dental Specialist Clinic (inclusive of Dental Lab);
 - Mobile Dental Team; and
 - Mobile Dental Clinic.
- ii. Specifications of Dental Equipment for:
 - Specifications of Heavy and Dental Laboratory Equipment i.e. DCCU for Specialist and Dental Officer, Washer Instrument Machine, Autoclave Type B, Floor Standing Autoclave, Digital Intra Oral X-Ray, Digital OPG and Cephalometry X-Ray, Motorised Dental Chair, Portable Dental Unit, Dental Technologist Workstation, Dental Fume Hood and Water Boiler; and
 - Specification and assets list for Mobile Dental Clinic.

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

The monitoring activities for the implementation of the Medical Equipment Enhancement Tenure (MEET) Programme by Quantum Medical Solutions (QMS) at Health Clinics and Dental Clinics are conducted through MEET Technical Audit.

In year 2022, the National Audit Team audited Dental Clinic in Health Clinic Tampoi, Johor, Dental Clinic in Health Clinic Seri Tanjung, Melaka, Dental Clinic in Health Clinic Kampar, Perak, Dental Clinic in Health Clinic Tawau, Sabah and Dental Clinic in Health Clinic Bandar Seri Putra, Kajang, Selangor. This activity was coordinated by MOH Engineering Services Division in collaboration with OHP MOH and the respective State Health Department.

Privatisation of Health Clinic Support Services

The MOH has privatised several scopes of health clinic support services, namely:

- Facilities Engineering Management Services (FEMS);
- Cleansing Services (CLS); and
- Clinical Waste Management Services (CWMS) under Clinical Support Services Unit (PSK)

The new contracts for the PSK (Cycle 3) in five (5) states, namely Perak, Negeri Sembilan, Johor, Pahang and Sabah began on 1 October 2022 and will last until 30 September 2027.

Oral Health Facility Development and Management Course

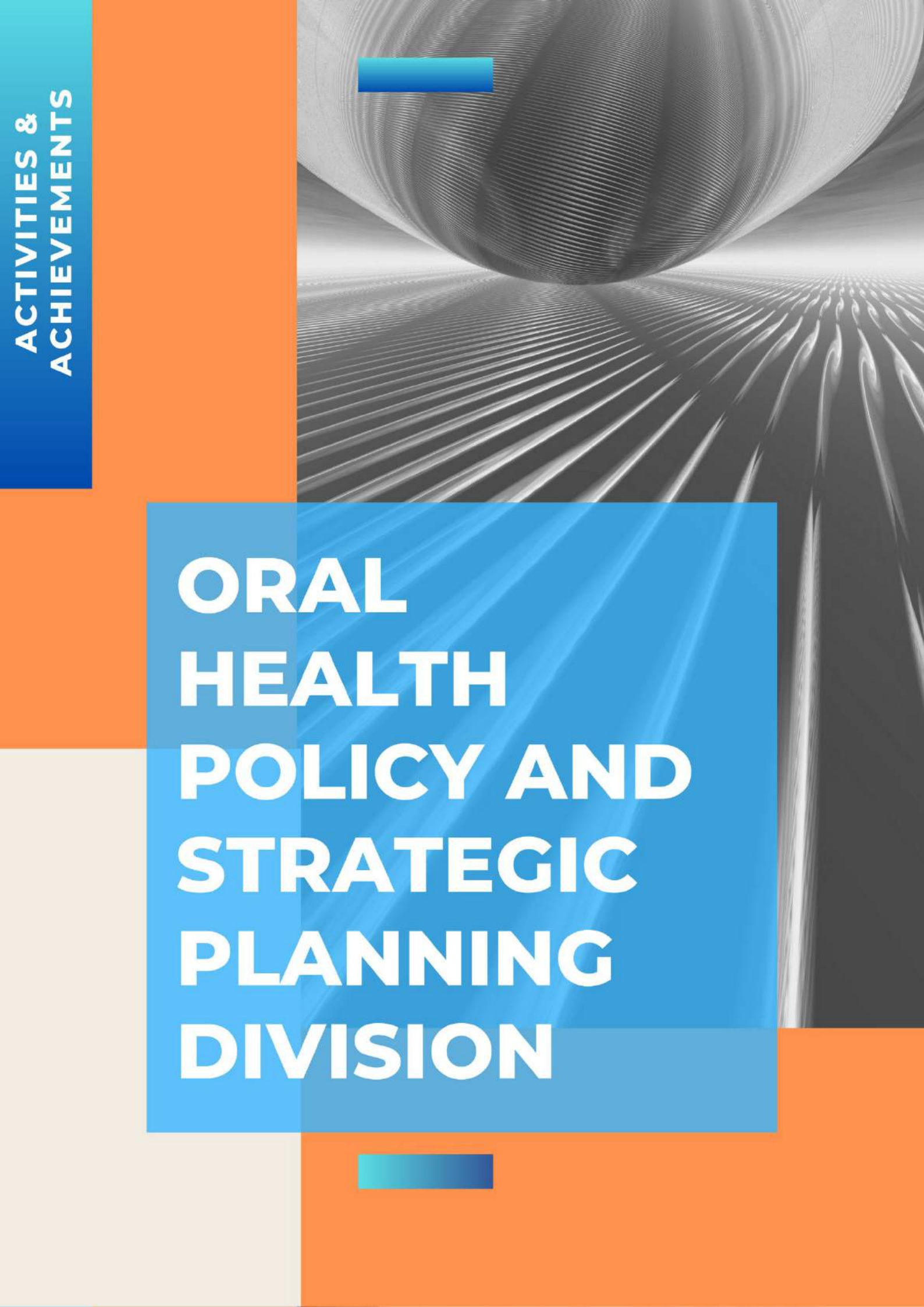
The Oral Health Facility Development and Management course was carried out at Concorde Hotel, Shah Alam from 13 to 15 June 2022. The course was aimed to disseminate the latest information related to the planning and direction of the development of oral health facilities in MOH, to give exposure to MP Project Application Guidelines, to enhance skills in the preparation of Project Briefs and Medical Briefs of Requirements (MBoR) and as platform to share experiences regarding the issues and challenges of the oral health facility development project among participants. Relevant stakeholders were invited to provide input and feedback during the course (**Image 2.2**).

Image 2.2

The Oral Health Facility Development and Management Course



Source: Oral Health Programme, MOH 2022



ORAL HEALTH POLICY AND STRATEGIC PLANNING DIVISION

ORAL HEALTH EPIDEMIOLOGY AND RESEARCH

Oral health research activities and management of the oral health research agenda continue to provide evidence to support existing oral health policy and decision-making. Dissemination of research projects findings has been carried out through various platforms. Throughout year 2022, various activities were undertaken in collaboration with other agencies within and outside the MOH either at national or state level.

National Health and Morbidity Survey 2020: National Oral Health Survey of Adults 2020 (NHMS 2020: NOHSA 2020)

After two years of postponement due to COVID-19 pandemic, this fourth National Oral Health Survey of Adults was successfully conducted in year 2022. The objective of this survey is to determine oral health status and treatment needs of Malaysian Adults aged 15 years and above and to describe the socio-dental aspects in relation to their oral health.

The data collection for this household survey was done between 1 July 2022 and 30 December 2022. There were 65 state teams involved in this survey, doing interviewing and oral health clinical examinations. A total of 704 enumeration blocks (EB) were visited throughout Malaysia. The overall response rate for this household survey (Living Quarters Success Rate x Individual Response Rate) was 0.70, with 16,173 respondents successfully interviewed and examined. Furthermore, there was an additional of 532 respondents in this survey, where 29 of them only underwent a clinical examination, while the remaining 503 answered the questionnaire only.

The findings of this survey will be used to evaluate the effectiveness and impact of oral health initiatives and programs that have been implemented throughout the country. In addition, the results of this survey will be used as the baseline data for the National Oral Health Strategic Plan 2022-2030 as the survey data findings represent the entire population of Malaysia. The success of this survey depends on the strong cooperation and support of state oral health personnel and other agencies, such as the Institute for Public Health (IPH) and the Department of Statistics Malaysia (DOSM).

National Oral Health Research Initiative (NOHRI)

The establishment of the NOHRI in the 10 MP was mooted by the Oral Health Division in 2010 towards enhancing evidence-based policy decisions in the oral healthcare delivery system in the country. To date, the NOHRI executive committee comprises of representatives from the OHP MOH, Malaysian Armed Forces Dental Services, the faculty of dentistry in public and private universities as well as NGOs who actively conduct oral health research such as Cancer Research Malaysia.

In year 2022, the NOHRI executive committee approved the document of Oral Health Research Priorities in Malaysia prepared by the Technical Committee of the National Oral Health Research Priority Areas (JTPBKP). This document will act as reference for all oral health personnel in conducting impactful research in line with the national oral health agenda. There are seven (7) domains identified in this document namely:

- i. Oral Health Condition;
- ii. Public Oral Health Intervention and Empowerment;

- iii. Access to Oral Health Care;
- iv. Traditional and Complementary Medicine in Oral Healthcare;
- v. Information & Communication Technology (ICT) Support System for Oral Healthcare;
- vi. Oral Tissue Engineering (OTE) and Regenerative Dentistry; and
- vii. Digital Technologies in Dentistry.

Monitoring and Evaluation of Oral Health Research at State Level

● Oral Health Research by MOH Oral Health Personnel at State Level

The Oral Health System Research Unit continuously monitored the Oral Health System Research (HSR) projects conducted at the state level. The HSR state coordinators meeting was held on 19 September 2022, where all state HSR projects' achievements were presented.

In year 2022, a total of 170 active projects were conducted throughout Malaysia and Institutions, with 63 completed projects. Of the 63 completed projects, 41 were either presented or published (**Table 3.1**).

Table 3.1
Status of HSR Projects by State/ Institution, 2022

State/ Institution	*No. of Active Projects	Completed Projects	No. of Projects Presented	No. of Projects Published
Perlis	7	-	-	-
Kedah	10	5	1	-
Pulau Pinang	15	8	1	1
Perak	10	3	7	3
Selangor	15	3	3	-
FT KL & Putrajaya	15	-	2	-
Negeri Sembilan	9	2	1	-
Melaka	4	-	-	-
Johor	6	3	-	-
Pahang	16	-	2	-
Terengganu	11	8	1	-
Kelantan	6	3	1	-
Sabah	16	8	2	-
Sarawak	23	16	9	5
FT Labuan**	-	-	-	-
HKL	2	2	1	1
HTA	3	-	-	-
PPKK & ILKKM	2	2	-	-
Total	170	63	31	10

* No. of Active Research Projects: refer to new/on-going/completed in current year

** Previously monitored under Sabah

Target: State ≥ 5, PPKK & ILKKM, Peads HTA ≥ 1

HKL = Hospital Kuala Lumpur

HTA = Hospital Tuanku Azizah

PPKK & ILKKM = Pusat Pergigian Kanak-Kanak dan Institut Latihan Kementerian Kesihatan Malaysia (Pergigian)

Source: Oral Health Programme, MOH 2022

The dissemination of completed HSR research projects were made either through presentation or published articles. **Table 3.2** showed the total presentations or publications by state or institution in year 2022.

Table 3.2
Presentations or Publications by State/Institution, 2022

State/ Institution	No. of Presentation	No. of Publication
	State & OMFS HKL ≥ 3 PPKK & ILKKM, Peads HTA ≥ 1	Target = 1
Perlis	-	4
Kedah	5	5
P. Pinang	5	9
Perak	27	8
Selangor	14	3
FT Kuala Lumpur & Putrajaya	6	3
Negeri Sembilan	5	4
Melaka	3	1
Johor	21	5
Pahang	11	-
Terengganu	2	1
Kelantan	8	1
Sabah	11	1
Sarawak	2	-
FT Labuan	-	-
HKL	2	1
HTA	2	2
PPKK & ILKKM	1	2
Total	125	50

Source: Oral Health Programme, MOH 2022

Oral Health Research Conducted in MOH Dental Facilities by Non-MOH Agencies/ MOH Postgraduates

A total of 27 research proposals application from non-MOH agencies including postgraduate students were reviewed in year 2022 (**Table 3.3**):

Table 3.3
Oral Health Research by MOH Postgraduates/ Non-MOH, 2022

No.	Title	Researcher / Agency
1.	Caries Preventive Effect and Cost Effectiveness of Community Water Fluoridation In Malaysia	Dr. Susan Shalani Gnanapragasam / University of Malaya (UM)
2.	Effectiveness of UMAR Module in Improving the Knowledge, Attitude and Self-Efficacy in Smoking Cessation Activities Among Dentists in Northeast Malaysia	Dr. Nurul Zatil Ismah/ Universiti Sains Malaysia (USM)
3.	Development and Feasibility of an Evidence-Based Oral Health Intervention to Improve the Oral Health Outcomes of Schoolchildren and Low Socioeconomic Background	Dr. Aiman Nadiah binti Ahmad Tajudin/ University of Malaya (UM)

No.	Title	Researcher / Agency
4.	Oral Cancer and Pre Cancer Screening Programme in Malaysia: Evaluation of the Programme Uptake, Feasibility and Barriers	Dr. Nur Diana Binti Abd. Latif/ University of Malaya (UM)
5.	Career Expectations and Satisfaction among Dental Officers (Dentists) with Potential Expanded Roles at Specialist Dental Clinic (SDC), Ministry of Health (MOH) Malaysia	Dr. Azizi binti Ab Malek/ Universiti Teknologi MARA (UiTM)
6.	Geospatial Intelligence: An Empirical Analysis of Oral Health Workforce Equity to the School Dental Services in Pahang	Dr. Mohd Hidir bin Mohd Atni/ Universiti Teknologi MARA (UiTM)
7.	Dental E-Professionalism and Ethics in Social Media in Malaysia	Dr. Noor Asilati binti Abdul Raob/ Universiti Teknologi MARA (UiTM)
8.	A Study on Utilisation and User's Perception of Dental Public Health Specialist Unit Services in Malaysia	Dr. Nurul Fahizha binti Fahimi/ Universiti Teknologi MARA (UiTM)
9.	Qualitative Study on the Perspective of Dental Public Health Specialists for Digital Literacy Curriculum and Oral Health Promotion	Dr. Amirul Faiz bin Luai/ Universiti Teknologi MARA (UiTM)
10.	Facilitators and Barriers to Utilising the School Dental Clinic for Providing School Dental Services: A Qualitative Study of Perspectives of Dental Therapists in Negeri Sembilan	Dr. Muhammad Hamidie bin Saari/ University of Malaya (UM)
11.	Oral Health Information Seeking Behaviour of the Malaysian Population during COVID-19: A Google Trend Analysis	Dr. Mohamad Noor bin Sairi/University of Malaya (UM)
12.	Oral health-seeking Behaviour of Malaysian Elderly Person with Dental Problems in the Urban and Rural Areas: An Exploratory Analysis of the National Health and Morbidity Survey 2019	Dr. Tan Yeung R'ong/University of Malaya (UM)
13.	Family Functioning and Oral Health Literacy among Young Adults	Dr. Nurul Salwa binti Che Abdul Rahim/University of Malaya (UM)
14.	Oral Health Literacy and Oral Health Care Seeking Behaviour of Carers in Relation to the Perceived Oral Health Status of the Children with Special Health Care Needs in Kota Bharu, Kelantan	Dr. Zairina binti Zainurain/ Universiti Sains Malaysia (USM)
15.	Knowledge, Attitude and Practice Towards Infection Control among Dental Assistants in Private Dental Clinics, Kelantan	Dr. Nurul Azniza binti Abas/ Universiti Sains Malaysia (USM)
16.	A Study of Feeding Patterns and Early Childhood Oral Health-Related Quality of Life (OHQoL) of Preschool Children Attending Private Preschools and Their Parents in Tanah Merah, Kelantan	Dr. Nizamuddin bin Pardan/ Universiti Sains Malaysia (USM)
17.	Assessment of Knowledge, Attitude and Practice Towards Oral Health and Oral Healthcare among the Ministry of Health Pharmacist and Pharmacy Assistant in Kelantan	Dr. Sapiah binti Derahman/ Universiti Sains Malaysia (USM)
18.	The Association Among Nutrient Intake, Oral Symptoms and Oral Health Related Quality of Life of Antenatal Mothers in Sri Aman District, Sarawak	Dr. Tiong Ing Teck/ Universiti Sains Malaysia (USM)
19.	Assessing the Change Pattern of Dental Visit at Primary Care Centre in Selangor Before and During COVID-19 Pandemic	Dr. Suhaila binti Mat Said/ Universiti Sains Malaysia (USM)
20.	A Study of Musculoskeletal Disorders and Effectiveness of Health Education Module in Improving Knowledge, Attitude and Practice of Dental Ergonomics Among Dental Therapists in Northern Malaysia (Application for expansion of study site)	Dr. Liyana binti Mohd Azhar/ Universiti Sains Malaysia (USM)
21.	Evaluation of Oral Health Programme for Trainee Teachers in Malaysia	Dr. Munirah binti Paiizi/ Universiti Teknologi MARA (UiTM)

No.	Title	Researcher / Agency
22.	Evaluation of Oral Health Educational Interventions for Patients with Mental Disorders in Mental Health Centre	Dr. Noor Baiti binti Bab/ Universiti Teknologi MARA (UiTM)
23.	Geospatial Analysis of Oral Healthcare Accessibility for Elderly in Malaysia	Dr. Lenny binti Lesa/ Universiti Teknologi MARA (UiTM)
24.	Geo-Mapping of Reticulated Water Fluoride and Its Association with Caries Experience Among Malaysian Preschool Children	Dr. Badrul Munir bin Mohd Arif/ Universiti Teknologi MARA (UiTM)
25.	Applicability of London Atlas Tooth Development and Eruption for Dental Age Estimation in Children of Malaysian Population Using Maxillofacial Imaging	Dr. Radhadevi a/p Kuppusamy/ University of Dundee, Scotland, UK
26.	Evaluation of Perceived Confident in Performing Cervical Pulpotomy in Matured Permanent Teeth: A Malaysian Cross Sectional Study	Prof. Madya Dr. Imran Zainal Abidin/ International Islamic University Malaysia (IIUM)
27.	<i>Program Pasca Ijazah Doktor Ortodontik di Kalangan Warga Pergigian di KKM (Market Survey)</i>	Prof. Rosnah binti Mohd Zain/ MAHSA University College

Source: Oral Health Programme, MOH 2022

Publication of Abstracts from Research Projects and Publications by Oral Health Personnel, Ministry of Health Malaysia

A total of 135 completed research conducted between 2021 and 2022 were reported in this document. Amongst these, 118 research papers (84.7%) were presented and published locally and internationally while five (5) (3.7%) were thesis abstracts submitted for the requirements of the degree of Doctorate and Masters. This document brings together active research from multiple disciplines in dentistry namely Dental Public Health, Oral & Maxillofacial Surgery, Paediatric Dentistry, Oral Medicine, Special Care Dentistry, Orthodontics, Periodontology and Restorative Dentistry. It aims to showcase the work of oral health personnel, MOH, to acknowledge their work and act as a method of disseminating their research.

ORAL HEALTH PROFESSIONAL DEVELOPMENT

Recognition and Endorsement of Dental Postgraduate Qualifications

In year 2022, the Malaysian Qualifications Agency (MQA) did not accredit any new local postgraduate qualifications in dentistry. The *Jawatankuasa Khas Perubatan* (JKP), which is responsible for endorsing foreign postgraduate qualifications in dentistry, also did not endorse any new foreign qualifications.

Gazettement of Dental Specialists

There were four (4) *Jawatankuasa Penilaian Pewartaan Pakar Pergigian* (JPPPP) meetings held in year 2022. The committee reviewed and recommended the gazettement of Dental Specialists in MOH to the JKP.

- Gazettement of Dental Public Health Specialists**

A total of five (5) Dental Public Health Specialists gazetted in year 2022 as shown in **Table 3.4**.

Table 3.4
Dental Public Health Specialists Gazetted, 2022

No.	Name	Eligible Date for Specialist Appointment
1.	Dr. Datu Mohd Amyril bin Abduludin	6 September 2021
2.	Dr. Noor Akmal binti Muhamat	6 September 2021
3.	Dr. Rokiah binti Mamikutty	1 October 2021
4.	Dr. Muhammad Farid bin Nurdin	6 December 2021
5.	Dr. Dewi Mayang Sari binti Kamarozaman	15 December 2021

Source: Oral Health Programme, MOH 2022

- Gazettement of Clinical Dental Specialists**

In year 2022, there were 47 Clinical Dental Specialists from various specialty were gazetted, as shown in **Table 3.5**.

Table 3.5
Clinical Dental Specialists Gazetted, 2022

No.	Name	Specialty	Eligible Date for Specialist Appointment
1.	Dr. Abdul Rahim bin Rosli	Periodontic	31 May 2021
2.	Dr. Hanani binti Mohamad Amin Rebuan	Periodontic	31 May 2021
3.	Dr. Muhammad Firdaus bin Mohd Shuimi	Periodontic	31 May 2021
4.	Dr. Henny Zaliyana binti Ahmad Kamal	Periodontic	1 June 2021
5.	Dr. Siti Nurul Aini binti Ismail	Periodontic	1 June 2021
6.	Dr. Wan Sem Guan	Periodontic	1 June 2021
7.	Dr. Valencia Dualis	Periodontic	1 June 2021

No.	Name	Specialty	Eligible Date for Specialist Appointment
8.	Dr. Ani Fazreen binti Azizan	Restorative Dentistry	1 June 2021
9.	Dr. Arunth A/L Thilagalingam	Oral and Maxillofacial Surgery	1 June 2021
10.	Dr. Nur Diyanah binti Ab Wahid	Oral and Maxillofacial Surgery	1 June 2021
11.	Dr. Ahmad Zuhairi bin Yahya	Oral and Maxillofacial Surgery	1 June 2021
12.	Dr. Tan Oi Leng	Periodontic	6 September 2021
13.	Dr. Nur Fazwani binti Ahmad Murad	Paediatric Dentistry	6 September 2021
14.	Dr. Isti Alfatimah binti Darodji	Paediatric Dentistry	6 September 2021
15.	Dr. Suthalini A/P Krishnasamy	Paediatric Dentistry	6 September 2021
16.	Dr. Narjit Kaur A/P Paramjit Singh	Paediatric Dentistry	6 September 2021
17.	Dr. Menaka Devi A/P Ratnasingam	Paediatric Dentistry	6 September 2021
18.	Dr. Eas Haryati binti Sabri	Paediatric Dentistry	6 September 2021
19.	Dr. Muhammad Nazirul bin Md. Yussof	Oral and Maxillofacial Surgery	6 September 2021
20.	Dr. Noor Faezah binti Ismail	Oral and Maxillofacial Surgery	6 September 2021
21.	Dr. Low Li Fong	Oral and Maxillofacial Surgery	6 September 2021
22.	Dr. Farah Nur binti Tedin Ng	Oral and Maxillofacial Surgery	6 September 2021
23.	Dr. Yew Len Young	Oral and Maxillofacial Surgery	6 September 2021
24.	Dr. Heng Tee Lun	Oral and Maxillofacial Surgery	6 September 2021
25.	Dr. Steve Maisi	Oral and Maxillofacial Surgery	6 September 2021
26.	Dr. Khoo Szu Ching	Oral and Maxillofacial Surgery	6 September 2021
27.	Dr. Eb Robson Gubod	Oral Pathology and Oral Medicine	6 September 2021
28.	Dr. Noratikah binti Awang Hasyim	Oral Pathology and Oral Medicine	6 September 2021
29.	Dr. Poon Pei San	Orthodontic	10 September 2021
30.	Dr. Sonia A/P Belayutham	Orthodontic	10 September 2021
31.	Dr. Nik Nuraini binti Nik Azman	Orthodontic	10 September 2021
32.	Dr. Balraj Kaur Badeshae	Orthodontic	2 October 2021
33.	Dr. Yim Kah Mun	Orthodontic	2 October 2021
34.	Dr. Jade Ng Yi Ming	Restorative Dentistry	11 October 2021

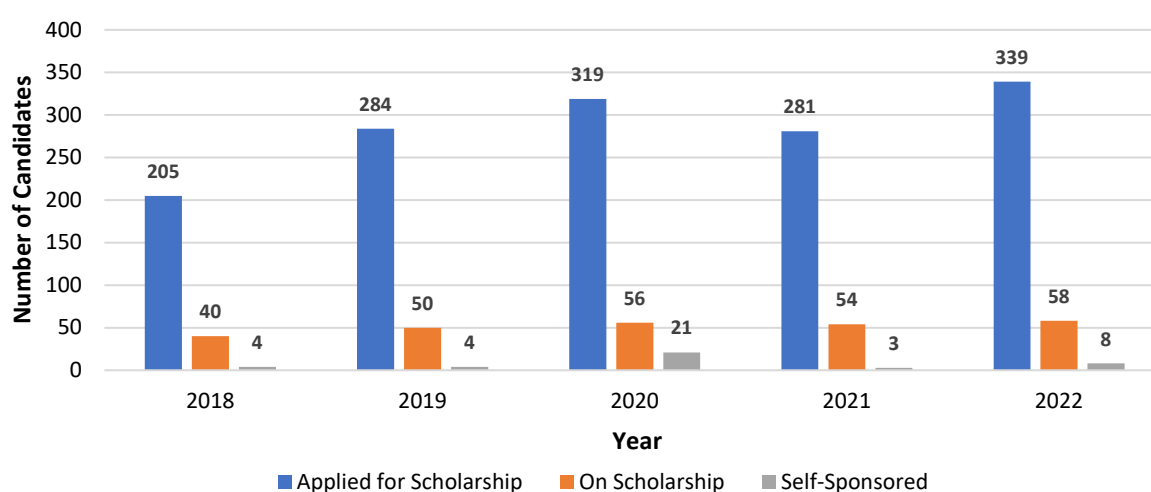
No.	Name	Specialty	Eligible Date for Specialist Appointment
35.	Dr. Sharmini A/P Arumugam	Restorative Dentistry	11 October 2021
36.	Dr. Teo Kui Fei	Orthodontic	6 December 2021
37.	Dr. Law Siaw Wee	Orthodontic	6 December 2021
38.	Dr. Malini A/P Arumugam Rebuan	Orthodontic	6 December 2021
39.	Dr. Sharul Nisha binti Ali	Periodontic	6 December 2021
40.	Dr. Yuliana binti Ayob	Periodontic	6 December 2021
41.	Dr. Nurul Qamar binti Salehuddin	Periodontic	6 December 2021
42.	Dr. Ema Marlisa binti Abdul Malek	Paediatric Dentistry	18 December 2021
43.	Dr. Ahmad Nubhan bin Alias	Forensic Odontology	31 December 2021
44.	Dr. Azaitun Akma binti Shahrin	Orthodontic	4 January 2022
45.	Dr. Teh Yongxian	Orthodontic	19 January 2022
46.	Dr. Nadia Izyan binti Muhamad Sabri	Orthodontic	4 March 2022
47.	Dr. Siti Khadijah binti Shuhaimy Basha	Paediatric Dentistry	30 August 2022

Source: Oral Health Programme, MOH 2022

Postgraduate Training for Dental Professionals

The OHP MOH has received a total of 339 applications that were qualified for interviews for *Hadiah Latihan Persekutuan* (HLP) scholarship. Out of this total, 66 candidates had successfully passed the interview. Subsequently, 58 successful candidate (17%) were offered HLP scholarship for postgraduate courses, Area of Special Interest and Enforcement Law. Meanwhile, eight (8) candidates were offered full paid study leave (*Cuti Belajar Bergaji Penuh* - CBBP) with/ without HLP (**Figure 3.1**).

Figure 3.1
Dental Officers Pursuing Postgraduate Training, 2018 to 2022



Source: Oral Health Programme, MOH

All candidates under HLP scholarship pursued their postgraduate training locally. Subsequently, there were five (5) candidates who pursued training abroad were mainly self-sponsored or under other scholarships. The top three (3) courses with the highest number of candidates who underwent postgraduate training were Paediatric Dentistry, Restorative Dentistry and Orthodontics. These were predominantly due to the available slots offered by the universities and the numbers of slots decided upon at the beginning of the year based on the projected service needs in the country. Additionally, there were four (4) candidates who pursued their training in Area of Special Interest. Of these four (4) candidates, three (3) pursued their training locally and one (1) pursued their training abroad (**Table 3.6**).

Table 3.6
Dental Officers Pursuing Postgraduate Training by Discipline, 2022

Discipline	On Federal (HLP) Scholarship		Self-sponsored/ Other Sponsorship		Total
	Local	Abroad	Local	Abroad	
1. Oral and Maxillofacial Surgery	7	0	0	0	7
2. Orthodontic	7	0	1	2	10
3. Periodontic	6	0	0	2	8
4. Paediatric Dentistry	12	0	0	0	12
5. Restorative Dentistry	9	0	2	0	11
6. Oral Pathology and Oral Medicine	2	0	0	0	2
7. Special Care Dentistry	3	0	0	0	3
8. Dental Public Health	5	0	0	0	5
9. Forensic Odontology	3	0	0	0	3
10. Area of Special Interest	3	0	0	1	4
11. Enforcement Law	1	0	0	0	1
Total	58	0	3	5	66

Source: Oral Health Programme, MOH 2022

A total of 49 dental officers completed postgraduate training in year 2022 and commenced their induction training/ pre-gazettement period (**Table 3.7**).

Table 3.7
Dental Officers Completed Postgraduate Training by Specialty, 2022

Specialty	Local Universities	Institutions Abroad
1. Oral and Maxillofacial Surgery	10	2
2. Orthodontic	8	1
3. Periodontic	7	1
4. Paediatric Dentistry	3	2
5. Restorative Dentistry	5	0
6. Oral Pathology and Oral Medicine	0	0

Specialty	Local Universities	Institutions Abroad
7. Special Care Dentistry	0	1
8. Dental Public Health	8	0
9. Forensic Odontology	0	1
Total	41	8

Source: Oral Health Programme, MOH 2022

New Dental Officer Programme (NDOP)

NDOP is a structured programme designed to provide adequate training and support for the New Dental Officers (NDOs) as they learn the ropes of the profession. They are required to rotate through attachments in primary care, Oral and Maxillofacial and Paediatric Dentistry departments. By rotating through these departments, NDOs will gain a broad range of experience and be better prepared to provide high-quality dental care to patients of all ages. In year 2022, a total of 995 NDOs from four (4) cohorts were contractually appointed as listed in **Table 3.8**.

Table 3.8
Dental Officers Contractually Appointed in MOH, 2022

Cohort	Date of Appointment	Number of NDOs
1/2022	14 March 2022	384
2/2022	29 June 2022	347
3/2022	17 August 2022	118
4/2022	9 November 2022	146
Total		995

Source: Oral Health Programme, MOH 2022

Professional Development of Dental Auxiliaries

- **Certificate of Dental Surgery Assistant (DSA), Diploma in Dental Nursing and Diploma in Dental Technology**

The professional development for dental auxiliaries i.e. DSAs, dental therapists, and dental technologists is coordinated by the *Bahagian Pengurusan Latihan* (BPL) and conducted at the MOH Training Institute in Georgetown, Pulau Pinang. In year 2022, the number of intake for Certificate of DSAs were 97 candidates in January and 108 candidates in July. For the Diploma of Dental Therapy and Diploma of Dental Technology, the intakes were 38 and 41 candidates respectively (**Table 3.9**). A total of 82 DSAs, 58 dental therapists and 36 dental technologists passed their final examination in year 2022.

Table 3.9
Number of Trainee Intake for Certificate of Dental Surgery Assistants, Diploma of Dental Therapy and Diploma of Dental Technology, 2022

Course	Number of Trainee	
	January Intake	July Intake
Certificate of Dental Surgery Assistant	97	108
Diploma in Dental Therapy	nil	38
Diploma in Dental Technology	nil	41

Source: Oral Health Programme, MOH 2022

- **Post-Basic Training**

The Paediatric Dentistry Post-Basic Course for Dental Therapists commenced in September 2022 with a total of 22 intakes from MOH and two (2) from other agencies. This six-month course was also conducted at the Training Institute of MOH, Georgetown, Pulau Pinang.

In-Service Training for Dental Personnel (*Latihan Dalam Perkhidmatan*)

- **Local In-Service Training**

As of December 2022, there were 60 consultancy trainings, courses and conferences conducted and attended by Dental Specialists, Dental Officers, Dental Auxiliaries and Supporting Staff (**Table 3.10**).

Table 3.10
Consultancy Trainings and Courses Conducted, 2022

No.	Training Topic	Participants	Date	Expenses (RM)	Venue
1.	<i>Bicara Ilmu: Blue Ocean Strategy 'Aplikasinya Dalam Menghasilkan Projek Kumpulan Inovatif dan Kreatif'</i>	1 officer	20 January 2022	450.00	Virtual Webinar
2.	<i>Forum Perdana: Kecemerlangan Organisasi Melalui Projek-Projek Inovasi</i>	3 officers	27 January 2022	300.00	Virtual Webinar
3.	<i>Bengkel Tatacara Menjawab Laporan Ketakakuran dan Laporan Penambahbaikan</i>	30 officers	24 January 2022	4,556.00	Virtual Webinar
4.	<i>Kursus ISO 9001:2015 Audit Dalaman</i>	120 officers	23 - 24 February 2022	8,600.00	Virtual Webinar
5.	<i>Kursus Preliminary Investigation Committee</i>	27 officers	16 - 17 February 2022	6,950.00	Scholar's Inn UTM Johor
6.	<i>Aplikasi Teknologi IR 4.0 Dalam Membangunkan Projek Inovasi yang Kreatif dan Inovatif</i>	2 officers	10 March 2022	450.00	Virtual Webinar
7.	<i>Bengkel Penstrukturan Semula Malaysia Health Information Framework (MyHIF) dan Reset Myharmony Oral Health</i>	58 officers and 2 auxiliaries	15 - 18 March 2022	45,972.00	Amverton Heritage Resort, Ayer Keroh, Melaka
8.	<i>Bengkel Projek Peningkatan Aplikasi Gi-Ret PSY kepada Sistem Gi-Ret PSY 2.0 bagi PKP KKM</i>	12 Officers and 4 auxiliaries	21 - 25 March 2022	13,420.00	Hotel Vivatel, Kuala Lumpur
9.	<i>MADPHS Conference and 13th Annual General Meeting</i>	19 officers	26 -27 March 2022	400.00	Virtual Webinar
10.	<i>Kursus Perolehan Program Kesihatan Pergigian</i>	40 officers	24 - 25 March 2022	2,072.50	<i>Bilik Mesyuarat Utama</i> , OHP MOH
11.	<i>Bengkel Penggunaan Software Vensim</i>	24 officers	29 - 31 March 2022	18,136.80	Hotel MITC, Melaka
12.	<i>Kursus Pengenalan Akta Pergigian 2018 dan Akta-Akta Lain yang Berhubungan bagi Pegawai yang diberi kuasa di bawah Akta Pergigian 2018 (Siri ke-2)</i>	21 officers	28 -31 March 2022	9,900.00	Le Quadri Hotel, Kuala Lumpur

No.	Training Topic	Participants	Date	Expenses (RM)	Venue
13.	<i>Bengkel Social Media Goes Advance: Exploring Animation and Motion Graphic Year 2022</i>	43 officers	28 - 30 March 2022	4,860.00	<i>Bilik Mesyuarat Utama, OHP MOH</i>
14.	Medico-Legal 101	4 officers	9 April 2022	400.00	Virtual Webinar
15.	<i>Konvensyen Kualiti PKP KKM 2022</i>	105 officers	10 - 11 May 2022	5,067.00	Virtual Webinar
16.	Systematic Review on Evidence Based and Clinical Practice Guidelines Development and Implementation bagi <i>Pakar dan Pegawai Pergigian</i>	25 officers	17 - 18 May 2022	12,000.00	Dorsett Hartamas, Kuala Lumpur
17.	<i>Bengkel Clinical Research: The Highlights</i>	34 officers and 1 auxiliary	17 - 18 May 2022	2,730.00	<i>Bilik Mesyuarat Utama, OHP MOH</i>
18.	5 th Malaysia International Dental Show 2022	1 officer	20 - 22 May 2022	650.00	Sunway Pyramid Convention Centre, Petaling Jaya, Selangor
19.	Certified Digital Forensic for First Responder (CDFFR)	44 officers	23 - 26 May 2022	6,673.55	Cyber Security Malaysia, Cyberjaya
20.	<i>Bengkel Certified Smoking Cessation Service Provider (CSCSP)</i>	26 officers and 1 auxiliary	24 -26 May 2022	17,850.00	Concorde Hotel, Shah Alam
21.	<i>Bengkel Hands-on: Tatacara dan Penyediaan Infografik Promosi Kesihatan Periodontik</i>	13 officers	25 -26 May 2022	5,150.00	Hotel Star City, Alor Setar, Kedah
22.	<i>Bengkel Latihan Pengguna Sistem Teleprimary Care – Oral Health Clinical Information System (TPC-OHCIS) bagi Pentadbir Sistem dan Champion Sistem di 23 Klinik Pergigian Negeri Johor, Selangor dan Wilayah Persekutuan Kuala Lumpur</i>	402 officers	7-8, 14-15, 19-22, 27-30 June 2022	8,040.00	<i>Makmal ICT, Health State Department Negeri Sembilan (JKNNs)</i>
23.	<i>Mesyuarat Saintifik Malaysian Association of Oral and Maxillofacial Surgeons (MAOMS)</i>	26 officers	3 - 6 June 2022	2,600.00	University of Malaya
24.	<i>Kursus Pemikiran Positif dan Kreatif bagi Meningkatkan Prestasi Kerja Anggota Kumpulan Pelaksana Unit Pentadbiran / Kewangan</i>	30 auxiliaries	10 - 12 June 2022	14,090.00	Hotel Grand Baron, Taiping, Perak
25.	<i>Kursus Pembangunan dan Perkembangan Fasiliti Kesihatan Pergigian Tahun 2022 PKP KKM</i>	38 officers	13 - 15 June 2022	16,600.00	Concorde Hotel, Shah Alam
26.	<i>Bengkel Metodologi Kajian</i>	136 officers	21 - 22 June 2022	300.00	Virtual Webinar
27.	<i>Kursus Standardization Management of Hemophilia Patients in Paediatric Dentistry</i>	75 officers and 34 auxiliaries	14 - 15 June 2022	600.00	Virtual Webinar
28.	<i>Kursus Patologi Mulut dan Perubatan Mulut bagi Pegawai Pergigian: Teori,</i>	110 officers	15 - 16 June 2022	3,300.00	Serdang Hospital, Selangor

No.	Training Topic	Participants	Date	Expenses (RM)	Venue
<i>Prosedur Klinikal dan Makmal (Wilayah Tengah) 2022</i>					
29.	<i>Bengkel Penilaian Bahan Pendidikan Kesihatan Pergigian</i>	27 officers	22 - 24 June 2022	11,340.00	Crown Garden Hotel, Kota Bharu, Kelantan
30.	5 th Malaysian Dental Therapists' Conference 2022	36 auxiliaries	24 - 25 June 2022	9,000.00	Summit Hotel, Subang USJ, Selangor
31.	<i>Kursus Domiciliary Oral Health Care Services – What Should You Know?</i>	72 officers and 45 auxiliaries	28 June 2022	1,220.00	Virtual Webinar
32.	Indoor Air Quality: The Covid-19 Experience	2 officers	30 June 2022	200.00	Virtual Webinar
33.	7 th Malaysian Dental Technologist Conference and Trade Exhibition	21 auxiliaries	1 - 3 July 2022	9,450.00	Berjaya Times Square, Kuala Lumpur
34.	<i>Bengkel Penggunaan Fixed Format Report (FFR) MyHDW bagi Modul Kepakaran Pergigian Tahun 2022 (1)</i>	63 officers	18 - 19 July 2022	2,150.00	<i>Bilik Mesyuarat Utama, OHP MOH</i>
35.	2 nd International Adolescent Health Conference (IAHC)	2 officers	23 - 24 July 2022	220.00	Virtual Webinar
36.	Complete Denture - Management of Severely Resorbed Ridge (Part 1: Edentulous Dilemma)	30 officers and 10 auxiliaries	26 July 2022	2,700.00	<i>Pusat Pakar Pergigian Seremban and Dewan Merbau, JKNNS</i>
37.	<i>Kursus Spatial Analysis with ArcGIS Pro</i>	1 officer	25 - 27 July 2022	3,021.00	Shah Alam, Selangor
38.	Malaysia International Dental Exhibition and Conference (MIDEC)	35 officers	4 - 7 August 2022	12,960.00	Virtual Webinar
39.	2 nd Annual Periodontic Research Presentation and Periodontic Research Day 2022	196 officers and 4 auxiliaries	16 - 17 August 2022	600.00	Virtual Webinar
40.	<i>Bengkel Pemurnian Standard Operation Procedure (SOP) Kepakaran Pergigian Forensik Bagi Pengurusan Kes One Stop Crisis Centre (OSCC) KKM</i>	10 officers	10 - 11 August 2022	3,600.00	<i>Institut Semarak FELDA (ISEF), Kajang, Selangor</i>
41.	<i>Bengkel Kaji Semula Senarai Tugas Skim-Skim Perkhidmatan Pergigian di KKM Tahun 2022</i>	35 officers and 14 auxiliaries	9 - 11 August 2022	18,219.00	Bayview Hotel, Melaka
42.	<i>Bengkel / Training Fixed Format Report e-reporting V2.0 for Oral Health Zon 2 (Melaka, Johor, Sabah, Sarawak, FT Labuan)</i>	18 officers and 17 auxiliaries	22 -23 August 2022	14,916.00	Dorsett Hartamas, Kuala Lumpur
43.	<i>Bengkel Penggunaan Fixed Format Report (FFR) MyHDW bagi Modul Kepakaran Pergigian Tahun 2022 (2)</i>	169 officers	1 - 4 & 8 - 9 August 2022	5,800.00	<i>Bilik Mesyuarat Utama, OHP MOH</i>
44.	Basic Life Support	8 auxiliaries	25 August 2022	400.00	Hospital Tunku Azizah, Kuala Lumpur

No.	Training Topic	Participants	Date	Expenses (RM)	Venue
45.	<i>Kursus Lecture Index of Orthognathic Functional Treatment Need (IOFTN)</i>	14 officers	25 August 2022	2,100.00	University of Malaya
46.	<i>Kursus Horizon Baharu Kumpulan Inovatif dan Kreatif</i>	62 officers	27 - 28 August 2022	2,200.00	Virtual Webinar
47.	<i>Bengkel Penggunaan Fixed Format Report (FFR) MyHDW bagi Modul Kepakaran Pergigian Tahun 2022 (3)</i>	425 officers and 55 auxiliaries	12 – 15 & 26 – 27 September 2022; 3 – 4 October 2022	7,446.00	<i>Bilik Mesyuarat Utama</i> , OHP MOH
48.	Inaugural Sarawak Occupational Safety and Health Conference 2022	1 officer	14 - 15 September 2022	450.00	Pullman Hotel Miri, Sarawak
49.	<i>Kursus Pakar Pergigian dalam Tempoh Pra-Pewartaan 2019</i>	35 officers and 9 auxiliaries	28 - 29 September 2022	650.00	<i>Bilik Perbincangan 2</i> , OHP MOH
50.	Paediatric Resuscitation and Inhalation Sedation Course 2022	15 officers	3 - 5 October 2022	6,390.00	Hospital Tunku Azizah, Kuala Lumpur
51.	<i>Kursus Sistem e-Kehakiman Pegawai diberi Kuasa di Bawah Akta Pergigian 2018</i>	20 officers	5 - 6 October 2022	5,978.00	Institut Latihan FAMA
52.	<i>Kursus Dental Projection Based on System Dynamics Modelling and Simulation Approach</i>	27 officers	5 - 7 October 2022	8,535.80	<i>Bahagian Kawalan Penyakit</i> , MOH
53.	<i>Bengkel Latihan Panel Penilaian Akreditasi Program Pengajian Pergigian 2022</i>	24 officers and 1 auxiliary	5 - 7 October 2022	17,831.46	Hotel Travelodge Ipoh, Perak
54.	<i>Kursus Pengurusan Maklum Balas Awam tahun 2022</i>	48 officers	11 October 2022	1,400.00	<i>Bilik Mesyuarat Utama</i> , OHP MOH
55.	<i>Kursus Rawatan Prostodontik Berkompleksiti Tinggi: Management Severely Resorbed Ridge Bahagian II</i>	30 officers and 10 auxiliaries	13 - 14 October 2022	4,250.00	UiTM Bandar Enstek dan Pusat Pakar Pergigian Seremban & Dewan Merbau, JKNNS
56.	National Oral Health Research Initiative (NOHRI)	30 officers	14 - 16 October 2022	20,000.00	Bangsar South City, Kuala Lumpur
57.	MyHIV Forum 2022	1 officer	15 - 16 October 2022	300.00	<i>Fakulti Perubatan</i> , Sungai Buloh, Selangor
58.	<i>Bengkel Penyediaan Video Bahan Promosi Kesihatan Pergigian Peringkat Kebangsaan (Zon Utara Tahun 2022)</i>	30 officers	25 October 2022	4,650.00	<i>Bilik Gerakan Bangunan Persekutuan</i> , Pulau Pinang
59.	Transformational Leadership for Middle Managers	50 officers	26 - 28 October 2022	18,393.00	Bayview Hotel, Melaka

No.	Training Topic	Participants	Date	Expenses (RM)	Venue
60.	<i>Bengkel Post-Mortem Gi-Ret 2.0 Rintis di Perlis bagi PKP KKM</i>	18 officers and 1 auxiliary	7 - 11 November 2022	18,000.00	Palm Seremban Hotel, Negeri Sembilan

Source: Oral Health Programme, MOH 2022

Advanced Competency Programme (ACP)

In year 2022, ACP was offered to Dr. Ahmad Kamal bin Tarmizi, however this offer was turned down due to limited placement offered.

Continuing Professional Development (CPD)

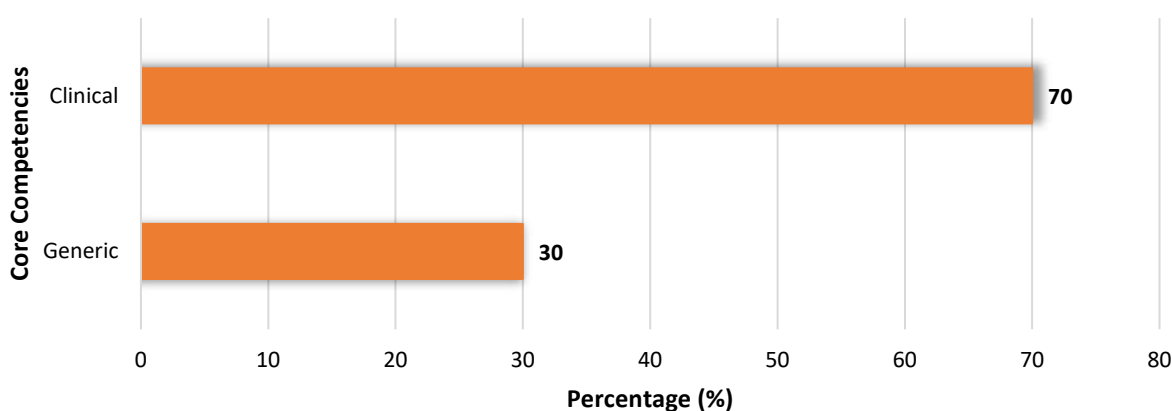
The following CPD sessions were held at OHP MOH in year 2022 (**Table 3.11**). These CPD sessions covered two areas of core competencies: clinical (70%) and generic (30%) as shown in **Figure 3.2**.

Table 3.11
List of Continuing Professional Development Sessions Conducted at OHP MOH, 2022

No.	CPD Courses	Date
1.	New Portable Cutting Unit	18 February 2022
2.	Dental Casemix	18 March 2022
3.	Leadership Mindset in Driving Service Delivery Transformation	7 April 2022
4.	3M – Simplifying Dentistry	21 April 2022
5.	<i>Ceramah dan Amali Untuk Penggantian Produk Amalgam</i>	12 August 2022
6.	Healthy Living: Smoking, the Enemy of Body	5 December 2022

Source: Oral Health Programme, MOH 2022

Figure 3.2
Number of Continuing Professional Development Sessions According to Area of Core Competencies, 2022



Source: Oral Health Programme, MOH 2022

Oral Health Policies

- **National Oral Health Policy (NOHPol) and National Oral Health Strategic Plan (NOHSP) 2022-2030**

The NOHPol is the first ever policy document produced by the OHP MOH. The document acts as reference to all relevant stakeholders working together towards a better Malaysian population oral health outcome and quality of life. The cabinet paper of the policy had been presented and approved during the Cabinet Meeting held on 18 May 2022. The approval had also mandated the NOHSP 2022-2030 as the reference document for the policy implementation. Subsequently, both documents had been circulated early November 2022. The monitoring of the strategic plan achievements will be carried out continuously on an annual basis to ensure active involvement of all stakeholders and improvement of implementation in order to achieve the goals set for 2030.

ORAL HEALTH INFORMATION MANAGEMENT

Implementation of Electronic Medical Record (EMR) for Oral Healthcare

The National EMR project, which is being piloted from 2021 to 2024, is currently in the pre-implementation and development phase (**Image 3.1**). In year 2022, the implementation status of the four (4) EMR components were as follows:

- i. Development of the Health Information Exchange (HIE) Platform between 1 December 2021 and 30 November 2024 (36 months);
- ii. Development of Virtual Clinic (VC) Platform between 11 April 2022 and 10 September 2023 (17 months);
- iii. Pre-implementation for the expansion and improvement of the Teleprimary Care-Oral Health Clinical Information System (TPC-OHCIS); and
- iv. Pre-implementation for the expansion and improvement of the Health Information System (HIS@KKM).

Three (3) dental clinics in Negeri Sembilan were involved in the Provisional Acceptance Test (PAT) HIE Project namely Kuala Pilah Dental Clinic, Tampin Dental Clinic and Bandar Seri Jempol Dental Clinic.

Image 3.1

Electronic Medical Record (EMR) Project for Oral Healthcare, 2022



Provisional Acceptance Test (PAT) for Health Information Exchange Project



User Acceptance Test (UAT) Session for Stage 2 Health Information Exchange Project

Source: Oral Health Programme, MOH 2022

There were two (2) main activities i.e. system development and testing carried out under the HIE (**Table 3.12**) and VC Project (**Table 3.13**).

Table 3.12
Project Development Activities for Health Information Exchange

No.	Activities	Executed Date
1.	User Stories Workshop	10-14 January 2022 16-18 February 2022 26-28 February 2022
2.	User Acceptance Test (UAT) Stage 1	13-15 July 2022
3.	HIE user training	15 -19 August 2022
4.	Provisional Acceptance Test (Operation & Go Live) for the use of the Rekod Pesakit Portal	11-19 October 2022
5.	User Acceptance Test (UAT) session for Stage 2 Cycle 1	29-30 November 2022
6.	User Acceptance Test (UAT) session for Stage 2 Cycle 2	20-21 December 2022

Source: Oral Health Programme, MOH 2022

Table 3.13
Project Development Activities for Virtual Clinic

No.	Activities	Executed Date
1.	Workshop 1: Business Requirement Specification (BRS)	19 – 20 May 2022
2.	Workshop 2: Business Requirement Specification (BRS)	14 – 15 September 2022
3.	Sprint Stage 1 Session No. 1/2022	17 November 2022
4.	Stage 1 User Acceptance Testing (UAT) VC: UAT Cycle 1	1 December 2022
5.	Stage 1 User Acceptance Testing (UAT) VC: UAT Cycle 2	22 December 2022

Source: Oral Health Programme, MOH 2022

Digitalisation of Oral Healthcare

• Expanding the Implementation of the EMR System

TPC-OHCIS is a clinical information system used by 31 dental clinics in Negeri Sembilan. It covers primary oral healthcare services i.e. outpatient and outreach oral healthcare services, preventive programmes and non-hospital based specialist oral healthcare services i.e. Orthodontic, Periodontics and Restorative Dentistry.

