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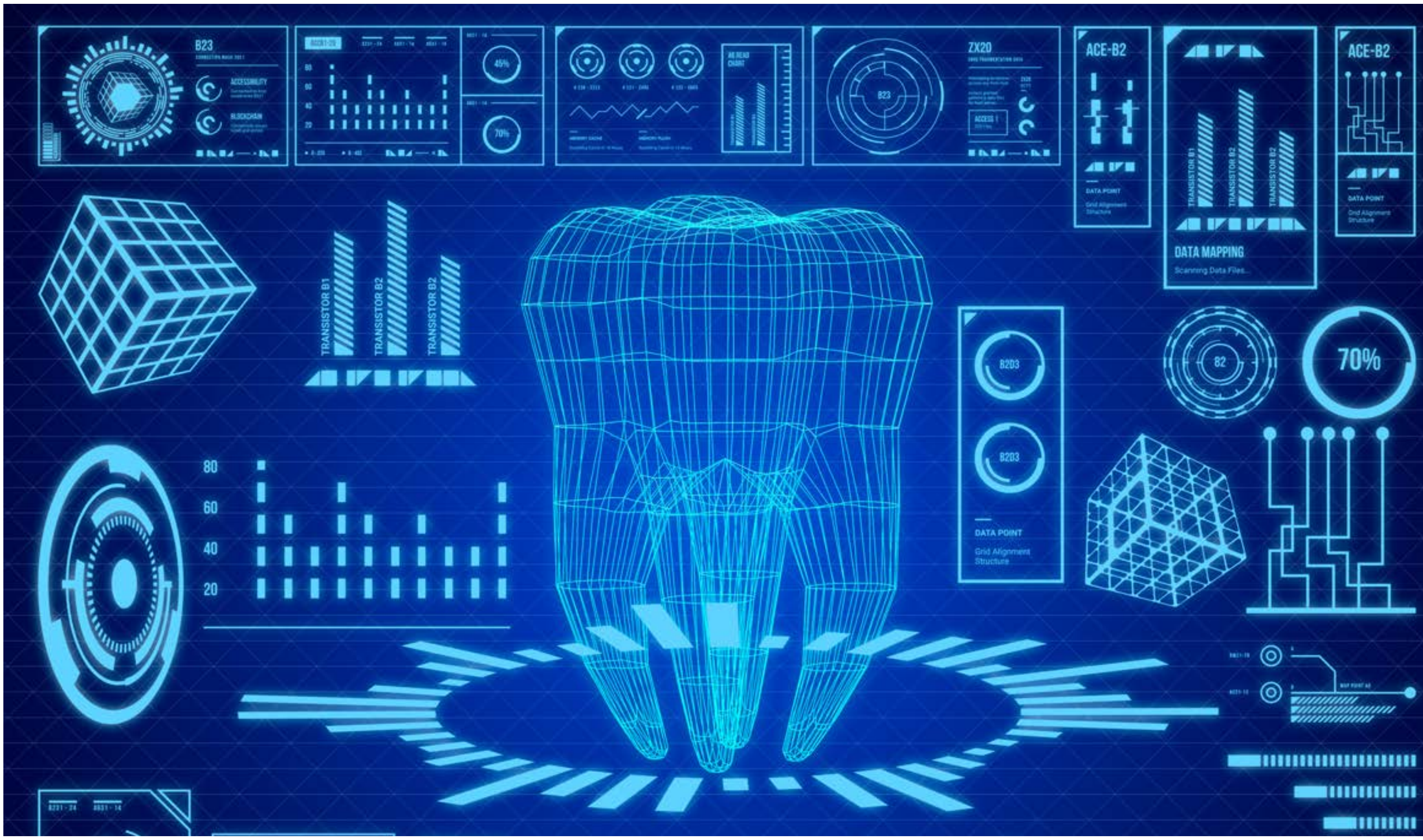

Dialogue with Key Stakeholders on Digital Technology for Oral Health: Meeting Report

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The Global Burden of Disease Study 2019 estimated that oral diseases affect close to 3.5 billion people worldwide, with caries of permanent teeth being the most common condition.[1] Globally, it is estimated that 2 billion people suffer from caries of permanent teeth and more than 520 million children suffer from caries of primary teeth.[2] The total direct expenditure for oral diseases among 194 countries amounted to $387 billion (USD) or a global average of about $50 (USD) per capita in 2019. This represents about 4.8% of global direct health expenditures. At the same time, productivity losses from oral diseases were estimated at about $42 (USD) per capita, totalling to around $323 billion (USD) globally.[3]

In response to the high burden of oral diseases, the WHO Oral Health Programme, as part of the joint World Health Organization (WHO) and International Telecommunication Union (ITU) Be He@lthy Be Mobile initiative developed the mOralHealth programme.[4] In September 2021, "*mobile technologies for oral health: an implementation guide*" was launched to promote global collaboration and advances in digital oral health. This new resource provides guidance on promoting oral health, training health workers, detecting oral health conditions, collecting epidemiological data, and monitoring the quality of patient care, all through mobile technologies. It will help countries to develop and to implement

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mOralHealth programme to complement existing oral health programs. The handbook is intended to assist policy- and decision-makers and implementers to establish a national or large-scale mOralHealth programme.[4]

Digital technologies offer an unprecedented opportunity to change lives, transform economies and stimulate growth. Mobile connectivity and mobile technology have opened up new opportunities to connect people. The use of digital technologies in health is a transformative tool in low-income countries, where mobile connectivity has reached unprecedented penetration and ubiquity.[5] Therefore, the current digital health transformation provides an excellent accelerator for reaching the health-related Sustainable Development Goal (SDG) #3 (Ensure healthy lives and promote well-being for all at all ages) and SDG target 3.8 on achieving Universal Health Coverage (UHC).[6]

WHO has been developing plans to accelerate the use of technologies to meet global public health needs based on the Digital Health resolution (WHA 71.7).[7] Furthermore, the Resolution on oral health (WHA 74.5)[8] has called for the use of devices that modern digital technology provides in the field of telemedicine and teledentistry to ensure no one is left behind. The 74th World Health Assembly (WHA 74.5)[8] calls for a paradigm shift in oral health policy planning, placing oral health at the center of the global health agenda.

