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Perspective article

The ten innovative events in a century of the development of the Taiwan dental history

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The modern medical system was first introduced to Taiwan during the Japanese colonial period (1895–1945). Taiwan's medical profession and medical education system have

continued to improve and mature, and have become the important cornerstone in promoting the development of the Taiwan's medicine and public health. In 1899, the

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Taiwan Government Medical School was established, and then a school education system for cultivating the physicians began. However, until the end of colonial period in 1945, Taiwan had never established a dental school education system for cultivating the dentists. Even so, the Taiwan's dental system still flourished during the Japanese colonial period. The Taiwan's regular dentists were mainly the Japanese dentists who came to Taiwan for their careers and the Taiwanese dentists who studied the dentistry in Japan and returned to Taiwan. With the increase in the dentist number, in addition to the improvement of dental technology, the Taiwan's dental management system had also become increasingly complete. The island-wide Taiwan Dental Association (TDA) and the Taiwan Dental Academic Association (TDAA) were established in 1916 and 1929, respectively.^{1–3} Even after experiencing the system destruction in the post-war period, the Taiwan's dental community was able to thrive again and flourish during the process of rebuilding the dental system. In the past, few studies have explored how the Taiwan dentistry developed into what it is today and the key factors in its development. This article attempted to use document analysis to screen out the ten innovative events in a century of the development of the Taiwan dental history.

This study collected the interview articles from Dr. Shih-Chung Chen (the former deputy director of the Department of Health and the first minister with a dental background in the Ministry of Health and Welfare), and combined with the literature on the development of the Taiwan dental history accumulated through our previous studies. From the above information, ten innovative events in a century of the development of the Taiwan dental history were selected. The results are shown in [Table 1](#).

In 1906, the Department of Surgery of the Taiwan Government Taipei Hospital established a dental treatment room, which was the earliest predecessor of the Department of Dentistry at the National Taiwan University Hospital (NTUH). Moreover, it became an independent dental department in 1910. In 1914, the Taiwan Government Medical School hired Dr. Kaname Ansawa, the first teacher specializing in oral surgery and dentistry, initiating the modernization of the dental education (for medical students) in Taiwan. In 1916, the Taiwan Government promulgated the "Taiwan Physicians Order" and the "Taiwan Dentists Order", starting the legal level license management system for the clinicians (including the physicians and dentists) in Taiwan. It also opened a new era for the Taiwanese people to understand the profession of the dentists and learn the dentistry. In the early post-war period, the dental school of National Taiwan University (NTU) was established in 1953. It was the first dental education institution established in Taiwan for a new milestone in the dental education in Taiwan. In 1975, the new

Physicians Act bringing the dentists into administration was implemented, redefining the legal status of the dentists. Due to the increasing number of dentists graduating from six local dental schools in Taiwan, in 1977, the local dentists of Taiwan initiated the establishment of the Taiwan Association for Dental Sciences (TADS), which was the highest dental academic organization in Taiwan. In 1998, the National Health Insurance (NHI) implemented a global budget system for the dentistry to increase the public motivation to pay attention to the daily oral care and provide the basic income guarantee for the dentists. Since then, the dental school has become an increasingly popular choice for the Taiwanese high school students to major in the university. In 2010, the dental community took the lead in implementing the two-year Postgraduate Year Training Program for the Dentists (so-called dental PGY or PGYD) and became the first among all types of medical personnel to implement the two-year PGYD. In 2018, the Ministry of Health and Welfare formulated and promulgated the "Dentist Specialization and Examination Regulations", and Taiwan began to implement a comprehensive dental specialist system to promote the evolution of the professional division in the dentistry. In 2022, the Ministry of Health and Welfare established the Department of Oral Health to be responsible for the oral health policy planning and promotion, and the development of the oral health care manpower. Internationally, it is an innovative approach to establish a health department within the central government responsible for the oral health care.

Until the end of the World War II in 1945, there were 493 Taiwanese dentists in Taiwan.³ According to statistics from the Taiwan Dental Association (TWDA) as of June 2024, there were 16,502 practicing dentists. Among them, there were 6833 dental clinic operators, accounting for 41.41 % of the total. After nearly 80 years, the number of the dentists in Taiwan has increased by more than 30 times. Today, the Taiwan's dental community has the comprehensive dental education system, the dental clinical training system, and the NHI system for the dentistry, as well as the complete legal and government management system.⁴ In Taiwan, the dentistry has become a profession favored by our social value system. Becoming a dentist is a multifaceted and highly competitive process, and our dental schools receive the best high school students as a result.⁵ Looking back at the early days of Taiwan, due to the dental system destruction after the war, the fake dentists were in power. At that time, the social status of the regular dentists was far less prosperous than it is today. The Taiwan's senior dentists spent decades rebuilding and improving the dental system and forming today's booming appearance. We consider that the today's outstanding young generation of the dentists will lead the continuous improvement of Taiwan's dental professional field on this basis.