In year 2022, procurement process for the Deployment, Configuration and Testing of TPC-OHCIS project at 23 dental clinics with the necessary IT infrastructure in Johor, Selangor and FT of Kuala Lumpur was initiated with installation expected in year 2023. As part of the project preparation, a Change Management *and* User Awareness Workshop was conducted in June 2022 (Image 3.2).

Image 3.2

Change Management Workshop for the Implementation of TPC-OHCIS System



Change Management Workshop held on 1 June 2022 involving 12 dental clinics in Johor

Source: Oral Health Programme, MOH 2022



Change Management Workshop held on 2 June 2022 involving three (3) dental clinics in FT KL& Putrajaya and eight (8) dental clinics in Selangor

- **Implementation of Teledentistry Services such as Virtual Clinic (VC) and *Sistem Janji Temu Klinik Kementerian Kesihatan Malaysia* (SJTK KKM)**

The OHP MOH has launched a teledentistry initiative, in collaboration with MAMPU, various MOH divisions, MOH Legal Office, Malaysian Dental Council, and MySejahtera Unit. The initiative includes two components namely Virtual Dental Clinic and *Sistem Janji Temu Klinik Kementerian Kesihatan Malaysia* (SJTK KKM)

Correspondingly, a total of 130 desktop computers and 109 laptops have been distributed throughout the states corresponding to support the expansion of SJTK KKM (**Image 3.3**). The SJTK KKM, which was first introduced in 2020, has been delayed until May 2022 due to ongoing technical issues that have made the system unstable. In order to ensure the continuity of digitalised appointment system at the dental clinics, several discussions have been initiated with MySejahtera Unit to develop a Dental Clinic Appointment Module using MyVAS/MySejahtera system.

Image 3.3

Installation of Laptops for Clinic Appointment System Project at 239 MOH Dental Clinics



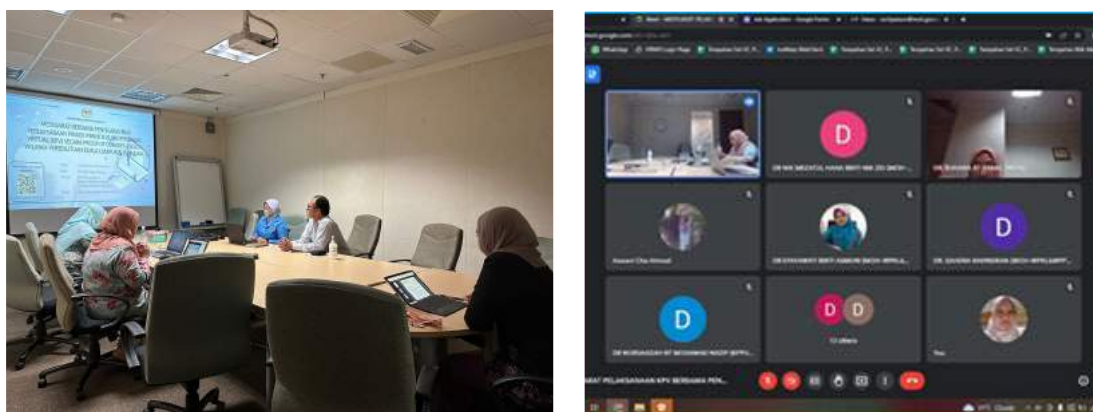
Source: Oral Health Programme, MOH 2022



In November 2022, the guideline for MOH Virtual Dental Clinics (KPV) implementation using Video Conference Services (VC) through Google Meet was approved for circulation. Google

Meet platform provided by MAMPU serves as a platform for Video Conferencing. Four (4) dental clinics in FT Kuala Lumpur & Putrajaya were selected for Proof of Concept (PoC), which commenced in November 2022 and will end in April 2023. This PoC aims to assess the viability of the KPV prior to nationwide roll out (**Image 3.4**).

Image 3.4
State Coordinator Meeting for the Implementation of Virtual Dental Clinic (KPV)



Source: Oral Health Programme, MOH 2022

- **Malaysian Health Data Warehouse (MyHDW) e-Reporting V2.0 (Oral Health)**

In November 2021, MyHDW e-Reporting V2.0 (Oral Health) roll out was piloted at 17 selected primary and specialist dental clinics in FT Kuala Lumpur & Putrajaya and Selangor. The system was then extended to all dental clinics in FT Kuala Lumpur & Putrajaya and Selangor in May 2022.

A workshop on Malaysian Health Information Framework (MyHIF) and Refset MyHarmony Oral Health for Subject Matter Expert (SME) was held on March 2022 at Amverton Heritage Hotel, Ayer Keroh, Melaka. This workshop aimed to produce a new set of MyHIF and update Refset MyHarmony based on the current concept of Systematised Nomenclature of Medicine Clinical Terms (SNOMED CT).

In November 2022, a series of discussions involving SMEs in primary and specialists Oral Healthcare Service, representatives from Health Informatics Centre MOH and OHP MOH's top management were conducted to discuss matters related to the direction of MyHDW e-Reporting V2.0 (Oral Health) System which are expected to kick in starting from year 2023.

- **Geographic Information System (GIS) in Oral Healthcare**

Geographic Information Systems (GIS) is a technology that can be used to store, analyse, and visualise spatial data. In dentistry, GIS can be used to analyse and visualize data related to dental care, such as location of dental clinics and factors that influence access to dental services. For example, GIS can be used to create a map of all the dental clinics in Malaysia. This map can be used to identify areas that have a shortage of dental clinics or underserved areas by dental clinics. GIS can also be used to analyse the factors that may influence access to oral health services such as income, transportation, and many more.

GIS can be a valuable tool for improving access to oral healthcare. By identifying areas that have a shortage of dental clinics or areas that are underserved by dental clinics, GIS can help policymakers and health care providers target resources to improve access to care. GIS can also be used to track the effectiveness of programmes that are designed to improve access to dental care.

The OHP MOH is cognisant of the importance of having GIS, thus six (6) members from OHP MOH was appointed as Technical Working Group for Geographic Information System (TWG GIS, OHP MOH). Several workshops were held in year 2022 to strengthen the knowledge and skill of the TWG GIS OHP MOH (**Table 3.14**).

Table 3.14
Workshops Attended by TWG GIS, OHP MOH, 2022

No.	Activities	Executed Date
1.	ArcGIS Pro Software Operations Strengthening Workshop 1/2022	2-3 August 2022
2.	ArcGIS Pro Software Operations Strengthening Workshop 2/2022	7-8 September 2022
3.	Workshop for Inauguration of the Use of GIS-SMART GIS Adoption for MYHDW, KKM	25-26 October 2022
4.	Creating & Editing Data with ArcGIS Pro Course	27-28 October 2022
5.	Configuring Web Applications for ArcGIS	10 November 2022
6.	ArcGIS Pro Software Operations Strengthening Workshop 3/2022	23-25 November 2022

Source: Oral Health Programme, MOH 2022

The TWG also has successfully engaged with the representatives from ESRI Malaysia Sdn. Bhd. and Department of Planning, Health Informatics Centre MOH in sharing knowledge, technical expertise and experience to manage data and information via GIS. They were equipped with two (2) desktop workstation PCs, a laptop computer and two (2) GPS trackers to facilitate the collection and analysis of information and geographical mapping using GIS.

ORAL HEALTH TECHNOLOGY

Oral Health Technology Section is responsible for managing and conducting activities related to:

- i. Development or review of Clinical Practice Guidelines;
- ii. Approved Products Purchase List (APPL); and
- iii. Health technology assessment including horizon scanning, activities related to Minamata Convention on Mercury and activities related to medical device registration under Medical Device Act 2012 [Act 737] for oral health technology or equipment.

The activities under this section also include systematic search for scientific evidence, collaboration with various agencies in formulating evidence-informed health decision making in ensuring safe, effective and cost-effective technologies to be used in oral health services nationwide.

Oral Health Related Clinical Practice Guidelines (CPG)

- **Status of CPG**

In year 2022, a total of 13 CPGs were published by OHP MOH and one (1) new CPG being developed. The status of the CPGs are as listed in **Table 3.15**.

Table 3.15
Clinical Practice Guidelines (CPG) Status as of 31 December 2022

No.	Title of CPG	Publication Year	Status
1.	Management of Unerupted and Impacted Third Molar (2 nd Edition)	2021	Current
2.	Management of Avulsed Permanent Anterior Teeth (3 rd Edition)	2019	Current
3.	Management of Mandibular Condyle Fractures (2 nd Edition)	2019	Current
4.	Management of Periodontal Abscess (2 nd Edition)	2016	Current
5.	Management of Acute Orofacial Infection of Odontogenic Region in Children	2016	Current
6.	Management of the Palatally Ectopic Canine (2 nd Edition)	2016	Current
7.	Management of Ameloblastoma	2015	Current
8.	Management of Unerupted Maxillary Incisor (2 nd edition)	2015	Current
9.	Management of Chronic Periodontitis (2 nd edition)	2012	Current
10.	Management of Anterior Crossbite in the Mixed Dentition (2 nd edition)	2013	Review in progress
11.	Management of Severe Early Childhood Caries (2 nd edition)	2012	Review in progress
12.	Orthodontic Management of Developmentally Missing Incisors (1 st edition)	2012	Review in progress
13.	Antibiotic Prophylaxis in Oral Surgery for Prevention of Surgical Site Infection (2 nd Edition)	2015	Review in progress

No.	Title of CPG	Publication Year	Status
14.	Peri-Implant Disease: Prevention And Recommendations For Dental Implants Maintenance Care Practice	New	Development initiated 2022

Source: Oral Health Programme, MOH 2022

• Development of CPG by CPG Development Groups

In year 2022, two (2) CPG Development Groups were established to review or develop the following CPG:

- i. Antibiotic Prophylaxis in Oral Surgery for Prevention of Surgical Site Infection (2nd Edition)
- ii. Peri-implant Disease: Prevention and Recommendations For Dental Implants Maintenance Care Practice

In year 2022, with five (5) CPGs being developed, this Section conducted a total of 23 meetings (Table 3.16).

Table 3.16
Clinical Practice Guidelines (CPG) Development Groups Meetings, 2022

No.	CPG Development Groups	Date of Meetings
1.	Management of Anterior Crossbite in the Mixed Dentition (2 nd edition)	12 – 13 April 2022 22 – 23 June 2022 22 – 23 August 2022 25 – 26 October 2022 22 November 2022 6 – 7 December 2022
2.	Management of Severe Early Childhood Caries (2 nd edition)	21 – 22 March 2022 9 – 10 May 2022 18 – 19 July 2022 26 – 27 September 2022 28 – 29 November 2022 22 – 23 December 2022
3.	Orthodontic Management of Developmentally Missing Incisors (1 st edition)	11 – 12 May 2022 20 – 21 July 2022 28 – 29 September 2022 16 – 17 November 2022
4.	Antibiotic Prophylaxis in Oral Surgery for Prevention of Surgical Site Infection (2 nd Edition)	24 – 25 August 2022 27 – 28 October 2022 8 – 9 December 2022
5.	Peri-Implant Disease: Prevention and Recommendations for Dental Implants Maintenance Care Practice	3 – 4 August 2022 19 September 2022 12 – 13 October 2022 9 – 10 November 2022

Source: Oral Health Programme, MOH 2022

- **Systematic Review on Evidence-Based CPGs Development Course**

The course was conducted from 17 to 18 May 2022 and facilitated by officers from the Health Technology Assessment Unit (MaHTAS), MOH. The aim of the course was to provide guidance on how to search articles systematically, examine articles and extract scientific evidence for the production of CPG involved, introducing the work process of producing CPG, training on critical appraisal techniques and formulation of evidence table to provide exposure on development process of a quality and standard CPG, as well as training on the methods of scientific evidence search and appraisal. A total of 26 participants consists of development group members from various dental specialties attended this course.

Approved Purchase Price List (APPL)

This section supports the role of the Procurement and Privatisation Division, MOH by providing input with regards to APPL. This includes preparation of specifications, technical assessment of products, price negotiations, finalise the product list and suppliers, as well as monitor issues related to tendering companies, such as penalty on late delivery and product complaints. In year 2022, this section was also involved in the development of Performance Standard, terms and condition on the concession agreement.

In year 2022, the supply of Mepivacaine HCL with Adrenaline (1:100,000) Injection was affected because Pharmaniaga Logistics Sdn. Bhd. was not able to provide any alternative sources as there was no other product with the same active ingredient registered with the National Pharmaceutical Regulatory Agency (NPRA). Hence, the states have identified Xilonibsa 2% Solution for Injection as the alternative product and in preparation for the APPL 2023 – 2025 term, this section obtained feedback from the state and compiled a list of products to be listed for the new term. A total of 11 products were identified.

Oral Health Technology Assessment

Oral Health Technology Assessment was conducted on two (2) products as follows:

- i. Mouthwash and Its Effect on Blood Pressure; and
- ii. Visually-Enhanced Light Device for Detection of Oral Potentially Malignant Disorders (OPMD) and Oral Cancer.

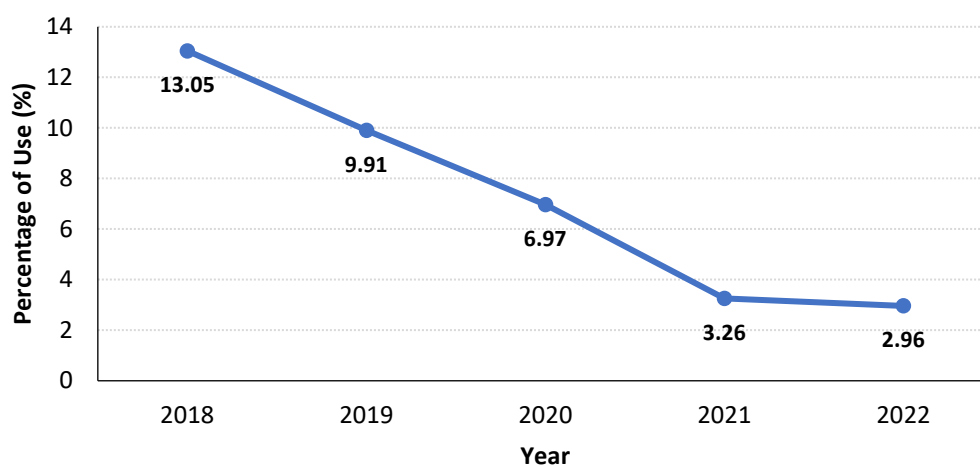
Technology Review Reports were produced based on scientific evidence and literature search. These reports are accessible via the OHP MOH official website, www.moh.gov.my/ohd.

- **Use of Dental Amalgam in Ministry of Health Facilities**

As time progresses, dental amalgam fillings have become less popular due to the colour and mercury content in the compounds that could affect the environment. There has been a reduction in the usage of dental amalgam in the MOH Facilities (**Figure 3.3**). The reduction was due to the initiative taken by OHP MOH to phase down the use of dental amalgam fillings in MOH facilities to five (5) per cent by 2025. Various efforts have been made by the OHP MOH to reduce or avoid the use of dental amalgam unless absolutely necessary. Among the efforts made are:

- i. Strengthen oral health prevention and promotion strategies with emphasis given to detection and prevention of early caries lesion. With this, the need for dental fillings will reduce;
- ii. Collaborate with all relevant stakeholders (Malaysian Armed Forces, Universities, private practitioners and suppliers of dental materials) in developing sustainable strategies to phase down the use of dental amalgam and ensuring access to alternative dental materials at affordable prices;
- iii. Limit the use of dental amalgam to encapsulated dental amalgam and the installation of dental amalgam traps or filters in line with best environmental management practices for dental amalgam waste; and
- iv. Conduct research on the use of safe, effective and quality mercury-free dental fillings materials.

Figure 3.3
Dental Amalgam Usage in the Ministry of Health Facilities, 2018 to 2022



Source: Oral Health Programme, MOH



**ACTIVITIES &
ACHIEVEMENTS**

ORAL HEALTHCARE DIVISION

ORAL HEALTH PROMOTION

Oral Health Programme, Ministry of Health Malaysia (OHP MOH) focuses on oral health promotion activities that aim to enable the *rakyat* to increase control over the determinants of oral health. The activities are intended to increase knowledge and awareness, strengthen the skills and capabilities of individuals and also change social and environmental conditions to improve the oral health status of the population. The main oral health promotion initiatives in OHP MOH are as follows:

- i. Tooth Brushing Drills (TBD) and Oral Health Education (OHE) Talk;
- ii. *Kesihatan Oral Tanpa Amalan Merokok (KOTAK)*;
- iii. *Ikon Gigi (iGG)*;
- iv. *Memberus Gigi Berkesan (BEGIN)*;
- v. *Kesihatan Oral dan Agama (KOA)*;
- vi. Oral Health Programme for Trainee Teachers;
- vii. Transformation With One Smile Together (TW1ST): Oral Health Promotion Activities for Community College Students;
- viii. Campaign on Dental Check-Ups at Least Once a Year OR *Kempen Pemeriksaan Pergigian Sekurang-Kurangnya Sekali Setahun (PEPS1S)*;
- ix. *Klinik Pergigian Mesra Promosi (KPMP)*;
- x. Oral Health Promotion Week or *Minggu Promosi Kesihatan Pergigian (MPKP)*;
- xi. Oral Health Promotion Activities in Social Media;
- xii. Collaboration with Public Agency/ Private Agency/ NGO:
 - Oral Health Promotion Activities in Conjunction With The World Oral Health Day (WOHD), 2022;
 - Oral Health Promotion Activities at Wellness Hub;
 - Oral Health Promotion Activities at *Jelajah Agenda Nasional Malaysia Sihat (ANMS)*; and
 - Oral Health Promotion Activities at *Jom Heboh!*.
- xiii. Production of Oral Health Education Materials.

In addition to the initiatives mentioned above, the Oral Health Promotion Section also successfully conducted two (2) workshops in year 2022 as seen in the **Image 4.1**. The workshops are part of the Oral Health Promotion Section's continuous efforts to further strengthen the oral health promotion efforts in conveying information to the public in an effective manners.

Image 4.1
Workshops Conducted in Year 2022



Left image:
Social Media Goes Advance:
Exploring Animation & Motion
Workshop; 28 to 30 March 2022

Right image:
Oral Health Education Materials
Evaluation Workshop;
22 to 24 June 2022

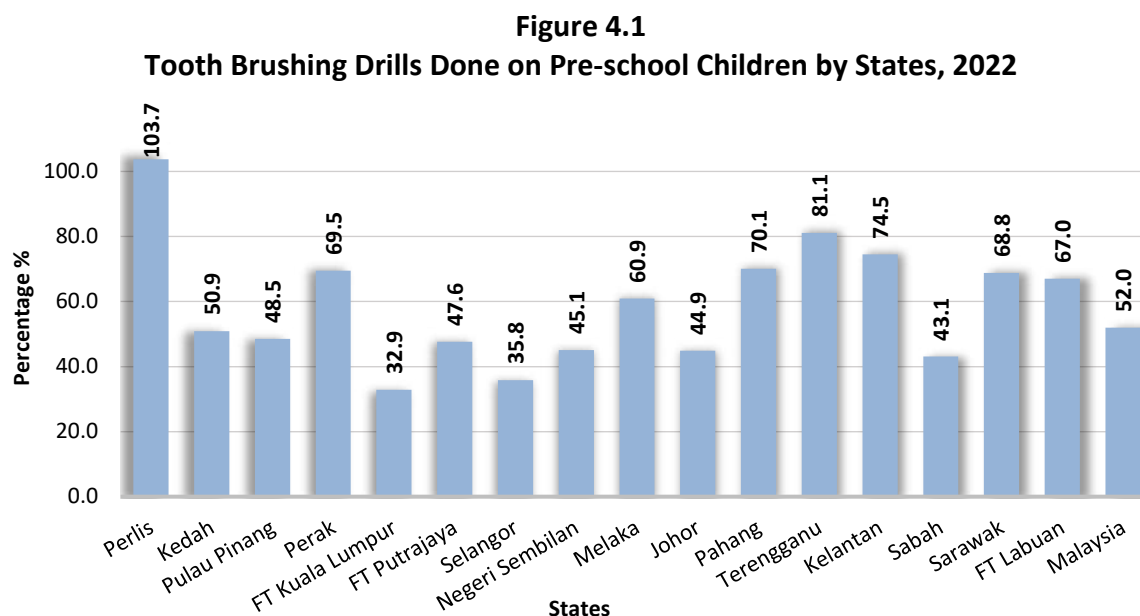


Source: Oral Health Programme, MOH 2022

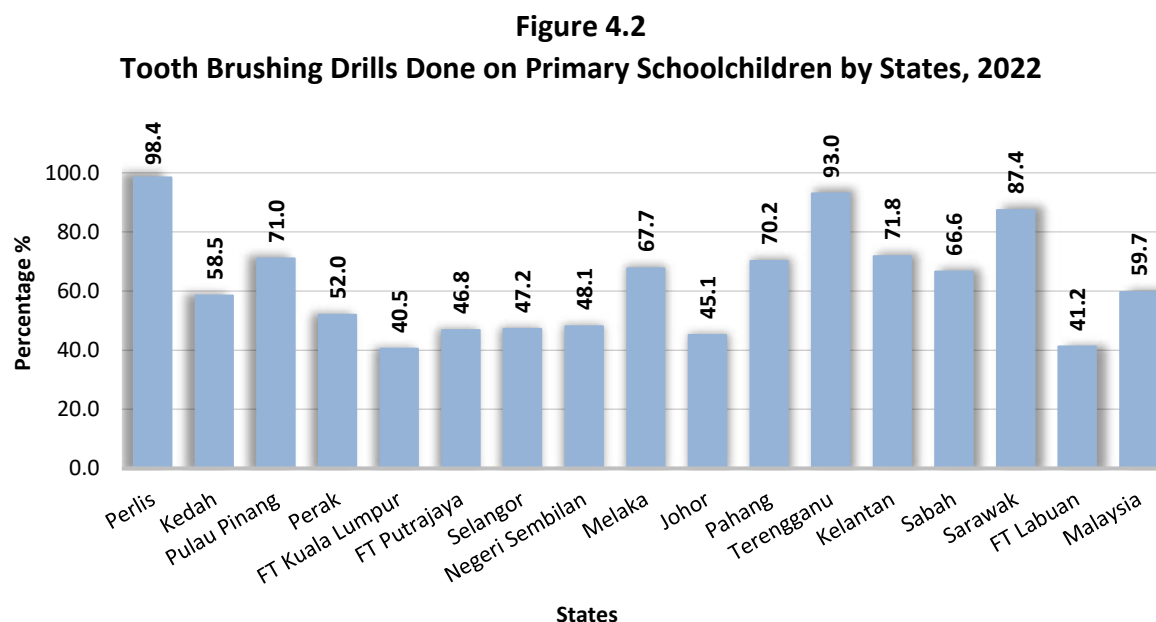
Tooth Brushing Drills and Oral Health Education Talk

Dental plaque is one of the main risk factors of dental caries and periodontal diseases. Therefore, it is crucial to inculcate dental plaque control in form of tooth brushing drills from early age to achieve optimal oral health status.

In year 2022, only 52.0 per cent of pre-school children (**Figure 4.1**) and 59.7 per cent of primary schoolchildren (**Figure 4.2**) participated in tooth brushing drills (TBD).



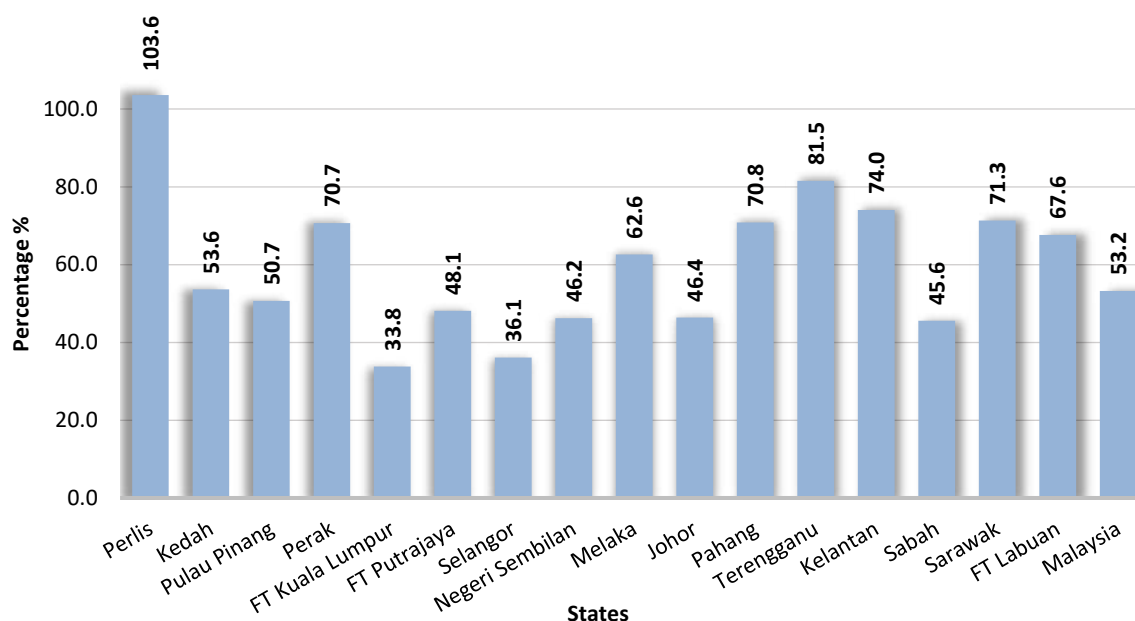
Source: Oral Health Programme, MOH 2022



Source: Oral Health Programme, MOH 2022

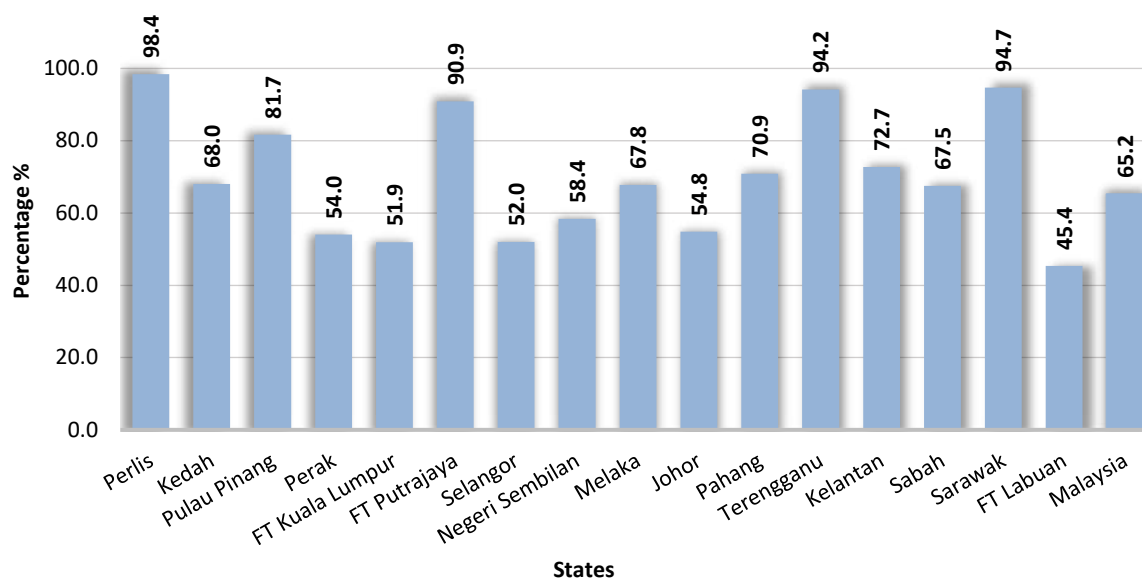
In addition to tooth brushing drills, oral health education talks are also given to increase knowledge and awareness to schoolchildren. In year 2022, 53.2 per cent of pre-school children (**Figure 4.3**) and 65.2 per cent of primary schoolchildren (**Figure 4.4**) has participated in oral health education sessions.

Figure 4.3
Oral Health Education to Pre-school Children by States, 2022



Source: Oral Health Programme, MOH 2022

Figure 4.4
Oral Health Education to Primary Schoolchildren by States, 2022



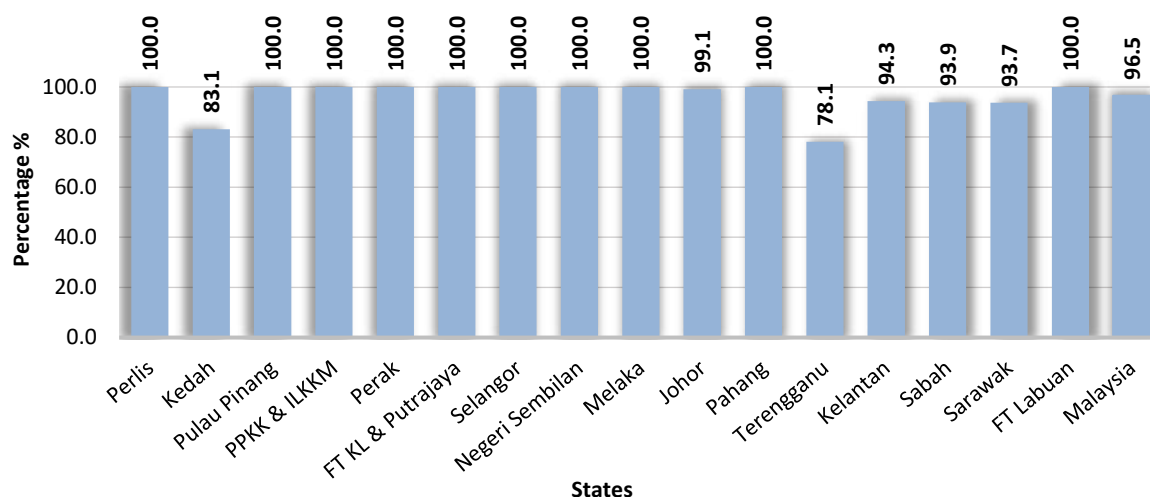
Source: Oral Health Programme, MOH 2022

Kesihatan Oral Tanpa Amalan Rokok (KOTAK)

The OHP MOH collaborated with the Disease Control Division and School Education Division of the Ministry of Education Malaysia in the implementation of KOTAK. This programme is part of the School Dental Service Programme whereby all primary and secondary schoolchildren are screened for smoking habit. Identified smokers will undergo customised intervention to help them quit smoking.

Training clinical staff is a key component of the KOTAK programme, as it helps to improve their skills in screening and intervening schoolchildren from smoking. Thus, percentage of trained new staff was selected as the Key Performance Indicator (KPI) in year 2022. The overall accomplishment was significant and met the target of 96.5 per cent. Most states have achieved 100 per cent of the new clinical staffs have been trained except Johor, Kelantan, Sabah, Sarawak, Kedah and Terengganu (**Figure 4.5**).

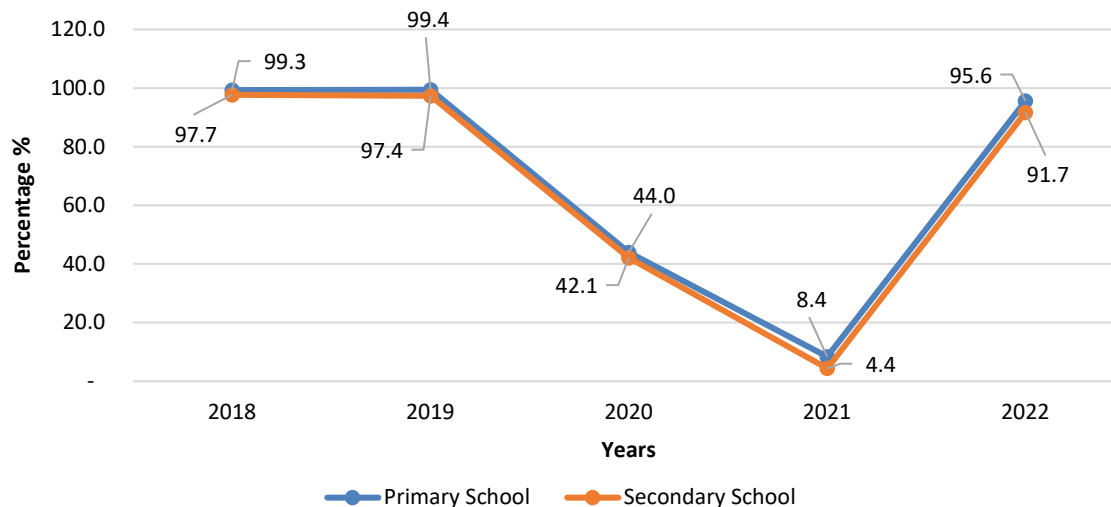
Figure 4.5
Key Performance Indicator Percentage of New Clinical Staff Trained for Screening and Smoking Cessation Interventions in Schools, 2022 (Std: $\geq 90\%$)



Source: Oral Health Programme, MOH 2022

Screening for smoking habit for both primary and secondary schoolchildren has increased compared to the previous years (**Figure 4.6**). This is mainly due to the reopening of school session in March 2022 as compared to previous years whereby the school have been closed due to COVID-19 pandemic.

Figure 4.6
Percentage of Schoolchildren Screened for Smoking Habit, 2018 to 2022

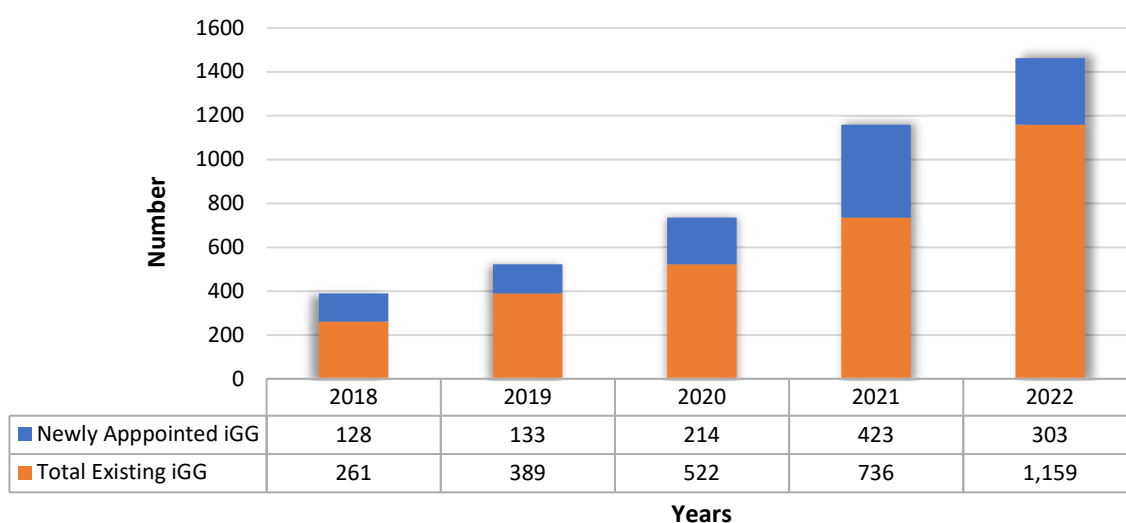


Source: Oral Health Programme, MOH

Ikon Gigi (iGG)

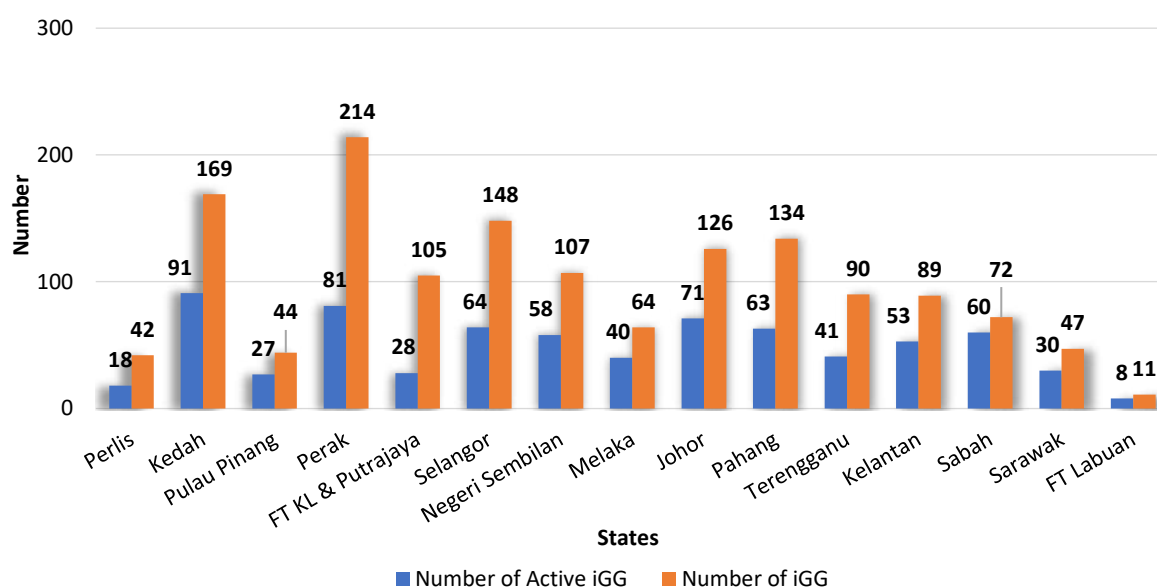
The iGG programme is a community-driven initiative that empowers community members to become agents of change for oral health. By training influential individuals in oral health education, the programme aims to create a ripple effect that will improve oral health outcomes for everyone in the community. The goal of this initiative is to raise awareness of oral health issues and to empower the community with the knowledge and skills they need to improve their oral health. From year 2018 to 2022, a total of 1,462 iGG were appointed throughout the country (**Figure 4.7**). However, in year 2022, only 734 iGG were actively involved in carrying out oral health promotion activities (**Figure 4.8**).

Figure 4.7
Number of Ikon Gigi (iGG), 2018 to 2022



Source: Oral Health Programme, MOH

Figure 4.8
Number of Active Ikon Gigi (iGG) by States, 2022

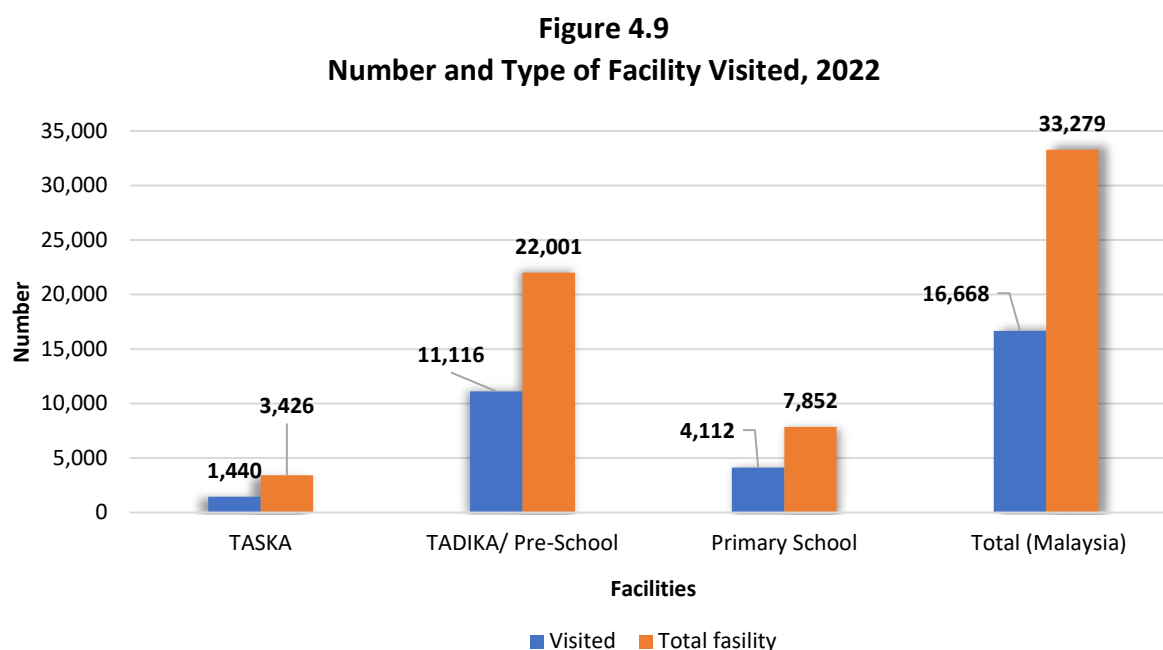


Malaysia: Total number of active iGG = 734

Source: Oral Health Programme, MOH 2022

Memberus Gigi Berkesan (BEGIN)

BEGIN is an oral health promotion activity that promotes and instils effective tooth brushing habits among children. The aim of the BEGIN programme is to control dental plaque and inculcate a positive behaviour towards oral health. One of the indicators for BEGIN programme is number of facilities visited that implement BEGIN which consisted of TASKA, TADIKAs or pre-schools and primary schools. **Figure 4.9** showed the breakdown of facilities visited from January to December 2022. Out of total 33,279 facilities, only 16,668 were managed to be visited throughout the country.



Malaysia: Total number of facility visited = 16,668
Source: Oral Health Programme, MOH 2022

Kesihatan Oral dan Agama (KOA)

KOA is a collaborative effort between the OHP MOH and religious institutions in Malaysia. The objective of this programme is to deliver oral health messages through religious activities, increase awareness and inculcate good oral health practices among the believers. In year 2022, 20,140 KOA activities were conducted (**Table 4.1**).

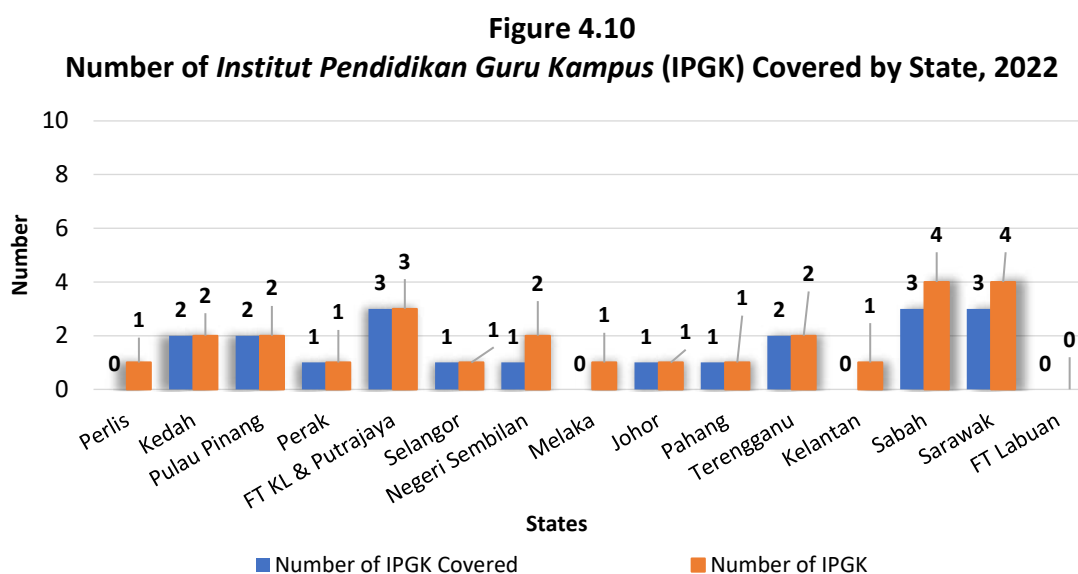
Table 4.1
Number of Activities and Participants in KOA Programme, 2022

Religion	Total Activities	Total Participants
Islam	10,976	45,383
Buddha	2,267	7,687
Hindu	2,529	8,795
Christian	2,971	10,405
Others	1,397	7,528
Total	20,140	79,798

Source: Oral Health Programme, MOH 2022

Oral Health Programme for Trainee Teachers

This oral health promotion initiatives designed for trainee teachers at *Institut Pendidikan Guru Kampus* (IPGK). The objective of the initiative is to empower trainee teachers with good oral health practices so that they can be role models and help to improve student's oral health status. Of all 26 IPGKs in the country, 20 IPGKs (76.9%) have been covered in year 2022 (**Figure 4.10**). In year 2022, a total of 5,015 activities were conducted with 15,539 trainee teachers had participated in this programme (**Table 4.2**). (Note: FT Labuan does not have IPGK).



Source: Oral Health Programme, MOH 2022

Table 4.2
Number of Activities and Participants in IPGK Programme by States, 2022

States	No. of Activities	No. of Participants
Perlis	0	0
Kedah	501	1,282
Pulau Pinang	13	395
PPKK & ILKKM	0	0
Perak	15	780
Selangor	4	684
FT KL & Putrajaya	1,556	4,526
Negeri Sembilan	143	866
Melaka	0	0
Johor	17	930
Pahang	1,189	2,100
Terengganu	1,388	3,032
Kelantan	0	0
Sabah	169	27
Sarawak	20	917
FT Labuan	0	0
Total	5,015	15,539

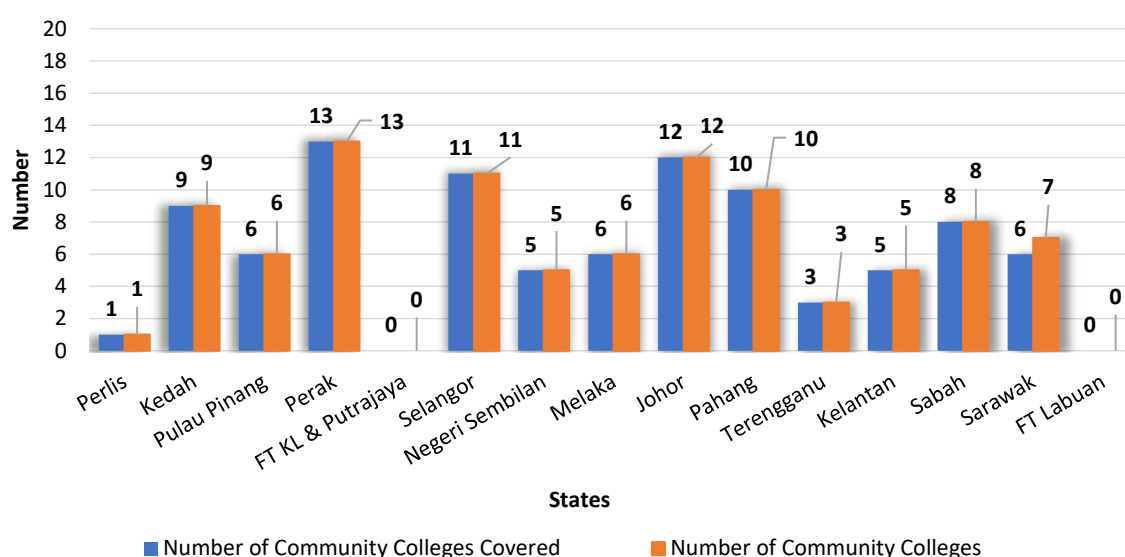
Source: Oral Health Programme, MOH 2022

Transformation With One Smile Together (TW1ST)

The Community College Oral Health Programme or known as TW1ST aims to enhance knowledge and awareness on the importance of oral health among students and staffs in community colleges throughout Malaysia. TW1ST was launched in September 2017 by YAB Dato' Seri Dr Ahmad Zahid bin Hamidi, Deputy Prime Minister of Malaysia and a 'Memorandum of Understanding' signing was held to symbolise the collaboration between the Oral Health Programme and the Community College Education Department of the Ministry of Higher Education, Malaysia. Community College students are one of the groups of young adults that the MOH is targeting to ensure the continuity of dental services from schoolchildren to young adults.

Of all 96 community colleges in the country, 95 (99.0%) have been covered in year 2022 (**Figure 4.11**). In year 2022, a total of 5,015 activities were conducted with 15,539 trainee teachers had participated in this programme (**Table 4.3**). (Note: FT Kuala Lumpur & Putrajaya and FT Labuan do not have community colleges)

Figure 4.11
Number of Community Colleges Covered by States, 2022



Source: Oral Health Programme, MOH 2022

Table 4.3
Number of Activities and Participants in Transformation with One Smile Together (TW1ST) Programme by States, 2022

States	No. of Activities	No. of Participants
Perlis	145	987
Kedah	268	1,822
Pulau Pinang	243	1,229
PPKK & ILKKM	0	0
Perak	1,131	3,324
Selangor	915	5,289
FT KL & Putrajaya	0	0

States	No. of Activities	No. of Participants
Negeri Sembilan	412	1,020
Melaka	621	2,179
Johor	2,457	5,967
Pahang	754	2,375
Terengganu	825	1,898
Kelantan	738	2,256
Sabah	1,171	4,027
Sarawak	85	812
FT Labuan	0	0
Total	9,765	33,185

Source: Oral Health Programme, MOH 2022

Minggu Promosi Kesihatan Pergigian (MPKP), 2022

The MPKP is a new initiative by the OHP MOH to raise awareness of oral health through promotional activities. This initiative was launched in year 2018 and involves a week of activities aimed at educating the public about oral health.

In year 2022, the MPKP with the theme *Cegah dan Rawat, Serlah Senyuman Sihat* has been successfully accomplished from 28 July to 3 August 2022. The MPKP was launched by the Principal Director of Oral Health, MOH through OHP MOH Facebook Live on 28 July 2022. The event was collaborated between the OHP MOH and the Perlis Oral Health Division (Image 4.2).

This year, MyBrushHour2022 activities have been introduced in addition to the activities held during MPKP in previous years. This activity has been successfully implemented on 5 July 2022, simultaneously in all parts of Malaysia involving selected facilities such as dental clinics, kindergartens and etc. The activity that aims to encourage, guide, and raise awareness among Malaysians about the importance of maintaining oral health by training them how to brush their teeth properly has received a very positive response from various communities, including the general public and ministry members. The activity involved 68,559 participants from 1,433 facilities all over Malaysia.

Image 4.2
Minggu Promosi Kesihatan Pergigian, 2022



Source: Oral Health Programme, MOH 2022

A total of 62,302 activities were carried out during the MPKP involving 286,881 participants (Table 4.4).

Table 4.4
Number of Activities and Participants in the Minggu Promosi Kesihatan Pergigian by States, 2022

States	No. of Activities	No. of Participants
Perlis	453	7,602
Kedah	6,379	17,738
Pulau Pinang	3,333	12,613
PPKK & ILKKM	7	346
Perak	5,954	23,886
Selangor	2,609	14,490
FT KL & Putrajaya	14,854	47,786
Negeri Sembilan	752	7,486
Melaka	3,647	16,952
Johor	6,438	31,236
Pahang	1,929	7,822
Terengganu	3,405	22,739
Kelantan	6,495	38,220
Sabah	2,606	24,361
Sarawak	3,391	10,354
FT Labuan	50	3,250
Total	62,302	286,881

Source: Oral Health Programme, MOH 2022

Campaign on Dental Check-Ups at Least Once A Year or *Kempen Pemeriksaan Pergigian Sekurang-Kurangnya Sekali Setahun (PEPS1S)*

The Campaign on Dental Check-ups at Least Once a Year or PEPS1S has continued again in year 2022 with the purposes to increase the utilisation of oral health services by aiming at specific target groups, namely young adults, adults and elderly. In total, 2,227,971 activities were carried out throughout states, involving 4,938,584 participants throughout the year 2022 (Table 4.5).