The city of Montpellier, France, is currently developing a strategic plan to recognized as "one health" and "innovation" city globally. To achieve this, the mayor of Montpellier launched and implemented the "MedVallée" initiative. One program is specific to oral health: "Montpellier Santé Orale By MedVallée". MedVallée is a strategy to promote Montpellier as a world centre of excellence in global health (medvallee.fr/en). In this context, the University of Montpellier and the city of Montpellier hosted for the first time, September 7, 2022, a dialogue with key stakeholders, including digital oral health technology developers, dental leaders (i.e, Chief Dental Officers, policy makers), WHO, ITU and academia, who are engaged in digital oral health technologies: University of Montpellier, McGill University, Harvard University and the University of Melbourne.

This meeting took place using a hybrid model. The dialogue was held in the city council room of the Montpellier city hall and was organized as part of the European Association for Dental Public Health (EADPH) pre-congress program. Participants were Chief Dental Officers, WHO and ITU representatives, members of academia who are in a field of oral health and representatives of developers with preselected innovations relevant to digital oral health.

Mr. Michaël Delafosse Mayor of Montpellier, France, made the opening address at the meeting. *Photo: Nicolas Giraudeau.*

The objectives of the meeting were:

- To build an understanding of the digital products and solutions available to implement population-based digital oral health interventions in terms of oral health education, health professional training, early detection of oral disorders, and oral health surveillance to accelerate the digital transformation of health care;
- To explore how to improve collaboration and strong partnerships that bring together key stakeholders to build a network, the Global Digital Health Community for Oral Health. The proposed network would include the private sector, academia, government organizations, development partners, and civil societies to foster coordination, build solidarity, and contribute to the achievement of the health-related SDGs.

Dr. Nicolas Giraudeau and Mr. Michaël Delafosse, Mayor of the city of Montpellier, opened the meeting which then continued with several speakers. Dr. Benoit Varenne, a dental officer in the Prevention of Noncommunicable Diseases (NCDs) department at the WHO, explained the mOralHealth programme: views and perspectives in the context of the WHO Resolution on oral health.

Drs. Elham Emami and Pascaline Kengne Talla presented "Challenges and opportunities on digital oral health in countries: results form a global e- readiness questionnaire survey." These are the first results of the project "Toward Global Digital Oral Health Scale-up Plan: Evaluating Organizational and Governmental Digital Oral Health Readiness" which aims to facilitate the overall implementation process of the mOralHealth programme.

Afterwards, there were other presentations:

- Dr. Nicolas Giraudeau presented the project "Montpellier Santé Orale by MedVallée" launched at the end of August 2022
- Dr. Yuka Makino, WHO Regional Office for Africa, spoke about the "WHO regional e-learning oral health initiatives to strengthen capacity of primary health care workers using online platform"
- Dr. Codou Badiane Mané, Chief Dental Officer, Ministry of Health, Senegal, and Line Kleinebreil (Université Numérique Francophone Mondiale) presented "Application of the mRamadan Be He@lthy Be Mobile programme in Senegal"
- Dr. Melissa Adiatman, Chief Dental Officer, Ministry of Health, Indonesia, talked about "Experience of using digital technology for national oral health survey in Indonesia"

A presentation of digital oral health technology was also given. Four modules have been developed in the WHO mOralHealth programme. These modules were illustrated by different companies.

- mOralHealth Literacy (Orange, My mouth, Quip)
- mOralHealth Training (Anatoscope)
- mOralHealth early Detection (Acteon, Conex Santé, UFSBD and Dental Monitoring, Circle Dental)
- mOralHealth Surveillance (IBM, TotIA SL, Telemonica)

Dr. Benoit Varenne of the World Health Organization, gave a presentation on the mOralHealth programme. *Photo: Nicolas Giraudeau.*

After a discussion among all participants, Dr. Varenne presented "Moving forward: the use of digital oral health technology" and Dr. Giraudeau closed the meeting.

In summary, this forum was an opportunity to exchange expertise and feedback from the 57 Chief Dental Officers. It was the first discussion with stakeholders and they expressed their satisfaction and raised some important points. It is important that teledentistry is accessible to all, including those who already have accessibility problems, and that it is regulated. Data protection remains a key issue in implementation. In addition, many expressed a wish that the energy and excitement generated by the meeting be followed by actions.

In December 2022, a meeting took place in Geneva, Switzerland, organized by the University of Montpellier and the city of Montpellier with partners to propose a project to implement the mOralHealth Programme in low- and middle-income countries. We hope to organize a similar meeting in all WHO regions by the end of this year. In 2023, 6 meetings will be organized in all WHO regions to gather all Chief Dental Officer and digital oral health experts of the regions and work on a regional plan for digital oral health.

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