Table 1 The ten innovative events in a century of the development of the Taiwan dental history.

Item	Time	Innovative event	Description of the event and its significance
1	1906	The establishment of the dental treatment room within the Taiwan Government Taipei Hospital	Japan ruled Taiwan since 1895 and immediately established the Great Japan Taiwan Hospital, initiating the development of the Taiwan's modern medical system. The hospital moved to its current location in 1898 and was officially named the Taiwan Government Taipei Hospital. It was the largest and most modern hospital in the Southeast Asia at that time. In 1906, the Department of Surgery of the Taiwan Government Taipei Hospital established a dental treatment room. In 1910, the dental treatment room was upgraded to the dental department. Today, it is the Department of Dentistry of National Taiwan University Hospital (NTUH).
2	1914	The Taiwan Government Medical School hiring the first teacher dedicated to teaching the dentistry	Dr. Kaname Ansawa, who graduated from the Faculty of Medicine of Tokyo Imperial University in 1911, was hired by the Taiwan Government Medical School in 1914 and began to teach the dentistry under the subject of surgery. He was the first dental teacher in Taiwan. In 1918, the dentistry was reclassified as an independent subject.
3	1916	The promulgation of Taiwan Dentists Order	In 1916, the Taiwan Government promulgated the "Taiwan Physicians Order" and the "Taiwan Dentists Order", starting the legal level license management system for the clinicians (including the physicians and dentists) in Taiwan.
4	1953	The establishment of the local dental education institution (Department of Dentistry of National Taiwan University) after the war	During the Japanese colonial period, Taiwan never established a school education system for cultivating the dentists. In the early post-war period, the dental school of National Taiwan University (NTU) was established in 1953, which was the first dental education institution established in Taiwan. Prior to this, the dental school of National Defense Medical College (NDMC) moved to Taiwan with the medical college in 1949. After that, Kaohsiung Medical College and Taipei Medical College established their dental schools in 1957 and 1960, respectively. Currently, there are 8 dental schools in Taiwan.
5	1975	The new Physicians Act bringing the dentists into administration	After the World War II, Taiwan inherited the legal system of the Republic of China. At that time, the Physicians Act did not include the dentists, causing the dentists to lose their legal qualifications as the clinicians. The new Physicians Act was amended on June 2, 1967 and came into effect on September 11, 1975, bringing the dentists into administration of the Physician Law. The legal status of the dentists was redefined.
6	1977	The establishment of the Taiwan Association for Dental Sciences (TADS)	In 1950, a dental academic association was established within the dental school of NDMC to promote academic activities among the dentists in Taiwan at that time. Due to the increasing number of dentists graduating from the local dental schools in Taiwan. In 1977, the local dentists of Taiwan initiated the establishment of the Taiwan Association for Dental Sciences (TADS), which was the highest dental academic organization in Taiwan.
7	1998	The implementation of a global budget system for the dentistry under the National Health Insurance (NHI)	Taiwan implemented the National Health Insurance (NHI) since 1995, and a global budget system for the dentistry was first launched on a trial basis in July 1998. This payment system set the total expenditure on the health insurance medical services in the next year by agreement in advance for a specific range of medical services, such as dental outpatient service. It was the total budget to ensure the financial balance of NHI.
8	2010	The implementation of the two-year Postgraduate Year Training Program for the Dentists (so-called dental PGY or PGYD)	After the SARS epidemic in Taiwan in 2003 exposed the deficiencies of the health care system and the medical education system, the Taiwan's medical system reflected on the need of general medical training for the clinicians before specialist training. In July 2010, the dental community took the lead in implementing the two-year Postgraduate Year Training Program for the Dentists (so-called dental PGY or PGYD).
9	2018	The implementation of a comprehensive dental specialist system	Under the regulatory system of the "Diplomate Specialization and Examination Regulations", the three dental specialties of Oral and Maxillofacial Surgery, Oral Pathology, and Orthodontics were implemented in 1999, 2001 and 2009, respectively. After years of planning, the "Dentist Specialization and Examination Regulations" was formulated and promulgated in 2018, and Taiwan began to implement a comprehensive dental specialist system.

Table 1 (continued)

Item	Time	Innovative event	Description of the event and its significance
10	2022	The establishment of the Department of Oral Health in the Ministry of Health and Welfare	In 2013, the Ministry of Health and Welfare restructured its organization and established the Department of Mental and Oral Health. In 2022, the Ministry of Health and Welfare restructured its organization again and established the Department of Mental Health and the Department of Oral Health, respectively. The Department of Oral Health is responsible for oral health policy planning and promotion, and the development of oral health care manpower. Compared with international governments, it is an innovative approach to establish an oral health department within the central government responsible for the oral health care.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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