Table 4.5
Number of Activities and Participants in the PEPS1S Campaign by States, 2022

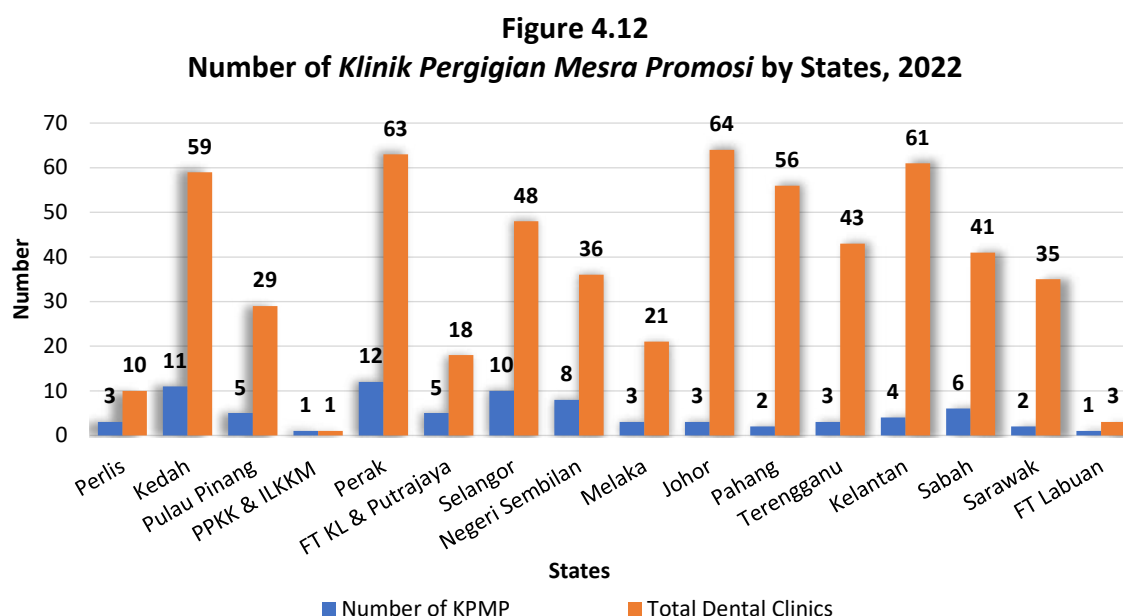
States	No. of Activities	No. of Participants
Perlis	34,377	160,986
Kedah	67,830	105,497
Pulau Pinang	153,904	322,417
PPKK & ILKKM	59	1,976
Perak	79,590	291,141
Selangor	155,033	604,035
FT KL & Putrajaya	80,486	226,810
Negeri Sembilan	17,807	97,589
Melaka	151,851	348,108

States	No. of Activities	No. of Participants
Johor	432,421	824,228
Pahang	325,830	409,347
Terengganu	141,940	360,629
Kelantan	398,577	863,843
Sabah	183,889	292,394
Sarawak	1,870	7,525
FT Labuan	2,507	22,059
Total	2,227,971	4,938,584

Source: Oral Health Programme, MOH 2022

Klinik Pergigian Mesra Promosi (KPMP)

KPMP is a selected dental clinic with few modifications in order to actively carried out oral health promotion and education activities to improve the patient's oral health status. The aim is to establish dental clinics as a centre for promotion, education and prevention of oral diseases. As of December 2022, there are 79 KPMPs out of 588 dental clinics in the country (Figure 4.12).



Malaysia: 79 KPMP

Source: Oral Health Programme, MOH 2022

Oral Health Promotion Activities on Social Media

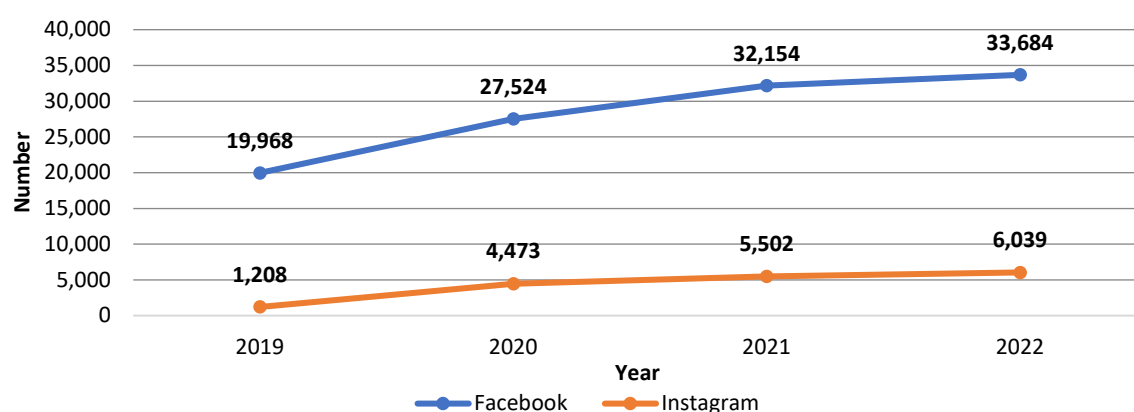
Before the COVID-19 pandemic, oral health education (OHE) was primarily delivered through face-to-face activities and launching ceremonies. However, the pandemic forced OHE providers to find new ways to reach the public. Social media quickly emerged as a valuable tool for delivering OHE, as it allowed providers to reach a large audience with minimal resources.

Since the start of the pandemic, social media has been used to host OHE webinars, share educational videos and infographics and run contests and challenges. As a result of these

efforts, social media has become one of the most important mediums for delivering OHE. It has allowed OHE providers to reach a wider audience than ever before and has helped to raise awareness of oral health issues.

Among the factors that contributed to the increase in the number of followers were the regular publication of OHE materials and the launch of virtual events. In addition to these factors, the overall increase in social media usage during the COVID-19 pandemic also played a role in the growth of OHE social media accounts. As people spent more time online, they were more likely to come across OHE content and follow OHE accounts. This can be observed when there was a significant increase in the number of followers on both official OHP MOH Facebook and Instagram from 19,968 and 1,208 in year 2019 to 33,894 and 6,147 in year 2022 respectively (**Figure 4.13**).

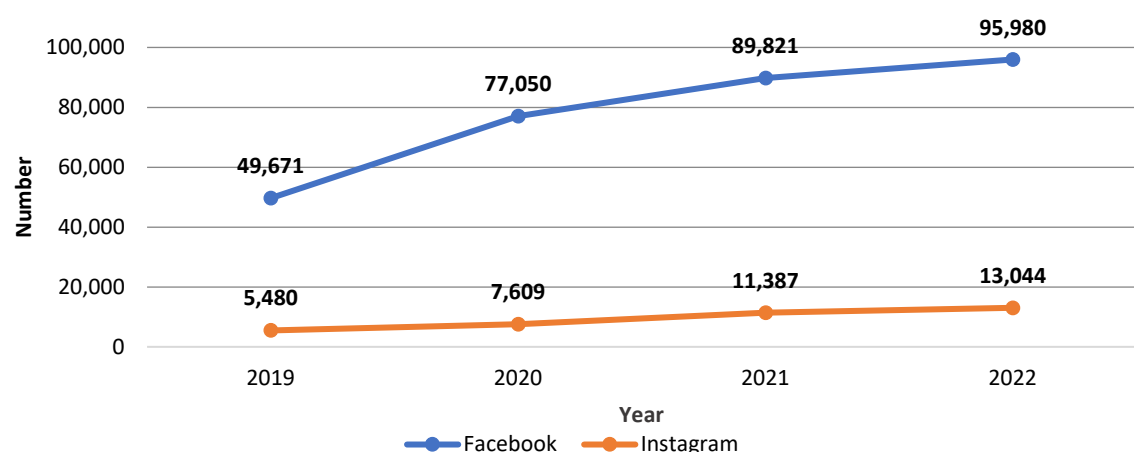
Figure 4.13
Number of Followers on the Official OHP MOH Facebook and Instagram, 2019 to 2022



Source: Oral Health Programme, MOH

The Oral Health Division in each state has its own social media presence and the combined number of followers for these accounts is shown in **Figure 4.14**. It can be observed that the number of social media followers for Oral Health Divisions at the state level has increased significantly from 2019 to 2022.

Figure 4.14
Number of Followers on the Official States Level Facebook & Instagram, 2019 to 2022



Source: Oral Health Programme, MOH

The OHE material produced by the social media team has garnered high views by the public. This may increase access to oral health information and education to the community. **Table 4.6** showed the total number of oral health education material produced and uploaded at national level in year 2022.

Table 4.6
Number of OHE Materials Produced and Uploaded, 2022

Type of OHE material	Number of OHE Produced and Uploaded
Poster/ Infographic	21
Short Video	17
Festive Greetings	18
Announcement/ Notification	2
Total	58

Source: Oral Health Programme, MOH 2022

Collaboration With Public Agency/ Private Agency/ NGO

- **Oral Health Promotion Activities in Conjunction with the World Oral Health Day (WOHD), 2022**

WOHD is a worldwide event that is celebrated on March 20 every year. This date is chosen by the FDI World Dental Federation as a worldwide unifying date to help reduce the burden of oral disease, which affects individuals, health systems and economies everywhere.

The celebration at national level was jointly celebrated by the Malaysian Dental Association (MDA) and the OHP MOH. In addition, the dental services in the Malaysian Armed Forces as well as the Malaysian Dental Deans' Council of Dental Faculties of Public and Private Universities also participated in making this celebration a success every year. The WOHD celebration saw 7,213 activities being conducted with a total of 24,473 participants. (Table 4.7).

Table 4.7
Number of Activities and Participants During the World Oral Health Day Celebration by States, 2022

States	No. of Activities	No. of Participants
Perlis	9	87
Kedah	68	195
Pulau Pinang	171	513
PPKK & ILKKM	5	215
Perak	0	0
Selangor	3	656
FT KL & Putrajaya	6,016	11,133
Negeri Sembilan	0	0
Melaka	536	1,322
Johor	1	182
Pahang	23	436

States	No. of Activities	No. of Participants
Terengganu	137	5,148
Kelantan	0	0
Sabah	1	24
Sarawak	240	3,903
FT Labuan	3	656
Total	7,213	24,473

Source: Oral Health Programme, MOH 2022

- **Oral Health Promotion Activities at Wellness Hub**

In year 2021, the *Agenda Nasional Malaysia Sihat* (ANMS) was launched by YAB Dato' Sri Ismail Sabri bin Yaakob, the Prime Minister which aims to cultivate a healthy lifestyle and promoting environmental sustainability to support the health and well-being of *Keluarga Malaysia*.

There are four (4) main thrusts in the ANMS and the Wellness Hub (WH) is an initiative under Thrust 2. The aim of development of WH is to increase access to wellness facilities and services for the public. WH is managed by the Health Education Division, MOH. Oral health promotion and education activities are encouraged to be held at WH. In 2022, a total of 5,421 activities were conducted at the WH with a total of 19,622 participants (**Table 4.8**).

Table 4.8
Number of Activities and Participants at the Wellness Hub by States, 2022

States	Number of Wellness Hub	No. of Activities	No. of Participants
Perlis	1	47	182
Kedah	2	4	443
Pulau Pinang	3	145	1,655
Perak	1	1,653	2,896
Selangor	3	1,796	2,165
FT KL & Putrajaya	1	482	2,300
Negeri Sembilan	2	270	867
Melaka	2	61	329
Johor	1	75	1,055
Pahang	2	126	2,023
Terengganu	2	142	790
Kelantan	2	32	2,081
Sabah	4	18	313
Sarawak	1	570	2,563
Total	27	5,421	19,662

Source: Oral Health Programme, MOH 2022

- **Oral Health Promotion Activities at *Jelajah Agenda Nasional Malaysia Sihat* (ANMS)**

The Malaysian National Health Agenda roadshow, known as *Jelajah ANMS*, was launched to promote the ANMS to the public. The OHP MOH was also involved in the roadshow to encourage oral health promotion and education activities including oral health screenings. In

year 2022, a total of 124 activities were conducted at 48 *Jelajah* ANMS events with 14,602 participants (**Table 4.9**).

Table 4.9
Number of Activities and Participants at *Jelajah* ANMS by States, 2022

States	Number of Jelajah ANMS organised by the State Health Department	No. of Activities	No. of Participants
Perlis	1	3	300
Kedah	10	29	1,867
Pulau Pinang	3	2	128
Perak	1	3	371
Selangor	7	16	1,441
FT KL & Putrajaya	1	5	884
Negeri Sembilan	1	7	3,850
Melaka	3	9	442
Johor	1	5	1,560
Pahang	2	2	828
Terengganu	6	16	1,675
Kelantan	7	17	666
Sabah	3	4	50
Sarawak	1	2	45
FT Labuan	1	4	495
Total	48	124	14,602

Source: Oral Health Programme, MOH 2022

- Oral Health Promotion Activities at *Jom Heboh!* Event**

The OHP MOH has established collaboration with TV3 Media Prima Sdn. Bhd. by participating in *Jom Heboh!* Event in three (3) locations were as follows:

- i. Anjung Floria, Putrajaya on 25 & 26 June 2022
- ii. Kuala Nerus, Terengganu on 7 & 8 October 2022
- iii. Puteri Harbour, Iskandar Puteri, Johor on 9 & 10 December 2022

Among the promotional activities done were attractive exhibition, interactive games, dental buskers, puppet shows, rhythmic tooth brushing drills etc. In total, 2,227,971 activities were carried out by states involved, involving 4,938,584 participants through *Jom Heboh!* Event (**Table 4.10**).

Table 4.10
Number of Activities and Participants at the *Jom Heboh!* Event by States Involved, 2022

States	No. of Activities	No. of Participants
FT KL & Putrajaya	17	3,281
Terengganu	1,024	20,544
Johor	1,702	8,897
Total	2,743	32,722

Source: Oral Health Programme, MOH 2022

Production of Oral Health Education Materials

• Printed Poster

In year 2022, two (2) existing posters were redesigned and printed in a size of 20 inches by 30 inches. They were then distributed to the states. The posters were:

- i. *Petua Pemakanan Agar Kesehatan Mulut Bayi Anda Lebih Sehat*
- ii. *Jom Berus Gigi dengan Berkesan*

One (1) new poster was also designed, printed and distributed to the states. It was also in a size of 20 inches by 30 inches and had the following message:

- i. *Jom Lakukan Pemeriksaan Pergigian Sekurang-kurangnya Sekali Setahun*

• BULETIN PKP

In 2022, two (2) BULETIN PKP have been published as follows:

- i. BULETIN PKP [Vol. Issue 29 No.2/2021 Dis 2021 MOH/K/GIG/2-2022 (BUL)]
- ii. BULETIN PKP [Vol. Issue 30 No.1/2022 Nov 2022 MOH/K/GIG/10-2022 (BUL)]

Issues and Strategies to Overcome

Although various oral health promotion activities have been conducted in year 2022, these activities need to be strengthened and geared towards community empowerment. Social media platforms such as Facebook, Instagram and Twitter can also play an important role and be an alternative medium for oral health promotion. Some of the identified issues in oral health promotion and strategies and ways to overcome these issues are shown in **Table 4.11**.

Table 4.11
Issues and Strategies to Overcome

Issues	Strategies to Overcome
1. Lack of motivation and skill in managing social media, KOTAK, iGG and BEGIN programmes	• Staff training to enhance the skills • Monitoring of KPIs related to training
2. Lack of knowledge and skills in programme evaluation	• Training/ courses/ workshops/ CPD
3. Lack of community participation	• Encourage more collaboration with community (e.g. <i>Kg. Angkat Pergigian</i> Programme) • Empowerment of TASKA facilities to encourage daily tooth brushing
4. Sustainability of the iGG Programme	• Increase number of activities with iGG that can increase the spirit of togetherness (KPI Programme)
5. Production of attractive oral health education materials through social media	• Increase skill on production of attractive materials

Source: Oral Health Programme, MOH 2022

Way Forward

Efforts on oral health promotion activities need to be continued to increase oral health literacy among Malaysian populations. Enhancement of social media platform to promote oral health is crucial and should be prioritised. In addition, empowerment activities such as iGG programme is still relevant and have great potential in improving the oral health status of the community. This programme should be continued and strengthened in the future. Nursery and kindergarten premises should be encouraged to implement *Memberus Gigi Berkesan* (BEGIN) and *Memberus Gigi Harian* (MeGAH) programmes to inculcate good habits from the early age which will hopefully help to control the gum disease and dental caries among toddlers and schoolchildren in future.

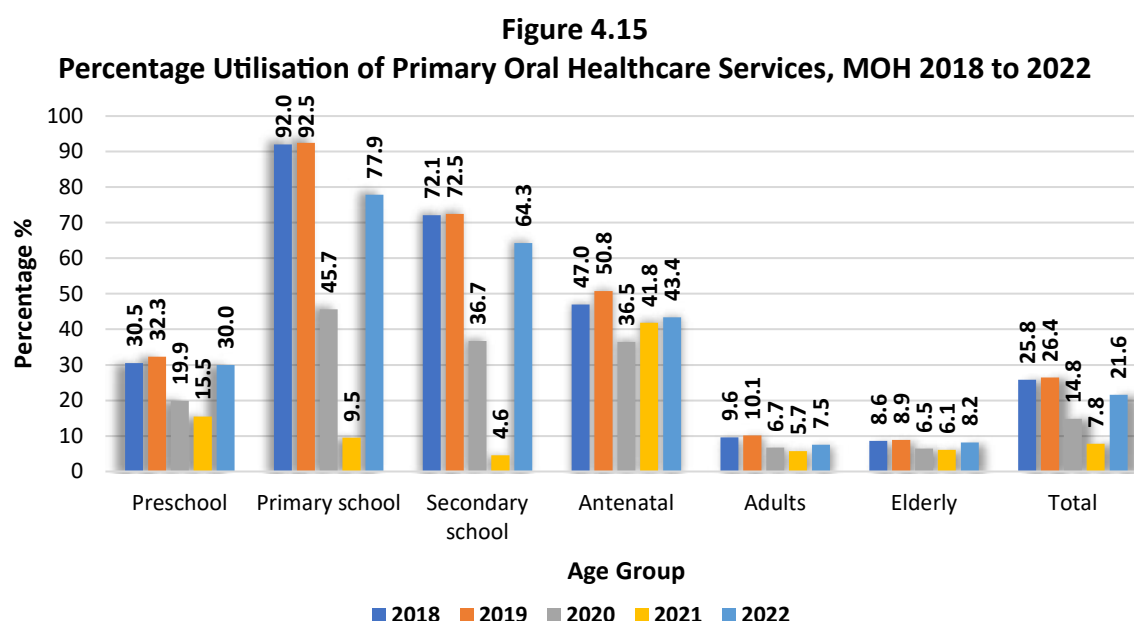
PRIMARY ORAL HEALTHCARE

The OHP MOH is committed to providing equal access to oral healthcare for all Malaysians, regardless of their age, socioeconomic status, or special needs. The OHP MOH provides a range of services to all age groups, including:

- Infants and children (0 to 4 years old);
- Preschool children (5 to 6 years old);
- School children (7 to 17 years old);
- Special needs population;
- Antenatal mothers;
- Adults (18 to 59 years old); and
- The elderly (60 years and above).

In year 2022, Malaysia joined the rest of the world in beginning the process of transitioning from the pandemic phase to the endemic phase for COVID-19. As part of this transition, most government and private sectors resumed operations, while adopting new safety protocols to protect against the virus. The delivery of oral healthcare services also resumed, with most dental clinics operating as usual.

Overall, there was a significant increment for the utilisation of primary oral healthcare services, MOH from 2021 until 2022 (**Figure 4.15**).



Source: Health Informatics Centre, MOH (PG206, PG207)

The **Table 4.12** shows the number of patients who have used the MOH's primary oral healthcare services over the years, broken down by target group. The number of patients utilising MOH's primary oral healthcare services has increased steadily over the years. This is likely due to a number of factors, including increased awareness of the importance of oral health, improved access to dental care, and the expansion of MOH's oral health programme.

Table 4.12
Utilisation of Primary Oral Healthcare by Category of Patients, 2018 to 2022

Year	Preschool*	Primary School	Secondary School	Antenatal	Adults	Elderly	Special Need Children	Overall
2018	1,146,680	2,861,585	1,944,312	257,609	1,918,086	292,665	68,339	8,489,276
2019	1,218,595	2,890,267	1,948,194	272,179	2,036,601	317,007	75,827	8,523,311
2020	710,199	1,376,852	974,604	189,687	1,331,228	226,471	38,044	4,847,085
2021	553,704	287,975	121,466	217,691	1,133,934	212,200	14,376	2,541,346
2022	1,027,332	2,433,888	1,579,868	212,031	1,441,410	287,423	65,856	7,047,808

*refers to 0 to 6 years old

Source: Health Informatics Centre, MOH

Early Childhood Oral Healthcare for Toddlers

In year 2022, a total of 396,968 toddlers (16.6%) received primary oral healthcare services, which is an increase of 3.1 per cent from 2021 as shown in **Table 4.13**. One of the services provided was the cursory examination of the toddler's oral health cavity using the 'lift-the-lip' technique. These services were provided in settings such as childcare centres and Maternal and Child Health Clinics.

Table 4.13
Coverage of Toddlers, 2018 to 2022

Year	Toddlers Estimated Population (0-4 Years Old)	No. of Toddler Seen	Percentage of Toddler Seen (%)
2018	2,727,100	425,887	15.6
2019	2,729,700	476,934	17.5
2020	2,542,000	285,951	11.2
2021	2,542,000	344,236	13.5
2022	2,387,300	396,968	16.6

Source: Oral Health Programme, MOH

In year 2021, a new initiative was introduced to improve oral healthcare in toddlers. This initiative involved a collaboration between the MOH and various external agencies, such as public and private universities, private dental practitioners, Malaysian Dental Association, Social Welfare Department, Persatuan Pengasuh TASKA, Malaysian Armed Forces and industry players (**Image 4.3**).

The initiative is based on the Garis Panduan Perkhidmatan Kesihatan Pergigian Toddler: Kolaborasi Bersama Agensi Luar. The guidelines outline the roles and responsibilities of all stakeholders in the initiative, and they provide a framework for the delivery of high-quality oral healthcare to toddlers.

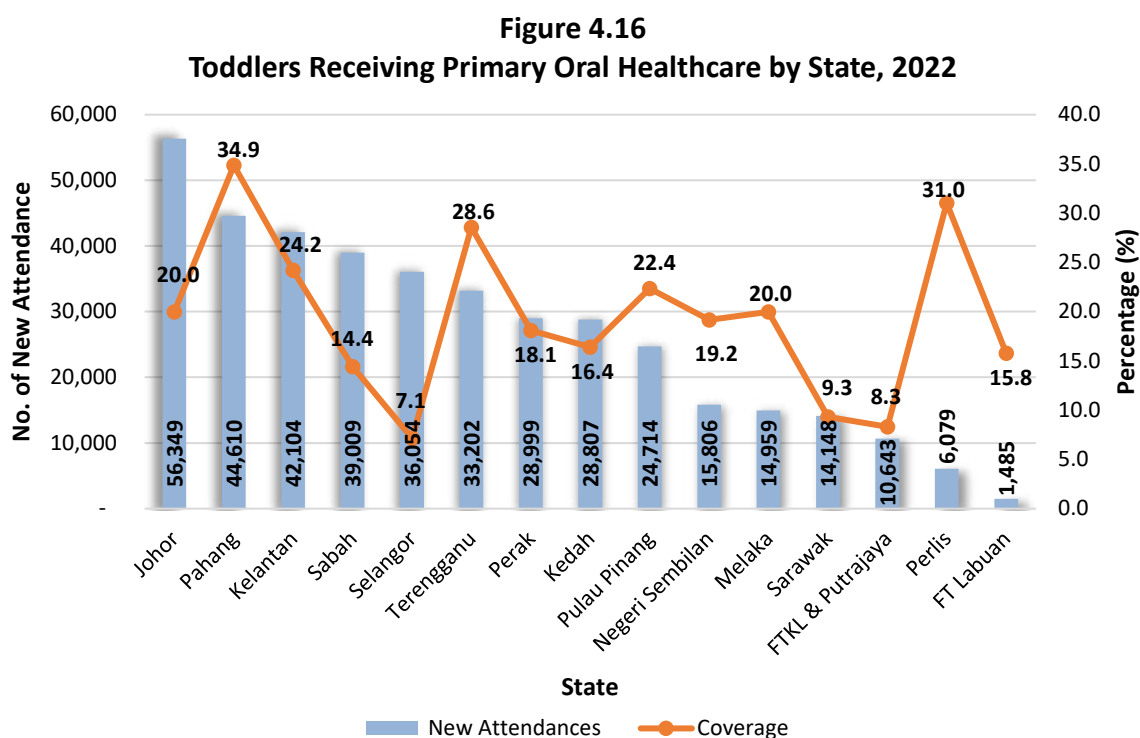
Image 4.3
Dental Practitioner Visit to a Private TASKA



Source: Oral Health Programme, MOH 2022

In year 2022, 73 external agencies engaged with state governments to discuss and implement this initiative to improve the oral healthcare of toddlers. Of these, 47 agencies completed their twice a year visit to private TASKA. This was an increase from the number of agencies that visited TASKA in year 2021.

Pahang had the highest number of toddlers covered in year 2022, with 34.9 per cent of toddlers in the state receiving dental treatment while Perlis was second, with 31.0 per cent of toddlers in the state receiving dental treatment (**Figure 4.16**).

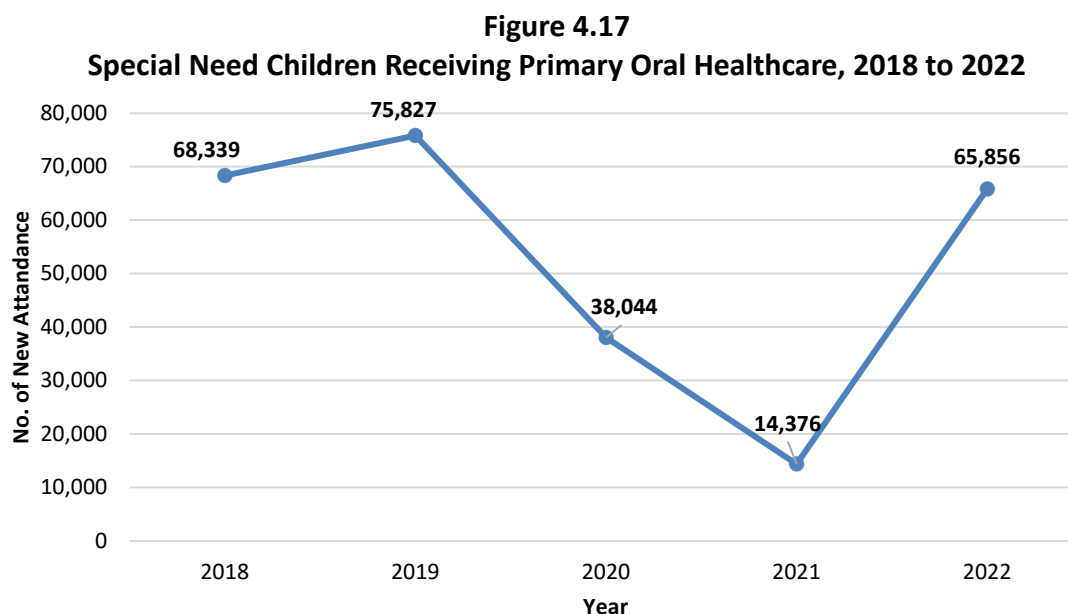


Source: Oral Health Programme, MOH 2022

The initiative is a positive step towards improving oral healthcare in toddlers in Malaysia. The collaboration between the MOH and various external agencies is essential to the success of this initiative. The initiative is expected to continue to make a positive impact on the oral healthcare of toddlers in Malaysia in the years to come.

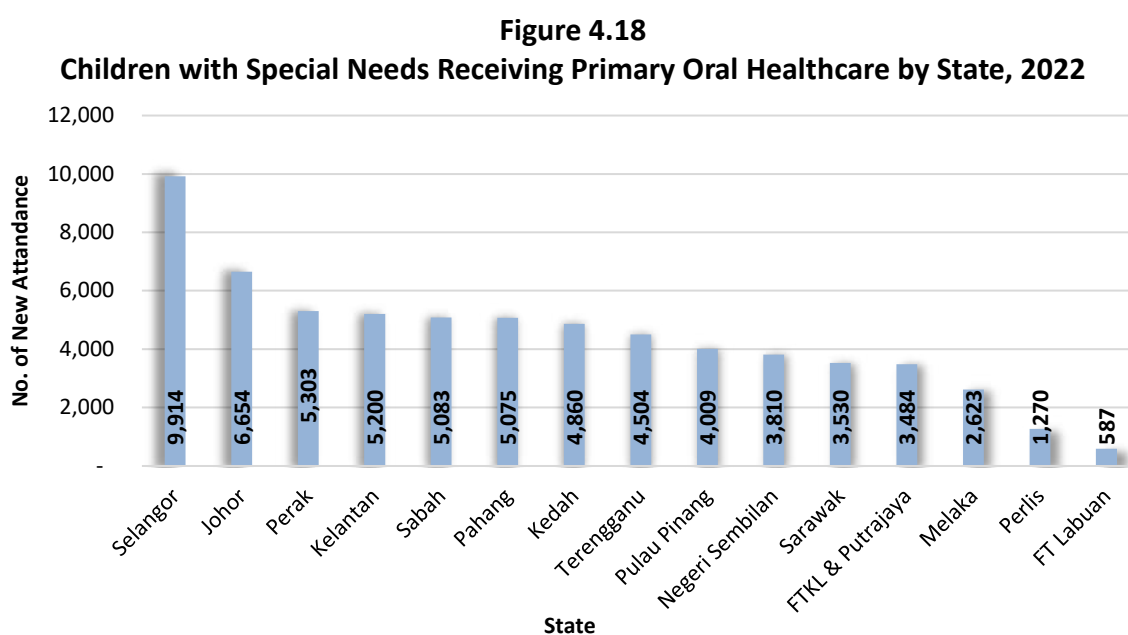
Oral Healthcare for Children with Special Needs

In year 2022, the number of children with special needs receiving primary oral healthcare services increased. This was due to the reimplementing of outreach programmes that serve this group at institutions. Outreach programmes are important for providing oral healthcare to children with special needs. These programmes allow children to receive oral healthcare in a familiar environment as well as to provide education and support to parents and caregivers. A total of 65,856 children with special needs received primary oral healthcare services as shown in **Figure 4.17**.



Source: Health Informatics Centre, MOH

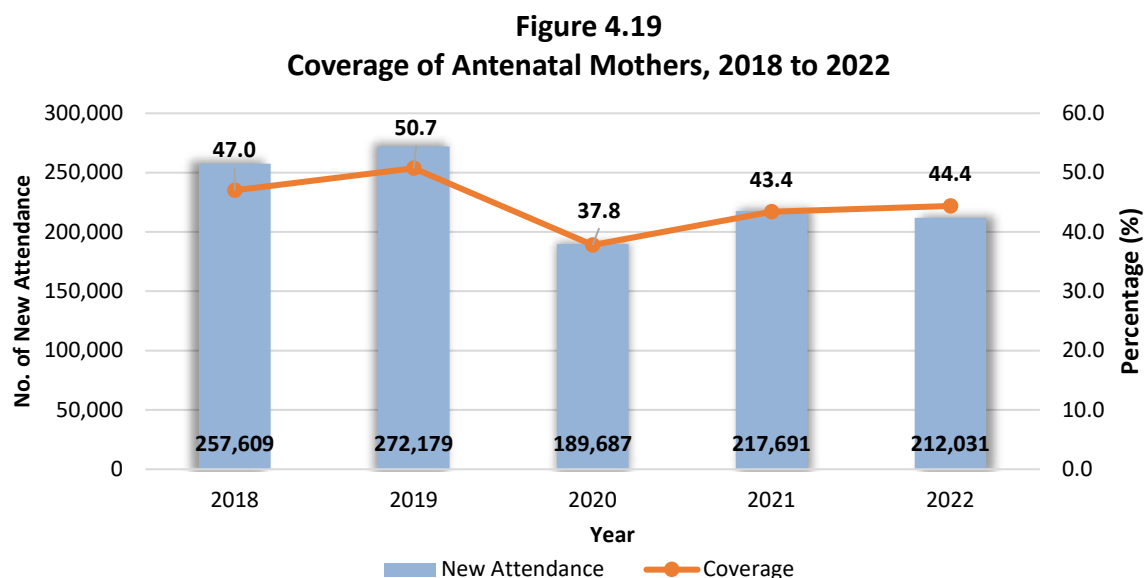
The highest number of children with special needs were seen in Selangor, Johor followed by Perak (**Figure 4.18**).



Source: Health Informatics Centre, MOH 2022

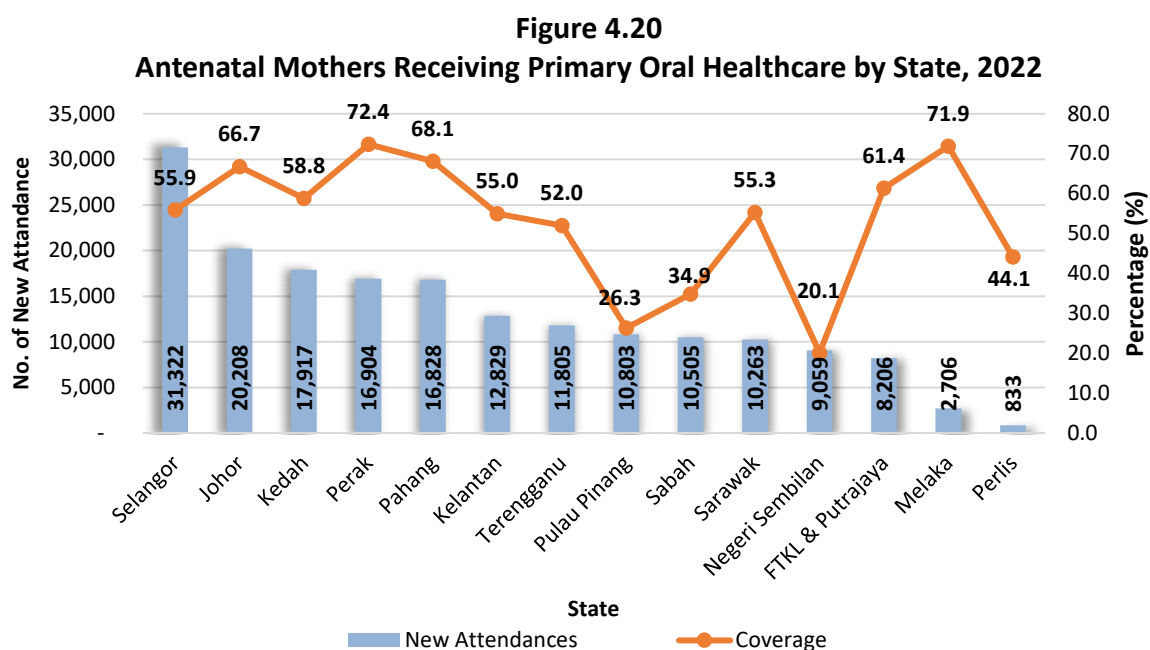
Oral Healthcare for Antenatal Mothers

Various efforts were made to increase the number of antenatal mothers attending dental clinics. These efforts included referrals from Maternal and Child Health Clinics and health clinics. The goal was to ensure that mothers, who are considered as agents of change, would receive essential oral health awareness and be rendered orally-fit. In year 2022, there was a slight increase in the number of antenatal mothers receiving oral health services. This was due to dental personnel resuming outreach programmes that were not fully implemented during the pandemic (**Figure 4.19**).



Source: Health Informatics Centre, MOH

Pahang had the highest coverage of antenatal mothers, with 72.4 per cent receiving care. Perlis followed closely behind, with 71.9 per cent of antenatal mothers receiving care (**Figure 4.20**).

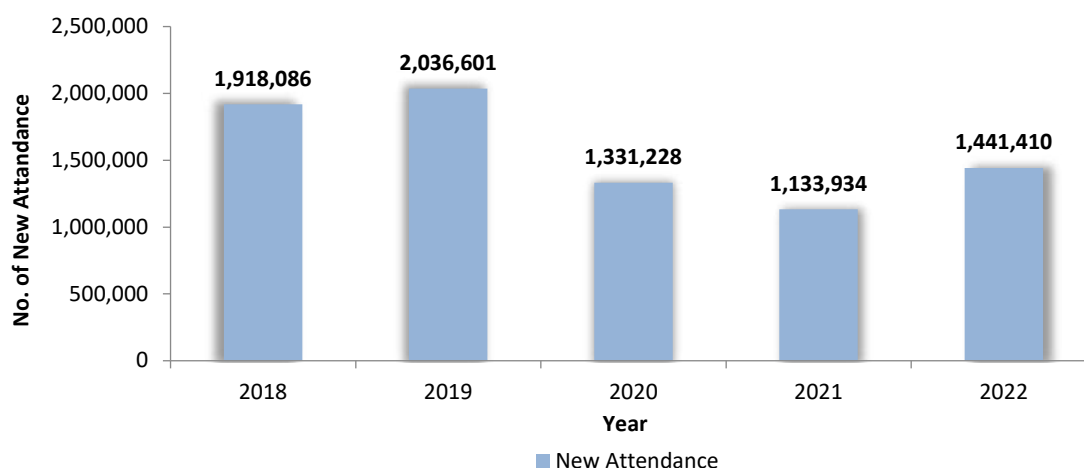


Source: Health Informatics Centre, MOH 2022

Oral Healthcare for Adults

In year 2022, all dental clinics were equipped with rooms for aerosol-generating procedures (AGPs), which are used to perform AGP dental procedures. As a result, the number of dental clinics that performed AGPs on a daily basis increased to 87.9 per cent. The increase in the number of AGP rooms led to a slight increase in the number of adult patients receiving oral healthcare services at dental clinics (**Figure 4.21**).

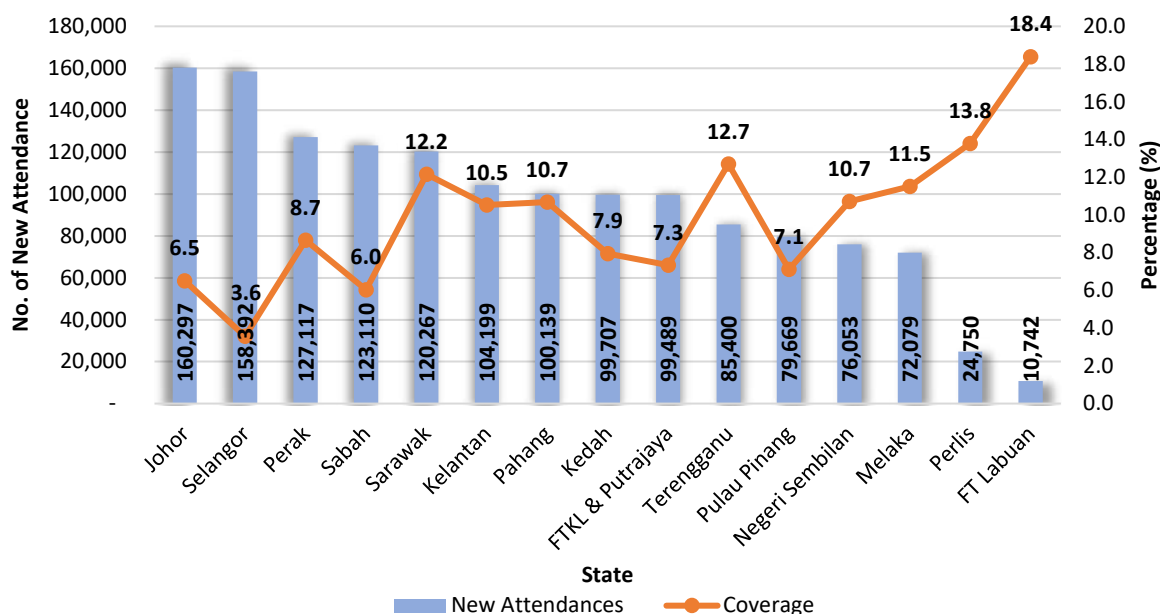
Figure 4.21
Adults Receiving Primary Oral Healthcare, 2018 to 2022



Source: Health Informatics Centre, MOH

A total of 7.5 per cent of adults aged 18 to 59 received primary oral healthcare services in year 2022. The FT Labuan had the highest coverage rate at 18.4 per cent followed by Perlis at 13.8 per cent as shown in **Figure 4.22**.

Figure 4.22
Adults Receiving Primary Oral Healthcare by State, 2022



Source: Health Informatics Centre, MOH 2022

Klinik Pergigian Endodontik Primer (KEPP) is a primary endodontic clinic that was established in year 2012 to reduce the number of referrals from primary dental clinics to restorative specialist clinics. KEPPs are operated by trained dental officers who manage non-complex endodontic cases referred by the primary dental clinics. A total of 56 KEPPs have been established to perform endodontic procedures on identified anterior, posterior and retreatment teeth and using rotary instruments. As of year 2022, 2,573 endodontic cases were completed and this number is increasing from year to year (**Table 4.14**).

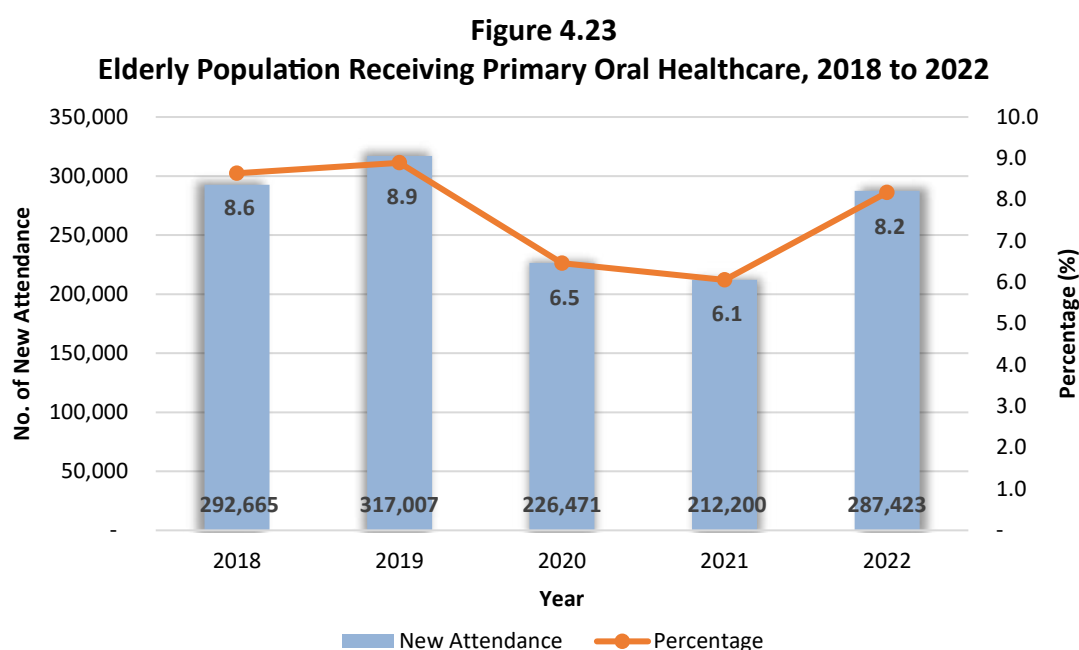
Table 4.14
Completed Endodontic Cases in KEPP, 2018 to 2022

Year	Number of Completed Endodontic Cases				Total Cases
	Anterior	Premolar	Molar	Retreatment	
2018	491	446	1,274	38	2,249
2019	578	459	1,762	63	2,862
2020	269	235	741	15	1,245
2021	409	367	1,349	36	2,125
2022	526	473	1,522	52	2,573

Source: Oral Health Programme, MOH

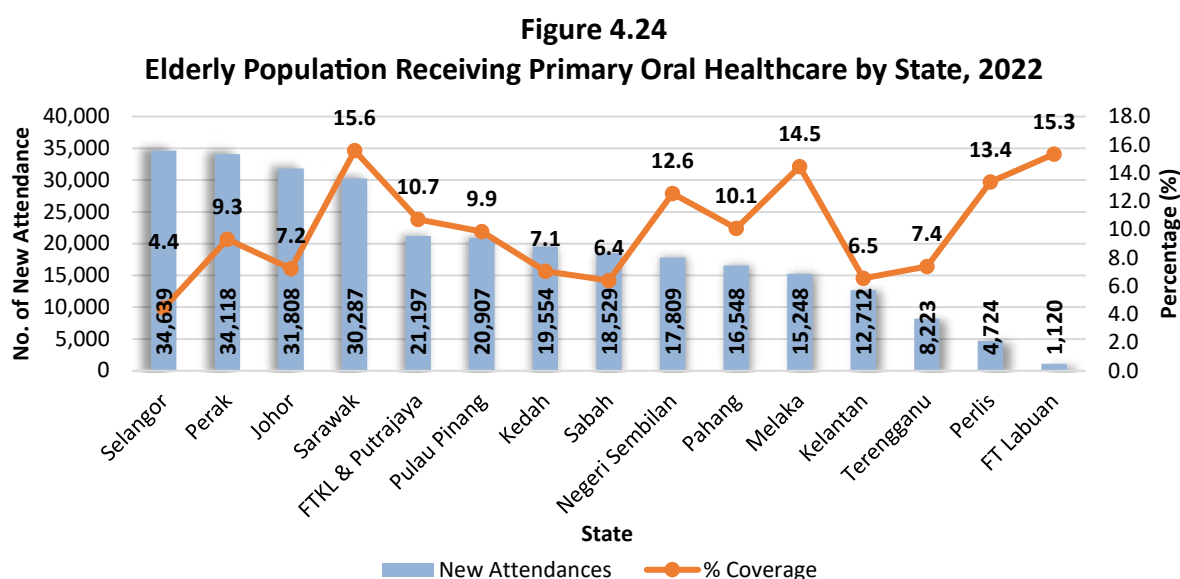
Oral Healthcare for The Elderly

In year 2022, 287,423 elderly people (8.2%) of the elderly population received MOH primary oral healthcare services. This was an increase from 2021, when 6.1 per cent of the elderly population received these services (**Figure 4.23**).



Source: Health Informatics Centre, MOH

Sarawak has the highest coverage of primary oral healthcare for the elderly, with 15.6 per cent of the elderly population receiving these services. This is followed by FT Labuan (15.3%) and Malacca (14.5%) as shown in **Figure 4.24**.



Currently, only 31.9 per cent of elderly people (aged 60 and above) have 20 or more teeth (**Table 4.15**). The National Oral Health Strategic Plan 2022-2030 has set a target by 2023, 50% of elderly people aged 60 and above with 20 or more teeth. This target is hoped to be achieved through several initiatives, including increased access to dental care, education about oral health, and support for preventive measures.

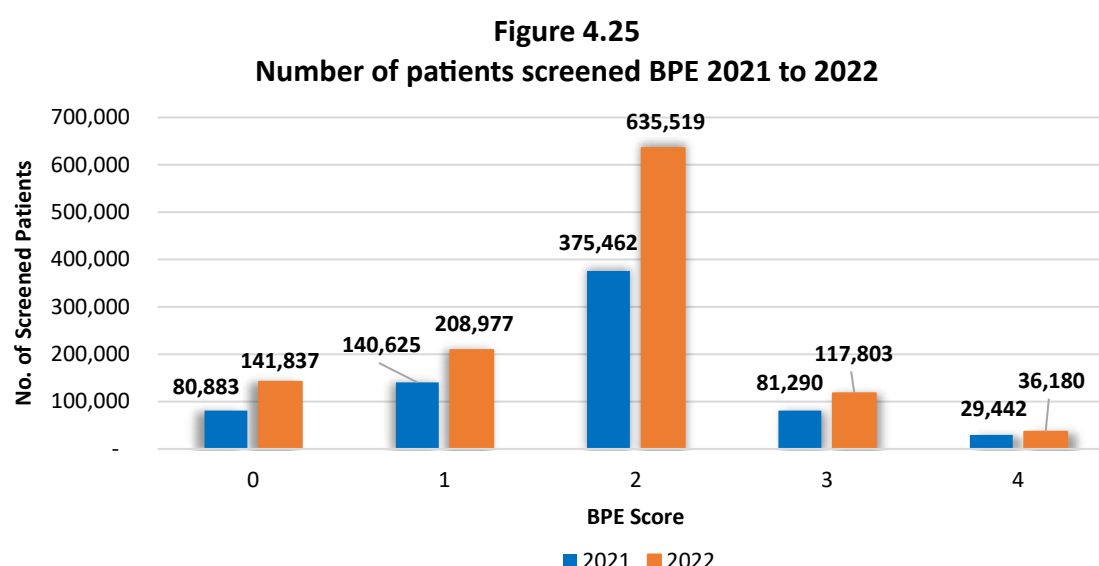
Table 4.15
Oral Health Status of the Elderly, 2018 to 2022

Age Group (Years)	Average No. of Teeth Present					Edentulous (%)				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
60	16.2	16.3	16.1	16.25	16.25	7.0	7.1	6.7	6.7	7.1
65	14.6	14.7	14.6	14.4	14.5	9.6	9.3	9.1	9.4	9.9
75 and above	10.6	10.8	10.6	10.81	10.44	19.8	19.4	18.8	18.0	19.7
Age Group (Years)	With 20 or More Teeth (%)									
	2018	2019	2020	2021	2022					
60	41.6	43.2	41.7	42.9	43.0					
65	33.8	35.1	34.1	34.1	34.3					
75 and above	19.9	20.5	19.7	20.2	19.6					
60 and above	32.1	32.4	31.4	31.7	31.9					

Source: Health Informatics Centre, MOH

Basic Periodontal Examination for Adults

The Basic Periodontal Examination (BPE) is a tool used to assess periodontal health in patients over the age of 18. BPE screening was first introduced in 2020 to this group of patients and the number of patients screened has increased each year. In year 2022, there were 1,140,316 patients screened, up from 707,702 in year 2021. Of the patients screened, the highest number had a BPE score of 2 (**Figure 4.25**).



Source: Oral Health Programme, MOH

Workload of Dental Providers, 2022

Since 1981, the Health Information Management System (HIMS)-Oral Health Subsystem has collected and stored data on the workload of dental providers. This data is used to monitor performance and to plan for future improvements in the oral healthcare delivery system. The figures shown in **Table 4.16** were some of the basic dental procedures carried out by Dental Officers and Dental Therapists in the year 2022.

Table 4.16
Workload of Dental Officers and Dental Therapists by Dental Procedure, 2022

Dental Procedure	Dental Officer	Dental Therapist	Total
Restoration	1,355,674	836,999	2,192,673
Scaling	669,025	144,877	813,902
Periodontal Cases	501	-	501
Fissure Sealant	65,707	280,243	345,950
Tooth Extraction	1,311,995	266,827	1,578,822
Surgical Tooth Extraction	9350	-	9350
Abscess Management	86,675	-	86,675
Endodontic	18,082	-	18,082
Crown & Bridges	323	-	323
Partial Denture	74,766	-	74,766
Full Denture	55,558	-	55,558
Total	3,647,656	1,528,946	5,176,602

Source: Health Informatics Centre, MOH 2022

In conclusion, the achievement of primary oral healthcare services increased in year 2022 as the country entered the transition phase to endemic. Dental personnel were able to resume providing services almost as usual in clinics and outreach programmes, while still practicing precaution and infection control measures.

SPECIALIST ORAL HEALTHCARE

There are nine (9) oral health specialties in MOH and these specialties are divided into two (2) categories namely Hospital Based and Non-Hospital Based Dental Specialties. In year 2022, there were 462 dental specialists in the MOH Malaysia (**Table 4.17**).

Table 4.17
Number of Dental Specialists in MOH, 2018 to 2022

Specialty	2018	2019	2020	2021	2022
Hospital Based Dental Specialties					
Oral and Maxillofacial Surgery	77	81	84	90	99
Paediatrics Dentistry	45	46	49	54	58
Oral Pathology and Oral Medicine	14	15	15	17	19
Special Care Dentistry	5	6	7	7	7
Forensic Dentistry	1	2	3	3	3
Non-Hospital Based Dental Specialties					
Orthodontics	69	70	80	81	90
Periodontics	42	44	49	58	67
Restorative Dentistry	31	37	40	46	49
Dental Public Health	85	80	72	71	70
Total	369	381	399	427	462

Source: Oral Health Programme, MOH

(Not inclusive of specialist undergoing gazettement and Contract Dental Specialist)

Mapping of the specialist services was done to ensure appropriate distribution of specialists based on needs, posts, available facilities and to identify future training requirements. The expansion of six (6) dental specialties were undertaken to 15 dental facilities in year 2022 (**Table 4.18**).

Table 4.18
New Dental Specialty Services Established in 2022

Specialty	Facility
Oral and Maxillofacial Surgery (OMFS)	Hospital Cyberjaya, Selangor
Paediatric Dentistry (PDEN)	Hospital Cyberjaya, Selangor Hospital Keningau, Sabah Hospital Tawau, Sabah
Forensic Dentistry (FOD)	Hospital Tengku Ampuan Afzan, Pahang
Orthodontics (ORTHO)	Pakar Jalan Putra Dental Clinic , Perak Jasin Dental Clinic, Melaka Ulu Tiram Dental Clinic, Johor Penambang Dental Clinic, Kelantan Pasir Puteh Dental Clinic, Kelantan Tudan Dental Clinic, Sarawak
Periodontics (PERIO)	Air Putih Dental Clinic, Pulau Pinang Sandakan Dental Clinic, Sabah
Restorative Dentistry (RESD)	Bandar Perda Dental Clinic, Pulau Pinang Sandakan Dental Clinic, Sabah

Source: Oral Health Programme, MOH 2022

Dental Specialist Meetings

The Dental Specialist Meetings are held annually for each discipline to discuss annual plan of action, achievements, current issues, key performance indicators and patient safety indicators pertaining to each specialty. In year 2022, three (3) Dental Specialist Meetings were held virtually and physically (**Table 4.19**).

Table 4.19
Dental Specialist Meetings Organised in Year 2022

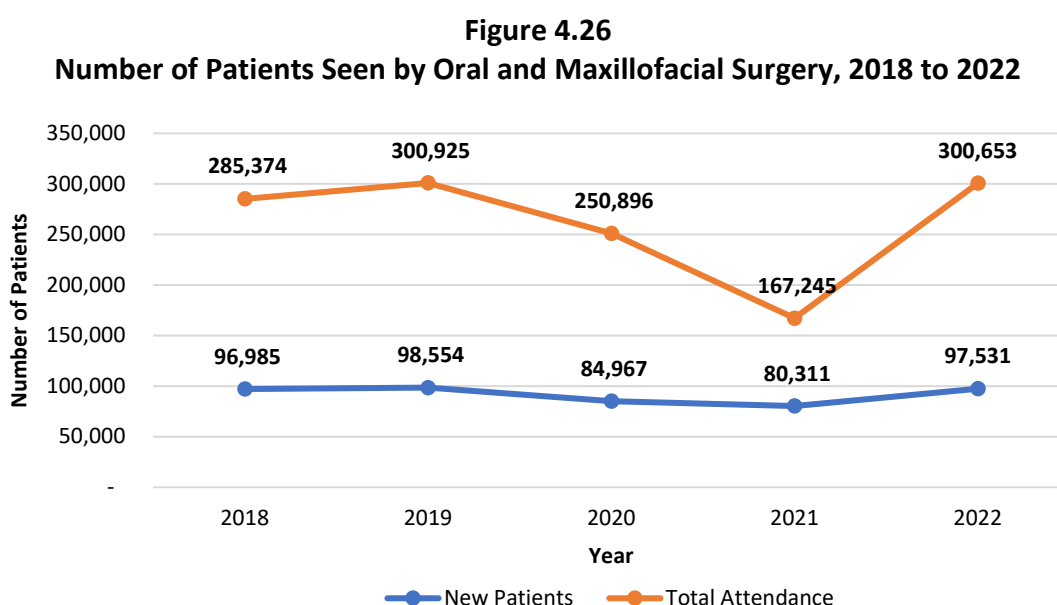
Meetings	Date
Non-Hospital Based Dental Specialist Meeting	21 March 2022
Hospital Based Dental Specialist Meeting	4 April 2022
Multidisciplinary Dental Specialist (MDS) Meeting	31 May 2022

Source: Oral Health Programme MOH 2022

Hospital Based Dental Specialties

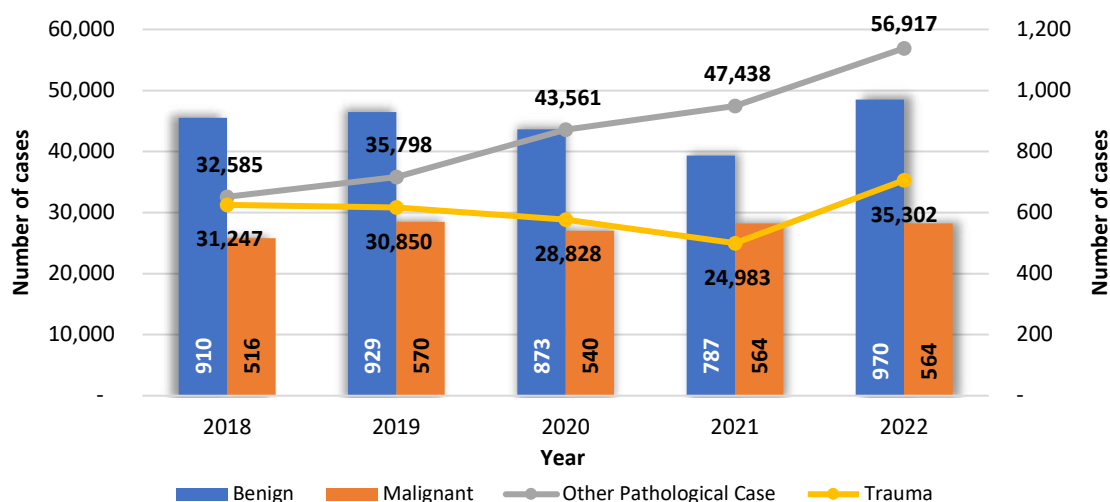
• Oral and Maxillofacial Surgery (OMFS)

The total number of patients attending OMFS appointments decreased by 16.6 per cent in year 2020 (250,896) from year 2019 (300,925) and by 33.3 per cent in year 2021 (167,245) from year 2020 due to the COVID-19 pandemic. However, the number of patients attending OMFS appointments increased by 79.8 per cent in year 2022 (300,653) from year 2021. (**Figure 4.26**). Among the types of cases seen by OMFS include benign cases, malignant cancer cases, trauma and other pathological cases. Overall, all these cases showed an increase within the range of 20.0 per cent to 41.3 per cent in year 2022 when compared to year 2021 except malignant cancer cases which maintained a similar number of cases (564) when compared to year 2021 (**Figure 4.27**). New and total attendances of OMFS by states are depicted in **Table 4.20**.



Source: Health Informatics Centre, MOH

Figure 4.27
Type of Cases Seen by Oral and Maxillofacial Surgeons, 2018 to 2022



Source: Health Informatics Centre, MOH

Table 4.20
New Patients and Total Attendances of Oral & Maxillofacial Surgery by State, 2022

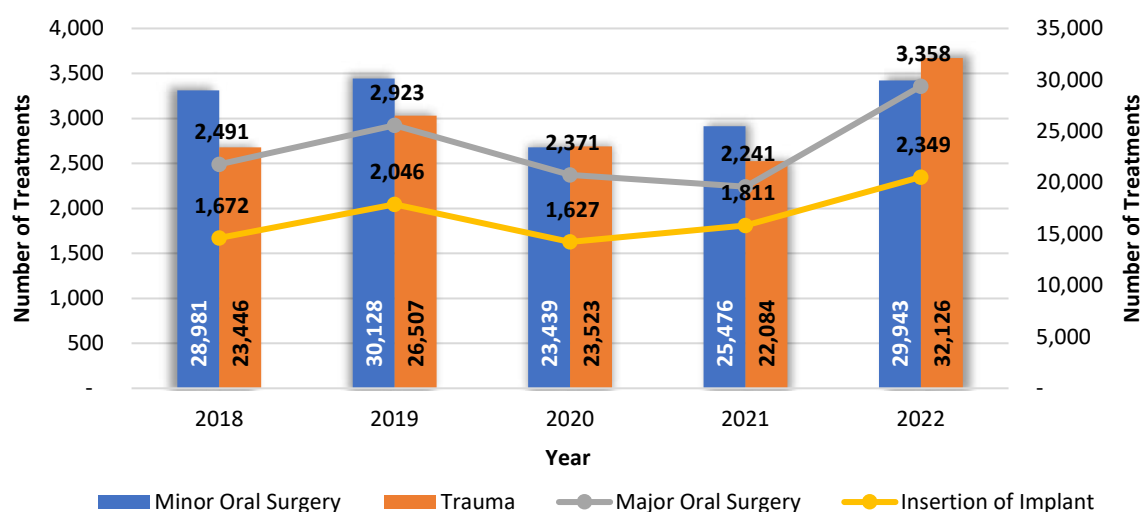
State	New Patients	Total Attendance
Perlis	1,251	5,187
Kedah	7,668	21,848
Pulau Pinang	6,367	17,987
Perak	6,732	26,887
Selangor	20,070	60,373
FT KL & Putrajaya	8,159	25,225
Negeri Sembilan	3,438	9,488
Melaka	3,361	10,307
Johor	13,365	44,433
Pahang	5,352	14,528
Terengganu	2,519	7,241
Kelantan	4,667	12,956
Sabah	5,733	23,348
Sarawak	8,821	20,817
FT Labuan	28	28
Total	97,531	300,653

Source: Health Informatics Centre, MOH, 2022

* Include data from National Cancer Institute, Ministry of Health

The four (4) main treatments performed by the OMFS specialty include minor oral surgeries, trauma management, major oral surgeries and insertion of implants. In year 2022 there was an increase in the overall number of treatments performed by 14.9 per cent for minor oral surgeries (29,943), 31.3 per cent for trauma management (32,126), 33.3 per cent for major oral surgeries (3,358) and 22.9 per cent for insertion of implants (2,349) when compared to year 2021 (**Figure 4.28**).

Figure 4.28
Number of Treatments Performed by Oral and Maxillofacial Surgery, 2018 to 2022

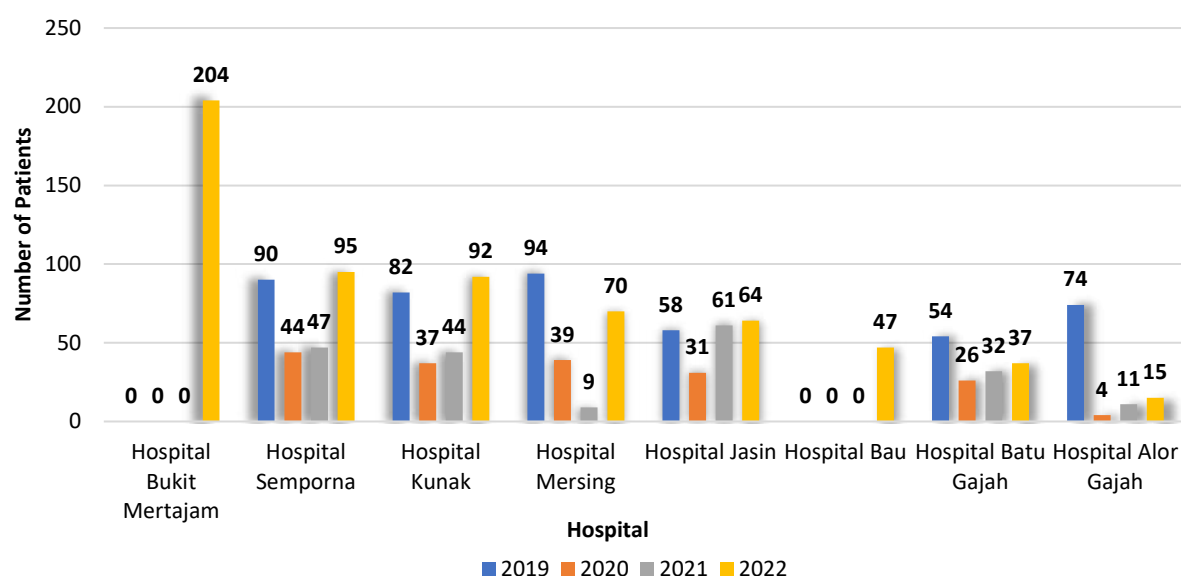


Source: Health Informatics Centre, MOH

• Oral and Maxillofacial Cluster Services

The OMFS Cluster Services was implemented since year 2019 in Hospital Batu Gajah (Perak), Hospital Alor Gajah and Hospital Jasin (Melaka), Hospital Mersing (Johor), Hospital Semporna and Hospital Kunak (Sabah). In year 2022, two (2) new OMFS cluster services were expanded to Hospital Bukit Mertajam in Penang and Hospital Bau in Sarawak (Non-Lead Hospitals) and Hospital Seberang Jaya and Hospital Umum Sarawak (Lead Hospitals). The number of patients seen in OMFS cluster services increased by a range of 4.9 per cent to 677.7 per cent in 2022. Hospital Bukit Mertajam had the highest number of patients seen (204), followed by Hospital Semporna (95) and Hospital Kunak (92) (Figure 4.29).

Figure 4.29
Number of Patients Seen from Oral and Maxillofacial Surgery Cluster Service, 2019 to 2022

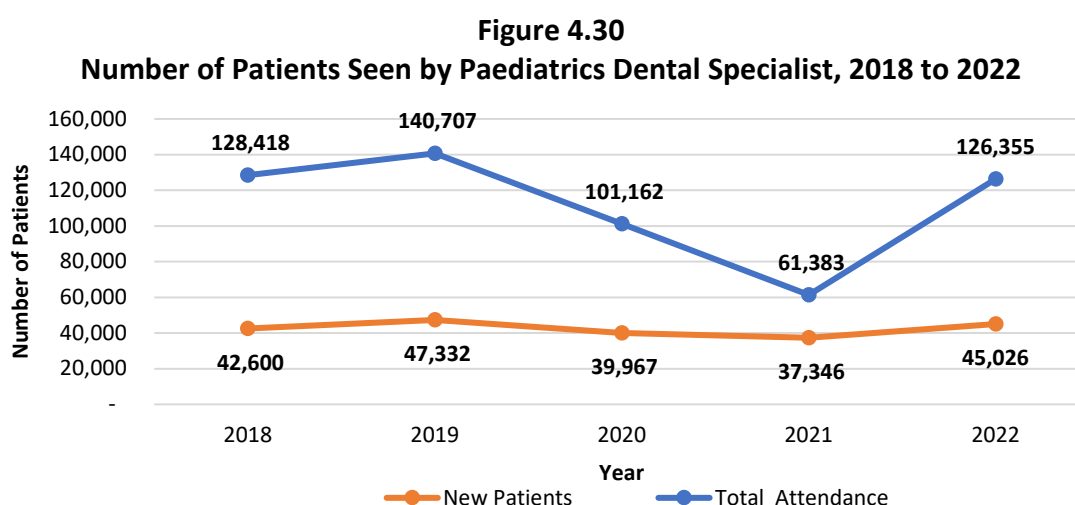


Source: Health Informatics Centre, MOH

● Paediatrics Dentistry

Paediatrics Dentistry attends to children below the age of 17. Despite the decrease in total patient attendance by 2.4 per cent in year 2021 (61,383) as compared to year 2020 (101,162), there was an increase in total attendance by 105.8 per cent in the year 2022 (126,355) as compared to year 2021 (**Figure 4.30**). New and total attendances of Paediatric Dentistry by states are depicted in **Table 4.21**.

In year 2022, all types of treatments rendered by Paediatrics Dentistry specialty increased within the range of 3.0 per cent to 32.9 per cent as compared to year 2021. The most treatment rendered in year 2022 was clinical preventive procedure (314,404) followed by simple and advanced restorations with the total of 41,554 (**Figure 4.31**).



Source: Oral Health Programme, MOH

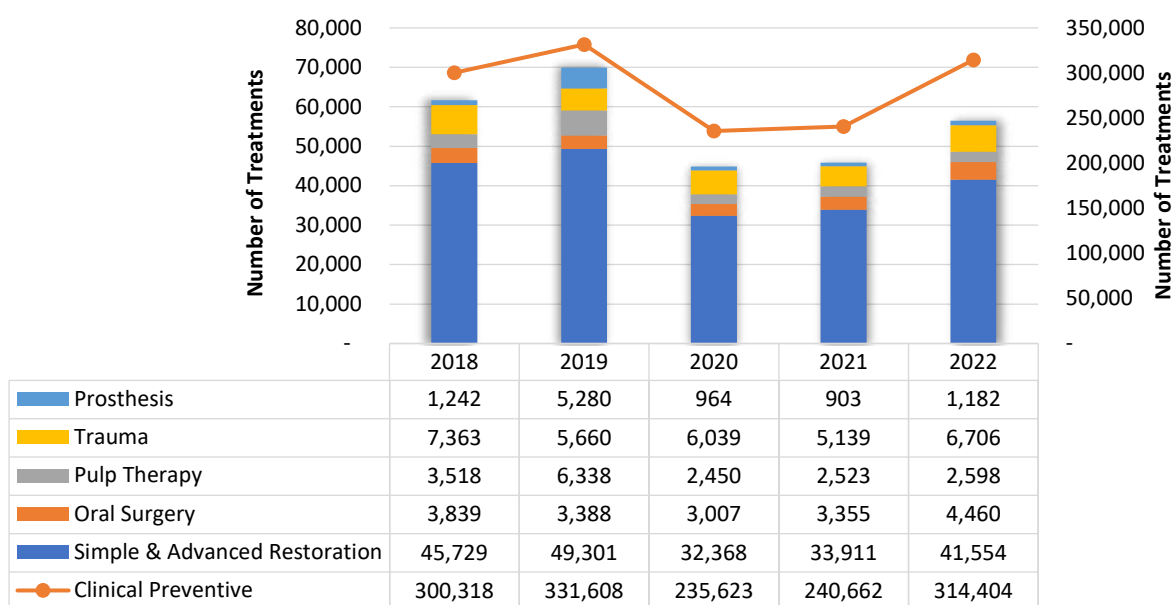
Table 4.21
New Patients and Total Attendances of Paediatric Dentistry Specialty by State, 2022

State	New Patients	Total Attendance
Perlis	633	2,236
Kedah	2,669	7,345
Pulau Pinang	1,973	5,644
Perak	4,888	14,873
Selangor	9,167	23,922
FT KL & Putrajaya	3,146	7,806
Negeri Sembilan	1,902	4,682
Melaka	1,311	3,858
Johor	4,392	13,740
Pahang	3,138	10,074
Terengganu	1,673	4,489
Kelantan	2,807	7,027
Sabah	5,043	13,411
Sarawak	2,284	7,248
Total	45,026	126,355

Source: Health Informatics Centre, MOH, 2022

* Women & Child Health (WCH) - Hospital Tunku Azizah

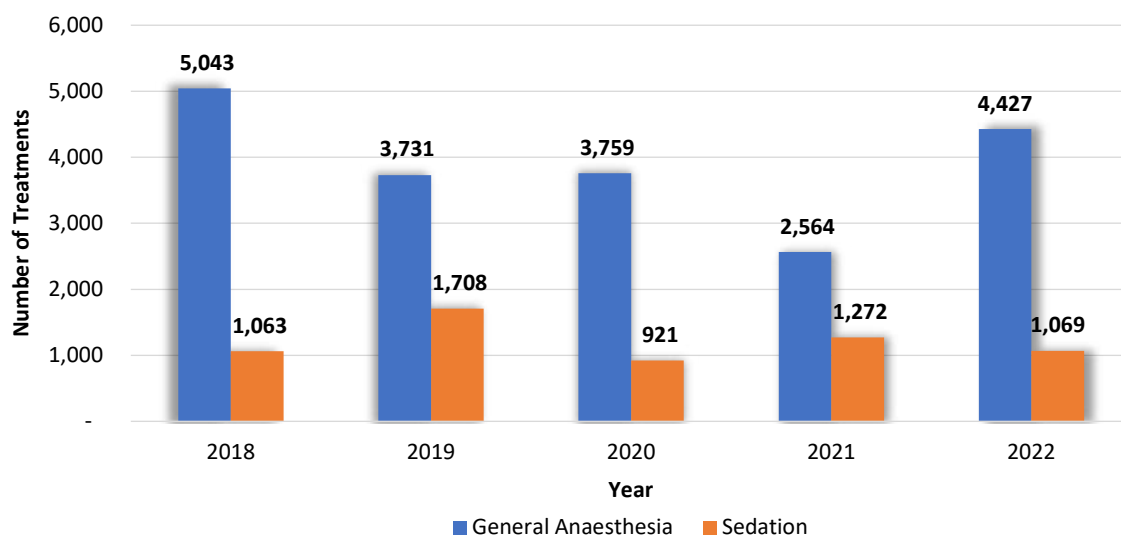
Figure 4.31
Treatment Rendered by Paediatrics Dental Specialists, 2018 to 2022



Source: Health Informatics Centre, MOH

In year 2022, there was an increase in procedures done under general anaesthesia (GA) and sedation by 72.7 and 16.0 per cent respectively as compared to procedures done in year 2021. Furthermore, it can be seen that more treatments were delivered via GA (4,427) compare to sedation (1,069) in year 2022 (**Figure 4.32**).

Figure 4.32
Treatment Rendered by Sedation and General Anaesthesia, 2018 to 2022



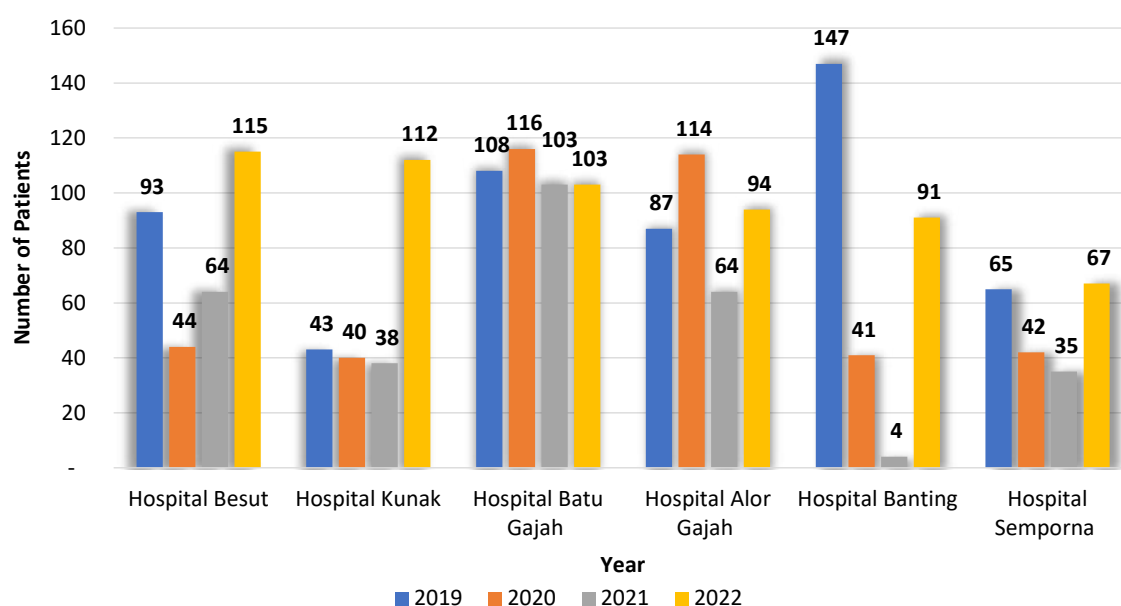
Source: Health Informatics Centre, MOH

● Paediatrics Dentistry Cluster Services

The Paediatric Dentistry Cluster Service was first implemented in year 2019 in five hospitals in four states namely Hospital Batu Gajah in Perak, Hospital Alor Gajah in Melaka, Hospital Besut in Terengganu and Hospital Semporna and Hospital Kunak in Sabah. In year 2022, the

service was expanded to Hospital Banting in Selangor (Non-Lead Hospital) to Hospital Tengku Ampuan Rahimah, Klang (Lead Hospital) for the cluster. The highest number of patients treated was in Hospital Besut, Terengganu (115) followed by Hospital Kunak (112), Hospital Batu Gajah (103), Hospital Alor Gajah (94), Hospital Banting (91) and Hospital Semporna (67) as shown in **Figure 4.33**.

Figure 4.33
Number of Patients Attending Paediatrics Dentistry Cluster Service, 2019 to 2022

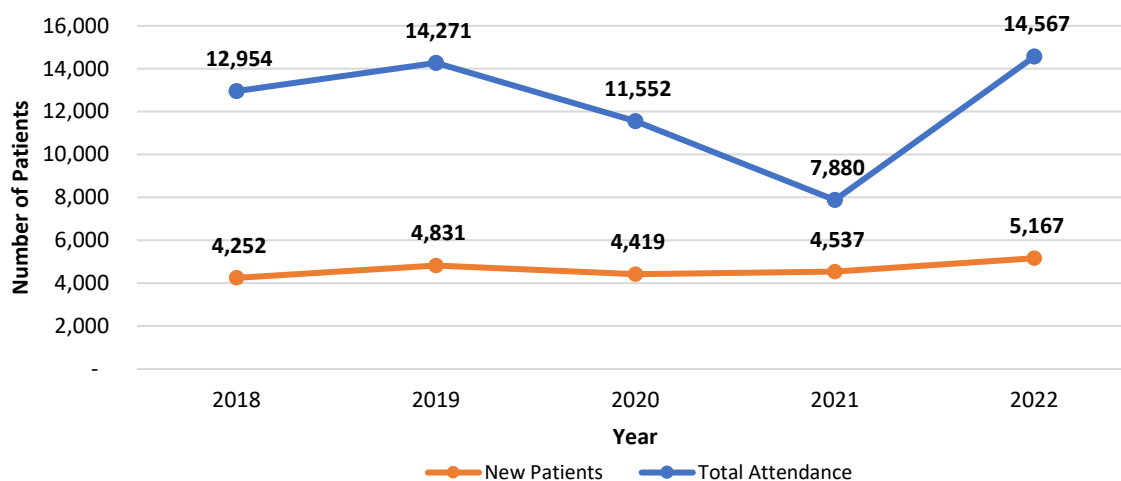


Source: Health Informatics Centre, MOH

● Oral Pathology and Oral Medicine

Total attendance of patients seen by Oral Pathology and Oral Medicine (OPOM) specialists increased by 84.9 per cent in year 2022 (14,567) as compared to year 2021 (7,880) (**Figure 4.34**). New and total attendances of OPOM by states are depicted in **Table 4.22**.

Figure 4.34
Patients' Attendances of OPOM Specialist, 2018 to 2022



Source: Health Informatics Centre, MOH

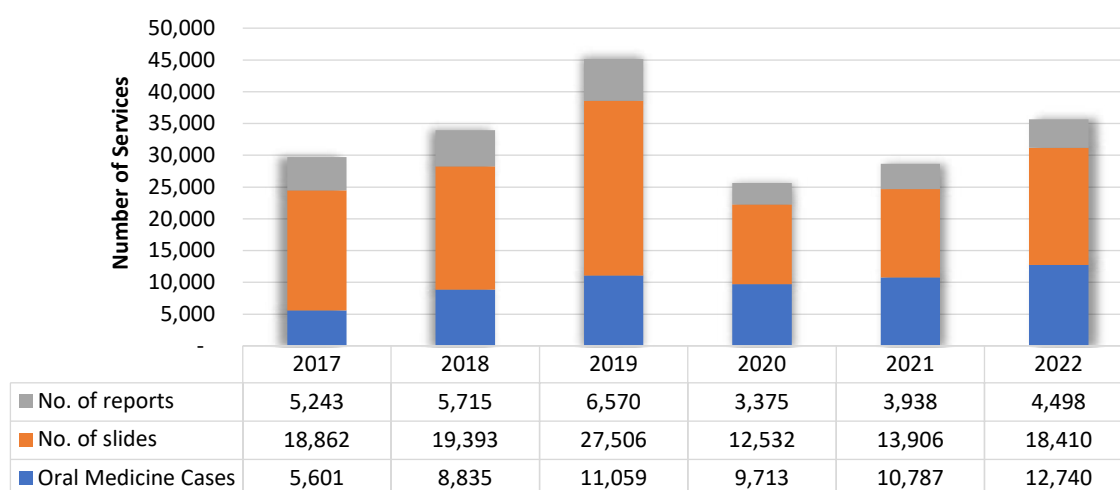
Table 4.22
New Patients and Total Attendances of OPOM Specialty by State, 2022

State	New Patients	Total Attendance
Kedah	255	1,402
Pulau Pinang	247	697
Perak	755	2,022
Selangor*	70	175
FT KL & Putrajaya	454	1,368
Johor	515	1,776
Pahang	375	889
Terengganu	504	1,833
Kelantan	698	1,337
Sabah	494	1,494
Sarawak	800	1,574
Total	5,167	14,567

* Include data from Institute of Medical Research, National Institute of Health, Ministry of Health
Source: Health Informatics Centre, MOH, 2022

The number of oral medicine cases, slides seen and reports issued by OPOM specialists in year 2022 increased by 18.1, 32.4 and 14.2 per cent respectively as compared to year 2021 (Figure 4.35).

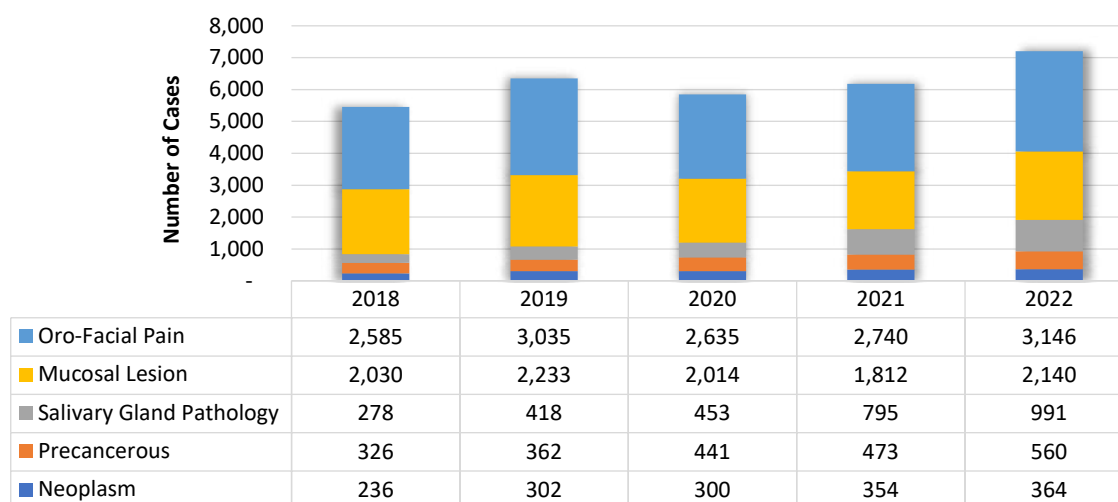
Figure 4.35
Type of Services by Oral Pathology and Oral Medicine Specialist, 2018 to 2022



Source: Health Informatics Centre, MOH

In year 2022, the number of cases pertaining to oral facial pain, mucosal lesion, salivary gland pathology, precancerous and neoplasm increased by 14.8, 18.1, 24.7, 18.4 and 2.8 per cent respectively as compared to year 2021 (Figure 4.36).

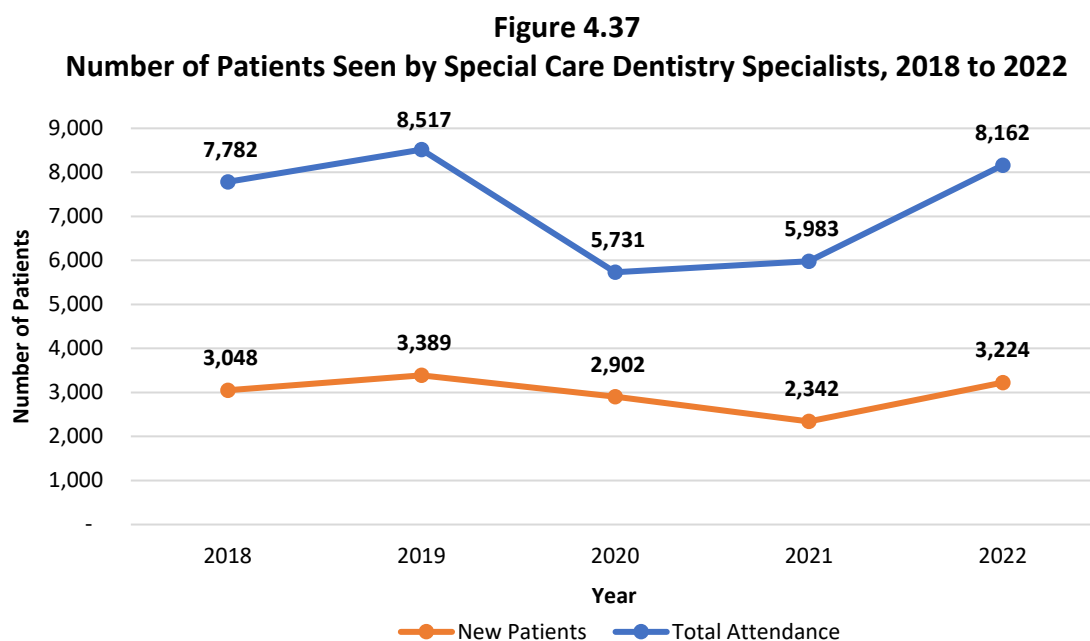
Figure 4.36
Type of Cases Seen by Oral Pathology and Oral Medicine, 2018 to 2022



Source: Health Informatics Centre, MOH

• Special Care Dentistry

In year 2022, the Special Care Dentistry (SCD) specialist service are available at six (6) MOH facilities located in Hospital Kuala Lumpur (HKL), Hospital Rehabilitasi Cheras, Hospital Kajang, Hospital Seberang Jaya, Hospital Queen Elizabeth and Hospital Raja Perempuan Zainab II. Total attendance of patients increased by 36.4 per cent in year 2022 (8,162) as compared to year 2021 (3,224) as shown in **Figure 4.37**. New and total attendances of SCD by states depicted in **Table 4.23**.



Source: Oral Health Programme, MOH

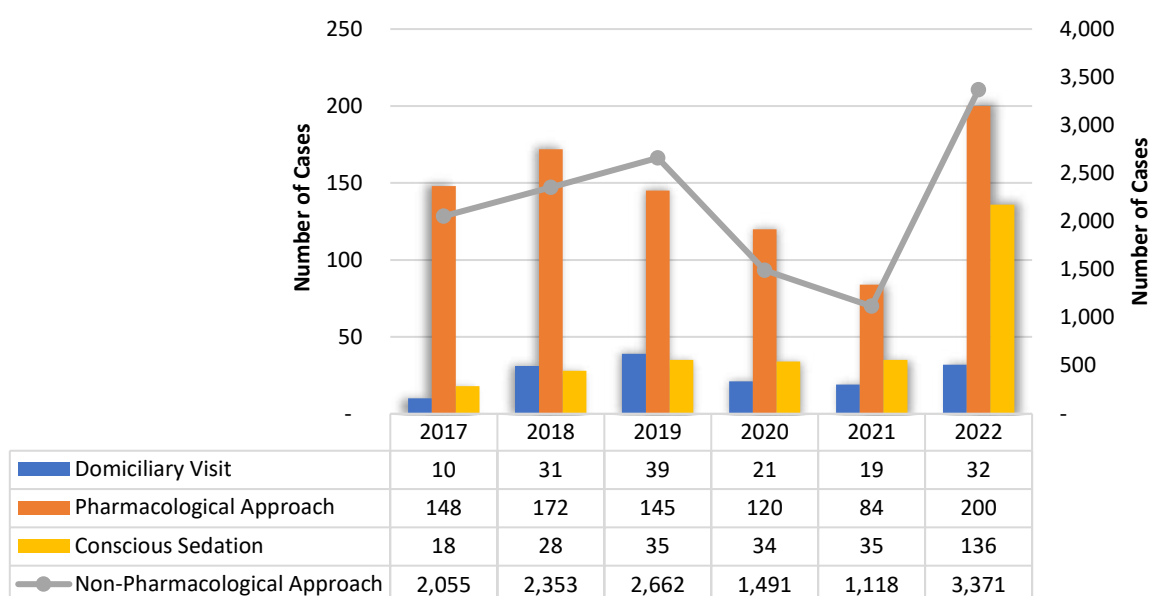
Table 4.23
New Patients and Total Attendances of Special Care Dentistry Specialty by Hospital, 2022

Hospital	New Patients	Total Attendance
Hospital Kuala Lumpur	871	2,004
Hospital Queen Elizabeth	613	1,561
Hospital Kajang	600	1,472
Hospital Raja Perempuan Zainab II	412	1,176
Hospital Rehabilitasi Cheras	372	995
Hospital Seberang Jaya	356	954
Hospital Umum Sarawak	-	-
Total	3,224	8,162

Source: Health Informatics Centre, MOH, 2022

Overall, there was an increase in trend for all types of cases seen by SCD which includes domiciliary visit (68.4%), conscious sedation (201.5%), pharmacological approach (138.1%) and non-pharmacological approach (288.6%) in year 2022 as compared to year 2021 (Figure 4.38).

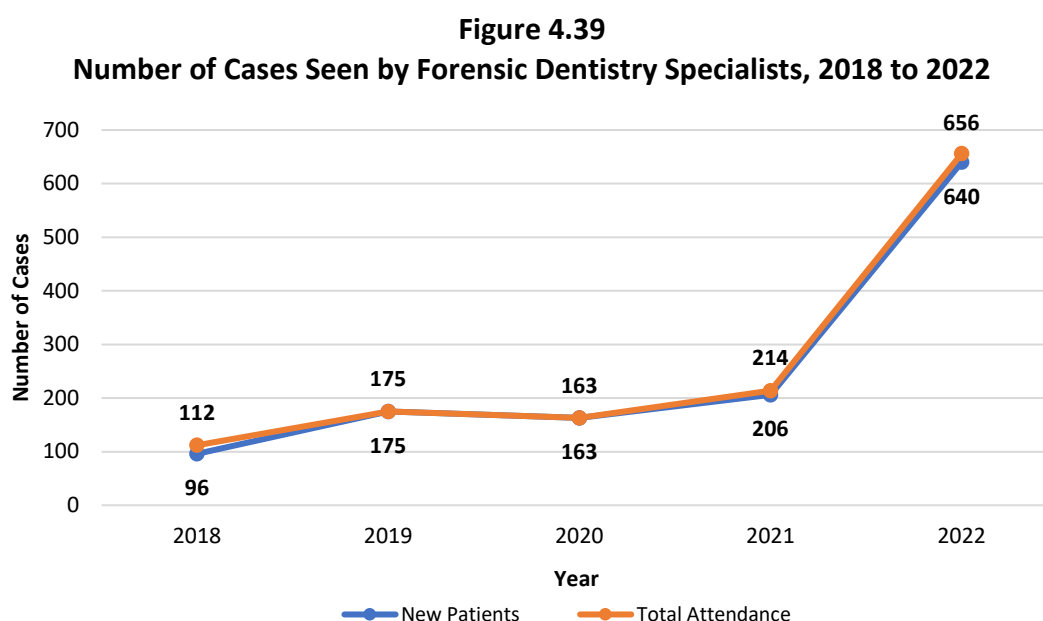
Figure 4.38
Type of Cases Seen by Special Care Dentistry Specialists, 2018 to 2022



Source: Oral Health Programme, MOH

● Forensic Dentistry

The Forensic Odontology (FOD) Unit was first established in Hospital Kuala Lumpur (HKL) and has been closely working with the Medical Forensic Department. In year 2022, there were a total of three (3) Forensic Dentistry Specialists in Malaysia, with two (2) assigned to HKL and one (1) assigned to Hospital Pulau Pinang. These specialists handled all forensic dentistry cases throughout the country. Total number of cases seen in year 2022 (656) increased by 206.5 per cent as compared to year 2021 (214) (Figure 4.39). New and total attendances of FOD by states depicted in Table 4.24.



Source: Oral Health Programme, MOH

Table 4.24
New Patients and Total Attendances of Forensic Dentistry Specialty by Hospital, 2022

Hospital	New Patients	Total Attendance
Hospital Kuala Lumpur	502	518
Hospital Pulau Pinang	122	122
Hospital Tengku Ampuan Afzan	16	16
Total	640	656

Source: Health Informatics Centre, MOH 2022

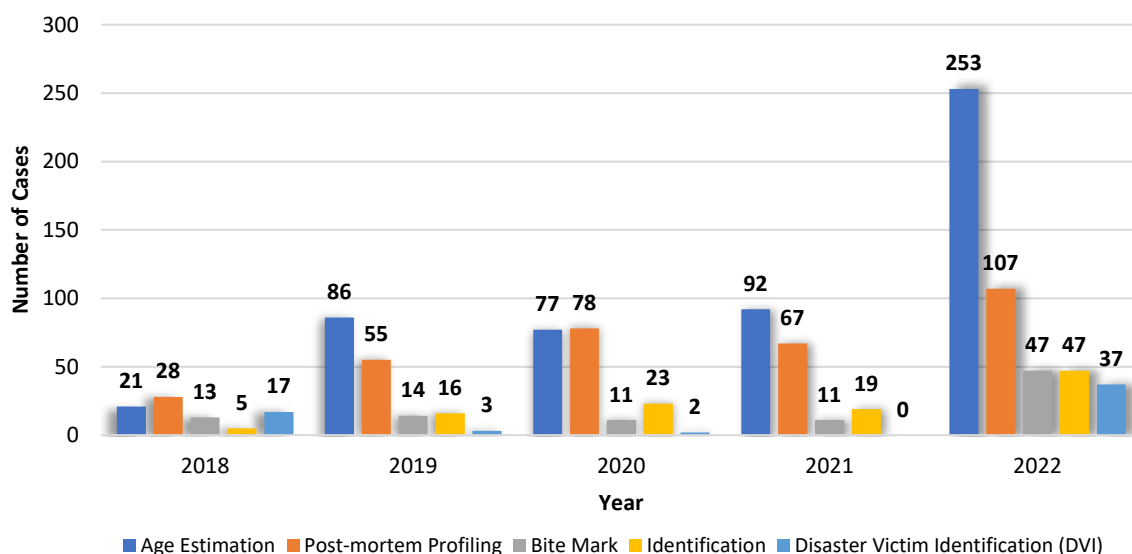
In year 2022, all types of cases seen by the Forensic Dentistry specialty showed an increment within the range of 59.7 per cent to 327.3 per cent as compared to year 2021. The highest number of cases seen in year 2022 was age estimation (253), post-mortem profiling (107), identification (47), bite mark (47) and disaster victim identification (37) (**Figure 4.40**).

Disaster Victim Identification (DVI) is the method used to identify victims of mass casualty incidents, either man-made or natural (Interpol, 1984¹). On 16 December 2022, Forensic Dentistry team was involved in DVI of the landslide incidence occurred in Batang Kali, Selangor, displacing 450,000 m³ (16 million cu ft) of soil and burying campsites at an organic farm. The accident trapped 92 people under the collapsed slope; most were campers from the farm. A total of 31 people were killed while 61 were rescued, with 8 people requiring hospitalisation.

Dental records are essential for rapid and accurate identification of individuals. It is crucial to accurately record all dental information, from intraoral examinations to dental charts. Any discrepancies in dental charting can lead to delays in identification and the release of victims, as other means of identification may need to be used.

¹ Interpol (1984) <https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI>. Accessed on the 9th April 2023.

Figure 4.40
Type of Cases Seen by the Forensic Dentistry Specialists, 2018 to 2022



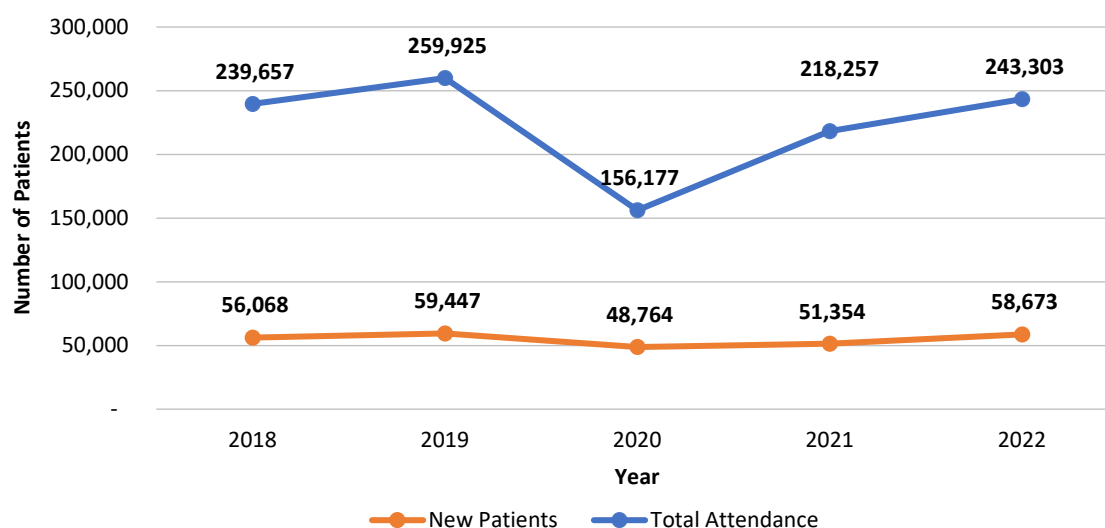
Source: Oral Health Programme, MOH

Non-Hospital Based Dental Specialties

• Orthodontics

The demand for orthodontic treatment has always been on the rise. In year 2022, the total attendance increased by 11.5 per cent (243,303) as compared to year 2021 (218,257) (**Figure 4.41**). New and total attendances of orthodontic patients by states are depicted in **Table 4.25**.

Figure 4.41
Number of Patients Seen by Orthodontists, 2018 to 2022



Source: Health Informatics Centre, MOH

Table 4.25
New Patients and Total Attendances of Orthodontics Specialty by States, 2022

State	New Patients	Total Attendance
Perlis	320	1,198
Kedah	3,735	15,822
Pulau Pinang	3,409	16,891
Perak	4,854	19,930
Selangor	10,175	32,832
FT KL & Putrajaya	5,193	22,295
Negeri Sembilan	3,838	16,380
Melaka	3,092	14,101
Johor	6,972	28,551
Pahang	3,101	15,723
Terengganu	2,507	10,673
Kelantan	5,141	23,511
Sabah	2,775	11,581
Sarawak	3,456	13,572
FT Labuan	105	243
Total	58,673	243,303

Source: Health Informatics Centre, MOH 2022

In year 2022, the number of patients who received removable and fixed appliances increased by 100.9 per cent and 73.1 per cent respectively as compared to year 2021. Furthermore, the number of patients who have completed active treatment increased by 12.5 per cent in year 2022 (6,713) when compared to year 2021 (5,968) (**Table 4.26**).

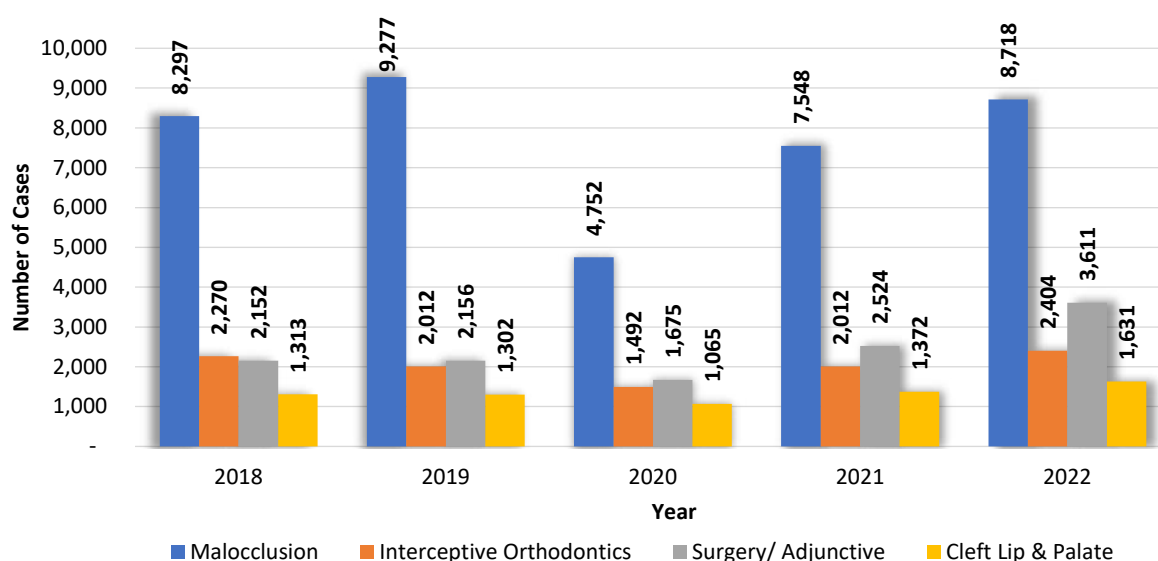
Table 4.26
Type of Services for Orthodontic Cases, 2018 to 2022

Service Categories		2018	2019	2020	2021	2022
Consultation	I	13,077	13,753	7,498	9,862	13,450
	II	8,297	9,277	4,955	7,548	8,718
Removable Appliances	No. of Patients	8,024	9,084	5,287	8,291	16,655
Fixed Appliances	No. of Patients	9,684	10,418	5,846	9,209	15,939
No. of Active Treatment Cases		35,213	37,186	33,914	34,665	37,047
No. of Active Treatment Completed		5,293	6,501	3,549	5,968	6,713

Source: Health Informatics Centre, MOH

Among the types of orthodontic cases seen in the Orthodontic Specialist clinics are malocclusion, interceptive orthodontics, surgical/adjunctive and cleft lip and palate. Overall, the number of orthodontics cases seen increased within the range of 15.5 to 41.3 per cent in year 2022 as compared to year 2021. Malocclusion was accounted for the highest number of cases seen in year 2022 (8,718) (**Figure 4.42**).

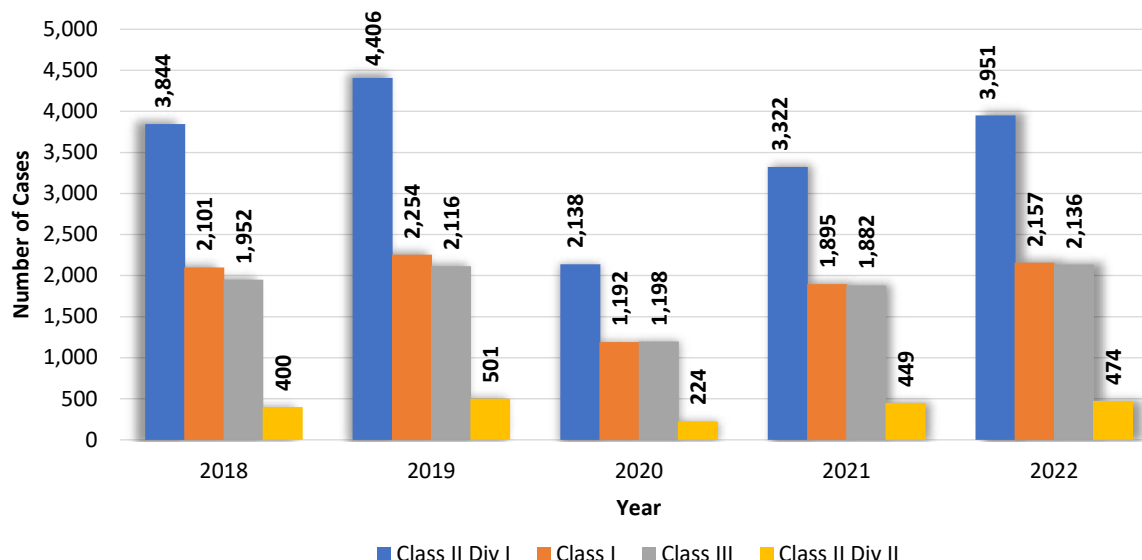
Figure 4.42
Types of Orthodontic Cases Seen by Orthodontists, 2018 to 2022



Source: Health Informatics Centre, MOH

Concerning malocclusion, the highest type of malocclusion cases treated in year 2022 was Class II Division I (3,951), followed by Class I (2,157), Class III (2,136) and Class II Division II (474). Overall, all malocclusion cases showed an increase within the range of 5.6 per cent to 81.9 per cent in year 2022 when compared to year 2021 (**Figure 4.43**).

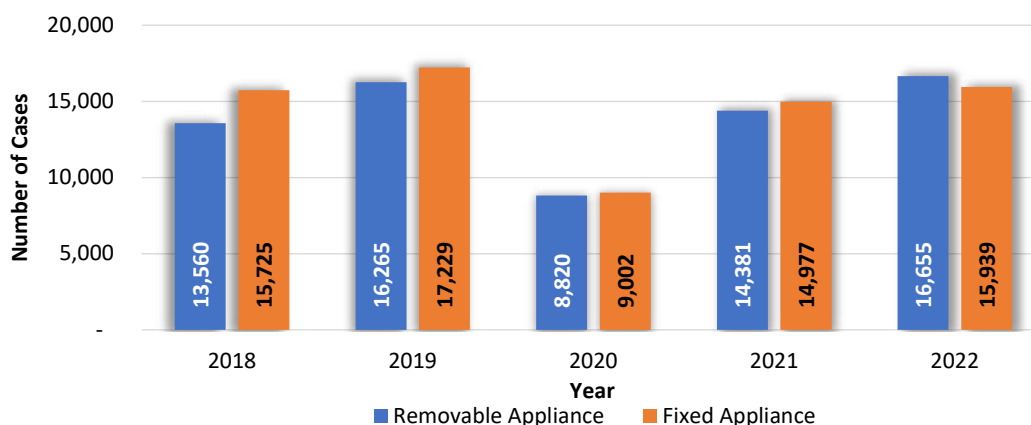
Figure 4.43
Types of Malocclusions among Orthodontic Patients, 2018 to 2022



Source: Health Informatics Centre, MOH

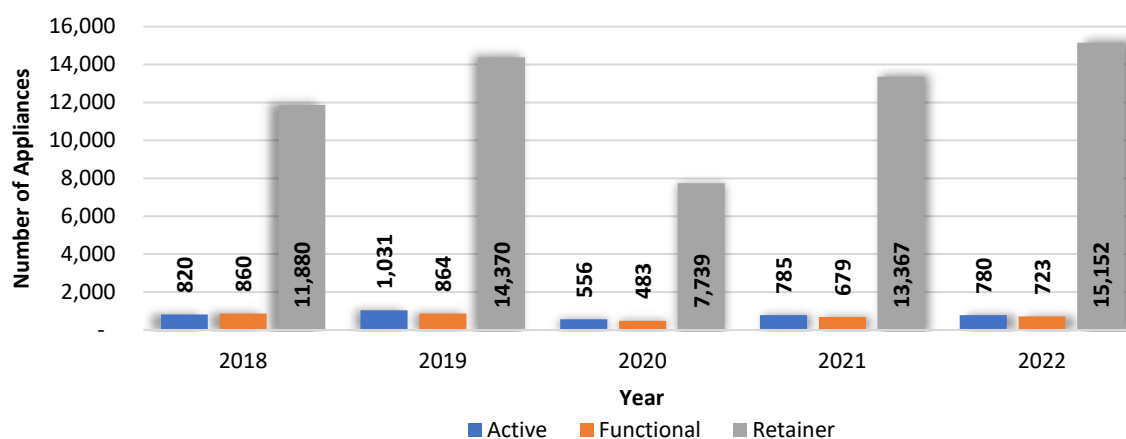
In year 2022, fixed appliance and removable appliance cases showed an increasing trend by 13.7 per cent and 6.0 per cent respectively as compared to year 2021 (**Figure 4.44**). The most commonly used removable appliances for orthodontic treatment were retainers (15,152), followed by active appliances (780) and functional appliances (723) (**Figure 4.45**).

Figure 4.44
Orthodontic Appliances Cases, 2018 to 2022



Source: Health Informatics Centre, MOH

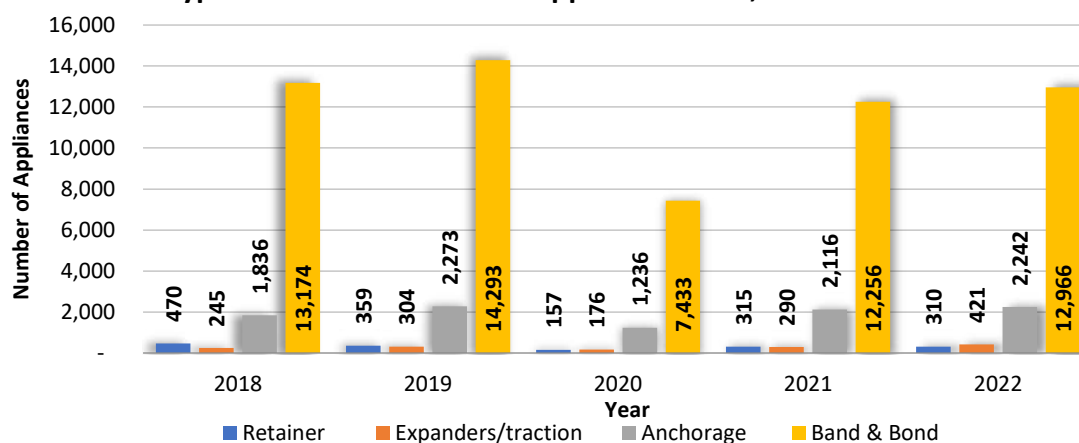
Figure 4.45
Types of Removable Orthodontic Appliances Used, 2018 to 2022



Source: Health Informatics Centre, MOH

The most used fixed orthodontic appliances in year 2022 were band and bond (12,966), followed by anchorage (2,242), expanders/ traction devices (421) and retainers (310) (Figure 4.46).

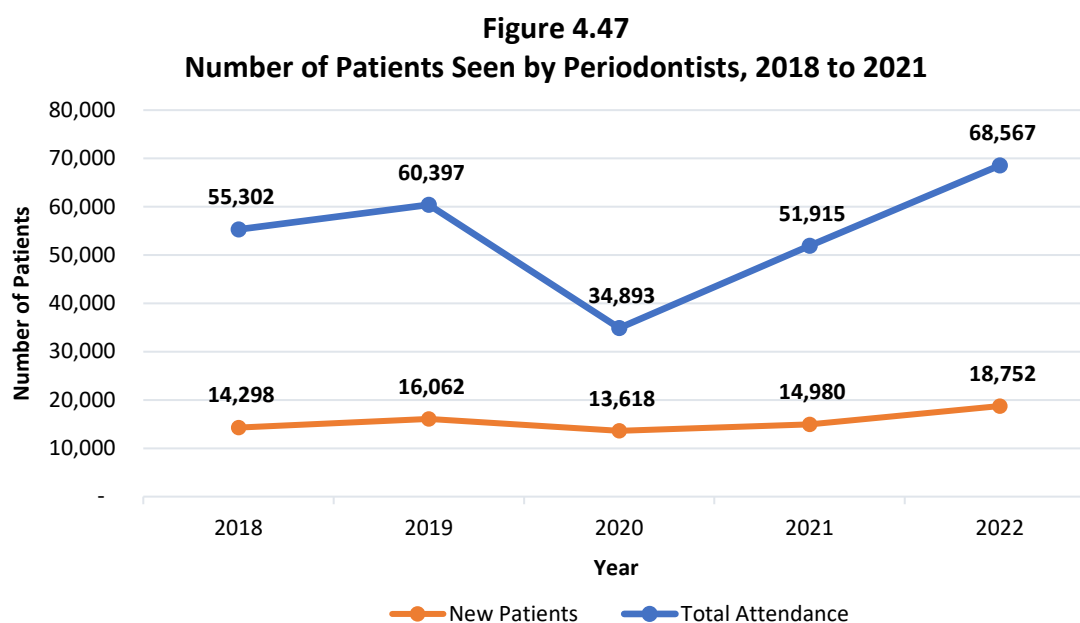
Figure 4.46
Types of Fixed Orthodontic Appliances Used, 2018 to 2022



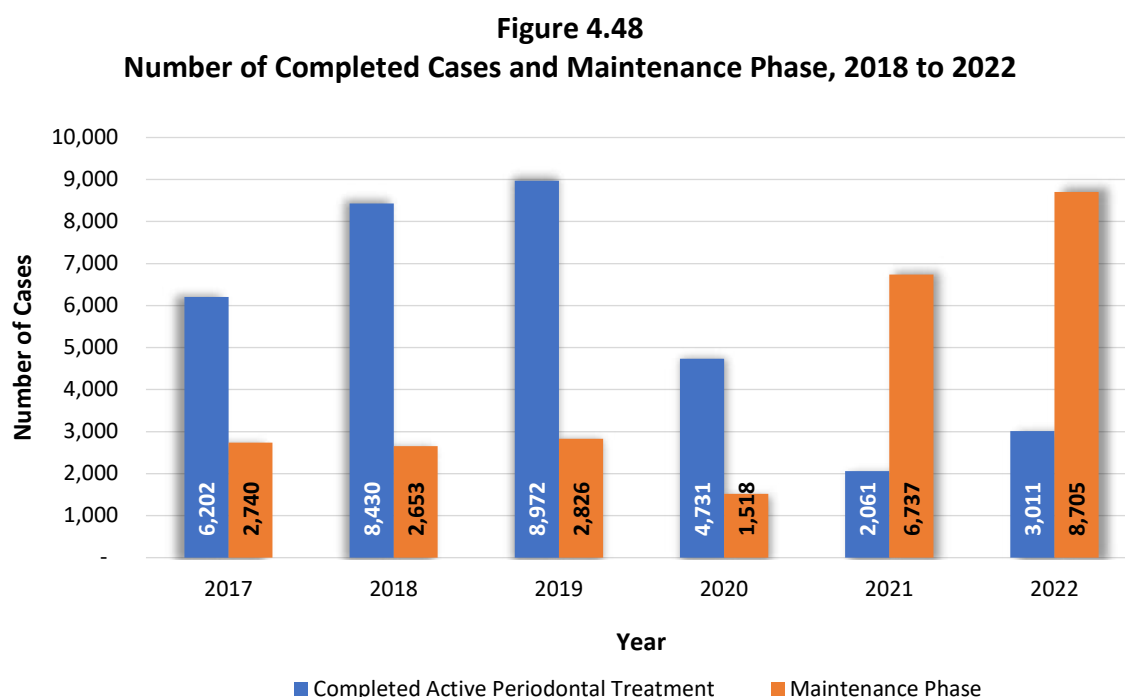
Source: Health Informatics Centre, MOH

- **Periodontics**

In year 2022, the total attendance of periodontics patients (68,567) increased by 32.1 per cent when compared to year 2021 (51,915) (**Figure 4.47**). The number of patients in maintenance phase (8,705) and completed active periodontal treatment (3,011) increased by 29.2 and 46.1 per cent respectively as compared to year 2021 (**Figure 4.48**). There were many patients treated in the maintenance phase after pandemic of COVID-19 as compared to active cases in year 2021 to 2022. New and total attendances of periodontics patients by states are depicted in **Table 4.27**.



Source: Health Informatics Centre, MOH



Source: Health Informatics Centre, MOH

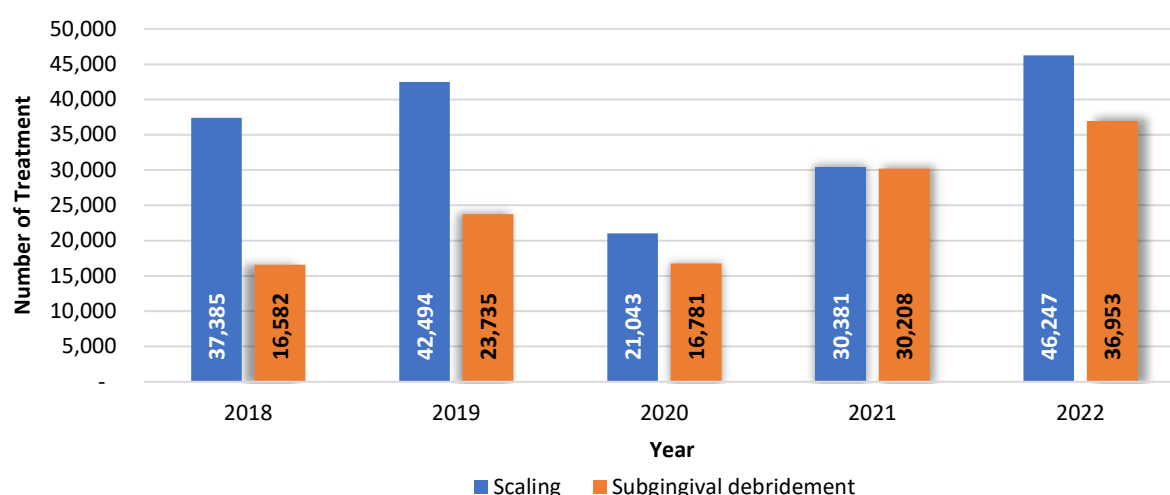
Table 4.27
New Patients and Total Attendances of Periodontics Specialty by States, 2022

State	New Patients	Total Attendance
Perlis	263	856
Kedah	1,045	4,218
Pulau Pinang	1,363	4,595
Perak	2,680	9,405
Selangor	1,500	5,447
FT KL & Putrajaya	2,271	6,971
Negeri Sembilan	1,138	4,248
Melaka	1,620	6,253
Johor	1,820	6,228
Pahang	1,470	6,214
Terengganu	924	3,668
Kelantan	919	4,350
Sabah	703	2,768
Sarawak	1,036	3,346
Total	18,752	68,567

Source: Health Informatics Centre, MOH 2022

Non-surgical periodontal treatments scaling and subgingival debridement increased by 52.2 per cent and 22.3 per cent respectively in the year 2022 as compared to year 2021 (Figure 4.49).

Figure 4.49
Types of Non-Surgical Periodontal Treatment, 2018 to 2022



Source: Health Informatics Centre, MOH

All types of surgical periodontal treatments in year 2022 increased within the range of 4.1 per cent to 50.3 per cent as compared to year 2021. The three (3) commonest surgical treatments done were flap surgery (2,976), followed by grafts (1,328) and regenerative therapy (1,047) (Table 4.28).

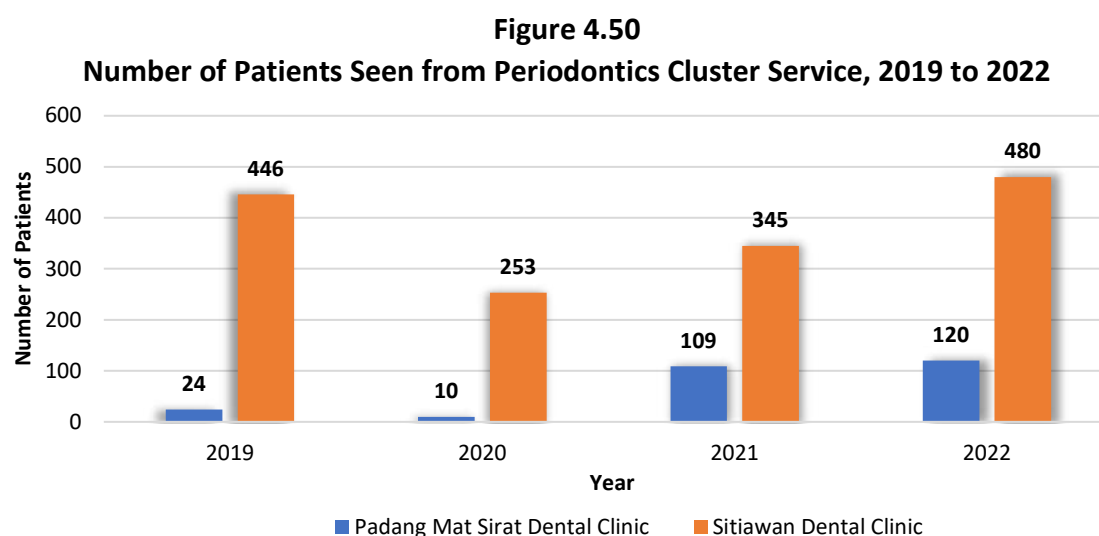
Table 4.28
Types of Surgical Periodontal Treatments, 2018 to 2022

Year	Flap	Gingivectomy	Graft	Frenectomy	Amputation/ Hemisection	Regenerative Therapy	Crown lengthening	Dental Implant
2018	1,601	754	676	198	49	411	356	244
2019	2,259	1,015	966	208	65	586	427	349
2020	1,241	507	557	121	34	398	166	175
2021	2,126	815	1,036	189	49	844	241	310
2022	2,976	1,002	1,328	240	51	1,047	342	466

Source: Health Informatics Centre, MOH

● Periodontics Specialist Cluster Services

In year 2022, attendance of patients from Periodontics cluster service increased 10.1 and 39.1 per cent for Padang Matsirat Dental Clinic, Langkawi, Kedah and Sitiawan Dental Clinic, Perak respectively as compared to year 2021 (**Figure 4.50**).

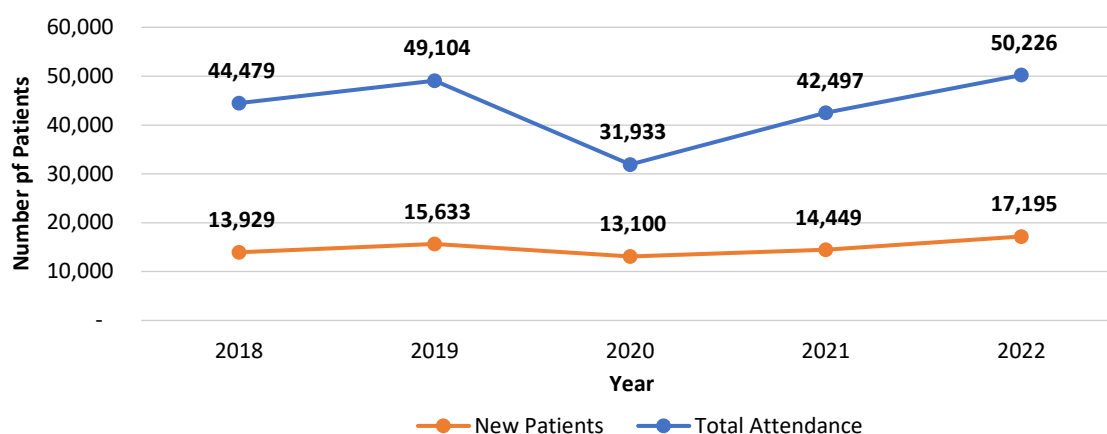


Source: Health Informatics Centre, MOH

● Restorative Dentistry

The total attendance for Restorative Dentistry Specialist clinics increased by 18.2 per cent in year 2022 (50,226) when compared to year 2021 (42,497) (**Figure 4.51**). New and total attendances of OMFS by states depicted in **Table 4.29**.

Figure 4.51
Number of Patients Seen by Restorative Dentistry Specialists, 2018 to 2022



Source: Health Informatics Centre, MOH

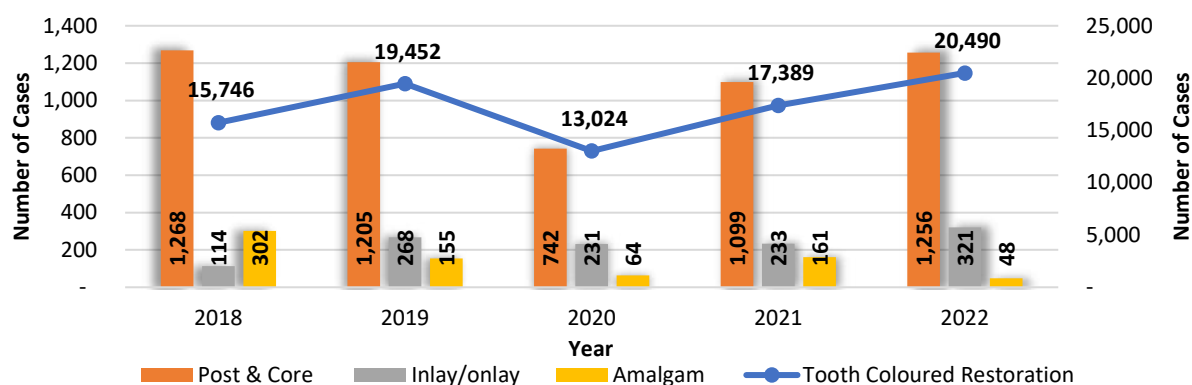
Table 4.29
New Patients and Total Attendances of Restorative Dentistry Specialty by States, 2022

State	New Patients	Total Attendance
Perlis	262	817
Kedah	796	2,466
Pulau Pinang	1,129	3,206
Perak	1,465	4,418
Selangor	2,364	7,053
FT KL & Putrajaya	2,276	6,682
Negeri Sembilan	1,307	3,792
Melaka	1,260	3,173
Johor	1,208	3,582
Pahang	956	3,267
Terengganu	492	1,428
Kelantan	1,175	2,763
Sabah	1,045	3,244
Sarawak	1,460	4,335
Total	17,195	50,226

Source: Health Informatics Centre, MOH 2022

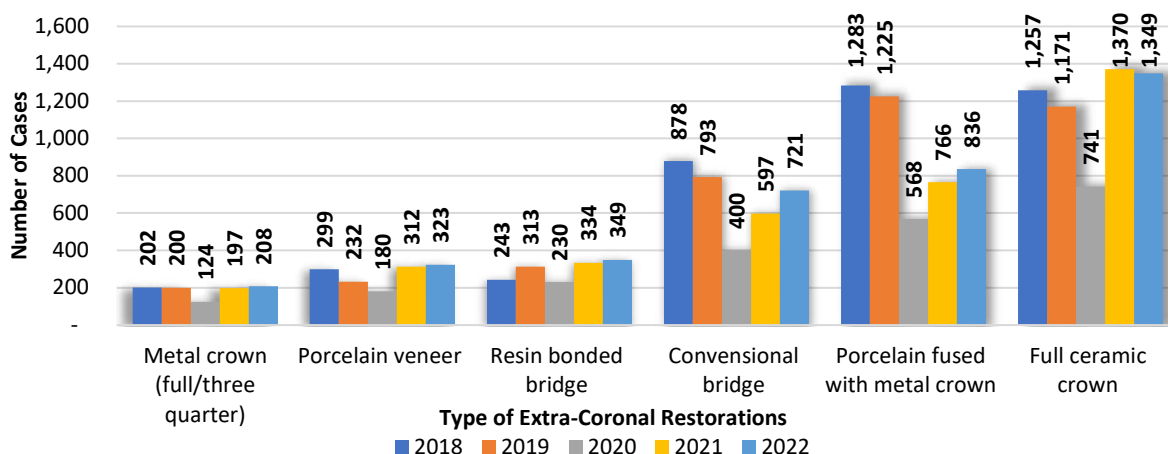
In year 2022, there was an overall increase in all types of intra-coronal restorations done in relation to year 2021. Tooth colored restoration was the most used restorative material in year 2022 (20,490) as compared to year 2021 (17,398) (**Figure 4.52**). The most common extra-oral restoration done was full ceramic crown (1,349), although it decreased 1.5 per cent as compared to year 2021 (1,370) (**Figure 4.53**).

Figure 4.52
Types of Intra-Coronal Restorations Cases Done, 2018 to 2022



Source: Health Informatics Centre MOH

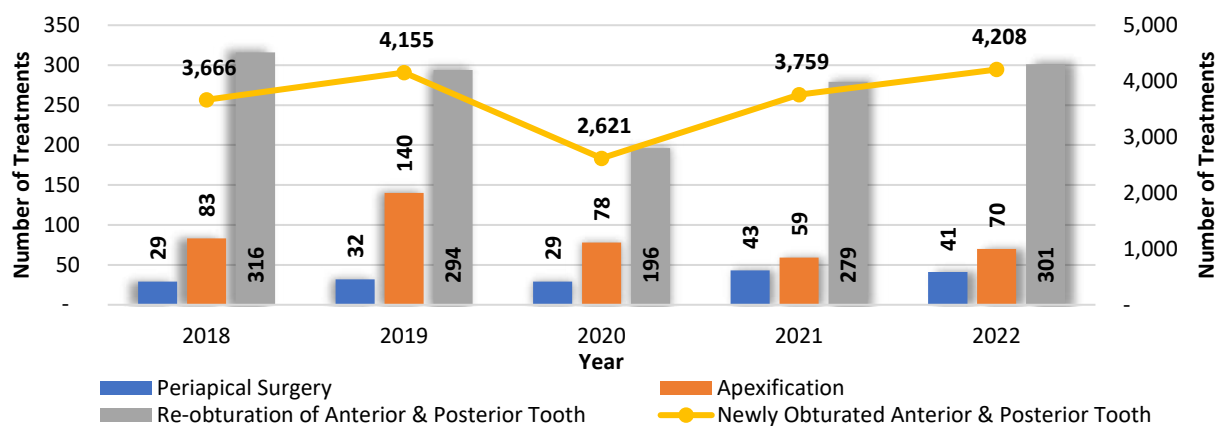
Figure 4.53
Types of Extra-Coronal Restorations Cases Done, 2018 to 2022



Source: Health Informatics Centre, MOH

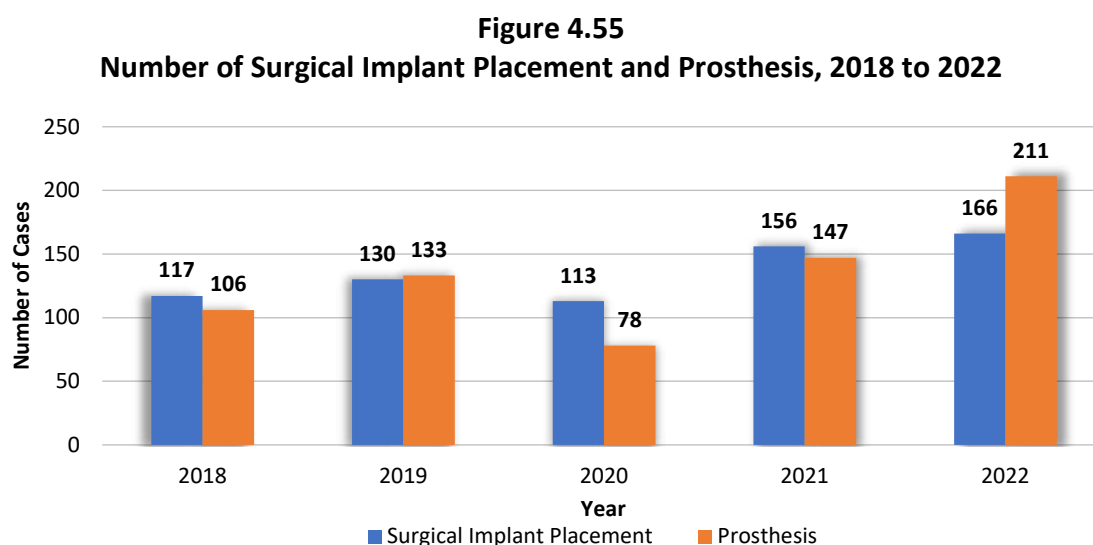
In year 2022, the highest number of completed endodontics treatments were 'newly obturated anterior and posterior teeth' (4,208) with 11.9 per cent increase as compared to year 2021 (3,759) (Figure 4.54).

Figure 4.54
Types of Endodontics Treatments, 2018 to 2022



Source: Health Informatics Centre, MOH

In year 2022, surgical implant placement (166) and the number of prosthesis (211) increased by 6.4 per cent and 43.5 per cent respectively as compared to year 2021 (**Figure 4.55**).



The highest number of prostheses done by the Restorative Dental Specialty in year 2022 was acrylic dentures (1,188). Overall, there were increasing trends in all types of prosthesis made except for full dentures which decreased 28.5 per cent as compared to year 2021 (**Table 4.30**).

Table 4.30
Types of Prosthesis Made by Restorative Dentistry Specialists, 2018 to 2022

Year	Obturator	Occlusal Splint (Hard)	Full Denture	Partial Denture		Overdenture
				Acrylic	Cobalt-Chrome	
2018	28	121	192	866	268	36
2019	23	106	152	1,092	265	23
2020	22	79	181	827	202	22
2021	19	126	214	974	219	11
2022	20	154	153	1,188	244	18

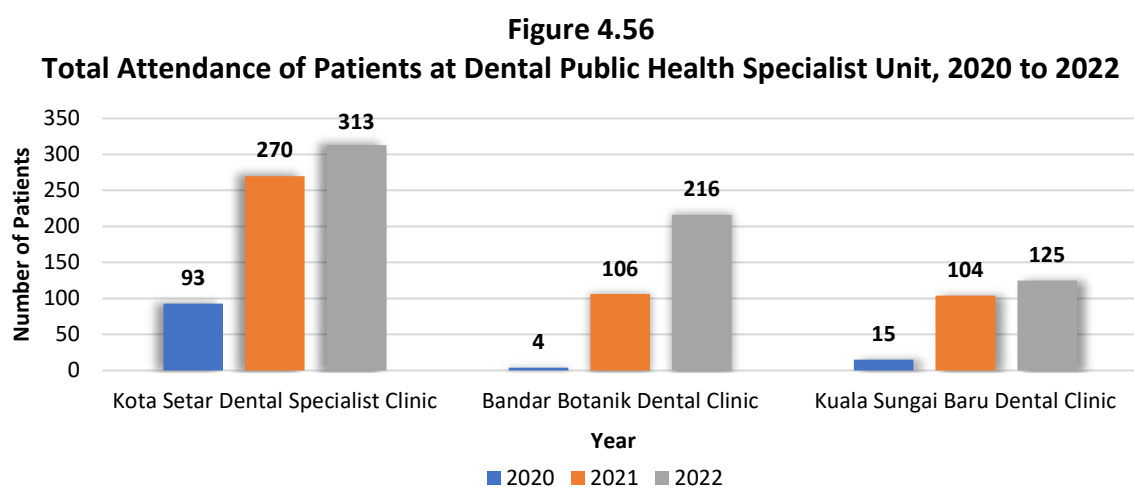
Source: Health Informatics Centre, MOH

- Dental Public Health**

The Dental Public Health Specialist (DPHS), MOH seek to improve the oral health status of populations in Malaysia through multi-sector partnership at national, state, district and local level focusing mainly on public health approach, developing appropriate policies and evidence-based strategies. These initiatives include management of activities and human resource, funding, legislation and enforcement, clinical affairs, research and epidemiology, inter-sector collaboration as well as managing challenges that are being faced by the dental profession among others. DPHS also play a pivotal role in decisions made through the Malaysian Dental Council and matters pertaining to professional associations. Hence, most activities undertaken under the role and function of the DPHS are being covered throughout this report.

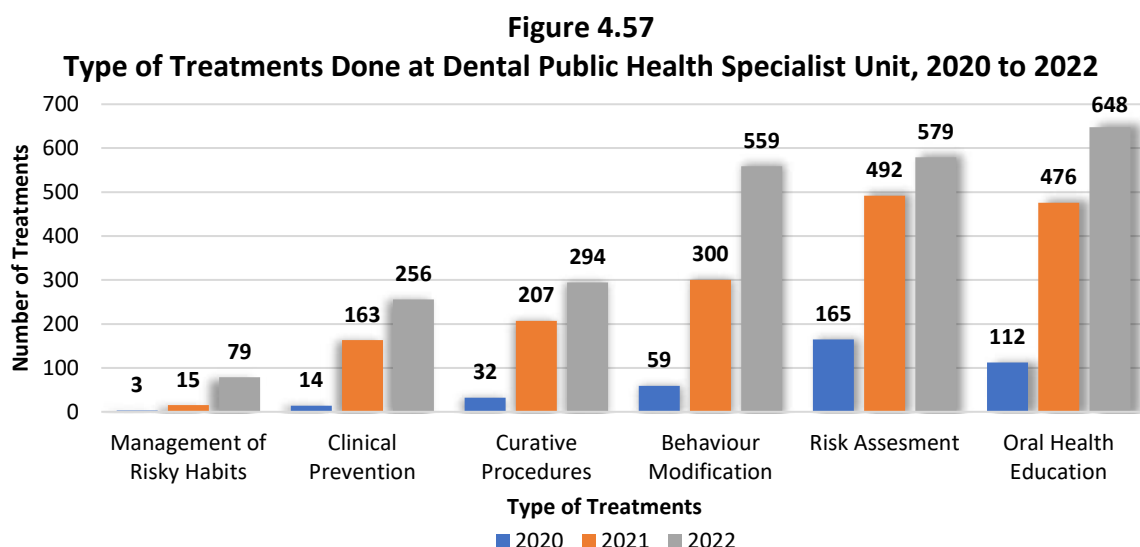
An ongoing development of clinical prevention and oral health promotion components of the DPHS role is reflected in the Dental Public Health Specialist Unit (DPHSU) which commenced in year 2021. The DPHSU continued the services through visiting DPHS in three (3) facilities which are the Kota Setar Dental Specialist Clinic (Kedah), Bandar Botanik Dental Clinic (Selangor) and Kuala Sungai Baru Dental Clinic (Melaka). Currently, there are a very limited number of DPHS to be permanently placed at DPHSU.

The total number of attendances at DPHSU seen in year 2022 (654) had increased by 36.3 per cent as compared to year 2021 (480) as shown in **Figure 4.56**. There was an increasing trend of patients attending DPHSU due to the effectiveness of the oral health promotion initiatives to increase awareness among patients and dental personals on the importance of preventive dental treatment.



Source: Health Informatics Centre, MOH

Overall, the year 2022 witnessed an increase in all the types of cases seen at the DPHSU within the range of 4.3 to 86.3 per cent as compared to year 2021 (**Figure 4.57**). The most common type of treatment given were oral health education (648), risk assessment (579) and behavior modification (559). Risk assessment encompasses plaque score, saliva test, caries, smoking habit, carbon monoxide analysis, dental anxiety and oral health literacy.



Source: Health Informatics Centre, MOH

COMMUNITY ORAL HEALTHCARE

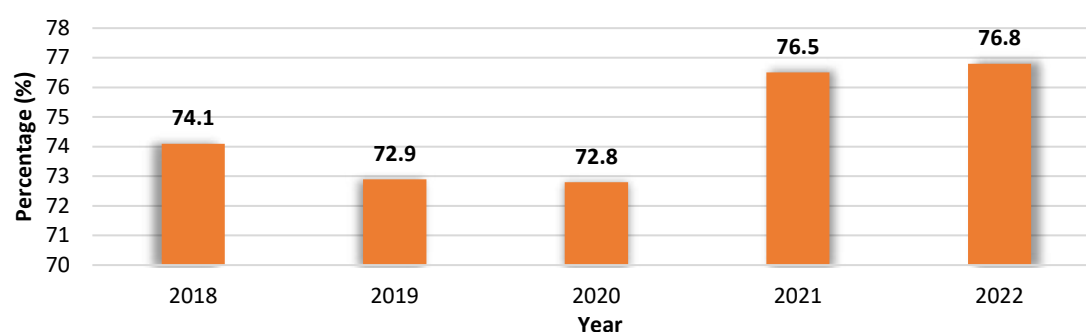
Fluoridation of Public Water Supply

- **Population Coverage**

Water fluoridation as a public health measure for the prevention of dental caries was implemented as a government policy in year 1972. This programme has brought about a marked improvement in the oral health status of school children and adults in our country. Today, more than 95 per cent of the Malaysian population received piped water, making water fluoridation the most cost effective and feasible public health measure in the control of caries in Malaysia. However, in year 2022 only 76.8 per cent of the population receiving fluoridated water and 23.8 per cent of the population do not benefit from this programme.

The trend on the estimated population coverage shows decreasing trend in year 2018 to 2020 from 79.5 per cent to 72.8 per cent and the coverage had increased in year 2021 and year 2022 from 76.5 and 76.8 per cent respectively (**Figure 4.58**). Continuous multi sectoral collaboration had been initiated by OHP at various levels to ensure increase of population coverage for fluoridated water.

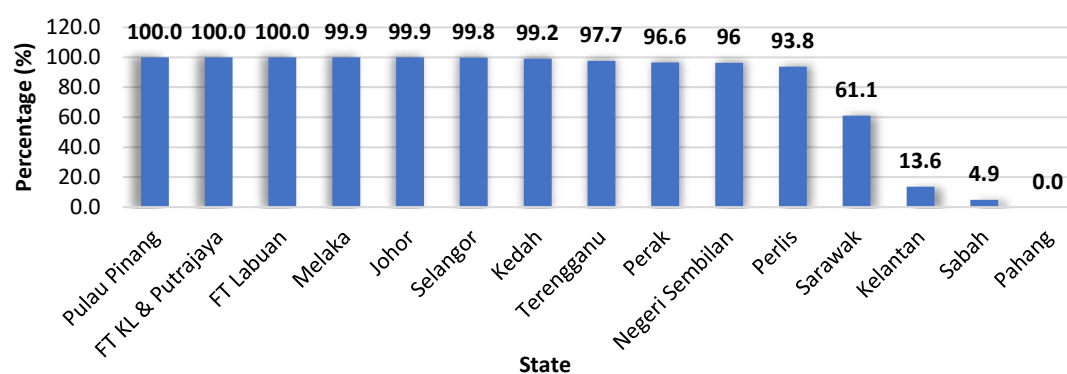
Figure 4.58
Percentage of Population Coverage for Water Fluoridation Programme, 2018 to 2022



Source: Oral Health Programme MOH

In most of the states, more than 90 per cent of their population received fluoridated water except Pahang (0%), Sabah (4.9%), Kelantan (13.6%) and Sarawak (61.1%) (**Figure 4.59**).

Figure 4.59
Percentage of Population Receiving Fluoridated Water by State, 2022



Source: Oral Health Programme MOH, 2022

- **Water Treatment Plants (WTP)**

At present, a total of 500 water treatment plants in Malaysia, where 147 (29.4%) are owned by government, 51 (10.2%) by board and 302 (60.4%) by private company. WTPs owned by government are located in Sabah, FT Labuan and Sarawak (**Table 4.31**).

Table 4.31
Water Treatment Plant by Sector, 2022

State	Government	Board	Private	Total WTP
Perlis	0	0	3	3
Kedah	0	0	36	36
Pulau Pinang	0	0	8	8
Perak	0	40	5	45
Selangor	0	0	31	31
FT KL & Putrajaya	0	0	3	3
Negeri Sembilan	0	0	21	21
Melaka	0	10	0	10
Johor	0	0	47	47
Pahang	0	0	72	72
Terengganu	0	0	12	12
Kelantan	0	0	37	37
Sabah	70	0	14	84
Sarawak	71	11	4	86
FT Labuan	4	0	1	5
Malaysia	147	51	302	500

Source: Oral Health Programme MOH, 2022

A total of 320 (64%) WTPs had fluoride feeders installed (**Table 4.32**). Among those with feeders, only 268 (83.8%) were active while 52 (16.2%) were inactive due to lack of resources to purchase fluoride compound or technical problems such as breakdown of fluoride feeders that require repairs or replacement. States such as Perlis, Pulau Pinang, Selangor, FT Kuala Lumpur & Putrajaya, Melaka, Johor and Terengganu produced 100 per cent fluoridated water as all the WTPs were installed with fluoride feeder.

Table 4.32
Water Treatment Plant (WTP) with Fluoride Feeders by State, 2022

State	No. of WTP	WTP with Fluoride Feeder		WTP with Active Fluoride Feeder		WTP Producing Fluoridated Water
		No.	Percentage (%)	No.	Percentage (%)	Percentage (%)
Perlis	3	3	100.0	3	100.0	100.0
Kedah	36	34	94.4	34	100.0	94.4
Pulau Pinang	8	8	100.0	8	100.0	100.0
Perak	45	44	97.8	43	97.7	95.6
Selangor	31	31	100.0	31	100.0	100.0
FT KL & Putrajaya	3	3	100.0	3	100.0	100.0

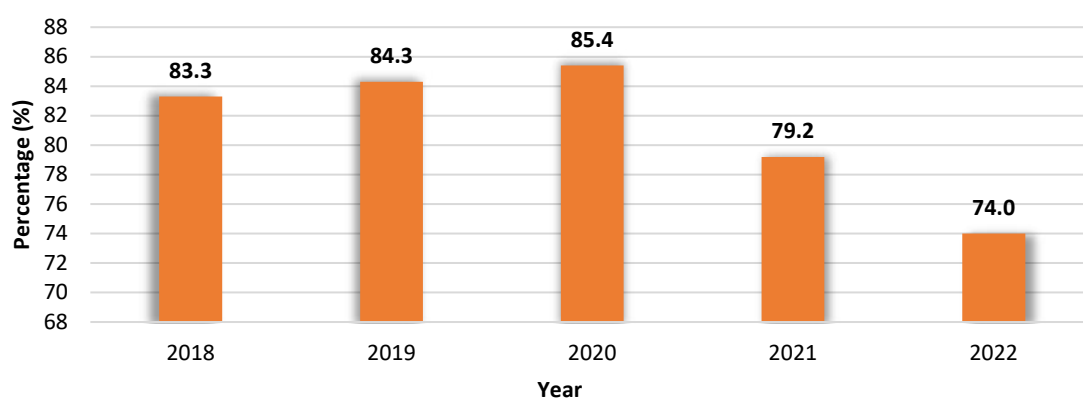
State	No. of WTP	WTP with Fluoride Feeder		WTP with Active Fluoride Feeder		WTP Producing Fluoridated Water
		No.	Percentage (%)	No.	Percentage (%)	Percentage (%)
Negeri Sembilan	21	19	90.5	19	100.0	90.5
Melaka	10	10	100.0	10	100.0	100.0
Johor	47	47	100.0	47	100.0	100.0
Pahang	72	49	68.1	0	0.0	0.0
Terengganu	12	12	100.0	12	100.0	100.0
Kelantan	37	3	8.1	2	66.7	5.4
Sabah	84	13	15.5	13	100.0	15.5
Sarawak	86	40	46.5	40	100.0	46.5
FT Labuan	5	4	80.0	3	75.0	60.0
Malaysia	500	320	64.0	268	83.8	53.6

Source: Oral Health Programme MOH, 2022

• Maintaining Fluoride Levels in Public Water Supply

Maintenance of fluoride levels within the recommended range of 0.4 – 0.6 ppm is important to achieve maximum benefit for control and prevention of dental caries while ensuring health and safety. In general, there was an upward trend generally in conformance of readings to the recommended range for the year 2012 to 2021 (**Figure 4.60**). In year 2021, 79.2 per cent of readings at reticulation points conformed to the recommended range. However, in year 2022 the percentage of conformance of fluoride level in public water supplies to the recommended range (0.4-0.6ppm) has declined to 74.0 per cent.

Figure 4.60
Percentage of Conformance of Fluoride Level in Public Water Supplies to the Recommended Range (0.4-0.6ppm), 2018 to 2022



Source: Oral Health Programme MOH

In year 2022, the percentage of fluoride readings >0.6 ppm was very small (0.59%) and none of the states exceed the standard set in the National Indicator Approach (not more than seven (7) per cent of readings exceeding 0.6 ppm). While, for the lower limit the standard was set at not more than 25 per cent of the readings below 0.4 ppm. However, only 10 states complied to the standard excluding Kelantan (100.0%), Pahang (97.1%), Perlis (95.7%), Sarawak (79.9%) and Terengganu (45.3%) (**Table 4.33**).

Table 4.33
Fluoride Level at Reticulation Points by State, 2022

State	Retikulasi (Reticulation Points)						
	Total of Readings	Fluoride Readings					
		0.4-0.6 ppm		< 0.4 ppm		> 0.6 ppm	
		No.	Percentage (%)	No.	Percentage (%)	No.	Percentage (%)
Perlis	164	7	4.3	157	95.7	0	0.0
Kedah	796	774	97.2	22	2.8	0	0.0
Pulau Pinang	384	384	100.0	0	0.0	0	0.0
Perak	999	946	94.7	47	4.7	6	0.6
Selangor	932	932	100.0	0	0.0	0	0.0
FT KL & Putrajaya	141	141	100.0	0	0.0	0	0.0
Negeri Sembilan	452	444	98.2	8	1.8	0	0.0
Melaka	479	479	100.0	0	0.0	0	0.0
Johor	1,194	1,184	99.2	5	0.4	5	0.4
Pahang	727	17	2.3	706	97.1	4	0.6
Terengganu	545	296	54.3	247	45.3	2	0.4
Kelantan	71	0	0.0	71	100.0	0	0.0
Sabah	529	452	85.4	76	14.4	1	0.2
Sarawak	1,011	171	16.9	808	79.9	32	3.2
FT Labuan	83	72	86.8	11	13.3	0	0.0
Malaysia	8,507	6,299	74.0	2,158	25.4	50	0.6

Source: Oral Health Programme (Quality Assurance Programme) MOH, 2022

• Inter-agency Collaboration for Water Fluoridation

Implementation of this programme requires active involvement and effective collaboration with multi sectoral agencies. Issues in water fluoridation programme were discussed in meeting conducted at state level involving *Unit Kawalan Mutu Air Minum* (KMAM). At national level, a meeting with other agencies such as Department of Environment, Ministry of Environment and Water, SPAN was held on 5 July 2022 at the OHP MOH to discuss on implementation issues that cannot be settled at state level. However, further discussion on the way forward of water fluoridation in Malaysia needs to be highlighted at the higher authority.

• Training and Public Awareness

Recognising that knowledge and understanding about the benefits of water fluoridation is crucial, training is conducted each year for the health personnel as well as personnel from WTPs. Nationwide, 97 training sessions were conducted in year 2022, including hands-on training on the use of colorimeters.

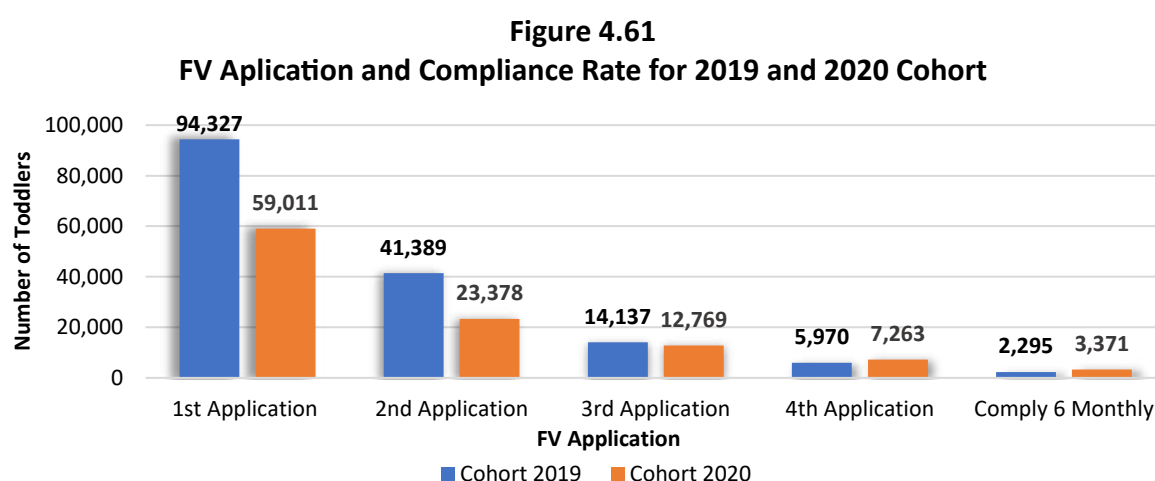
Clinical Prevention for Caries

• Fluoride Varnish Programme for Toddlers

Fluoride varnish (FV) is recommended as a community-based caries preventive programme for toddlers. FV programme was introduced in year 2019 to strengthen the Early Childhood

Oral Healthcare Programme which targets high risk toddlers. It aims to reduce the prevalence and severity of dental caries. For maximum impact FV is applied four (4) times with interval of six (6) months for each application. Therefore, the identified toddler will complete this programme in a period of two (2) years. The time frame for the first cohort (2019) is between January 2019 and June 2021. For the second cohort (2020) is between January 2020 and June 2022.

For both cohorts (2019 and 2020), toddlers receiving four (4) applications within two (2) years showed a downwards trend (**Figure 4.61**). For cohort 2020, only 7,263 (12.3%) toddlers received four (4) times FV application (**Table 4.34**). Out of that only 3,371 (5.7%) toddlers complied to six (6) monthly applications. Selangor (37.0%) and Pahang (25.5%) had more than 25 per cent of the toddlers completed the four (4) times applications. Whilst for cohort 2019, 5,970 (6.3%) toddlers received four (4) times FV application and 2,295 (2.4%) toddlers complied to six (6) monthly applications (**Table 4.35**). Lower percentage of toddlers with four (4) applications in cohort 2019 may also due to pandemic COVID-19 which had caused interruption for toddlers to come for third and fourth applications.



Source: Oral Health Programme MOH

Table 4.34
FV Application and Compliance Rate for 2020 Cohort

State	Need FV	Rendered FV		With 2 Times Application		With 3 Times Application		With 4 Times Application		Compliance to Six-Monthly Application (±1 month)	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Perlis	1,121	1,117	99.6	453	40.6	227	20.3	166	14.9	103	9.2
Kedah	3,728	3,182	85.4	795	25.0	342	10.8	173	5.4	55	1.7
Pulau Pinang	3,029	3,029	100.0	768	25.3	271	9.0	125	4.1	62	2.1
Perak	5,099	5,037	98.8	1,179	23.4	443	8.8	132	2.6	109	2.2
Selangor	1,923	1,921	99.9	1,133	59.0	911	47.4	711	37.0	249	13.0
FT KL & Putrajaya	818	787	96.2	225	28.6	88	11.2	27	3.4	20	2.5

State	Need FV	Rendered FV		With 2 Times Application		With 3 Times Application		With 4 Times Application		Compliance to Six-Monthly Application (±1 month)	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Negeri Sembilan	2,726	2,726	100.0	715	26.2	447	16.4	256	9.4	82	3.0
Melaka	4,551	4,450	97.8	1,669	37.5	812	18.3	397	9.0	92	2.1
Johor	1,939	1,714	88.4	677	39.5	434	25.3	286	16.7	158	9.2
Pahang	9,241	8,947	96.8	4,886	54.6	3,441	38.5	2,283	25.5	1,094	12.2
Terengganu	10,522	10,522	100.0	3,874	36.8	1,637	15.6	702	6.7	287	2.7
Labuan	4	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Kelantan	9,313	7,569	81.3	3,717	49.1	1,867	24.7	845	11.2	368	4.9
Sabah	6,983	6,980	100.0	3,206	45.9	1,835	26.3	1,171	16.8	683	9.8
Sarawak	923	915	99.1	52	5.7	3	0.3	0	0.0	0	0.0
Malaysia	62,031	59,011	95.1	23,378	39.6	12,769	21.6	7,263	12.3	3,371	5.7

Source: Oral Health Programme MOH, 2022

Table 4.35
FV Application and Compliance Rate for 2019 Cohort

State	Need FV	Rendered FV		With 2 Times Application		With 3 Times Application		With 4 Times Application		Compliance to Six-Monthly Application (±1 month)	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Perlis	2,360	2,311	97.9	860	37.2	314	13.6	194	8.4	132	5.7
Kedah	5,744	5,477	95.4	1,915	35.0	629	11.5	164	3.0	2	0.0
Pulau Pinang	4,521	4,506	99.7	3,132	69.5	752	16.7	266	5.9	226	5.0
Perak	6,058	5,979	98.7	2,565	42.9	655	11.0	188	3.1	116	1.9
Selangor	2,550	2,550	100.0	1,570	61.6	649	25.5	358	14.0	144	5.7
FT KL & Putrajaya	2,489	2,140	86.0	741	34.6	16	0.8	0	0.0	0	0.0
Negeri Sembilan	5,625	5,625	100.0	2,270	40.4	579	10.3	225	4.0	32	0.6
Melaka	8,691	8,393	96.6	3,844	45.8	1,499	17.9	661	7.9	70	0.8
Johor	10,080	10,080	100.0	4,112	40.8	1,090	10.8	674	6.7	0	0.0
Pahang	8,708	7,913	90.9	4,194	53.0	2,098	26.5	1,150	14.5	475	6.0
Terengganu	19,916	19,916	100.0	7,193	36.1	2,320	11.7	527	2.7	224	1.1
Kelantan	9,971	9,665	96.9	4,407	45.6	1,669	17.3	686	7.1	319	3.3
FT Labuan	109	109	100.0	60	55.1	26	23.9	4	3.7	4	3.7
Sabah	9,631	9,494	98.6	4,526	47.7	1,841	19.4	873	9.2	551	5.8

State	Need FV	Rendered FV		With 2 Times Application		With 3 Times Application		With 4 Times Application		Compliance to Six-Monthly Application (±1 month)	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Sarawak	178	169	94.9	0	0.0	0	0.0	0	0.0	0	0.0
Malaysia	96,631	94,327	97.6	41,389	43.9	14,137	15.0	5,970	6.3	2,295	2.4

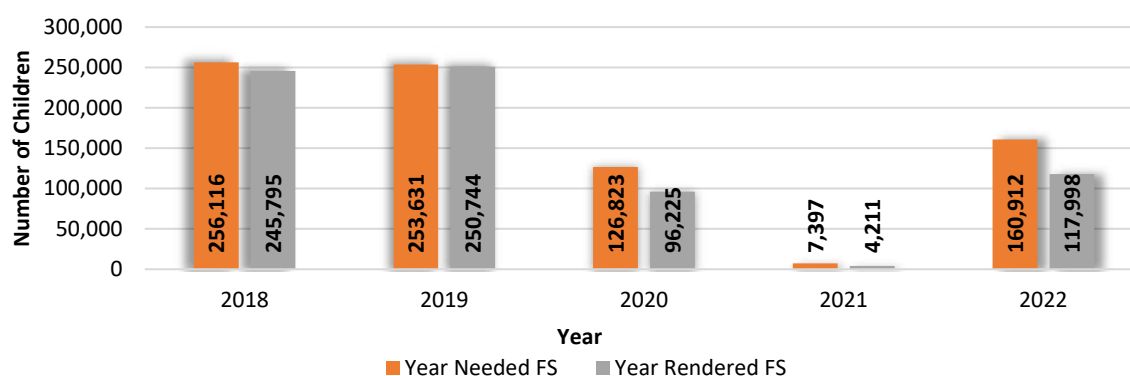
Source: Oral Health Programme MOH, 2022

• Fissure Sealant Programme

The School-based Fissure Sealant Programme is part of school dental service. Sealant is a professionally applied material on the pits and fissures on occlusal, buccal and lingual surfaces of posterior teeth to prevent caries initiation and to arrest caries progression by providing a physical barrier that inhibits microorganisms and food particles from collecting in pits and fissures.

In year 2022, 73.3 per cent of the schoolchildren were rendered fissure sealants under the School-based Fissure Sealant Programme. The increased in number of children rendered fissure sealant in year 2022 compared to year 2021 was mainly due to the normal routine activities post pandemic beginning of June 2022 (**Figure 4.62**). In year 2022, a total of 351,233 teeth required fissure sealants, of these, 75.3 per cent were fissure-sealed. Number of children and number of teeth rendered fissure sealant by states can be observed in **Table 4.36**.

Figure 4.62
Treatment Need and Fissure Sealants Rendered, 2018 to 2022



Source: Oral Health Programme MOH

Table 4.36
Provision of Fissure Sealants by States, 2022

State	No. of Children			No. of Teeth		
	Needed FS	Rendered FS		Needed FS	Rendered FS	
	No.	No.	Percentage (%)	No.	No.	Percentage (%)
Perlis	1,114	875	78.6	1,758	1,382	78.6
Kedah	3,488	2,269	65.1	5,596	3,841	68.6

State	No. of Children			No. of Teeth		
	Needed FS	Rendered FS		Needed FS	Rendered FS	
	No.	No.	Percentage (%)	No.	No.	Percentage (%)
Pulau Pinang	3,058	2,754	90.1	5,286	4,834	91.5
Perak	6,171	6,046	98.0	10,538	10,348	98.2
Selangor	4,506	2,599	56.7	7,310	4,390	60.1
FT KL & Putrajaya	2,087	1,937	92.8	3,568	3,274	91.8
Negeri Sembilan	2,056	1,117	54.3	3,540	1,899	53.6
Melaka	6,332	5,148	81.3	12,348	9,972	80.8
Johor	4,723	3,118	66.0	8,359	5,549	66.4
Pahang	15,390	13,438	87.3	29,507	26,160	88.7
Terengganu	8,023	4,464	55.6	13,839	8,003	57.8
Kelantan	45,078	33,123	73.5	117,163	89,389	76.3
PPKK & ILKKM	72	69	95.8	140	134	95.7
Sabah	42,271	26,755	63.3	101,754	68,399	67.2
Sarawak	15,782	13,585	86.1	29,334	25,830	88.1
FT Labuan	761	701	92.1	1,193	1,099	92.1
Malaysia	160,912	117,998	73.3	351,233	264,503	75.3

Source: Oral Health Programme MOH, 2022

• School-Based Fluoride Mouth Rinsing Programme

The School-based Fluoride Mouth Rinsing (FMR) Programme has been implemented in selected schools in Sabah, Sarawak, and Kelantan for children in Year One to Year Six who live in areas with low or no fluoride in the water supply. In year 2022, a total of 74 schools and 13,430 primary schoolchildren from Kelantan, Sabah and Sarawak were involved in FMR Programme (**Table 4.37**).

Table 4.37
Schools and Students Participating in Fluoride Mouth Rinsing Programme, 2018 to 2022

State	No. of Schools Participated			Total	No. of Student Involved			Total
	Kelantan	Sabah	Sarawak		Kelantan	Sabah	Sarawak	
2018	4	37	23	64	415	14,386	3,839	18,640
2019	24	54	23	101	1,293	21,771	3,929	26,993
2020	32	44	20	96	2,682	18,250	2,807	23,739
2021	0	0	0	0	0	0	0	0
2022	33	25	16	74	1,696	10,623	1,111	13,430

Source: Oral Health Programme MOH

Community Oral Health Services

Over the past years, it was reported only a quarter of Malaysian population utilised the MOH oral healthcare services. In an effort to increase accessibility of oral healthcare services to the

population, community outreach programmes were introduced to extend oral health services coverage to the rural population, the marginalised as well as the under privileged communities in the urban area.

Outreach services in the MOH are delivered through mobile dental teams, mobile dental clinics or mobile dental labs. Community outreach services include:

- i. Urban Transformation Centre (UTC);
- ii. Rural Transformation Centre (RTC);
- iii. Institutions for the elderly;
- iv. Institutions for individuals with special needs;
- v. Outreach Services at People's Housing Project (PPR);
- vi. *Kampung Angkat* Programme;
- vii. *Orang Asli & Penan* programme; and
- viii. Other community projects.

- **Mobile Dental Clinic (MDC)**

In year 2022, there were 41 MDC equipped with 63 Dental Cum Unit. A total of 54,306 patients were seen and treated in the MDC. The information on MDC is as listed in **Table 4.38**.

Table 4.38
Information on Mobile Dental Clinic (MDC), 2022

State	Total MDC	Location in State	Total Dental Chair	No. of Days Operated	Attendance	
					New	Repeat
Perlis	1	Kangar	2	46	392	7
Kedah	3	Kota Setar	2	69	1,890	3
		Baling	2	32	2,629	8
		Kulim	2	144	1,284	225
Pulau Pinang	3	Timur Laut	1	27	1,396	293
		Seberang Perai Utara	2	36	2,138	247
		Barat Daya	0	78	1,354	112
Perak	3	Kinta	2	6	353	101
		Hilir Perak	2	51	1,498	965
		Larut Matang	2	81	1,502	296
Selangor	3	Gombak	2	11	63	19
		Petaling	2	47	716	28
		Klang	2	40	2,134	149
FT KL & Putrajaya	2	Kepong	2	121	760	27
		Titiwangsa	2	21	1,996	308
Negeri Sembilan	2	Kuala Pilah	2	100	2,403	174
		Seremban	1	1	34	0
Melaka	1	Melaka Tengah	2	78	1,004	14
Johor	4	Johor Bahru	2	117	6,083	884
		Muar	1	20	420	18
		Kluang	1	364	833	752
		Batu Pahat	1	43	933	190
Pahang	3	Kuantan	1	59	1,813	68

State	Total MDC	Location in State	Total Dental Chair	No. of Days Operated	Attendance	
					New	Repeat
Terengganu	2	Maran	2	22	992	4
		Kuala Lipis	1	91	871	210
		Jalan Air Jernih	2	69	2,411	64
		Batu Rakit	2	72	1,195	110
Kelantan	3	Tanah Merah	1	3	713	58
		Kuala Krai	1	73	1,115	33
		Kota Bharu	2	75	1,518	65
FT Labuan	0	-	-	-	-	-
Sabah	3	Kota Kinabalu	2	72	3,473	5
		Tawau	2	27		
		Sandakan	2	0		
Sarawak	8	Kuching	1	70	806	91
		Miri	1	0	0	0
		Samarahan	1	33	1,263	30
		Sibu	1	9	265	20
		Sarikei	1	4	123	0
		Limbang	1	1	72	10
		Kuching	1	3	96	0
		Bintulu	1	2	136	41
Malaysia	41		63	2,248	48,677	5,629

Source: Oral Health Programme MOH, 2022

- **Mobile Dental Laboratory (MDL)**

Currently, there are only four (4) MDL available in Malaysia and located in Perak (1 MDL), Kelantan (2 MDL) and Negeri Sembilan (1 MDL). A total of 321 full dentures and 279 partial dentures were constructed in MDL (**Table 4.39**).

Table 4.39
Information on Mobile Dental Laboratory (MDL), 2022

State	Total MDL	Location in State	No of Days Operated	Attendance		Denture	
				New	Repeat	Full	Partial
Perak	1	Larut Matang & Selama	10	8	0	7	7
Kelantan	2	Gua Musang	284	391	0	134	105
		Tanah Merah	230	370	0	44	28
Negeri Sembilan	1	Seremban	240	175	0	136	139
Total	4		764	944	0	321	279

Source: Oral Health Programme MOH, 2022

- **Urban Transformation Centre (UTC)**

In year 2022, there were 23 dental clinics operating at UTCs in Malaysia as listed in **Table 4.40**. A total of 197,578 patients attended the dental clinics in UTCs in year 2022 compared to 120,946 patients in year 2021. The number of UTCs that provide oral health services remained the same since year 2020 until year 2022. The number of patients' attendances were low in year 2020 to year 2022 compared to year 2017 to year 2019.

Table 4.40
Oral Health Services in Urban Transformation Centres (UTCs), 2018 to 2022

Year	Dental Clinics at UTCs		Patient Attendances
	Total UTCs	Location	
2018	21	Ayer Keroh Melaka, Pudu Sentral, Kompleks MBAS, Ipoh, Mini Sentul, Kuantan, Kota Kinabalu, Galeria Johor, Kuching Sarawak, Sungai Petani Kedah, Labuan, Sibu Sarawak, Miri Sarawak, Terengganu, Tawau Sabah, Kota Bharu Kelantan, Keningau Sabah, Kangar Perlis, Seremban Negeri Sembilan, Pasir Gudang Johor, UTC Shah Alam Selangor	355,670
2019	22	Ayer Keroh Melaka, Pudu Sentral, Kompleks MBAS, Ipoh, Mini Sentul, Kuantan, Kota Kinabalu, Galeria Johor, Kuching Sarawak, Sungai Petani Kedah, Labuan, Sibu Sarawak, Miri Sarawak, Terengganu, Tawau Sabah, Kota Bharu Kelantan, Keningau Sabah, Kangar Perlis, Seremban Negeri Sembilan, Pasir Gudang Johor, UTC Shah Alam Selangor, UTC Keramat	378,929
2020	23	Ayer Keroh Melaka, Pudu Sentral, Kompleks MBAS, Ipoh, Mini Sentul, Kuantan, Kota Kinabalu, Galeria Johor, Kuching Sarawak, Sungai Petani Kedah, Labuan, Sibu Sarawak, Miri Sarawak, Terengganu, Tawau Sabah, Kota Bharu Kelantan, Keningau Sabah, Kangar Perlis, Seremban Negeri Sembilan, Pasir Gudang Johor, UTC Shah Alam Selangor, UTC Keramat, UTC Komtar	161,184
2021	23	Ayer Keroh Melaka, Pudu Sentral, Kompleks MBAS, Ipoh, Mini Sentul, Kuantan, Kota Kinabalu, Galeria Johor, Kuching Sarawak, Sungai Petani Kedah, Labuan, Sibu Sarawak, Miri Sarawak, Terengganu, Tawau Sabah, Kota Bharu Kelantan, Keningau Sabah, Kangar Perlis, Seremban Negeri Sembilan, Pasir Gudang Johor, UTC Shah Alam Selangor, UTC Keramat, UTC Komtar	120,946
2022	23	Ayer Keroh Melaka, Pudu Sentral, Kompleks MBAS Alor Setar, Ipoh, Mini Sentul, Kuantan, Kota Kinabalu, Galeria Johor, Kuching Sarawak, Sungai Petani Kedah, Labuan, Sibu Sarawak, Miri Sarawak, Terengganu, Tawau Sabah, Kota Bharu Kelantan, Keningau Sabah, Kangar Perlis, Seremban Negeri Sembilan, Pasir Gudang Johor, UTC Shah Alam Selangor, UTC Keramat, UTC Komtar	197,578

Source: Oral Health Programme MOH

- Rural Transformation Centre (RTC)**

In year 2022, there were five (5) RTCs that provided oral health services in Malaysia. The number has gone down from eight (8) to five (5) since it was introduced in year 2017. The closure of RTCs could be due to establishment of government dental clinics nearby (**Table 4.41**). There was also reduction in patients' attendance between year 2019 and year 2022 as compared to before year 2019.

Table 4.41
Oral Health Services in Rural Transformation Centres (RTCs), 2018 to 2022

Year	Dental Clinics at RTCs		Patient Attendances
	Total RTCs	Location	
2018	8	Gopeng, Wakaf Che Yeh, Pekan, Jitra, Kulaijaya, Sibuti, Mid Layar, Sungai Rambai	13,059
2019	7	Gopeng, Wakaf Che Yeh, Pekan, Jitra, Sibuti, Mid Layar, Sungai Rambai	14,171
2020	6	Wakaf Che Yeh, Pekan, Jitra, Sibuti, Mid Layar, Sungai Rambai	8,777
2021	5	Wakaf Che Yeh, Sungai Rambai, Pekan, Sibuti, Mid Layar	8,060
2022	5	Wakaf Che Yeh, Sungai Rambai, Pekan, Sibuti, Mid Layar	9,924

Source: Oral Health Programme MOH

- Oral Health Services at Elderly and Special Needs Institutions**

Outreach oral healthcare at elderly and special needs (PDK, *Pusat Pemulihan Dalam Komuniti* and non-PDK) institutions using mobile dental teams or clinics aims to provide holistic support, both in terms of health and social to these identified groups in collaboration with government and non-government agencies. A total of 312 institutions for the elderly were visited and 6,689 patients were seen in year 2022. The highest number of patients seen and institutions visited was in Johor with 1,396 patients at 83 institutions (**Table 4.42**). There were 528 institutions for the special needs visited in year 2022, with the highest coverage was also in Johor (86). A total of 10,682 patients were seen in year 2022, the highest seen was in Johor (2,006) (**Table 4.43**).

Table 4.42
Number of Elderly Patients Seen in Institution, 2022

State	Government Institution		Private Institution		Total Patients Seen
	No. of Institution	No. of Institution Visited	No. of Institution	No. of Institution Visited	
Perlis	1	1	3	3	138
Kedah	2	1	16	10	204
Pulau Pinang	2	1	38	15	924
Perak	5	5	71	50	1,344
Selangor	5	5	50	48	939
FT KL & Putrajaya	2	2	8	7	164
Negeri Sembilan	0	0	20	15	329
Melaka	3	3	10	7	233
Johor	16	14	87	69	1,396
Pahang	4	3	24	24	328
Terengganu	6	5	1	1	191
Kelantan	3	3	15	5	190
Sabah	8	7	6	5	249
Sarawak	4	1	22	2	60
FT Labuan	0	0	0	0	0
Malaysia	61	51	371	261	6,689

Source: Oral Health Programme MOH, 2022

Table 4.43
Number of Special Needs Patients Seen in Institution, 2022

State	PDK		Non-PDK		Total Patients Seen
	No. of Institution	No. of Institution Visited	No. of Institution	No. of Institution Visited	
Perlis	9	9	1	1	183
Kedah	43	23	4	0	820
Pulau Pinang	24	6	8	1	727
Perak	41	39	21	16	743
Selangor	52	52	5	3	932
FT KL & Putrajaya	13	14	5	1	457
Negeri Sembilan	44	34	2	1	791
Melaka	18	18	7	7	356
Johor	73	73	14	13	2,006
Pahang	52	45	7	7	668
Terengganu	47	37	1	0	644
Kelantan	44	44	1	1	654
Sabah	35	25	22	16	873
Sarawak	53	33	16	6	795
FT Labuan	2	2	1	1	33
Malaysia	550	454	114	74	10,682

Source: Oral Health Programme MOH, 2022

- Outreach Services at People's Housing Project (PPR)**

This initiative started in year 2018, targeting the marginalised population of the lower socio-economic status. The oral health services include oral health promotion, prevention and curation. In year 2022, a total of 44 PPRs were visited and 2,446 patients received oral healthcare services. The percentage of case completion among these patients was 21 per cent (Table 4.44).

Table 4.44
Outreach Services at People's Housing Projects (PPRs), 2022

States	No. of PPRs visited	No. of Patients Seen	Percentage Case Completion (%)
Perlis	3	187	18.7
Kedah	3	219	5.9
Pulau Pinang	3	131	34.4
Perak	4	178	10.1
Selangor	4	141	14.9
FT KL & Putrajaya	5	310	39.4
Negeri Sembilan	2	106	42.5
Melaka	3	255	19.2
Johor	3	141	41.8
Pahang	3	183	0.0
Terengganu	1	160	29.4

States	No. of PPRs visited	No. of Patients Seen	Percentage Case Completion (%)
Kelantan	2	269	15.6
Labuan	-	-	-
Sabah	4	206	15.5
Sarawak	4	284	15.5
Total	44	2,446	21.0

Source: Oral Health Programme MOH, 2022

- **Kampung Angkat Programme**

In year 2022, *Kampung Angkat* Programme was initiated to strengthen the oral health promotion activity through community event and home visits. This programme is aimed to increase accessibility of oral health services to the rural community. Among the oral health services provided are oral health promotion, prevention and dental treatment. A total of 305 *kampung angkat* were visited and 19,637 patients received dental checkup or treatment in year 2022. The percentage of case completion among these patients were 20.6 per cent (**Table 4.45**).

Table 4.45
Kampung Angkat by State, 2022

States	No. of Kampung Angkat Visited	No. of Patients Seen	No. of Patient with Case Completion	Percentage Case Completion (%)
Perlis	3	92	17	18.5
Kedah	21	1,575	251	15.9
Pulau Pinang	27	1,317	564	42.8
Perak	22	1,138	334	29.4
Selangor	22	1,096	316	28.8
FT KL & Putrajaya	5	358	109	30.5
Negeri Sembilan	71	2,252	197	8.8
Melaka	21	1,730	276	16.0
Johor	20	1,403	314	22.4
Pahang	28	1,331	282	21.2
Terengganu	10	1,637	143	8.7
Kelantan	31	4,020	1,040	25.9
Labuan	2	4	3	75.0
Sabah	17	1,487	162	10.9
Sarawak	5	197	34	17.3
Total	305	19,637	4,042	20.6

Source: Oral Health Programme MOH, 2022

- **Orang Asli & Penan Programme**

Starting year 2022, coverage of dental services to the *Orang Asli & Penan* community is one of the Key Performance Indicators of the Ministry of Health's Strategic Plan. In year 2022, the oral health coverage of *Orang Asli & Penan* was 22.2 per cent (**Table 4.46**). The coverage of *Orang Asli* in all states were more than 15.0 per cent (the targets sets at 15 per cent), except Sarawak, the coverage of *Penan* was only 4.0 per cent. The *Orang Asli & Penan* are not only served by the government, but also by NGOs and other agencies such as the Ministry of Higher Education and the Ministry of Defence, which provide oral health services.

Table 4.46
Number of Orang Asli & Penan Patients Seen by State, 2022

States	No. of patients	Percentage coverage (%)
Kedah	213	68.7
Perak	13,797	22.8
Selangor	6,782	33.2
Negeri Sembilan	3,246	27.0
Melaka	546	31.3
Johor	3,296	21.1
Pahang	18,050	23.0
Terengganu	387	38.6
Kelantan	4,227	25.4
Sarawak	1,029	4.0
Malaysia	51,684	22.2

Source: Oral Health Programme, MOH 2022

Oral Healthcare for Preschool Children

In year 2022, a total of 24,380 preschools, of which 18,935 were government-run and 5,445 were private received oral health services. The coverage of preschools were low in year 2020 (14.2%) and year 2021 (16.5%) compared to previous years. However, in year 2022, the coverage of government-run and private preschools have increased to 78.7 per cent and 78.0 per cent accordingly (**Table 4.47**).

Table 4.47
Coverage of Preschools, 2018 to 2022

Year	Total Preschools	Government-Run Preschools	Private Preschools	Government-Run Preschools Covered (%)	Private Preschools Covered (%)
2018	21,488	16,769	4,719	97.0	92.1
2019	21,799	16,867	4,932	97.1	97.2
2020	22,254	16,915	5,339	27.7	14.2
2021	24,110	18,557	5,553	11.3	16.5
2022	24,380	18,935	5,445	78.7	78.0

Source: Health Informatics Centre, MOH (PKP 203)

Table 4.48 shows the coverage of preschools by state, with Sarawak has the highest number of preschools (4,820) followed by Johor (2,702) and Sabah (2,541). States with the least number of kindergartens were Labuan (84) and Perlis (301).

Table 4.48
Coverage of Preschools by State, 2022

State	Total Preschools	Government Preschools	Private Preschools	No. of Government Preschools Covered	No. of Private Preschools Covered
Perlis	301	236	65	236	65
Kedah	1,587	1,306	281	1,265	254
Pulau Pinang	765	551	214	551	199
Perak	1,983	1,410	573	1,385	544

State	Total Preschools	Government Preschools	Private Preschools	No. of Government Preschools Covered	No. of Private Preschools Covered
Selangor	2,368	1,498	870	1,494	755
FT KL & Putrajaya	614	461	153	350	89
Negeri Sembilan	917	699	218	601	154
Melaka	781	573	208	537	197
Johor	2,702	2,053	649	1,768	420
Pahang	1,599	1,270	329	1,223	298
Terengganu	1,657	1,327	330	1,252	314
Kelantan	1,661	1,202	459	1,202	459
FT Labuan	84	65	19	65	18
Sabah	2,541	2,148	393	1,514	257
Sarawak	4,820	4,136	684	1,451	222
Malaysia	24,380	18,935	5,445	14,894	4,245

Source: Oral Health Program, MOH 2022

Out of 731,489 preschool children, 74.7 per cent (546,219) were covered in year 2022. State with highest coverage was in Pulau Pinang (93.9%) and lowest coverage was in Sarawak (37.6%) **Table 4.49.**

Table 4.49
Coverage of Preschool Children by State, 2022

State	Estimated Enrolment of Preschool Children	No. of Preschool Children Covered	Percentage of Preschool Children Covered (%)
Perlis	8,442	6,159	73.0
Kedah	42,995	37,234	86.6
Pulau Pinang	23,175	21,750	93.9
Perak	58,581	53,112	90.7
Selangor	91,532	80,161	87.6
FT KL & Putrajaya	27,613	18,141	65.7
Negeri Sembilan	25,673	17,118	66.7
Melaka	23,905	20,716	86.7
Johor	76,174	55,184	72.4
Pahang	45,438	41,643	91.6
Terengganu	43,088	37,129	86.2
Kelantan	56,416	51,773	91.8
FT Labuan	3,458	3,169	91.6
Sabah	75,119	54,119	72.0
Sarawak	129,880	48,811	37.6
Malaysia	731,489	546,219	74.7

Source: Oral Health Program, MOH 2022

Oral Healthcare for Schoolchildren

• Primary Schoolchildren

After two (2) years of movement restrictions and interruption of schools activity due to pandemic COVID-19, all schools have resumed normally in May 2022. As a result, the percentage of primary schools covered has increased from 1.4 per cent in year 2021 to 45.9 per cent in year 2022 (91.6%) (Table 4.50).

Table 4.50
Coverage of Primary Schools, 2018 to 2022

Year	Total No. of Primary Schools	No. of Primary Schools Covered	Primary Schools Covered (%)
2018	7,851	7,420	94.5
2019	7,865	7,469	94.9
2020	7,851	2,274	28.9
2021	7,860	110	1.4
2022	7,853	7,197	91.6

Source: Health Informatics Centre, MOH

For year 2022, the percentage of primary schools covered were varied between states. The highest coverage was in FT Labuan (94.4%) and the lowest was Terengganu (14.0%) (Table 4.51).

Table 4.51
Coverage of Primary Schools by States, 2018 to 2022

State	Percentage Primary Schools Covered (%)				
	2018	2019	2020	2021	2022
Perlis	100.0	100.0	100.0	100.0	46.0
Kedah	99.8	100.0	27.5	43.0	33.2
Pulau Pinang	98.9	100.0	25.6	0	73.2
Perak	99.5	99.3	35.4	1.9	82.8
Selangor	99.8	79.8	22.1	0	23.8
FT KL & Putrajaya	100.0	100.0	26.5	1.0	72.1
Negeri Sembilan	100.0	100.0	25.4	0	31.5
Melaka	100.0	100.0	38.5	0	73.6
Johor	100.0	100.0	35.1	0	77.9
Pahang	100.0	99.6	33.2	1.1	68.6
Terengganu	100.0	100.0	17.3	0	14.0
Kelantan	99.3	99.8	24.1	0	29.2
FT Labuan	100.0	100.0	47.1	4.5	94.4
Sabah	89.5	95.1	32.4	0	16.0
Sarawak	75.8	84.3	20.7	0	34.0
Malaysia	94.5	94.9	28.9	35.6	45.9

Source: Health Informatics Centre, MOH

In year 2022, the coverage of primary schoolchildren has increased to 83.1 per cent from 44.4 per cent (2020) and 5.4 per cent (2021) (**Table 4.52**).

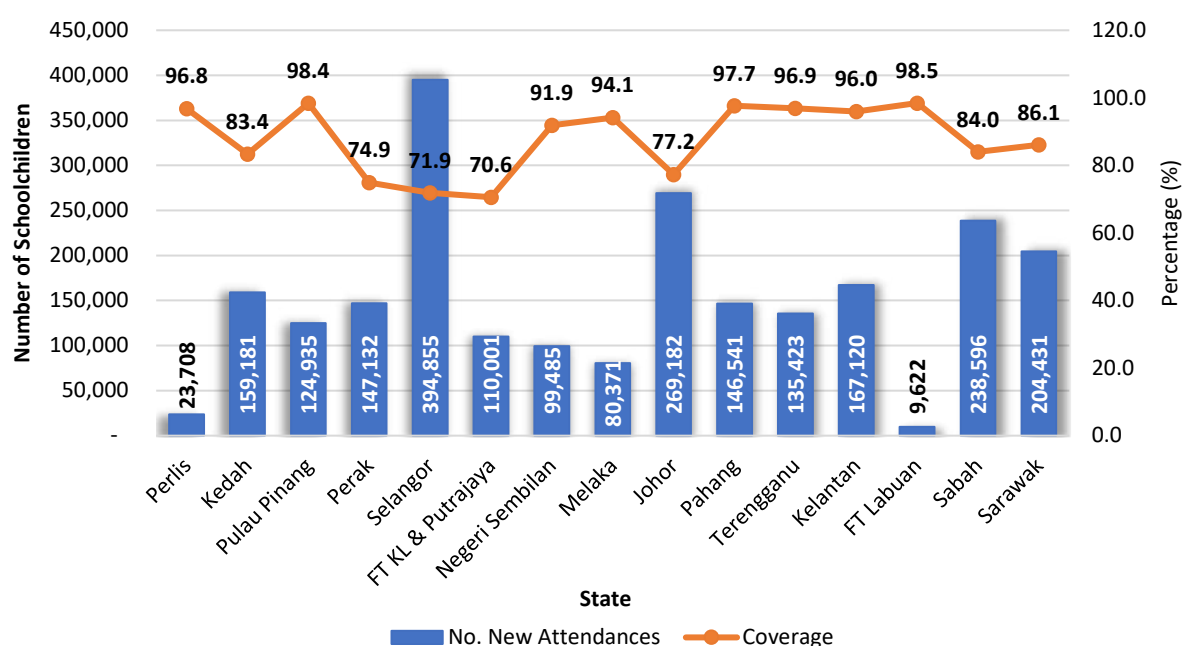
Table 4.52
Coverage of Primary Schoolchildren, 2018 to 2022

Year	Enrolment of Primary Schoolchildren	No. of Primary Schoolchildren Covered	Percentage of Coverage (%)
2018	2,689,218	2,670,944	99.3
2019	2,724,019	2,706,494	99.4
2020	2,735,590	1,214,270	44.4
2021	2,763,559	150,436	5.4
2022	2,781,193	2,310,583	83.1

Source: Health Informatics Centre, MOH

The percentage of primary school children covered were highest in Pulau Pinang (98.4%) and Labuan (98.5%). The lowest coverage was in FT KL & Putrajaya (70.6%) (**Figure 4.63**).

Figure 4.63
Number and Percentage of Primary Schoolchildren Received Primary Oral Healthcare by State, 2022



Source: Health Informatics Centre, MOH 2022

Out of 2,315,432 schoolchildren examined in year 2022, 80.9 per cent were orally-fit, 53.8 per cent does not required treatment (NTR) and 39.3 per cent were caries-free. There was no definite difference between percentage caries free mouth before pandemic COVID-19 and in year 2022 (**Table 4.53**).

Table 4.53
Percentage of Primary Schoolchildren Orally-Fit, NTR and Caries-free, 2018 to 2022

Year	No of Primary Schoolchildren Covered	Percentage Case Completion	Percentage NTR	Percentage Caries-free Mouth (%)
2018	2,670,944	97.4	62.5	38.2
2019	2,706,494	96.9	62.5	38.3
2020	1,214,270	81.7	60.1	34.5
2021	150,436	56.5	40.2	27.8
2022	2,315,432	80.9	53.8	39.3

Source: Health Informatics Centre, MOH

In year 2022, Perak (97.2%) and FT KL & Putrajaya (96.1%) achieved the highest percentage of case completion among the schoolchildren. FT KL & Putrajaya has the highest percentage of NTR (66.4%) and the highest percentage caries-free mouth schoolchildren (59.6%). The range of percentage maintained caries free among the states were between 20.0 per cent and 59.6 per cent (**Table 4.54**).

Table 4.54
Oral Health Status of Primary Schoolchildren by State, 2022

State	Percentage Case Completion (%)	Percentage No Treatment Required (NTR) (%)	Percentage Caries-free Mouth (%)
Perlis	82.8	61.5	42.1
Kedah	74.8	60.0	44.0
Pulau Pinang	90.8	59.2	42.4
Perak	97.2	59.3	37.9
Selangor	78.0	64.8	51.8
FT KL & Putrajaya	96.1	66.4	59.6
Negeri Sembilan	78.2	65.2	51.5
Melaka	84.5	48.0	37.5
Johor	85.9	65.4	48.8
Pahang	89.3	41.3	28.2
Terengganu	73.1	41.8	28.9
Kelantan	72.3	32.3	20.0
FT Labuan	92.9	46.2	28.5
Sabah	67.3	38.8	22.3
Sarawak	79.7	47.3	33.0
Malaysia	80.9	53.8	39.3

Source: Health Informatics Centre, MOH 2022

The gingival health status of primary schoolchildren was assessed based on the Gingival Index for Schoolchildren (GIS) 2013 Guidelines. It was found that 83.9 per cent of primary schoolchildren had a GIS score of 0 (no gingivitis and no calculus) in year 2022. Comparison of GIS scores for primary schoolchildren are tabulated in **Table 4.55**.

Table 4.55
GIS Score for Primary Schoolchildren, 2018 to 2022

Year	New Attendances	GIS 0 (Percentage (%))	GIS 1 (Percentage (%))	GIS 2 (Percentage (%))	GIS 3 (Percentage (%))
2018	2,665,769	2,129,361 (79.9)	148,326 (5.6)	262,569 (9.8)	125,513 (4.7)
2019	2,706,494	2,195,260 (81.1)	158,975 (5.9)	231,449 (8.6)	120,810 (4.5)
2020	1,214,270	1,006,433 (82.9)	67,601 (5.6)	92,515 (7.6)	47,721 (3.9)
2021	150,436	116,446 (77.4)	11,234 (7.5)	13,644 (9.1)	9,112 (6.1)
2022	2,781,193	1,938,919 (83.9)	118,135 (5.1)	153,292 (6.6)	100,237 (4.3)

Source: Oral Health Programme, MOH

- Secondary Schoolchildren**

In year 2022, percentage of secondary schools covered has increased to 90.5 per cent from 5.4 per cent in year 2021. However this percentage was still low compared to year 2019 (Table 4.56).

Table 4.56
Coverage of Secondary Schools, 2018 to 2022

Year	Total No. of Secondary Schools	No. of Secondary Schools Covered	Secondary Schools Covered (%)
2018	2,567	2,247	87.5
2019	2,544	2,314	91.0
2020	2,526	706	27.9
2021	2,504	34	5.4
2022	2507	2,268	90.5

Source: Health Informatics Centre, MOH

For year 2022, the percentage of secondary schools covered were varied between states. The highest coverage was in Perlis (100%) while the lowest were in Terengganu (4.3%) and Sabah (4.6 %) (Table 4.57).

Table 4.57
Percentage of Secondary School Coverage Under Incremental Dental Care by State, 2018 to 2022

State	Percentage of Secondary Schools Covered by Year and State (%)				
	2018	2019	2020	2021	2022
Perlis	100.0	100.0	93.5	0	100.0
Kedah	98.0	100.0	25.6	16.7	35.5
Pulau Pinang	97.7	100.0	23.4	0	69.1
Perak	99.3	99.2	31.2	0	66.8

State	Percentage of Secondary Schools Covered by Year and State (%)				
	2018	2019	2020	2021	2022
Selangor	89.6	92.1	23.7	0	16.5
FT KL & Putrajaya	100.0	100.0	35.8	0	73.4
Negeri Sembilan	100.0	100.0	33.1	0	24.2
Melaka	100.0	100.0	36.7	0	59.5
Johor	100.0	100.0	30.1	0	64.5
Pahang	100.0	100.0	30.1	0	38.1
Terengganu	98.8	99.4	30.3	0	4.3
Kelantan	71.4	84.6	84.3	0	11.1
FT Labuan	100.0	100.0	30.0	0	20.0
Sabah	57.7	65.1	17.4	0	4.6
Sarawak	32.3	38.1	50.8	0	16.1
Malaysia	86.7	87.5	28.0	1.4	35.8

Source: Health Informatics Centre, MOH

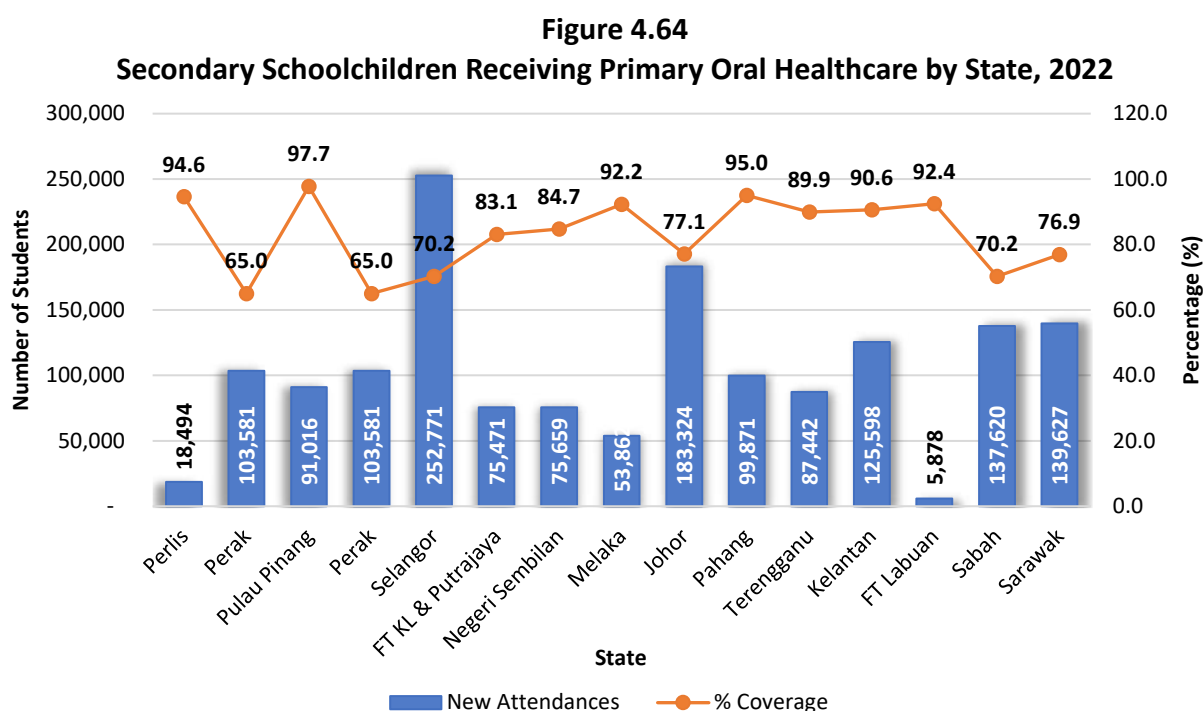
In year 2022, percentage coverage of secondary schoolchildren has increased to 78.9 per cent compared to 2.8 per cent in year 2021. However the coverage was still low compared to before COVID-19 (**Table 4.58**).

Table 4.58
Coverage of Secondary Schoolchildren, 2018 to 2022

Year	Enrolment of Secondary Schoolchildren	No of Secondary Schoolchildren Covered	Coverage (%)
2018	1,987,860	1,926,123	96.9
2019	1,950,362	1,896,608	97.2
2020	1,957,679	929,185	47.5
2021	1,994,132	55,659	2.8
2022	1,975,865	1,559,083	78.9

Source: Health Informatics Centre, MOH

Pulau Pinang recorded the highest secondary schoolchildren covered (97.7%) followed by Pahang (95.0%) and Perlis (94.6%) (**Figure 4.64**).



Source: Health Informatics Centre, MOH 2022

Out of 1,559,083 secondary schoolchildren examined in year 2022, 76.2 per cent were orally fit, 61.1 per cent does not required treatment (NTR) and 63.8 per cent were caries free. Data showed that percentage of maintained caries free was highest (63.8%) in year 2022 for the last 6 years (**Table 4.59**).

Table 4.59
Percentage of Secondary Schoolchildren Orally Fit, NTR and Caries Free, 2018 to 2022

Year	No. of Secondary Schoolchildren Covered	Percentage Case Completion (%)	Percentage NTR (%)	Percentage Caries Free Mouth (%)
2018	1,926,123	93.6	67.7	59.1
2019	1,896,608	94.5	68.4	60.1
2020	929,185	82.3	67.6	58.9
2021	55,659	52.2	38.7	42.1
2022	1,559,083	76.2	61.1	63.8

Source: Health Informatics Centre, MOH

In year 2022, the highest percentage of orally fit were in Perak (95.0%), FT KL & Putrajaya (92.3%) and Pulau Pinang (90.7%) while the lowest was Sabah (49.9%). Meanwhile, percentage of NTR among all states were between 35.6 per cent and 75.4 per cent. Furthermore, FT KL & Putrajaya has the highest percentage of caries free mouth (92.3%) (**Table 4.60**).

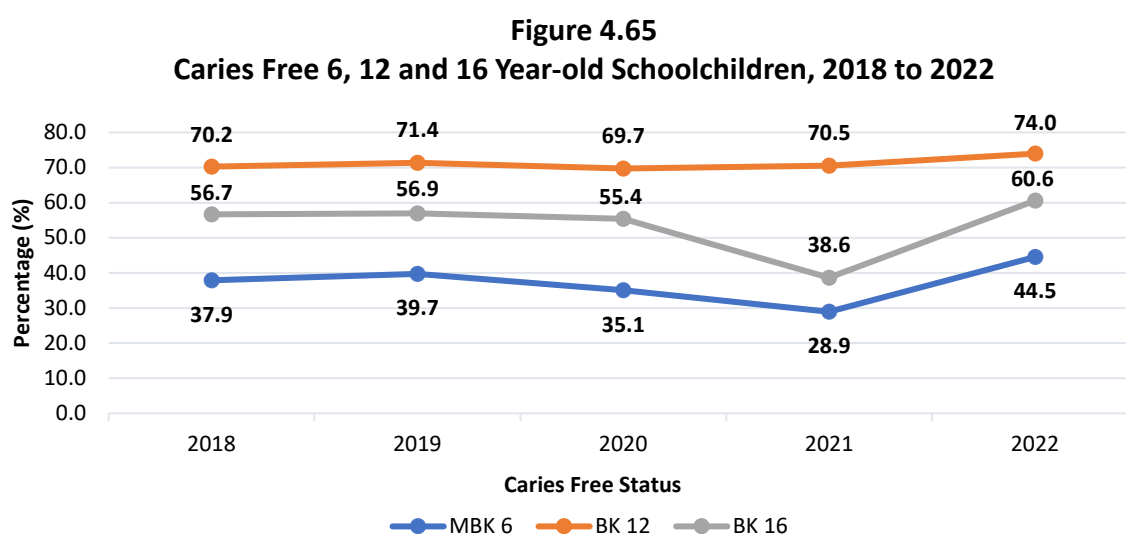
Table 4.60
Oral Health Status of Secondary Schoolchildren by State, 2022

States	Percentage Case Completion (%)	Percentage NTR (%)	Percentage Caries-free Mouth (%)
Perlis	84.7	65.8	64.4
Kedah	77.6	66.7	72.1
Pulau Pinang	90.7	75.4	73.8
Perak	95.0	65.7	72.9
Selangor	81.9	74.8	79.8
FT KL & Putrajaya	92.3	75.0	92.3
Negeri Sembilan	74.6	65.6	75.6
Melaka	85.6	47.9	66.3
Johor	82.6	72.3	75.7
Pahang	84.6	55.0	54.4
Terengganu	56.0	48.3	49.2
Kelantan	63.0	44.4	41.3
FT Labuan	82.3	49.7	55.3
Sabah	49.9	35.6	33.6
Sarawak	64.6	51.6	49.3
Malaysia	76.2	61.1	63.8

Source: Health Informatics Centre, MOH 2022

- Impact Indicators – Caries Free 6, 12 and 16 Year-old Schoolchildren and NTR for Primary Schoolchildren**

Overall, the caries free status of schoolchildren in year 2022 was the highest for the last five (5) years (from year 2018 until year 2022). However, the percentages were still lower than the targets set for caries free 6, 12 and 16 year-old (50.0%, 80.0% and 70.0% respectively) in The National Oral Health Strategic Plan 2022-2030 (**Figure 4.65**).



Source: Health Informatics Centre, MOH

The impact of caries free 6, 12 and 16 year-old schoolchildren is showed in **Table 4.61**.

Table 4.61
Caries Free 6, 12 and 16 Year-old Schoolchildren by State, 2022

State	6 Years Old			12 Years Old			16 Years Old		
	New Attendance	No. MBK 6	% MBK6	New Attendance	No. BK 12	% BK12	New Attendance	No. BK 16	% BK16
Perlis	3,962	1,825	46.1	3,763	2,965	78.8	3,289	2,031	61.8
Kedah	25,923	12,624	48.7	26,160	21,147	80.8	20,095	13,996	69.7
Pulau Pinang	20,775	10,023	48.3	19,461	16,043	82.4	16,584	11,808	71.2
Perak	23,763	10,299	43.3	23,682	18,896	79.8	19,068	13,466	70.6
Selangor	67,435	38,731	57.4	60,626	51,738	85.3	46,504	36,064	77.6
FT KL & Putrajaya	19,202	12,142	63.2	16,449	14,091	85.7	13,839	10,789	78.0
Negeri Sembilan	16,470	9,588	58.2	15,548	13,176	84.7	13,484	9,870	73.2
Melaka	13,771	6,246	45.4	12,321	9,890	80.3	10,309	6,433	62.4
Johor	45,213	24,969	55.2	42,701	35,980	84.3	33,415	24,491	73.3
Pahang	24,577	7,608	31.0	22,870	14,972	65.5	18,220	9,387	51.5
Terengganu	23,068	6,846	29.7	20,811	14,646	70.4	15,980	6,920	43.3
Kelantan	27,161	5,905	21.7	27,201	15,742	57.9	23,695	8,874	37.5
FT Labuan	1,663	583	35.1	1,382	847	61.3	1,033	528	51.1
Sabah	38,284	10,878	28.4	38,218	18,167	47.5	25,558	7,403	29.0
Sarawak	31,361	12,199	38.9	34,596	22,430	64.8	27,536	12,795	46.5
Malaysia	382,628	170,466	44.6	365,789	270,730	74.0	288,609	174,855	60.6

Source: Health Informatics Centre, MOH 2022

The mean DMFT for 12-year-old and 16-year-old children has shown an improvement in year 2022 compared to year 2021 (**Table 4.62**).

Table 4.62
Mean DMFT Score for 12 and 16-Year-old, 2018 to 2022

Age Group	2018	2019	2020	2021	2022
12-year-old	0.7	0.7	0.7	0.7	0.6
16-year-old	1.4	1.3	1.4	2.4	1.2

Source: Health Informatics Centre, MOH

In year 2022, the gingival health status of secondary schoolchildren was reported at 65.8 per cent for GIS score of 0 (2013 GIS Guideline). The percentage of GIS 0 has increased in year 2022 compared to year 2021 but it was still lower compared year 2017 until year 2020. The comparison of GIS scores for secondary schoolchildren is shown in **Table 4.63**.

Table 4.63
GIS Score for Secondary Schoolchildren, 2018 to 2022

Year	New Attendances	GIS 0 (Percent (%))	GIS 1 (Percent (%))	GIS 2 (Percent (%))	GIS 3 (Percent (%))
2018	1,923,072	1,365,278 (70.7)	165,474 (8.6)	204,602 (10.6)	187,718 (9.7)
2019	1,896,608	1,371,551 (72.3)	167,445 (8.8)	184,359 (9.7)	173,253 (9.1)
2020	929,185	671,133 (72.2)	85,727 (9.2)	90,000 (9.7)	82,325 (8.9)
2021	55,659	27,620 (49.6)	9,946 (17.9)	7,387 (13.3)	10,706 (19.2)
2022	1,559,083	1,025,553 (65.8)	156,272 (10.2)	172,229 (11.1)	205,029 (13.2)

Source: Oral Health Programme, MOH

Primary Prevention & Early Detection of Oral Potentially Malignant Disorders (OPMDs) and Oral Cancers

As oral cancer remains a major health concern in Malaysia, the OHP MOH has strengthened its Primary Prevention and Early Detection of OPMDs and Oral Cancers Programme through collaboration with relevant agencies.

To upsurge the number of people who are screened for oral cancer, all new patients who are 18 years old or older undergoing dental screening will also be screened for oral lesions (opportunistic screening). If oral lesion was suspected as OPMDs or oral cancer, patient will be referred to dental specialist for further assessment or investigation. The attendance of referred patients to specialist clinics and their diagnoses will be tracked.

High risk community is identified based on location with widespread prevalence of high-risk habits or identified cancer cases and these communities shall be visited once in every five (5) years. However, it is difficult to identify the high risk communities as the occurrence of oral cancer cases were no longer among known communities like estates' workers. Hence, efforts on mouth self-examination activity is being emphasised to ensure that people can identify any abnormalities in their mouth.

- High Risk Community**

In year 2022, a total of 352 high-risk communities were visited and 5,768 residents aged 18 years and above were screened for oral lesions (**Table 4.64**).

Table 4.64
OPMDs & Oral Cancer Screening and Prevention Programme
(High Risk Community Screening), 2022

No. of High Risk Community Visited		No. of Patients Screened
New	Repeat	
291	61	5,768

Source: Oral Health Programme, MOH 2022

Among the screened patients, only five (5) patients were referred to OMFS or OPOM specialists for further investigation and management (**Table 4.65**). All cases referred were not diagnosed as malignant cases.

Table 4.65
Patients Screened and Referred by State (High Risk Community Screening), 2022

State	No. of Patients Screened	No. of Patients with Lesions Referred
Perlis	0	0
Kedah	151	4
Pulau Pinang	198	0
Perak	1,578	0
Selangor	975	1
FT KL & Putrajaya	326	0
Negeri Sembilan	503	0
Melaka	212	0
Johor	101	0
Pahang	723	0
Terengganu	131	0
Kelantan	168	1
Sabah	527	0
Sarawak	175	0
FT Labuan	0	0
Malaysia	5,768	5

Source: Oral Health Programme, MOH 2022

- Opportunistic Screening at dental clinics and outreach settings**

The total number of patients screened in year 2022 were higher compared to year 2020 and year 2021 but it was lower compared to year 2019 and below (**Table 4.66**). This was due to pandemic COVID-19 which has caused changes in oral healthcare activities. However, the number of patients referred to dental specialists and the compliance rates had increased over the years. For year 2022, OHP MOH has set the target of ≥ 80 per cent for the compliance rate of referred patients to be seen by dental specialists to strengthen the navigation system.

Table 4.66
Patients Screened and Referred (Opportunistic Screening), 2018 to 2022

Year	No. of New Attendees	No. of Patients Screened	No. With Lesion		No. of Patients Referred	No. Seen by Surgeons	
			n	%		n	%
2018	2,468,360	113,650	969	0.9	478	348	72.8
2019	2,387,229	112,748	949	0.8	496	406	81.9
2020	1,615,758	601,075	917	0.2	579	485	83.8
2021	1,578,168	1,206,635	819	0.1	636	553	86.9
2022	1,913,923	1,892,283	1,192	0.1	666	596	89.5
Total	18,213,976	4,239,900	6,335	0.1	3,868	2,949	76.2

Source: Oral Health Programme, MOH

In year 2022, a total of 1,892,283 patients were screened at dental clinics and outreach activities. Among those, 1,192 patients were found with lesions and 666 were referred to OMFS or OPOM specialists for further investigation and management (**Table 4.67**). Of these, 596 (89.5%) complied with referral to specialists. Sabah (21) had detected the highest oral lesion cases through oral cancer screening programme followed by Selangor (15), Sarawak (12) and Johor (11) (**Table 4.68**).

Table 4.67
Patients Screened and Referred by State (Opportunistic Screening), 2022

State	No. of New Attendees	No. of Patients Screened	No. of Patients with lesion Referred	No. Seen by Surgeons	
				n	%
Perlis	30,348	30,348	18	17	94.4
Kedah	131,226	131,049	19	19	100.0
Pulau Pinang	123,906	123,903	41	37	90.2
PPKK & ILKKM	1,931	1,931	1	1	100.0
Perak	172,783	171,054	56	52	92.9
Selangor	219,994	218,793	107	95	88.8
FT KL & Putrajaya	134,396	127,851	45	40	88.9
Negeri Sembilan	103,820	101,897	35	33	94.3
Melaka	97,205	94,977	35	31	88.6
Johor	216,594	215,316	78	64	82.1
Pahang	133,576	132,655	58	55	94.8
Terengganu	106,098	104,404	8	8	100.0
Kelantan	128,552	128,365	50	49	98.0
Sabah	145,035	144,015	60	44	73.3
Sarawak	156,041	153,307	52	48	92.3
FT Labuan	12,418	12,418	3	3	100.0
Malaysia	1,913,923	1,892,283	666	596	89.5

Source: Oral Health Programme, MOH 2022

Table 4.68
Staging of Oral Cancer Cases by State (Opportunistic Screening), 2022

State	No. of Cases Seen by Specialists	Staging				
		Stage 1	Stage 2	Stage 3	Stage 4	Total
Perlis	17	0	0	0	0	0
Kedah	19	0	1	3	1	5
Pulau Pinang	37	1	2	1	1	5
PPKK & ILKKM	1	0	0	0	0	0
Perak	52	0	2	1	7	10
Selangor	95	0	4	5	6	15

State	No. of Cases Seen by Specialists	Staging				
		Stage 1	Stage 2	Stage 3	Stage 4	Total
FT KL & Putrajaya	40	1	1	0	2	4
Negeri Sembilan	33	1	3	2	1	7
Melaka	31	0	1	0	0	1
Johor	64	0	0	1	10	11
Pahang	55	1	0	0	6	7
Terengganu	8	0	0	0	4	4
Kelantan	49	0	0	1	2	3
Sabah	44	1	0	5	15	21
Sarawak	48	2	2	0	8	12
FT Labuan	3	0	0	0	2	2
Malaysia	596	7	16	19	65	107

Source: Oral Health Programme, MOH 2022

Table 4.69 shows the number of oral cancer cases by stages between year 2018 and year 2022. Number of patients detected with oral cancer through opportunistic screening was highest in year 2022 (107) followed by year 2020 (103). The increase in the number of oral cancer cases detected was due to the increase in the number of patients who were screened. In addition, majority of patients were detected at later stage i.e. stage 4. The late detection of oral cancer may be attributed to patients' delayed seeking of medical attention and their lack of knowledge about oral health.

Table 4.69
Staging of Oral Cancer Cases (Opportunistic Screening), 2018 to 2022

Year	No. of Cases Seen by Specialists	Staging				
		Stage 1	Stage 2	Stage 3	Stage 4	Total
2018	348	8	6	15	36	65
2019	406	3	9	11	48	71
2020	485	12	16	14	61	103
2021	553	12	20	19	43	94
2022	596	7	16	19	65	107
Total	2,949	76	97	99	303	575

Source: Oral Health Programme, MOH

- Mouth Cancer Awareness Week (MCAW)**

Mouth Cancer Awareness Week 2022 (MCAW 2022) was held from 6 to 12 November 2022 with the theme #Care4All. This event was a collaboration of OHP MOH and main organiser, Oral Cancer Research & Coordinating Centre (OCRCC), Faculty of Dentistry, University of Malaya along with 20 other agencies.

Nationally, MCAW 2022 was launched by the Principal Director of Oral Health on 6 November 2022 at Dataran Dewan Bandaraya Kuala Lumpur (DBKL). Among the activities held in conjunction with the launch were 3KM/5KM Run/Walk, flash mob gimmick, education booth, kid's activity booth, mouth & health screening and dental buskers.

At state level, launching ceremony, oral cancer screening and various promotional activities were carried out. A total of 807 awareness exhibitions attended by 43,836 participants and 1,933 talks to 37,191 individuals were successfully delivered.

- **Training**

In year 2022, 42 calibration sessions were held by the states on the Primary Prevention and Early Detection of OPMDs and Oral Cancers Programme, with 1,391 dental officers participating. A total of 6,755 dental and non-dental staffs of MOH and 333 private medical and dental practitioners had participated in Oral Cancer Awareness & Mouth Self Examination Session.



**ACTIVITIES &
ACHIEVEMENTS**

ORAL HEALTH PRACTICE AND DEVELOPMENT DIVISION

ORAL HEALTH ACCREDITATION AND GLOBALISATION

This section has four (4) main functions. The first two (2) functions involve matters related to the accreditation of the Undergraduate Dental Degree Programmes and the Postgraduate Dental Programmes offered by the local Higher Education Providers (HEP). The section performs these two (2) functions through its role as secretariat to the Joint Technical Accreditation Committee (JTAC) for the undergraduate dental degree programmes and the Joint Technical Committee for Evaluation of Dental Specialty Programme (JTCEDSP) for the postgraduate dental degree programmes. The two (2) committees are established under the jurisdiction of the Malaysian Dental Council (MDC) as stated in the Malaysian Qualification Agency (MQA) Act (Act 679).

The section also represents the OHP MOH in the *Jawatankuasa Penggunaan Fasilitas MOH* that manages applications from local HEP to use MOH facilities for the training of their students. In addition, this section is also accountable to provide input on matters related to the implementation of the liberalisation of the oral health services sector to the *Bahagian Dasar dan Hubungan Antarabangsa*, MOH.

The ASEAN Joint Coordinating Committee on Dental Practitioners (AJCCD) is the committee under the Healthcare Services Sectoral Working Group (HSSWG) that discusses matters pertaining to facilitation of cooperation on Mutual Recognition Agreement (MRA) on Dental Practitioners. The section and Secretary of the MDC represents the OHP MOH. This committee comprises of ten ASEAN member countries.

The four (4) main functions of this section are:

- i. Accreditation of Undergraduate Dental Degree Programme;
- ii. Accreditation of Postgraduate Dental Degree Programme;
- iii. Utilisation of MOH facility for training of undergraduates and postgraduate dental students; and
- iv. Globalisation and Liberalisation of Oral Health Services.

Accreditation of Undergraduate Dental Degree Programme

Among the highlights of targets achieved under this function is the completed revision of the Code of Practice for Programme Accreditation – Bachelor of Dental Surgery (BDS) or Equivalent (COPPA BDS 2.1).

The COPPA Committee was tasked to update the Dental Program Accreditation Code of Practice document version 2 (COPPA-V2) of 2019 in the JTAC no. 5/2021 meeting. The COPPA Committee discussed and held a workshop to finalise the COPPA document on 23 to 25 March 2022. The updated COPPA document named COPPA BDS 2.1 was certified at the fourth MDC meeting on 2 August 2022 and will come into effect on 1 January 2023.

• Accreditation Evaluation Visits

In year 2022, after pandemic restrictions on physical visits were lifted, the section completed seven (7) accreditation evaluation visits as scheduled. One (1) of these visits was to review an application for renewed accreditation status and the other six (6) visits were to monitor compliance of the programme with programme standards as instructed by the MDC.

- **Renewal for Full Accreditation Visits**

In year 2022, MAHSA University was the only institution whose programme was due for accreditation renewal. The evaluation visit was conducted on 8 to 10 March 2022. The MQA endorsed the findings of the Panel of Assessors during their third meeting on 1 June 2022. MAHSA University was awarded a renewal of accreditation status for their programme with effective date on 15 June 2022 until 14 June 2027 for duration of five (5) years.

- **Provisional Accreditation Visits**

Management and Science University (MSU) applied for provisional accreditation for two (2) dental undergraduate programmes. The following programmes were submitted for review:

- Bachelor of Dental Surgery (BDS); and
- Bachelor of Oral Health Sciences (Hons) (BOH).

However, neither application were awarded provisional accreditation by the MDC.

- **Compliance/ Monitoring Visits**

A total of six (6) compliance/ monitoring evaluations were completed for the following HEPs (Table 5.1):

Table 5.1
Compliance / Monitoring Visits for the Higher Education Providers, 2022

No.	Higher Education Provider	Completion Date
1.	Lincoln University College	June 2022
2.	Penang International Dental College (PIDC)	July 2022
3.	AIMST University	August 2022
4.	International Islamic University Malaysia (IIUM)	September 2022
5.	Manipal University College Malaysia (MUCM)	October 2022
6.	Universiti Kebangsaan Malaysia (UKM)	November 2022

Source: Oral Health Programme, MOH 2022

- **Applications for Amendment to Students Intake Quota**

The JTAC deliberated on three (3) applications for an increase in the admission of current annual number of students. They then made recommendations to the MDC for a final decision on the request. Even though the moratorium on dental undergraduate programmes was lifted in year 2019, all applications for an increase in the number of students admitted are still subject to the capacity of the HEP to accommodate them. This includes the HEP's infrastructure and the number of academic staff available to teach the students. In year 2022, applications were received from three universities namely AIMST University, MUCM and SEGi University.

- **Credit Transfers**

In year 2022, JTAC considered two applications, both from MAHSA University. Both applications were approved.

- **Curriculum Review**

In accordance with the standards set in the COPPA BDS 2.1, all programmes must ensure that their curriculum review is performed every five years. In year 2022, five (5) programmes carried out curriculum review namely:

- Lincoln University College (LUC) – June;

- ii. International Islamic University Malaysia (IIUM) – August;
- iii. AIMST University – August;
- iv. MAHSA University – October; and
- v. Manipal University College Malaysia (MUCM) – October.

- **Updating the Code of Practice for Accreditation of Dental Degree Programme**

The COPPA Committee first developed the document for the accreditation of dental degree programmes in year 2002. It outlines the policies, standards and procedures as well as organisations and committees involved in the accreditation process. The COPPA Committee has made several revisions to the document, particularly to the "Standards and Criteria" section. The most recent update was in year 2019. However, in line with the latest policies and developments, there is a need to revise and improve the document.

The revision was co-led by the COPPA Committee and was co-chaired by Professor Emeritus Dato' Dr. Wan Mohamad Nasir bin Wan Othman and Professor Dato' Dr. Mohamed Ibrahim bin Abu Hassan. Significant changes were made to update the criteria and standards used to assess the dental degree programmes. Efforts were also made to improve clarity on the forms of data that would be needed from HEP to evaluate the programmes.

On 5 to 7 October 2022, a workshop was held in Ipoh, Perak to train the Panels of Assessors (accreditation assessment) on the standards and criteria for accreditation assessment of dental degree programs in line with COPPA BDS 2.1. This was important as the number of trained assessors had been declining due to retirement and lack of training. The workshop successfully trained new assessors and improved the skills of existing assessors. A total of 40 Dental Specialists from the Ministry of Health and local Higher Education Providers participated.

Five (5) speakers namely Prof. Emeritus Dato' Dr. Wan Mohamad Nasir bin Wan Othman, Dato' Dr. Mohamed Ibrahim bin Abu Hassan, Prof. Dr. Noorliza Mastura binti Ismail, Associate Prof. Dr. Mohd Fadhli bin Khamis and Mr. Mohd Ishak bin Mohd Hussaini (MQA), were able to provide guidance and answers to participants throughout the workshop. They have successfully discussed a variety of issues related to the accreditation process for dental degree programmes.

- **Joint Technical Accreditation Committee (JTAC)**

A total of seven (7) JTAC meetings were held in year 2022 (**Table 5.2**). Of the seven (7) meetings held, six (6) of these meetings were held as scheduled, while one special meeting was held on 20 July 2022 to discuss amendments to the Code of Practice for Programme Accreditation – Bachelor of Dental Surgery Programme or Equivalent, COPPA BDS 2.1. A total of 17 recommendations were made by JTAC and these were sent to the MDC for decision. The MDC later extended these recommendations to the MQA.

Table 5.2
Joint Technical Accreditation Committee Meetings, 2022

JTAC Meeting	Date of Recommendation	Proposal Paper	Notification Paper
No 1/ 2022	6 January 2022	1	0
No 2/ 2022	7 March 2022	0	0
No 3/ 2022	28 April 2022	2	0
No 4/ 2022	4 July 2022	1	1

JTAC Meeting	Date of Recommendation	Proposal Paper	Notification Paper
Special Meeting	20 July 2022	1	0
No 5/ 2022	8 September 2022	3	0
No 6/ 2022	14 November 2022	9	0

Source: Oral Health Programme, MOH 2022

Accreditation of Post-Graduate Dental Degree Programme

The MQA transferred the duties and role as JTCEDSP secretariat to the Oral Health Accreditation and Globalisation Section on 1 January 2022, with the enactment of the Dental Act 2018 (Act 804). The newly formed committee is now chaired by Dr. Chia Jit Chie, Director of Oral Health Policy and Strategic Planning Division MOH.

The primary aim of the JTCEDSP is to develop, maintain and continuously improve the specialty training quality in the recognised specialty areas of dentistry in Malaysia. The main functions of the JTCEDSP are:

- i. To set the standards used by HEPs in offering the specialty training programme;
- ii. To appoint members of Dental Specialty Education Committee (DentSEdC);
- iii. To recommend to MQA for:
 - a. Appointment of plan of action (PoA)
 - b. Readiness of the HEP to start a programme the period of accreditation based on POA's report; and
- iv. To consider the need for future dental clinical specialty programmes.

• Joint Technical Committee for Evaluation of Dental Specialty Programme (JTCEDSP)

In year 2022, the JTCEDSP managed to held two (2) meetings as shown in **Table 5.3**. The committee plans to increase the frequency of these meetings to once every two months in the following years to ensure that the accreditation process for dental specialty programmes is more effective.

Table 5.3
Joint Technical Committee for Evaluation of Dental Specialty Programme (JTCEDSP)
Meetings, 2022

JTAC Meeting	Date of Recommendation	Proposal Paper	Notification Paper
No 1/2022	12.07.2022	8	0
No 2/2022	19.12.2022	1	0

Source: Oral Health Programme, MOH 2022

A total of six (6) programmes were granted provisional accreditation status and one (1) programme was approved for full accreditation status (**Table 5.4**).

Table 5.4
Accreditation Status for Dental Specialty Programmes, 2022

Accreditation Status	University	Dental Specialty Programme
Provisional Accreditation	UKM	Doctor in Endodontology
		Doctor in Oral and Maxillofacial Surgery
	UiTM	Doctor in Maxillofacial Pathology and Oral Medicine (MQA/ PA 15003

Accreditation Status	University	Dental Specialty Programme
		Doctor in Restorative Dentistry (MQA/ PA 15004)
		Doctor in Oral and Maxillofacial Surgery (MQA/ PA 15005)
	MAHSA	Doctor in Periodontology (MQA/ PA 14587)
	USIM	Masters of Oral Science (MQA/ PA 15281)
Full Accreditation	UM	Masters of Applied Oral Science (MQA/ FA 12431)

Source: Oral Health Programme, MOH 2022

The newly appointed committee identified three (3) main areas that needed to be addressed which are:

- To develop and endorse Programme Standards for the level of Masters and Doctorate for each specialty;
- To develop the document Code of Practice for Programme Accreditation – Dental Postgraduate Programme (COPPA_PG) which will serve as the main reference for the Panel of Assessors and HEP during accreditation process of a dental specialty programme; and
- To develop a database on the status of accreditation for all dental postgraduate programme.

On the other hand, the DentSEdC which comprises of specialists in their respective field of specialty is a subcommittee affiliated to the JTCEdSP who are responsible for developing and ensuring the standards of dental specialty education programmes. Conversely, a committee was established to prepare the document COPPA_PG led by Professor Dr. Zamri bin Radzi, Chairman of Dental Deans Council. Meanwhile, the development and maintenance of the database will be managed by the JTCEdSP secretariat.

Utilisation of Ministry of Health (MOH) Facilities for Training of Undergraduate and Postgraduate Dental Students

The MOH carefully reviewed and approved all applications from HEPs to use MOH facilities for the training of dental undergraduate and postgraduate students. This was done to ensure that there was no overcrowding at the involved MOH facilities. The MOH and the HEP have signed a Memorandum of Agreement (MOA) for all undergraduate dental programmes. There are currently 13 HEPs that have active MOAs with the MOH. In year 2022, only the MOA with Manipal University College Malaysia (MUCM) was due for renewal. The MOAs with the other 12 HEPs are still active.

On 12 October 2022, a discussion was held virtually with all state training coordinators (dental) to discuss the second edition of the 2021 *Garis Panduan Penggunaan Fasilitas KKM bagi Tujuan Latih Amal Pelajar /Pelatih Pemberi Pendidikan Tinggi* including implementation issues. A total of 15 state coordinators participated in the session and plans were made for further sessions to address further issues in the management of the use of MOH facilities by HEP students.

This section also processed applications from various local universities for attachment of postgraduate students at Oral Health Specialist Clinics /Department involving the areas of specialty in Oral and Maxillofacial Surgery (OMFS), Orthodontics, Paediatric Dentistry, Oral Pathology and Oral Medicine and Public Health Dentistry. This training is mandatory for postgraduates. The section also received applications from medical faculties for Otorhinolaryngology (ORL) postgraduate students to train at the Oral Maxillofacial Specialist

Clinics (Table 5.5).

Table 5.5
Students Training Attachment at MOH Facilities, 2022

Students	Community Postings	Clinical Postings
Undergraduate	50 students – UM	USIM (45 students) MAHSA (59 students) SEGi (108 students) IMU (55 students)
Postgraduate	7 students	Dental programme (21 students): a. DPH – 11 students - 7 students (UM) - 4 students (USM) b. Periodontology – 12 students - 4 students (UKM) - 4 students (USM) - 4 students (UiTM) c. OMFS – 12 students (UM) d. Restorative Dentistry – 6 students (UM) e. Paediatric Dentistry – 5 students (UKM) ORL programme (11 students) - UKM – 5 students - UM – 3 students - IIUM – 3 students

Source: Oral Health Programme, MOH 2022

Globalisation and Liberalisation of Oral Health Services

• Asean Joint Coordinating Committee on Dental Practitioner (AJCCD)

The AJCCD is a committee under the Healthcare Services Sectoral Working Group (HSSWG) that discusses ways to facilitate cooperation on the Mutual Recognition Agreement (MRA) on Dental Practitioners. The Deputy Director of the section together with the MDC Secretary represented Malaysia in the AJCCD. Two (2) virtual AJCCD meetings, namely 29th AJCCD and 30th AJCCD meetings were held on 9 February and 28 October 2022 respectively.

The meeting discussed matters related to facilitating cooperation in MRA on Dental Practitioners. Key items discussed during the AJCCD meetings include:

- ASEAN Minimum Common Competency Standards for Dental Undergraduate Education (2020) AMCCSDUE;
- ASEAN Dental Practice Standards (2020);
- Mechanism of Mobility for ASEAN Dentists (2017);
- Comparison Matrices on Important Elements of the Implementation Plans; and
- National PDRA (Professional Dental Regulatory Authority) Website.

In addition, this section has attended a workshop on foreign equity participation in private healthcare facilities from 8 to 9 June 2022 in Putrajaya. Among the issues discussed was the proposed improvement of the Foreign Equity Participation Policy compared to the policy agreed in 2015. This section also involved in providing feedback for dental services in bilateral/multilateral negotiations between Malaysia and countries such as Türkiye, the United Kingdom and the European Free Trade Association (EFTA). Furthermore, this section provides input to the negotiations for the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA).

ORAL HEALTH LEGISLATION AND ENFORCEMENT

The Oral Health Legislation and Enforcement Section is responsible for all activities about legislation, enforcement of the Dental Act 2018 [Act 804], the Private Healthcare Facilities and Services Act 1998 [Act 586], and other Acts related to the dental practices as well as occupational safety and health in dental facilities under the Ministry of Health (MOH) Malaysia. The Section consists of four (4) units that play an important role in different aspects but towards the same objectives to ensure the safety and quality of dental services provided (Figure 5.1).

Figure 5.1
Units of Oral Health Legislation and Enforcement Section



Source: Oral Health Programme, MOH 2022

The section's activities are also supported by 66 authorized officers appointed under Act 804 and 52 inspectors appointed under Act 586. In year 2022, the function of the division based on the following units:

1. Legal & Drafting Unit

The main function of this unit is to enact laws and regulations related to dental practice, besides providing input related to other laws that have an impact on dental practice. The scope of work of this unit is shown in Figure 5.2.

Figure 5.2
Activities of Legal and Drafting Unit

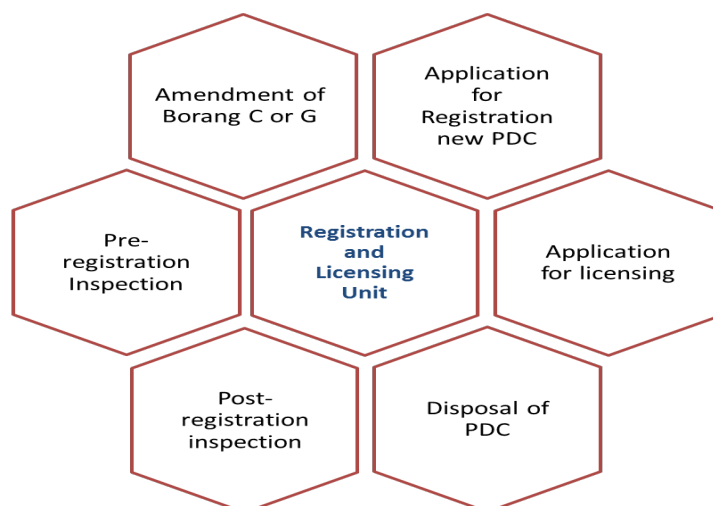


Source: Oral Health Programme, MOH 2022

2. Private Dental Health Premise Operations Unit

The main function of this unit is to review and verify an application for registration of new private dental clinics (PDC), besides reviewing the floor plan for licensing applications of private hospital services (PHS) and ambulatory care centers (ACC) with dental components. The activities are shown in **Figure 5.3**.

Figure 5.3
Activities Under the Private Dental Health Premise Operations Unit



Source: Oral Health Programme, MOH 2022

3. Enforcement Unit

The dental enforcement unit is responsible to:

- i. Regulate the practice of dentistry under the Act 804;
- ii. Ensure all registered private dental clinics comply with Act 586 and its Regulations, Act 804 and its regulation and guidelines issued by the Malaysian Dental Council; and
- iii. Take appropriate enforcement action on complaints related to illegal dental practices.

Activities conducted under this unit are:

- i. Monitoring, verification and surveillance inspection of PDC;
- ii. Review investigation paper;
- iii. Managing the appointment of authorised officers;
- iv. Prosecution; and
- v. Curb illegal dental practice.

4. Occupational Safety and Health Unit

This unit is responsible for:

- i. Monitoring and supervising occupational safety and health audits at government dental facilities throughout the states;
- ii. Reviewing guidelines on occupational safety and health;
- iii. Reviewing the occupational safety and health audit checklist as required;
- iv. Monitoring the incidence of injuries due to sharp tools among dental staff at all government dental facilities;
- v. Monitoring the prevalence of dental staff infected with (detected) infectious diseases; and
- vi. Conducting training sessions for State/ Federal Territory Occupational Safety and Health Auditors.

Dental Act 2018 [ACT 804] and Dental Regulations

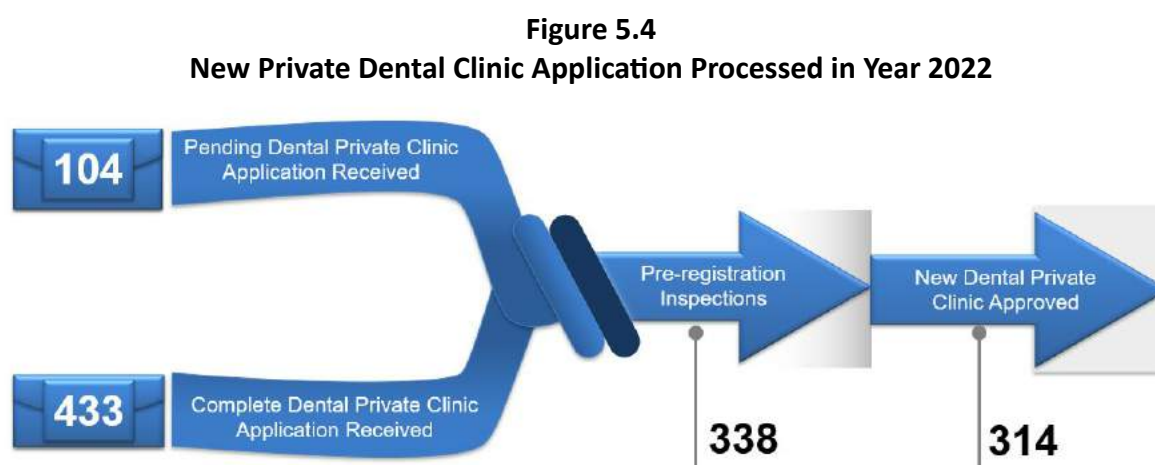
The Dental Act 1971 (Act 51) was in effect for 50 years before it was replaced by the Dental Act 2018 (Act 804) on 1 January 2022. The new law was enacted to keep up with the latest developments in dental practice and technology. Three provisions of Act 804 will not come into effect until January 1, 2025.

One of the key changes in Act 804 is the establishment of an enforcement team. These officers are authorised to investigate and take action against unlicensed dentists and dental therapists. They have the same powers as police officers when it comes to investigating criminal cases. Another major change is the registration of dental therapists. These professionals are now able to practice in the private sector. Act 804 also allows for the registration of dental specialists.

New Registration of Private Dental Clinic (PDC)

The registration of PDC began in Malaysia on 1 May 2006, following the enforcement of Act 586. A total of 809 applications were received, but only 131 (16.2%) were approved. By 2009, all PDC that had submitted complete applications had been registered with the MOH.

In year 2022, the number of applications for the registration of new PDC increased to 535 as compared to 433 number of applications received in 2021. A total of 504 pre-registration inspections were conducted, and 492 new PDC were approved in 2022, including applications received in 2021 (**Figure 5.4**).



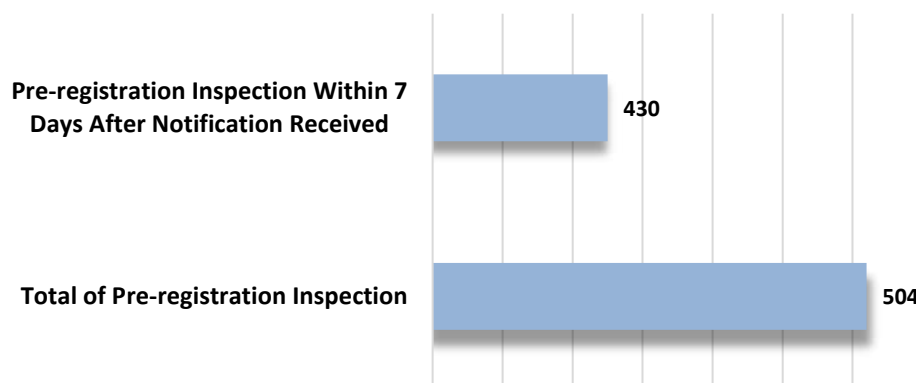
Source: Oral Health Programme, MOH 2022

- **Pre-Registration Inspection**

The pre-registration inspection is conducted after the owner of the registration certificate or the person in charge of the premises to be registered has notified the Ministry of Health that the renovation has been completed. Pre-registration inspection must be conducted within 7 working days of notification of renovation completion.

This inspection is carried out upon the receipt of notification of the completion of the renovation from the owner of the registration certificate or the person in charge of the premises. Pre-registration inspection must be conducted within seven (7) working days of receiving the notification. **Figure 5.5** shows 430 (85.3%) pre-inspection registrations successfully carried out within seven (7) days of receiving notification.

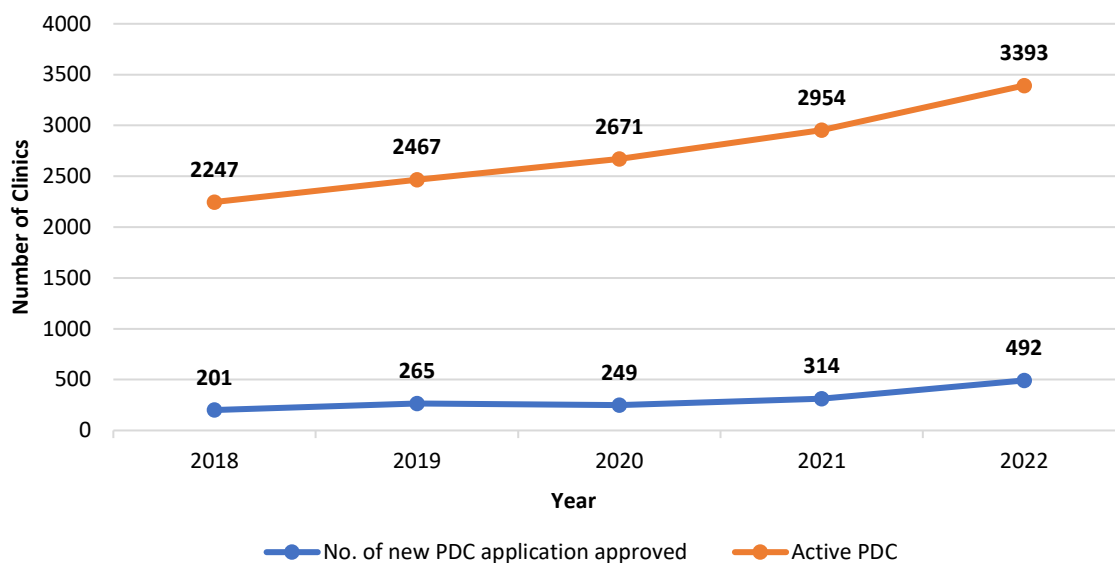
Figure 5.5
Pre-registration Within Seven (7) Days, 2022



Source: Oral Health Programme, MOH 2022

The number of applications for new PDC registration and active PDC has been increasing annually over the past five (5) years (**Figure 5.6**).

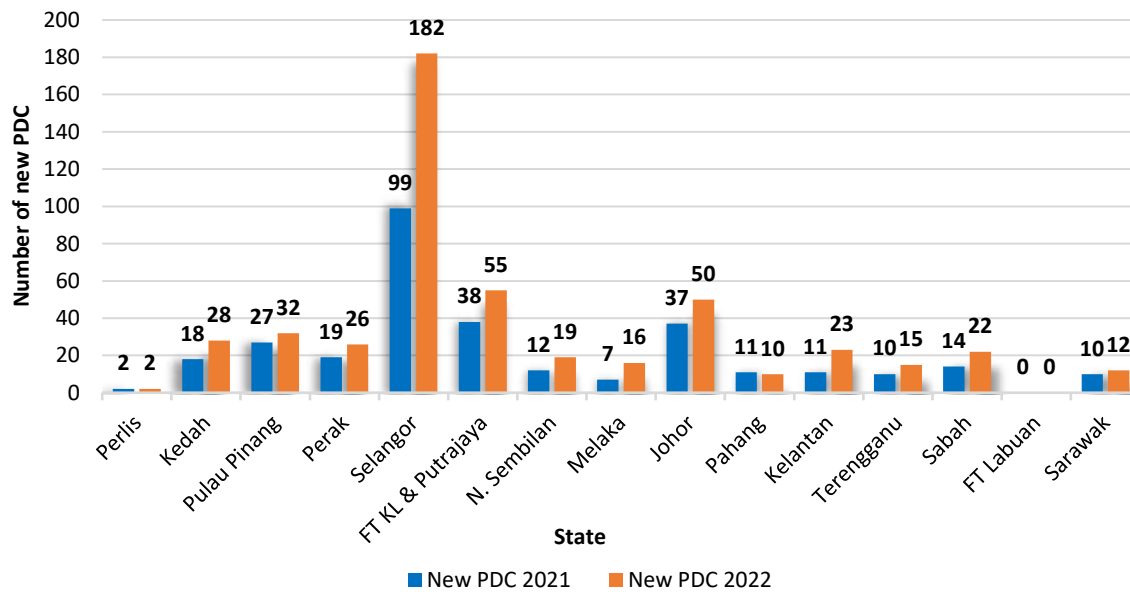
Figure 5.6
Private Dental Clinic Applications Approved for Registration and Active Private Dental Clinic, 2018 to 2022



Source: Oral Health Programme, MOH

FT Labuan was the only state with no new PDC applications in 2022. Most states shown an increase in new PDC applications between 2021 and 2022. **Figure 5.7** displays the distribution of new PDC by state in 2021 and 2022.

Figure 5.7
Comparison Distribution of New Private Dental Clinics by State, 2021 and 2022

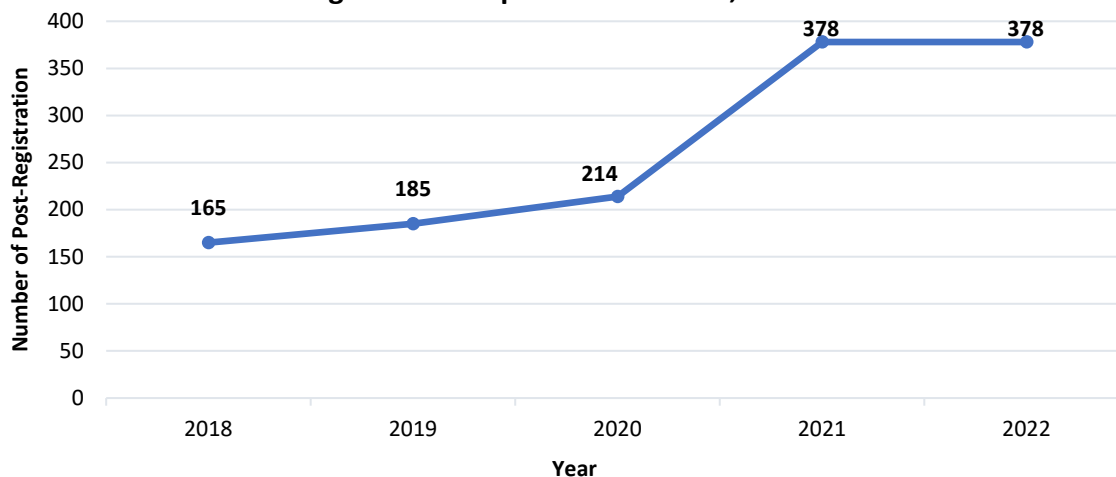


Source: Oral Health Programme, MOH

- **Post-Registration Inspection**

Post-registration inspections are conducted after the person in charge (PIC) of a dental clinic has received the Certificate of Registration (Form C). This is to ensure that the clinic is still meeting the requirements for registration and providing high-quality dental care (**Figure 5.8**).

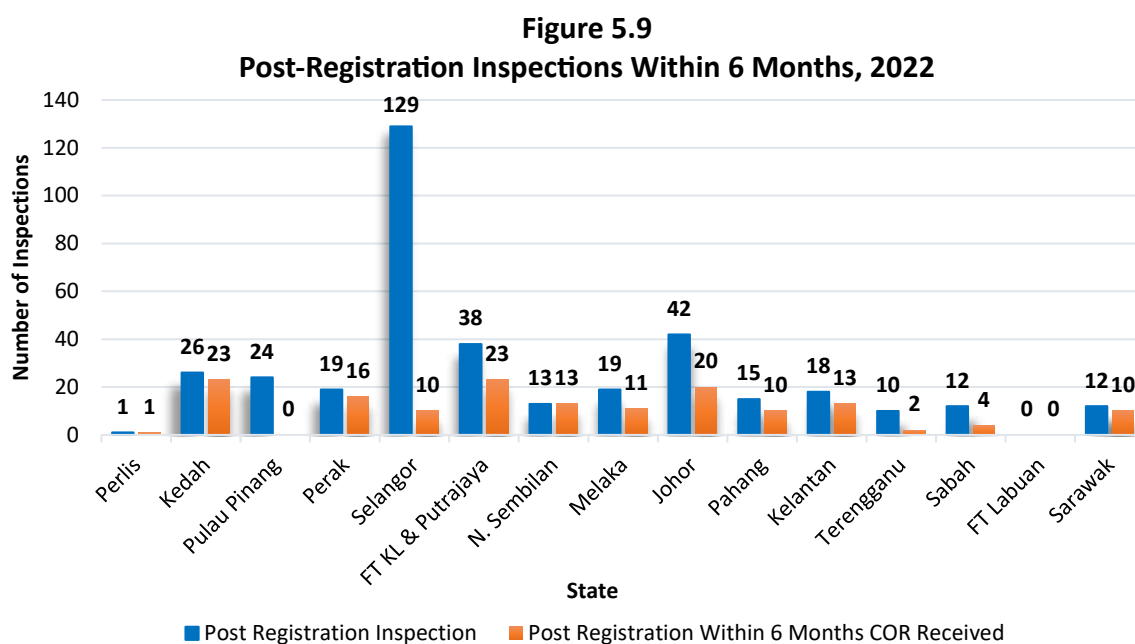
Figure 5.8
Post-Registration Inspection Activities, 2018 to 2022



Source: Oral Health Programme, MOH

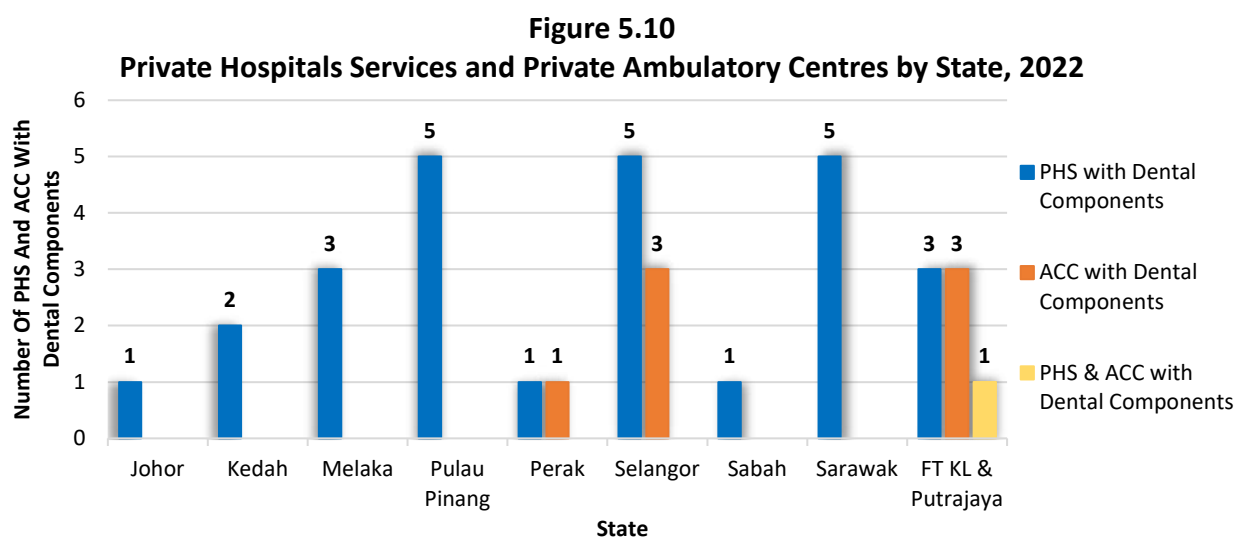
- **Post-Registration Inspections After Receiving A Certificate of Registration (COR)**

In year 2022, a new target set for the number of post-registration inspections that should be conducted within six (6) months of receiving a COR. However, only 156 (41.3%) of post-registration inspections were conducted within the stipulated time frame (**Figure 5.9**).



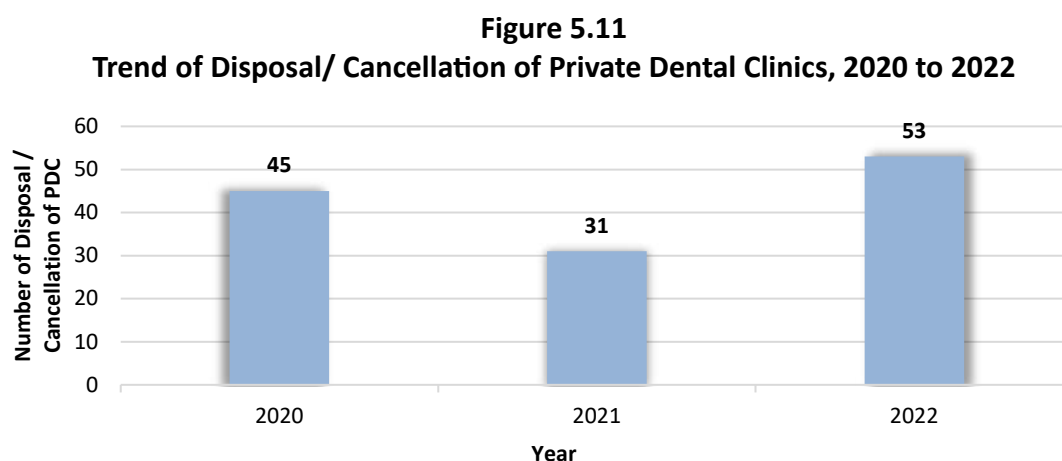
Licensing of Private Hospital Services (PHS) and Ambulatory Care Centers (ACC) with Dental Components

The Oral Health Legislation and Enforcement Section also assists in reviewing the floor plan of the PHS and ACC with dental components. As of 31 December 2022, there were 26 PHS, seven (7) ACC and one (1) combined facility (PHS & ACC) with dental components that have been approved (**Figure 5.10**).



Disposal/ Cancellation/ Withdrawal of Private Dental Clinic Registration

The section was also responsible for overseeing the disposal of waste, the closure of dental clinics, and the withdrawal of registration applications by the PIC or registration applicant. The number of disposals or cancellations of PDC increased by 71 per cent, from 31 in 2021 to 53 in 2022 as shown in **Figure 5.11**. Amongst the common reason for closure of dental clinics are relocation of the clinic to meet the requirement of the Act and Regulations followed by changing of PIC due to retirement or death.



Source: Oral Health Programme, MOH

Monitoring Inspection of Private Dental Clinic (PDC)

A periodic inspection was conducted to ensure that the PDC was in compliance with the Act and Regulations on clinic registration. Establish monitoring targets for year 2022, as shown in **Table 5.6**.

Table 5.6
Monitoring Targets of Private Dental Clinics in 2022

Total Number of Private Dental Clinics	Targets of Monitoring (%)	States Involved
≤ 80	100	Kelantan, Melaka, Perlis, Pahang, Terengganu, FT Labuan
81-200	50	Kedah, Perak, Sabah, Sarawak, Negeri Sembilan
201- 250	40	Pulau Pinang
≥ 251	30	Johor, Selangor, FT KL & Putrajaya

Source: Oral Health Programme, MOH 2022

Table 5.7 provides a summary of the performance of monitoring inspections by states.

Table 5.7
Monitoring Inspection Achievements by States in 2022

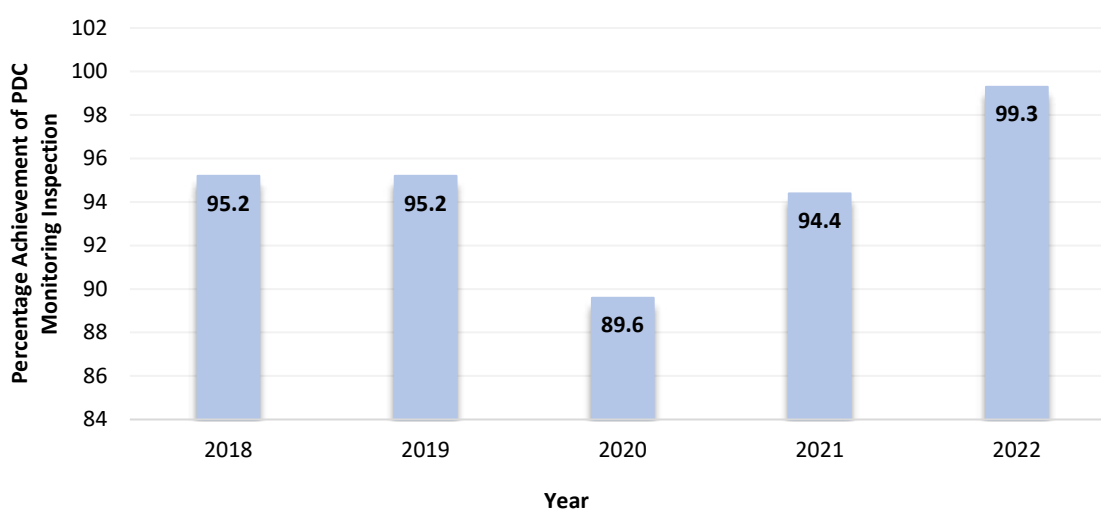
State	Number of Private Dental Clinics (PDC)				
	No. of PDC by 1 Jan 2022	Target Monitoring Inspection (%)	No. of Target Monitoring Inspection	No. of Achieved Inspection	Achieved Inspection (%)
Johor	346	30.0	104	104	100.0
Kedah	110	50.0	55	55	100.0
Kelantan	78	100.0	78	78	100.0
Melaka	68	100.0	68	68	100.0
Negeri Sembilan	90	100.0	45	45	100.0
Pahang	80	100.0	80	80	100.0
Perak	161	50.0	81	81	100.0

State	Number of Private Dental Clinics (PDC)				
	No. of PDC by 1 Jan 2022	Target Monitoring Inspection (%)	No. of Target Monitoring Inspection	No. of Achieved Inspection	Achieved Inspection (%)
Perlis	12	100.0	12	12	100.0
Pulau Pinang	210	40.0	84	84	100.0
Sabah	164	50.0	82	82	100.0
Sarawak	111	50.0	56	56	100.0
Selangor	965	30.0	290	281	96.9
Terengganu	64	100.0	64	64	100.0
FT KL & Putrajaya	492	30.0	148	148	100.0
FT Labuan	3	100.0	3	3	100.0
Total	2,954	42.3	1,250	1,241	99.3

Source: Oral Health Programme, MOH 2022

Despite not achieving the target of 100 per cent monitoring inspection in year 2022, Selangor showed an increase in achievement compared to year 2021. Additionally, the percentage achievement of year 2022 was the highest in five (5) years, as shown in **Figure 5.12**.

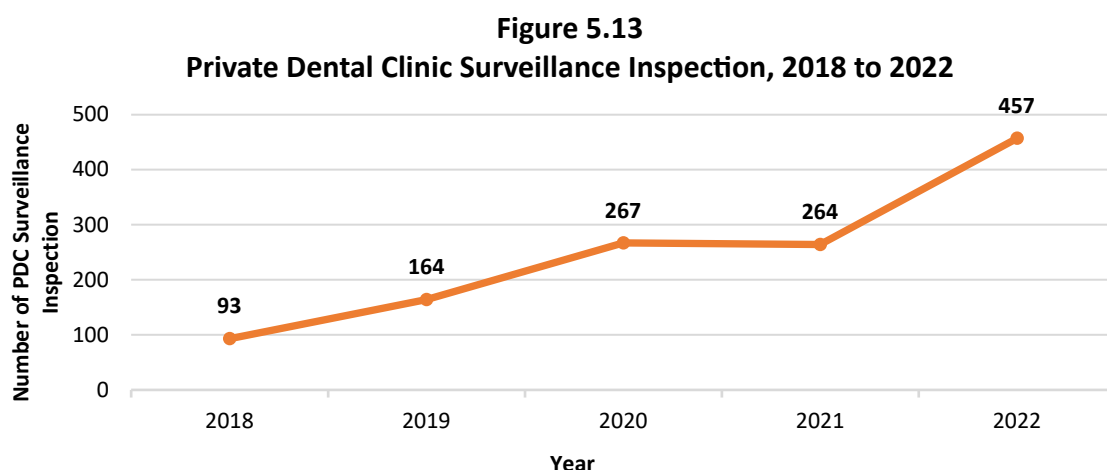
Figure 5.12
Trend of Achievement of Private Dental Clinic Monitoring Inspection, 2018 to 2022



Source: Oral Health Programme, MOH

Surveillance Inspection of Private Dental Clinics (PDC)

Surveillance inspections were conducted on PDCs that did not comply with Act 586 and its Regulations during pre-registration, post-registration and monitoring inspections. These inspections were carried out after a specified non-compliance notice period had been issued. The trend of surveillance inspections conducted over the past five (5) years is shown in **Figure 5.13**.



Source: Oral Health Programme, MOH

The number of surveillance inspections conducted in year 2022 increased by more than half from the previous year, with 457 inspections conducted. Additionally, the number of notices of non-compliance issued increased by 15 per cent, with a total of 1,013 notices issued.

Verification Inspection of Private Dental Clinics (PDC)

Rectification inspections are conducted by Private Medical Practice Control Section (PMPCS) Head Quarter to verify the disposal or cancellation of PDC registration and floor plan modifications. In year 2022, there were 21 inspections conducted for disposal or cancellation of PDC registration and 80 inspections conducted for floor plan renovation.

Johor reported the highest number of inspections for disposal/cancellation of PDC registration verification (6 inspections) while Selangor reported the highest number of inspections for verifying floor plan modifications (24 inspections). The results of the inspections are shown in **Table 5.8**.

Table 5.8
Verification Inspection Conducted by State, 2022

State	No. of Verification Inspection	
	Number of Disposal of Private Dental Clinic	Number of Floor Plan Renovation
Johor	6	1
Kedah	4	17
Kelantan	0	2
Melaka	0	0
Negeri Sembilan	2	13
Pahang	1	2
Perak	0	3
Perlis	0	1
Pulau Pinang	0	0
Sabah	2	4
Sarawak	0	4
Selangor	3	24

State	No. of Verification Inspection	
	Number of Disposal of Private Dental Clinic	Number of Floor Plan Renovation
Terengganu	1	4
FT KL & Putrajaya	2	5
FT Labuan	0	0
Total	21	80

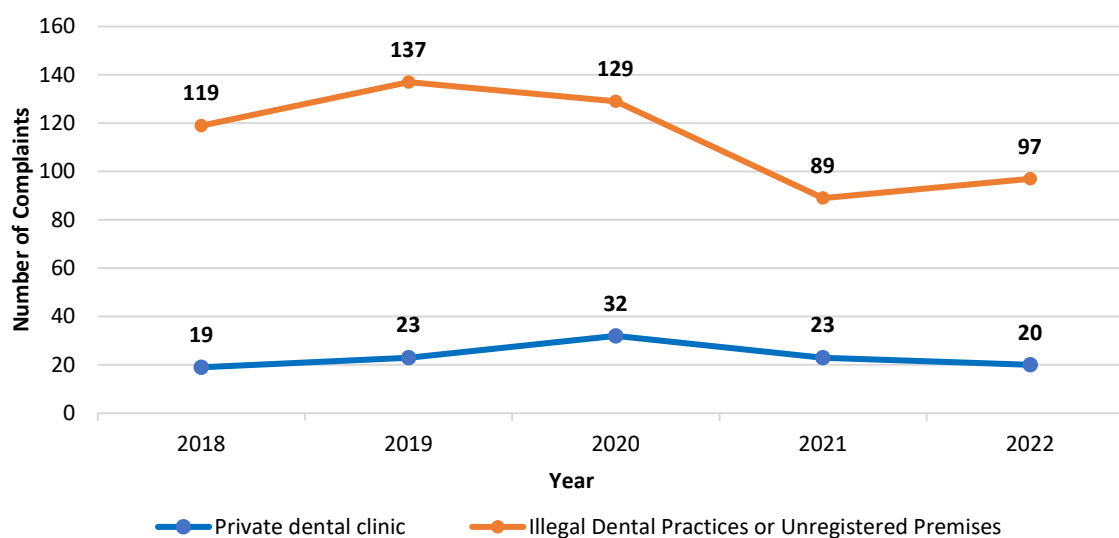
Source: Oral Health Programme, MOH 2022

Complaint Management

All information and complaints regarding PDC and illegal practitioners were handled in accordance with the Standard Operating Procedures for Complaint Management under Act 804 and Act 586.

All complaints received were registered and a preliminary information and report was prepared within three (3) days. The total number of complaints received increased from 112 in year 2021 to 117 in year 2022. Complaints concerning illegal dental practice or unregistered premises also increased from 89 in year 2021 to 97 in year 2022 (**Figure 5.14**).

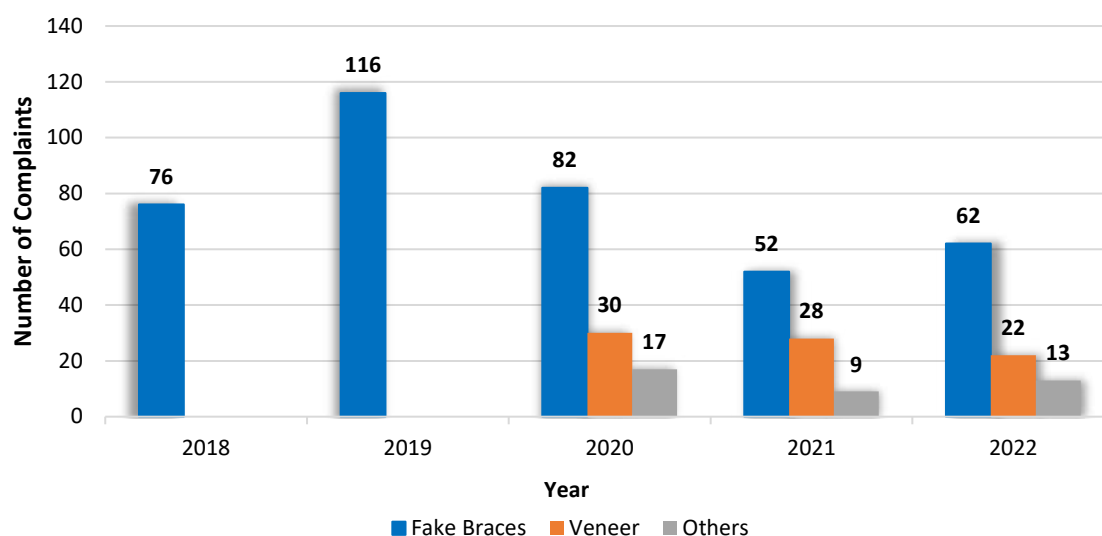
Figure 5.14
Complaints Trend, 2018 to 2022



Source: Oral Health Programme, MOH

Out of 97 complaints concerning illegal dental practice or unregistered premises received in year 2022, the majority of the complaints (62 complaints) were about fake braces followed by complaints about veneer installation (22 complaints) and other services such as denture, whitening, extraction and others (13 complaints) as shown in **Figure 5.15**.

Figure 5.15
Complaints Concerning Illegal Dental Practices or Unregistered Dentists, 2018 to 2022

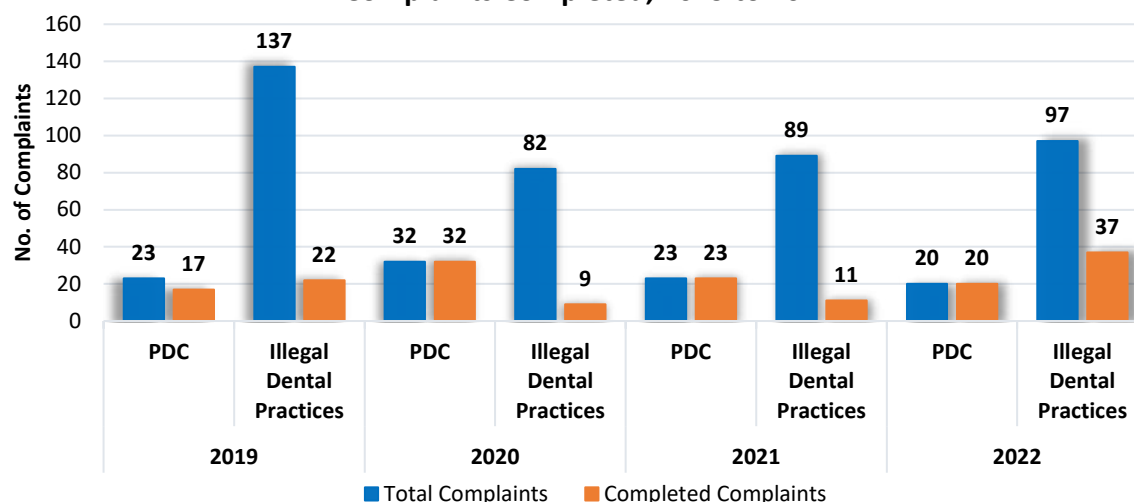


Source: Oral Health Programme, MOH

Complaints Completion

In year 2022, all 20 complaints related to PDC were fully resolved while 38.1 per cent (37 cases) of complaints on illegal dental practices were fully resolved in year 2022 which is higher compared to the previous year (12.3%) (**Figure 5.16**). The trend of increasing performance in resolving complaints of illegal dental practices is expected to continue in the future. This is due to the efforts of the authorities to improve skills of staff in the management of complaint.

Figure 5.16
Complaints Completed, 2019 to 2022



Source: Oral Health Programme, MOH

Raiding Activities

Raiding activities have been conducted on private dental clinics since year 2020 to monitor compliance with the law. In year 2022, the raids were focused on unregistered PDCs that were suspected of violating the law. The results of the raids are shown in **Table 5.9**.

Table 5.9
Raiding Activities in Year 2022

States	Type of Premises	Date of Raiding & Reason of Enforcement Activities
Johor	Unregistered PDC	3 July 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Melaka	Unregistered PDC	19 October 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Negeri Sembilan	Unregistered PDC	Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	13 October 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
FT KL & Putrajaya	Unregistered PDC	2 June 2022 Violation of Sec 68 Act 804, Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	14 September 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	14 September 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	6 December 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Perak	Unregistered PDC	14 December 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Pahang	Unregistered PDC	14 September 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Terengganu	Unregistered PDC	16 August 2022 Violation of Sec 4(1) Act 586
	Unregistered PDC	27 September 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Kedah	Unregistered PDC	15 Mac 2022 Violation of sec 4(1) Act 586
	Unregistered PDC	26 April 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
Selangor	Unregistered PDC	26 May 2022 Violation of Sec 62(1) Act 804 Violation of Sec 68 Act 804 & Sec 4(1) Act 586
		26 July 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	26 July 2022 Violation of Sec 62(1) Act 804 & Sec 4(1) Act 586
	Unregistered PDC	27 July 2022 Violation of Sec 4(1) Act 586
	Unregistered PDC	8 December 2022 Violation of Sec 68 Act 804, Sec 63(1)(e) Act 804 & Sec 4(1) Act 586
Oral Health Legislation and Enforcement Section	Unregistered PDC	28 September 2022 Violation of sec 4(1) Act 586

Source: Oral Health Programme, MOH 2022

The authorities' efforts to crack down on illegal dental practices in year 2022 resulted in 23 successful raids, 34 investigation papers being opened and the first prosecution under the

Dental Act 2018. The woman who was prosecuted was fined RM25,000 and sentenced to two (2) years in prison or one (1) year in prison in default of payment for practicing dentistry in a beauty salon without a license.

Occupational Safety and Health (OSH) Audit

The OSH audit implementation were conducted in all type of facilities as follows:

- i. Dental clinic in health clinic;
- ii. Standalone dental clinic;
- iii. Dental clinic in the hospital;
- iv. Dental specialist clinic in the hospital;
- v. Non-hospital-based dental specialist clinic in health clinic;
- vi. The dental clinic at the Urban Transformation Centre (UTC);
- vii. The dental clinic at the Rural Transformation Centre (RTC);
- viii. Dental clinics at institutions;
- ix. The dental clinic at the Mother and Child Health Clinic (MCHC);
- x. Mobile/ Boat Dental Clinic;
- xi. Dental school clinic/ dental school center;
- xii. Mobile dental team; and
- xiii. Mobile dental laboratory.

The percentage of dental facilities audited for OSH has increased from 33.3 per cent in 2019 to 50.0 per cent in 2020. One of the KPI OHP MOH in year 2022 was the percentage of MOH dental facilities which achieved 90 per cent or more compliance during safety and health audits to ensure audited facilities are at optimum levels is sets at ≥ 88 per cent.

In year 2022, 51.5 per cent of dental facilities in the state and the Federal Territory (1,197 out of 2,325) were planned for OSH audits. The details of the audit achievements are shown in **Table 5.10**.

Table 5.10
MOH Dental Facilities Which Achieved 90 Per Cent or More Than Comply to OSH Audit, 2022

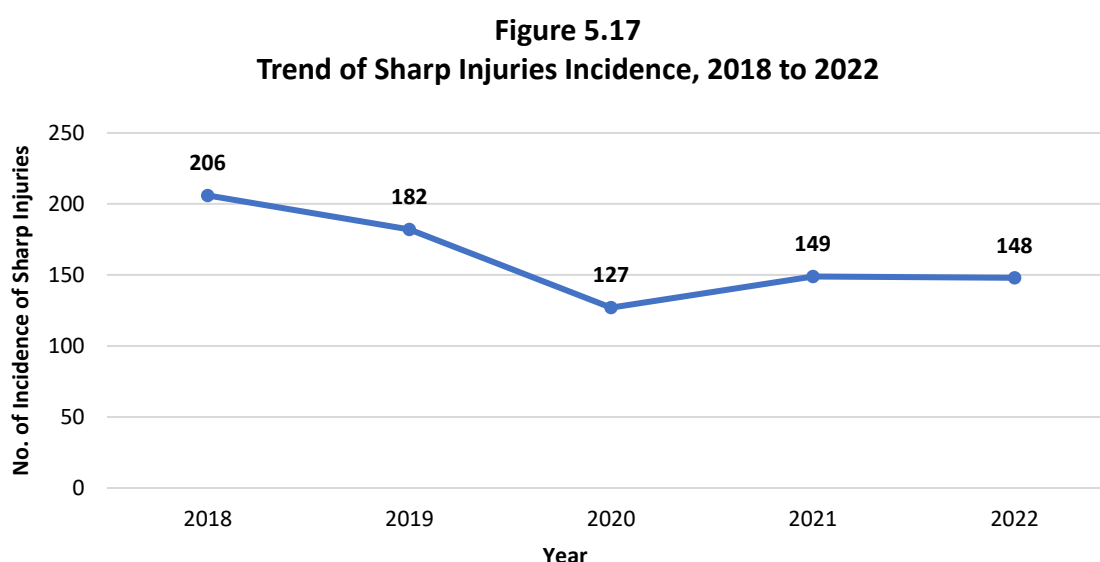
State	Number of MOH Dental Facilities Which Achieved 90 Per Cent or More Compliance During OSH Audit	Number of MOH Dental Facilities	Percentage (%)
Johor	122	122	100.0
Kedah	90	90	100.0
Kelantan	104	105	99.0
Melaka	42	46	91.3
Negeri Sembilan	59	59	100.0
Pahang	92	95	96.8
Pulau Pinang	78	78	100.0
Perak	99	99	100.0
Perlis	25	25	100.0
Selangor	83	89	93.3
Terengganu	62	65	95.4

State	Number of MOH Dental Facilities Which Achieved 90 Per Cent or More Compliance During OSH Audit	Number of MOH Dental Facilities	Percentage (%)
Sabah	100	103	97.1
Sarawak	130	163	79.8
FT KL & Putrajaya	49	50	98.0
FT Labuan	5	5	100.0
PPKK & ILKKM	3	3	100.0
Total	1,140	1,197	95.5

Source: Oral Health Programme, MOH 2022

Incidence of Sharp Injuries

The OSH Unit documented incidents of injuries caused by sharp equipment in government dental facilities. The incidence of sharp injuries is depicted in **Figure 5.17**.

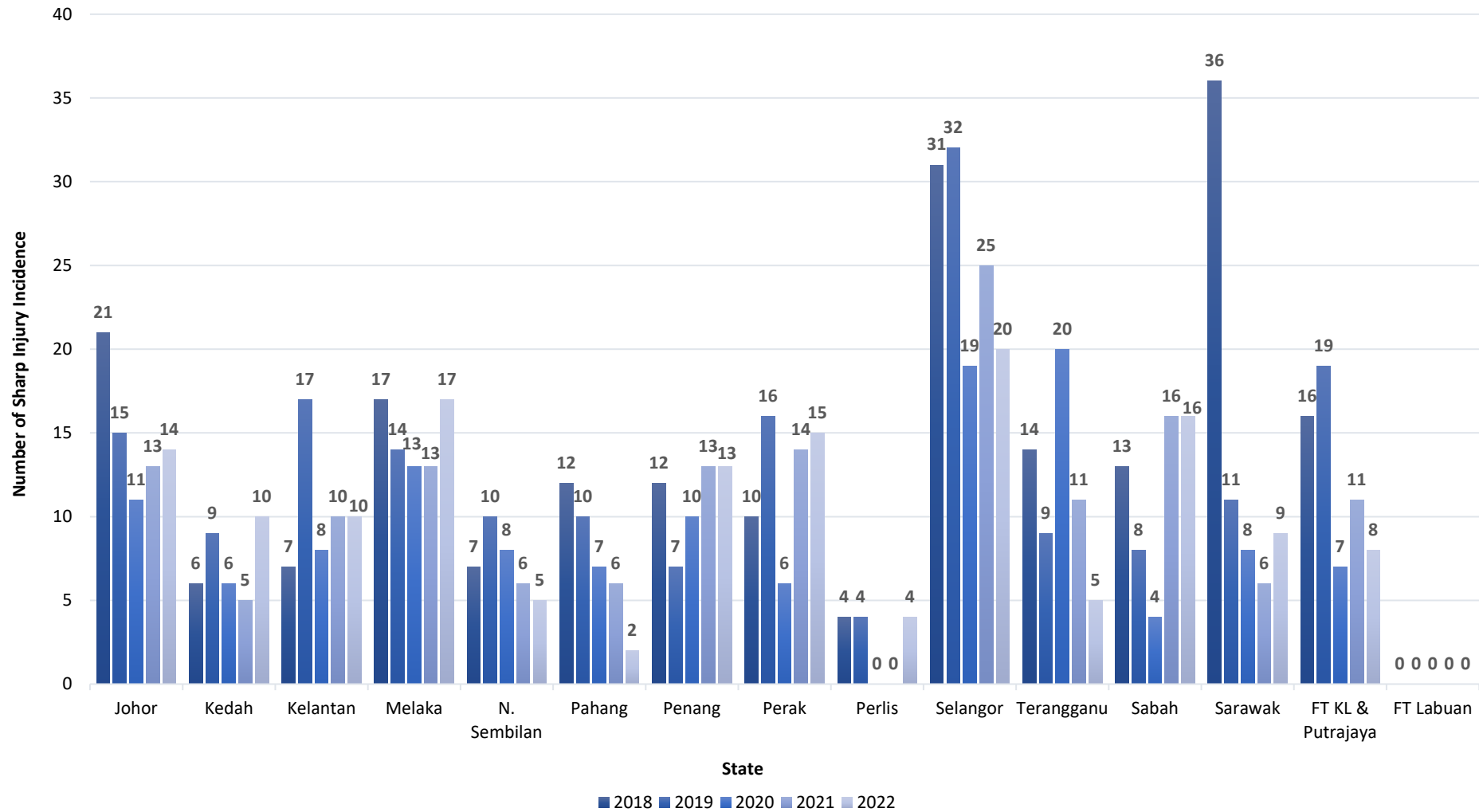


Source: Oral Health Programme, MOH

In year 2022, there were 148 cases of sharp injuries reported among government dental staff which is only one case different than in the year 2021 and 18.7 per cent lower than the number of cases in year 2019.

Figure 5.18 shows the distribution of sharp injuries by state from year 2019 to 2022. The distribution of sharp injuries by state shows that Selangor, Melaka, Perak and Sabah have the highest number of cases. FT Labuan is the only state where no cases of sharp injuries were reported.

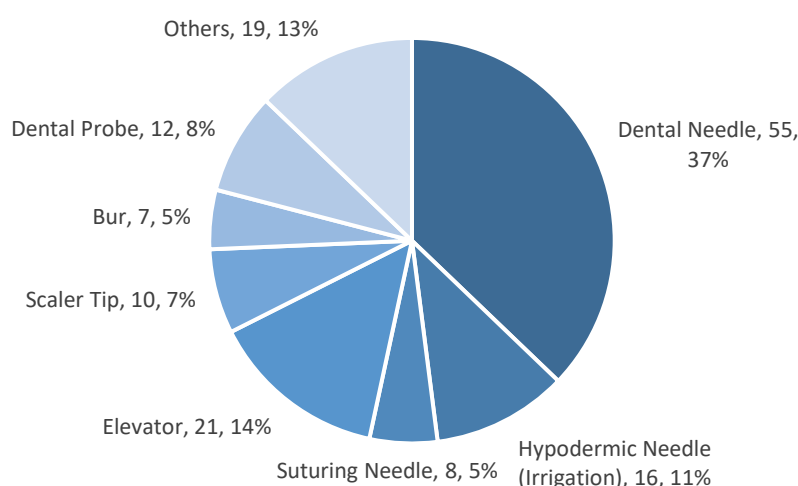
Figure 5.18
Sharp Injury Incidence by State, 2018 to 2022



Source: Oral Health Programme, MOH

Hypodermic needle injuries were the most common cause of sharp clinical instrument injuries accounting for 47.97 per cent (71 cases) of the 148 reported cases (**Figure 5.19**).

Figure 5.19
Type of Sharp Clinical Instrument Injuries Reported in Year 2022



Source: Oral Health Programme, MOH 2022

Promotion Activities

The Legislation and Enforcement Section took steps to educate the public about illegal dental practices. The department used a variety of methods to raise awareness including radio and television broadcasts, one-on-one discussions and exhibitions. The department also distributed pamphlets and bunting to inform the public about the dangers of illegal dental practices (**Table 5.11**). Pahang conducted the most promotional activities in year 2022. The promotional activities were also extended nationwide through engagement with the media and Shopee Malaysia.

Table 5.11
Promotion Activities Done by State, 2022

State	Promotion Activities			
	Radio Talk/ TV Interview	Talk	Exhibition	Training for Staffs
Johor	-	2	2	2
Kedah	1	2	-	2
Kelantan	-	1	-	1
Melaka	-	2	2	-
Negeri Sembilan	-	1	-	1
Pahang	1	45	37	5
Perak	-	-	-	-
Perlis	1	2	-	2
Pulau Pinang	-	3	-	-
Sabah	-	3	-	-
Sarawak	2	-	3	-

State	Promotion Activities			
	Radio Talk/ TV Interview	Talk	Exhibition	Training for Staffs
Selangor	-	-	-	1
Terengganu	1	23	35	-
FT KL & Putrajaya	-	1	-	1
FT Labuan	-	-	2	-
OHP MOH	6	-	-	3
Total	12	84	81	18

Source: Oral Health Programme, MOH 2022

Competence Enhancement Activities of Dental Enforcement Officers

Our section organised activities to improve the skills of dental enforcement officers. In year 2022, this section received RM14,580.00 under the *Latihan Dalam Perkhidmatan* (LDP) budget. This budget was intended to allow all enforcement dental officers to attend at least two (2) training courses related to law or enforcement throughout the year. The section managed to organise two (2) courses as shown in **Table 5.12**.

Table 5.12
Courses or Training Organised in Year 2022

Title of Courses or Training	Allocation Budget
Kursus Akta Pergigian	RM7,905.00
Certified Digital Forensic for First Responder	RM6,675.00
Total	RM14,580.00

Source: Oral Health Programme, MOH 2022

The implementation of all programmes and collaboration activities for the year 2022 is portrayed in **Image 5.1**.

Image 5.1
Programmes and Collaboration Activities in Year 2022



Source: Oral Health Programme, MOH 2022

ORAL HEALTH QUALITY

Quality Assurance Programme (QAP)

With the advent of the National Policy for Quality in Healthcare, aimed to bridge silos among agencies and accelerate improvements in healthcare, the OHP MOH takes cognizance of the emphasis to provide high quality healthcare that is safe, timely, effective, equitable, efficient, people-centered and accessible (STEEPA).

The QAP is intended to measure compliance towards required standards. In dentistry, QAP is a mechanism to assess quality of care as well as to implement and evaluate changes in the patient care delivery system towards maintaining or improving the quality of services. The indicators monitored under QAP are National Indicator Approach (NIA), District Specific Approach (DSA) and Key Performance Indicators (KPI). The achievements of these indicators are monitored periodically at national level. Indicators will be reviewed occasionally to ensure that they are always relevant and in line with current conditions or norms.

- **National Indicator Approach (NIA)**

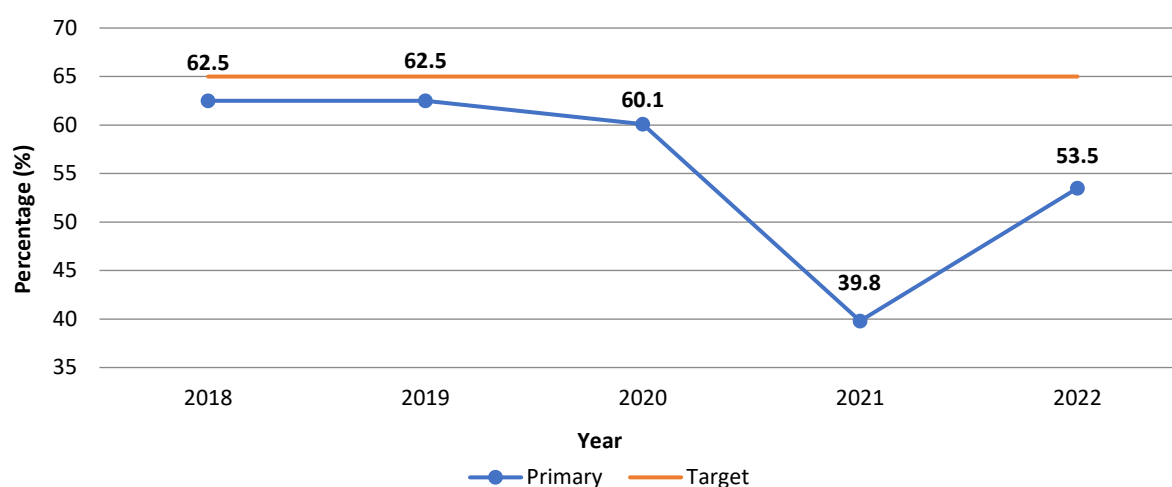
In year 2022, four (4) indicators under the NIA were monitored to measure the performance of primary and community oral healthcare. Only one (1) out of four (4) indicators achieved targets (**Table 5.13**).

Table 5.13
Oral Health NIA Achievement, 2021 and 2022

No.	Indicator	Standard (%)	Achievement in Year 2021 (%)	Achievement in Year 2022 (%)	SIQ Yes/ No
1	Percentage of primary schoolchildren maintaining orally-fit status	≥65	39.8	53.5	Yes
2	Percentage of secondary schoolchildren maintaining orally-fit status	≥70	38.4	60.4	Yes
3	Percentage of non-conformance of fluoride level at reticulation points (Level < 0.4ppm)	≤ 25	20.6	25.4	Yes
4	Percentage of non-conformance of fluoride level at reticulation points (Level > 0.6ppm)	≤7	0.2	0.6	No

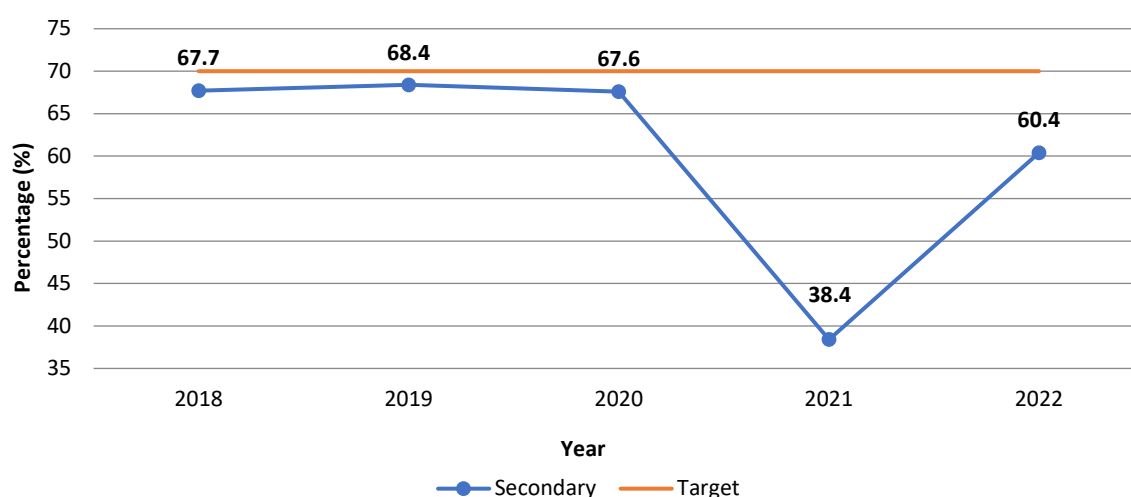
Source: Oral Health Programme, MOH

Figure 5.20
Percentage of Primary Schoolchildren Maintaining Orally-fit Status, 2018 to 2022



Source: Annual Report HIMS (Oral Health Sub-Programme); State Service Data

Figure 5.21
Percentage of Secondary Schoolchildren Maintaining Orally-fit Status, 2018 to 2022

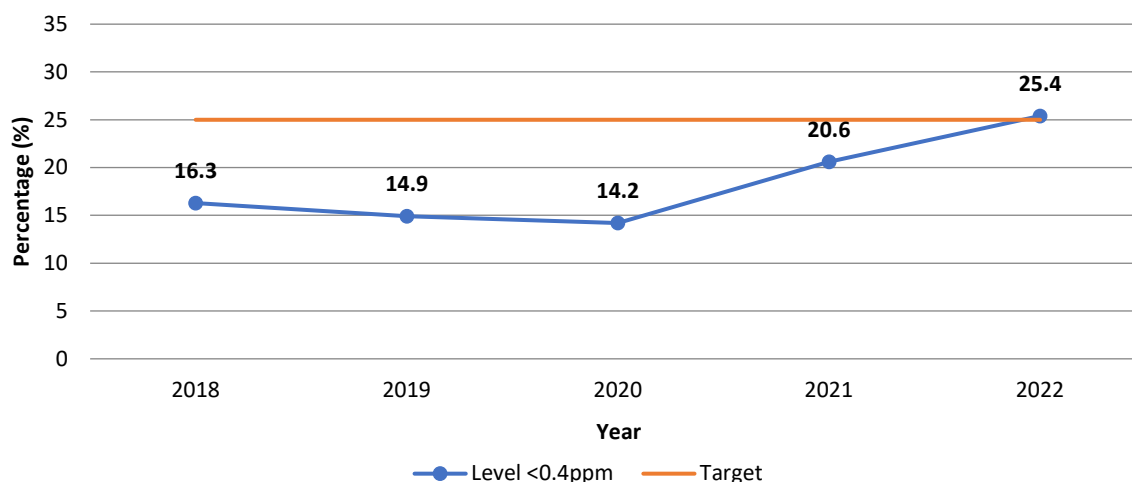


Source: Annual Report HIMS (Oral Health Sub-Programme); State Service Data

Over the years, the performance at state and national levels for ‘Percentage of primary schoolchildren maintaining orally-fit status’ and ‘Percentage of secondary schoolchildren maintaining orally-fit status’ showed a downward trend in achievements, recording their lowest attainment in 2021. Although these two (2) indicators did not achieve set standards, their achievement showed marked improvement in 2022 as shown in **Figure 5.20** and **Figure 5.21**.

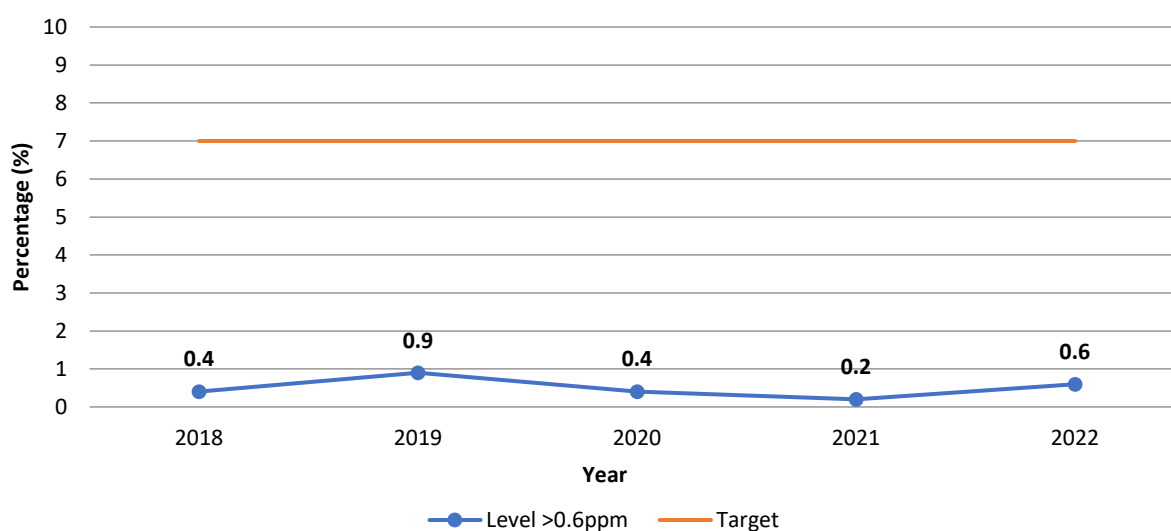
There was also a significant drop in the percentage of secondary schoolchildren maintaining orally fit status from 2020 (67.6%) to 2021 (38.4%). This is mainly because school dental services came to a stall as all public schools remained closed for most months in 2021 during the COVID-19 pandemic. However, the achievement of these indicators improved distinctly in 2022 (60.4%) as the school dental services through mobile dental teams started to resume following the transition to endemic phase of COVID-19.

Figure 5.22
Percentage of Non-conformance of Optimal Fluoride Level at Reticulation Points
Level <0.4ppm, 2018 to 2022



Source: State NIA Report

Figure 5.23
Percentage of Non-conformance of Optimal Fluoride Level at Reticulation Points,
Level >0.6ppm, 2018 to 2022



Source: State NIA Report

From 2018 to 2021, the indicators ‘Percentage of Non-conformance of Optimal Fluoride Level at Reticulation Points Level <0.4ppm’ and ‘Percentage of non-conformance of optimal fluoride for levels >0.6 ppm’ have achieved the set standards even though their achievement fluctuates (**Figure 5.22 and Figure 5.23**). However, ‘Percentage of Non-conformance of Optimal fluoride Level at Reticulation Points (**levels <0.4 ppm**)’ did not achieve target for the first time in year 2022 since 2018 (**Figure 5.22**). This is due to the issue related to the Water Fluoridation Programme, awareness and cooperation of State Water Supply Authorities as well as the number and status of water treatment plants with active fluoride feeder. Thus, fluoride levels still require vigilant monitoring to ensure maintenance of optimal fluoride level for maximum effectiveness.

- **District Specific Approach (DSA)**

DSAs are indicators set by states and districts related to their respective specific issues. DSA indicators related to dental services of pregnant mothers, toddlers, pre-schoolers, primary and secondary schoolchildren are among the commonly adopted indicators by all states. Such indicators include attendance rates, examinations, treatment, dental health education provided and case completion.

There are states with unique DSA indicators as follows:

- i. Incidence of sharps or needle-stick injury among healthcare workers;
- ii. Radiograph rejection or repeat rate;
- iii. Fluoride varnish application on toddlers;
- iv. Failure rate of fissure sealants;
- v. Tooth loss;
- vi. Waiting time for aerosol generating procedures (AGP) or non-AGP appointments;
- vii. Redo fillings on permanent dentition;
- viii. Training sessions organised;
- ix. Schoolchildren satisfaction towards oral health services;
- x. Oral healthcare workers satisfaction towards management and services provided by State Oral Health Division's office;
- xi. Patient injured during dental procedure/ treatment; and
- xii. Participation in World Patient Safety Day on 17 September annually.

- **Key Performance Indicators (KPI) 2022**

The OHP MOH monitored 26 KPIs in year 2022. Two (2) indicators were monitored three (3) monthly, 21 indicators monitored every six (6) months and three (3) indicators monitored at a yearly basis.

'Percentage of dental clinics which conduct AGP such as restorations and scaling daily (KPI 1) contributed as an indicator to measure the performance of the Principal Director of Oral Health and was also monitored by the Clinical Performance Surveillance Unit (CPSU), Medical Development Division, MOH. This indicator was also monitored as KPI for Chief Secretary (KPI KSU), MOH by the KPI Unit, Management Service Department, MOH.

In summary, 22 KPIs achieved set targets whereas 4 KPIs did not achieve set targets as shown in **Table 5.14**. After performing root cause analysis on these non-achieving KPIs, strategies for improvement have been suggested and debated upon-generally there is optimism for more improvement in achievements in year 2023 as the nation moves out from pandemic to endemic phase of COVID-19.

Table 5.14
Key Performance Indicators, OHP MOH 2022

KPI Domain	KPI Number	Monitor Indicator	Target 2022	Achievement
Accessibility to MOH oral	1	Percentage of dental clinics which conduct AGP such as restorations and scaling daily	≥70%	87.9%

KPI Domain	KPI Number	Monitor Indicator	Target 2022	Achievement
healthcare services	2	Percentage of Health Clinic with dental facility component	≥60%	55.5%
Oral health status of toddler	3	Percentage of toddlers maintaining orally-fit status (based on new attendances)	≥75%	84.0%
Oral health status of antenatal mother	4	Percentage of the antenatal mother with orally fit status	≥45%	41.6%
Oral health status of school children	5	Percentage of 6 years old school children free of dental caries	≥41%	44.1%
	6	Percentage of 12 years old school children free of dental caries	≥71%	73.5%
	7	Percentage of 16 years old school children free of dental caries	≥61%	59.7%
	8	Percentage of successful treatment for teeth that have been given fissure sealant	≥50%	82.9%
	9	Percentage of primary school students identified as current smokers who promised to quit smoking after the KOTAK program intervention	≥50%	66.4%
Delivery of denture services	10	Percentage of patients aged 60 years and above who received their denture within eight (8) weeks	≥55%	75.8%
Efficiency and effectiveness of services delivery	11	Percentage of outpatients screened for oral lesions	≥95%	98.8%
	12	Percentage of patients with oral lesions who were referred to and attended their appointments at the Specialist Dental Clinic to improve early detection of oral cancer	≥80%	90.4%
	13	The number of Dental Health Education (DHE) materials produced by the respective states/FTs/institute which receive at least 10 shares on the state's official Facebook page in a year	12 no. of DHE materials per state/FT institute	20 no. of DHE materials per state/FT/institute (average)
	14	The percentage of districts / divisions/ areas/ zones that carry out at least five (5) activities involving the <i>Ikon Gigi</i> within a year	≥75%	91.1%
	15	Percentage of patients who showed reduction in periodontal pocket depth ≥ 50% after receiving treatment for 6 months	≥75%	86.1%

KPI Domain	KPI Number	Monitor Indicator	Target 2022	Achievement
	16	Percentage of vital abutment teeth with no endodontic complications within two (2) years after crown and bridge cementation	≥98%	99.2%
	17	Elective cases of surgical removal of impacted tooth done as daycare surgery	≥60%	56.5%
	18	Percentage of newly appointed dental staff trained to conduct screening and smoking cessation interventions in schools	≥90%	96.5%
Quality dental service and MS ISO certification	19	Percentage of heavy dental equipment acquired during the current year which is safe to use	100%	100%
	20	Percentage of targeted MOH dental facilities where Occupational Safety and Health Audits were conducted to ensure safety and health of employees are at optimal levels	≥90%	100%
	21	Percentage of MOH dental facilities which achieved 90 per cent or more compliance during safety and health audits to ensure audited facilities are at optimum levels	≥88%	95.7%
	22	Percentage of dental clinics with MS ISO 9001:2015 certification	≥90%	91.7%
Monitoring of private dental clinic	23	Percentage of monitoring inspections conducted on identified Private Dental Clinics to ensure compliance with relevant acts and regulations to assure patient safety and health	≥95%	99.3%
Index of customers satisfaction	24	Percentage of customers satisfied with dental service / treatment received	≥95%	98.1%
Index of innovation culture	25	Cultivation of an Innovation Culture in Dental Clinics	≥95%	96.5%
Complaints index	26	Percentage of complaints in which the complainant was satisfied with the final resolution	≥85%	97.8%

Source: Oral Health Programme, MOH 2022

• Client Satisfaction Survey

Client Satisfaction Surveys were conducted at all dental clinics under MOH that provide primary oral health services and also non-hospital based Dental Specialists Clinic using survey questions endorsed and validated by OHP MOH to determine the level of customer satisfaction towards all oral health services they received.

In 2022, 67,336 of the clients involved in this study from all states, FTs and institutions. Among these, 66,068 of them were satisfied (98.1%) with the dental treatment or services they received. Perlis and Pulau Pinang accomplished the highest achievement of 99.5 per cent while Johor was lowest at 96.0 per cent. The national achievement stood at 98.1 per cent.

Clients' Charter

There are two (2) main areas for the OHP MOH Clients' Charter namely:

- i. Core Clients' Charter of the MOH is monitored by Pharmaceutical Services Programme who is the Secretariat of Core Clients' Charter (**Table 5.15**). Report of Core Clients' Charter is submitted to the secretariat, based on the frequency of reporting the indicators.
- ii. Clients' Charter for the OHP MOH (**Table 5.16**).

Table 5.15
Core Clients' Charter of the MOH 2022

Indicator	Target (%)	Achievement (%)
<i>Memastikan setiap pelanggan berpuas hati dengan perkhidmatan diberikan dengan memantau:</i>		
<i>70 peratus pesakit dipanggil untuk perkhidmatan kesihatan pergigian dalam tempoh 30 minit (Pengukuran dua kali setahun)</i>	70	82.3
<i>95 peratus pelanggan berpuas hati dengan perkhidmatan kesihatan pergigian yang diterima (Pengukuran sekali setahun)</i>	95	98.1
<i>Memastikan permohonan dan kelulusan perkhidmatan diproses dan diselesaikan dalam tempoh berikut dari tarikh borang permohonan lengkap diterima serta memenuhi syarat-syarat permohonan dan perundangan yang ditetapkan:</i>		
<i>Pendaftaran Klinik Pergigian Swasta: 75% permohonan pendaftaran Klinik Pergigian Swasta (KPS) diperakukan dalam Mesyuarat Jawatankuasa Penilaian Kemudahan dan Perkhidmatan Jagaan Klinik Swasta (KPJKS) atau Mesyuarat Jawatankuasa Kecil perakuan KPJKS dalam tempoh 30 hari fail diterima dari CKAPS JKN/JKWP (Pengumpulan data setiap 6 bulan)</i>	75	70.7

Source: Oral Health Programme, MOH 2022

Table 5.16
Clients' Charter of OHP MOH

No.	Client's Charter Indicator	Target (%)	Achievement (%)
1	Clients are served efficiently and in a friendly manner	100	100
2	Clients are given relevant information on services provided	100	100
3	Clients with appointment are seen within 15 minutes of their appointment time	100	97.3

Source: Oral Health Programme, MOH 2022

The indicator 'Clients with appointment are seen within 15 minutes of their appointment time' did not reach the set target (100%). Achievement was 97.3 per cent (144/148). The four (4)

respondents who gave the feedback were dental officers present for the purpose of the *Hadiah Latihan Persekutuan* (HLP) interview. The OHP MOH Clients' Charter Coordinator was unable to contact the officers for further action as the forms were being filled anonymously.

- **MS ISO 9001:2015**

Nationwide, out of 701 dental clinics providing primary dental services, 643 dental clinics (91.7%) have obtained ISO certification. The data provided is updated to 31 December 2022. Sarawak is the only state which did not obtain MS ISO 9001: 2015 certification (**Table 5.17**) in year 2022. Nevertheless, they are due to receive their MS ISO 9001:2015 certification in early year 2023.

Table 5.17
MS ISO 9001: 2015 Certification Status by State, District and Facility, 2022

State	Number of Dental Clinics with Certification	Number of Dental Clinics	Percentage of Dental Clinics with Certification (%)
Perlis	10	10	100.0
Kedah	59	60	98.3
Pulau Pinang	28	30	93.3
Perak	66	73	90.4
Selangor	66	66	100.0
FT KL & Putrajaya	20	20	100.0
Negeri Sembilan	43	43	100.0
Melaka	28	30	93.3
Johor	93	96	96.9
Pahang	75	75	100.0
Kelantan	65	65	100.0
Terengganu	45	47	95.7
Sabah	41	41	100.0
FT Labuan	3	3	100.0
PPKK & ILKKM	1	1	100.0
Sarawak	0	41	0.0
Malaysia	643	701	91.7

Source: Oral Health Programme, MOH 2022

- **Quality Improvement Initiatives (QII)**

The Quality Improvement Initiative (QII) activities are a systematic and continuous approach that aims to improve the quality of services provided. QII aims to achieve the highest standards and is not just limited to pre-set standards. Processes rather than individuals are at the centre of QI, so the activities are intrinsically focused on preventing errors rather than placing blame.

- **Feedback Management (Complaint and Non-complaint)**

The Oral Health Quality Section is responsible as Feedback Coordinator in OHP MOH as well as monitoring the feedback received by states. In year 2022, a total of 493 responses comprising of 248 complaints and 245 non-complaints were received. Throughout year 2022, 100 per cent of the responses were completed within the stipulated period.

- **Patient Safety and Incident Reporting**

Malaysian Patient Safety Goals 2.0 (MPSG 2.0) was newly introduced and implemented as of January 2022. The achievement of MPSG 2.0 for the year 2022 is shown in **Table 5.18**. Each oral health facility is required to submit data online via a website developed by the Patient Safety Unit, Medical Development Division and manually to the Oral Health Quality Section by 31 January of the following year.

There are four (4) objectives of the MPSG 2.0 which are:

- To challenge and motivate healthcare organisation in Malaysia in improving patient safety;
- To outline key priority areas on patient safety;
- To act as a singular benchmarking on patient safety in Malaysia; and
- To be used by Patient Safety Council of Malaysia to monitor the status of patient safety in Malaysia.

Table 5.18
Achievement of Malaysian Patient Safety Goals 2.0, 2022

Goal No.	Patient Safety Goals	KPI	Target	Achievement
3	Medication Safety “Medication Without Harm”	5. Number of medication error leading to severe harm or death	0	0
		Number of actual medication error	-	2
		Number of near miss medication error	-	0
		Total no. of clinic attendance	-	5298567
5	Patient Fall Prevention	7. Rate of patient fall (outpatient or clinics)	≤5 %	0%
6	Correct Patient Identification	8. Number of patient safety incidents caused by wrong patient identification (detected through incident reporting & investigation)	0	0
7	Incident Reporting & Learning System	9. Implementation of incident reporting system or other methods to investigate incidents	System Implemented	Yes
		Total no. of patient safety incident reporting done	-	62
		Total no. of patient safety incident with severe or death outcome.	-	10
		Total no. of patient safety incident with severe or death outcome that were investigated and action taken.	-	10

Source: Oral Health Programme, MOH 2022

There are 10 codes which are relevant to dental clinics (**Table 5.19**). Each code is further categorised as red, yellow and green. State Oral Health Divisions are required to notify a red category incident to Oral Health Quality Section immediately within 24 hours, followed by submission of full incident report with Root Cause Analysis (RCA) within 60 days after it happened.

Table 5.19
Incident Reporting Data, 2022

Code Number	Incident	Total Per Incident	Total By Category		
			Red	Yellow	Green
30	Incidents related to any dental clinical procedures	47	13	24	10
31	Malfunction / intentional or accidental misuse of equipment / incidents related to use of equipment that occur during treatment or diagnosis of patient	3	1	1	1
32	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 at dental clinic	1	1	0	0
33	Investigation error	0	0	0	0
34	Diagnostic error	0	0	0	0
35	Decision-making error	0	0	0	0
36	Medication error resulting in serious adverse event/death	2	0	0	2
37	Patient fall in dental clinic	9	0	5	4
38	Patient death or serious disability due to electric shock which occurred while he/she was at the dental clinic	0	0	0	0
39	Fire in dental clinic resulting in death or injury	0	0	0	0
Total		62	15	30	17

Source: Oral Health Programme, MOH 2022

- **Clinical Monitoring**

Clinical Monitoring Guidelines was introduced and distributed for familiarisation on 9 August 2022. A briefing was conducted on 18 August 2022 via Google Meet, attended by state coordinators. The national wide implementation will begin in year 2023.

- **Pain as Fifth Vital Sign (P5VS)**

OHP MOH has carried out a review and agreed that the is deemed relevant and suitable for Hospital-Based Dentistry services. However, the P5VS program implementation in Primary Dental Clinics and Non-Hospital Based Dental Specialists is not suitable to be implemented. This matter has been approved by the Director General of Health Malaysia through a minute paper dated 9 August 2022. Accordingly, the Hospital-Based Dentistry service must continue its involvement in this program by referring to the guidelines and training modules used in the hospital and subject to the pain free hospital accreditation and certification process.

Even so, clinicians at Primary Dental Clinics and Non-Hospital Based Dental Specialists Clinics are still encouraged to assess pain as one of the elements of patient management and record the pain score on the treatment card according to clinical justification.

Other Quality Activities

MOH Innovation Award (AIKKM) 2022

AIKKM 2022 was successfully conducted via online method from 17 to 20 October 2022, due to the restrictions imposed under the movement control order amidst the COVID-19 pandemic (**Image 5.2**). There were four (4) categories of innovation competing in this event, namely, product, service, process and technology. The names of the winners and their winning projects at AIKKM 2022 are as shown in **Table 5.20**.

Image 5.2
14th National Innovation Awards MOH



Source: Oral Health Programme, MOH 2022

In year 2022, the AIKKM organising committee comprised of OHP MOH as the main secretariat, working in collaboration with the Management Services Division, Family Health Development Division, Policy & International Relations Division and Information Management Division.

The objectives of organising this annual competition are to:

- i. Give recognition to the innovations produced by MOH staff;
- ii. Foster a culture of creativity and innovation in service delivery;
- iii. Introduce and disseminate exemplary innovation results for mutual benefits; and
- iv. Contribute to improving the quality of customer service delivery.

Table 5.20
Winners of AIKKM, 2022

Category	Winner	Project	Department	State
Product	First	Suture Needle & Scalpel Parking System (SParkS)	Seremban District Dental Health Office	Negeri Sembilan
	Second	PPE Mix & Match Educational Toolkit	Tengku Ampuan Afzan Hospital	Pahang
	Third	Optimax Lite Box (OLB)	PPKK & ILKKM	Pulau Pinang
	Special Jury Award	Handy FI-Ex	Seberang Jaya Hospital	Pulau Pinang
Service	First	Checkercise	Putrajaya Hospital	FT KL & Putrajaya
	Second	Bee-Novasi Project	Cheras Rehabilitation Hospital	Selangor
	Third	Pharm TALKS	Hospital Rehabilitation Cheras	FT KL & Putrajaya
	Special Jury Award	Pharmazee Eduboard	Seremban District Health Office	Negeri Sembilan
Process	First	KK Tanglin's Nicotine Addiction Management Toolkit	FT KL & Putrajaya Health Department	FT KL & Putrajaya
	Second	Spot and Catch-SARS-COV2 (COVID 19) From Food Contact Surface and Environment	National Public Health Laboratory	Selangor
	Third	DAC-ID (Drugs and Cosmetics Importers Database)	Kedah Pharmaceutical Services Division	Kedah
	Special Jury Award	SARA	Pahang State Health Department	Pahang
Technology	First	<i>Pembangunan Kecerdasan Buatan (A.I.) Bunyi Batuk untuk Saringan COVID-19 (COF'E)</i>	Clinical Research Institute	Selangor
	Second	Translation Kit (Trans-Kit)	Kampar District Health Office	Perak
	Third	eBiostatistics System	National Institute Malaysia	Selangor
	Special Jury Award	<i>Sistem Tabung Bantuan Perubatan (STBP) Fasa 1</i>	Finance Department, MOH	FT KL & Putrajaya

Source : Oral Health Programme, MOH 2022

OHP MOH is proud to acknowledge the 14 dental innovation projects out of 44 innovation products which were shortlisted to compete in the final stage of AIKKM 2022 as below:

Product Innovation Category

- i. iSuction Holder – Taman Medan Dental Clinic, Selangor
- ii. Autobudis 2.0 – Muar District Dental Health Office, Johor
- iii. Thermocube – Kubang Pasu District Dental Health Office, Kedah
- iv. Parutginate – Kampung Pandan Dental Clinic, FT KL & Putrajaya
- v. C-Thrubox – Marang District Dental Health Office, Terengganu
- vi. DentWipe – Alor Gajah District Dental Health Office, Melaka
- vii. Suture Needle and Scalpel Parking System (SParks) – Seremban District Dental Health Office, Negeri Sembilan
- viii. Anna The Smoker – Lipis District Dental Health Office, Pahang
- ix. Optimax Lite Box (OLB) – PPKK & ILKMM, Pulau Pinang
- x. Dent-Em Heater – Bachok District Dental Health Office, Kelantan
- xi. Denplify – OHP MOH

Services Innovation Category

- i. Smile Birthday Box – Jempol District Dental Health Office, Negeri Sembilan
- ii. OKU Assessment Tool (O.A.T) – Besut District Dental Health Office, Terengganu

Process Innovation Category

- i. Water Level Detector – Hilir Perak District Dental Health Office, Perak

OHP MOH will continue to facilitate to enhance achievement of AIKMM by fostering a quality culture of creativity and innovation in service delivery, ensuring dissemination of exemplary innovation results for mutual benefit and identification of potential innovations to be replicated, patented and for commercialisation.

• *Ekosistem Kondusif Sektor Awam (EKSA)*

MAMPU has taken the initiative to enhance the implementation of the 5S Practice which has been rebranded as a EKSA. This move is in line with efforts to strengthen a high-performing and innovative organizational culture among public sector agencies through the provision of environmental, workplace culture and values.

In OHP MOH, the implementation of EKSA practices continues to be strengthened and improved. New employees of the OHP MOH will attend briefing on the implementation of EKSA apart from the training organised by the EKSA Training Committee, MOH. To ensure the assessment criteria are adhered to, audits were carried out at regular intervals by EKSA internal auditors and by MOH EKSA Auditors. Audit findings were shared to all staff and actions taken for continual improvement.

EKSA Audit for OHP MOH from MAMPU has been conducted successfully on 8 November 2022 and the overall achievement for MOH was 92.84 per cent (excellent) (**Image 5.3**). Next audit from MAMPU will be done in year 2024.

Image 5.3
Certificate of EKSA Achievement from MAMPU



Source : Oral Health Programme, MOH 2022

CONCLUSION AND WAY FORWARD

The development and implementation of the NOHP and NOHSP 2022-2030 are significant milestones that showcase Malaysia's commitment to improving oral health outcomes for its citizens. Moreover, regular national oral health surveys provide valuable data for monitoring and evaluating the progress of oral health initiatives.

The OHP MOH has actively engaged stakeholders in oral health promotion and awareness campaigns, which are crucial in educating the public about the importance of maintaining good oral health practices. Additionally, collaborations with international organizations and various Asian countries aim to improve policies, exchange best practices, and encourage evidence-based research, all with the overarching goal of enhancing oral health in the region and beyond.

Furthermore, the introduction of new technologies has enhanced the efficiency and delivery of oral health services in the country. Similarly, MOH's dedication to enhancing the quality and capacity of oral health services is evident through efforts to strengthen the dental workforce, including the gazettement of Dental Specialists and the implementation of lateral entry requirements.

Lastly, the enforcement of the Dental Act 2018 has effectively regulated dental practices and protected the public from illegal dental services. Collaborations with media and e-commerce platforms have significantly contributed to raising awareness and curbing illegal practices, safeguarding the oral health of the population.

Looking ahead, sustaining and expanding these collaborative efforts will be imperative, with continuous monitoring and evaluation of initiatives outlined in the NOHSP. Enhancing oral health promotion and community empowerment, embracing new technologies, advancing research, and providing ongoing education and training will be crucial in further improving oral health outcomes and enhancing the quality of life for all citizens. By steadfastly dedicating itself to the NOHP, Malaysia can confidently progress towards accomplishing its oral health objectives by 2030 and beyond.

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ACKNOWLEDGEMENT

The Editorial Committee would like to express their gratitude and appreciation to all Directors of Oral Health Programme: Dr. Chia Jit Chie, Dr. Natifah binti Che Salleh and Dr. Fauziah binti Ahmad for reviewing this report and to all Head of Sections (in alphabetical order): Dr. Akmal Aida binti Othman, Dr. Habibah binti Yacob@Ya'akub, Dr. Haznita binti Zainal Abidin, Dr. Jamaliah binti Omar, YBhg. Datin Dr. Nazita binti Yaacob, Dr. Norashikin binti Mustapha Yahya, Dr. Norliza binti Ismail, Dr. Nurrul Ashikin binti Abdullah, Dr. Nurul Ashikin binti Husin, Dr. Rapeah binti Mohd Yassin, Dr. Sheila Rani a/p Ramalingam, Dr. Siti Zuriana binti Mohd Zamzuri, Dr. Sofiah binti Mat Ripen and to those who have contributed directly or indirectly in the publication of Annual Report 2022. All data presented have been updated as of 31 December 2022.



ORAL HEALTH PROGRAMME MINISTRY OF HEALTH MALAYSIA

Level 5, Block E, Complex E,
Federal Government, Administrative Center
62590 Putrajaya
Malaysia

Tel : 03-8883 4215

Fax : 03-8888 6133

<http://ohd.moh.gov.my>