WHITE PAPER

Access to oral health through primary health care

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FDI World Dental Federation

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Executive summary

Oral disease continues to be a significant public health challenge, globally. Oral diseases are among the most common noncommunicable diseases worldwide affecting some 3.5 billion people. They can cause pain, discomfort, disfigurement, tooth loss and embarrassment, resulting in missed school or workdays and lead to social withdrawal and isolation. Oral health conditions, therefore, have a significant detrimental effect on people's overall health and well-being – in the most severe cases leading to sepsis or even death – and their economic cost as well as impact on the health care system is considerable.

Major barriers to accessing and utilizing oral health care exist at the macro (system), meso (organizantional) and micro (clinical) level. These include maldistribution and inaccessibility to the oral health workforce, oral health being siloed from the wider health care team, widening inequalities due to advancing technologies in high-income countries, the cost associated with oral health care, and the lack of governmental commitment to tackling the social and commercial determinants of health that contribute to oral diseases.

As countries work towards the implementation of universal health coverage (UHC), it is imperative that oral health is not left behind. Primary health care (PHC) is usually the first point of contact with health care services and is the setting in which oral and general care is provided. Oral health teams, collaborating with primary care teams, have a great opportunity to integrate oral health through a common risk factor approach.

This white paper has been written to support National Dental Associations (NDAs) and policymakers understand the challenges in accessing oral health care and provides implementable solutions. The solutions to accessing oral health are neither prescriptive nor exhaustive, and advocates are urged to adapt it for use based on the needs, circumstances and oral health priorities within their countries and regions. This white paper also highlights future works that needs to be undertaken at a country-level to improve access to oral health care.

Suggested citation

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Introduction

Despite being largely preventable, oral diseases continue to affect 3.5 billion people worldwide. Oral health conditions include dental caries, periodontal diseases, edentulism, oral cancers, congenital malformations such as cleft lip and/or palate and neglected diseases such as Noma.[1] Oral diseases have a detrimental impact on the oral health-related quality of life and disproportionately affect the most disadvantaged and marginalized communities reflecting widespread social and economic inequalities.[2] Oral diseases share common risk factors, including tobacco use, alcohol consumption, and unhealthy diets – high in free sugars – with many other noncommunicable diseases (NCDs) including atherogenic cardiovascular disease, chronic lung conditions, Alzheimer's disease, rheumatoid arthritis, chronic bowel conditions, adverse pregnancy outcomes, and certain types of cancer.[3]

In addition to the disease burden, the treatment of oral diseases leaves a lifelong legacy of maintenance requirements, including the monitoring, repair and replacement of restorations (fillings) and prostheses and ongoing care for soft tissue conditions such as periodontal diseases and oral cancer.

Understanding the economic burden of oral diseases is essential for decision makers to advocate for the reduction, and ideally the eradication, of oral disease in their countries. It is estimated that worldwide costs of oral disease total USD544.41 billion, meanwhile indirect treatment costs that are considered in terms of school and work absenteeism amount to $187.61 billion, and direct treatment costs amount to some USD356.80 billion.[4]

The Global Burden of Disease Study reveals little progress has been made in reducing the burden of oral diseases between 1990 and 2010 and the prevalence is seen to be increasing in low- and low-middle income countries (LMICs).[5] In addition, inequalities related to oral diseases both in terms of incidence and also access to care are stark and there is some evidence that these are widening.[6] The reasons for this are complex and multifactorial. Historically, oral diseases have been neglected from health policies and health care systems and the current model of dental care delivery, which is technology and treatment focused, is unaffordable and inappropriate in many parts of the world.[2]

However, the momentous developments that have occurred in the global oral health landscape over the last few years present a real opportunity to address the oral health challenges faced. This started in January 2021 with the launch of FDI World Dental Federation's (FDI) *Vision 2030: Delivering Optimal Oral Health for All* (Vision 2030),[7] a roadmap report that provides comprehensive guidance to respond to the oral disease burden over the next decade and achieve universal oral health coverage (UHC) by 2030. This was closely followed in May 2021, by the adoption of the World Health Organization's (WHO) *landmark resolution on oral health*,[8] and this momentum continued with the adoption of the *Global oral health strategy*[9] in May 2022. The strategy further informed the development of a WHO global oral health action plan, including a framework for tracking progress with targets to be achieved by 2030.

WHO's vision of UHC for oral health for all individuals and communities by 2030 is aligned with FDI's Vision 2030. However, this will require the development and implementation of comprehensive evidence-based policies and benefit packages that integrate oral health promotion and oral health care into NCD and UHC responses. A critical element of this will be ensuring equitable access to affordable, quality oral health care at the primary health care (PHC) level to avoid the current catastrophic health expenditures.

Creating a roadmap to increase access to care

This white paper is based on discussions and themes highlighted during the Access to Oral Health through Primary Health Care roundtable held at the FDI Headquarters in Geneva, Switzerland on 7 March 2023. The roundtable brought together a diverse set of stakeholders (see Acknowledgments) to discuss the barriers and opportunities in integrating oral health into PHC. The need for improved access to care is highlighted in the FDI Policy Statement on Improving Access to Oral Healthcare (Appendix 1).

The white paper has been written to support National Dental Associations (NDAs) and policymakers understand the challenges in accessing oral health care and provides implementable solutions. The solutions to accessing oral health are neither prescriptive nor exhaustive, and advocates are urged to adapt it for use based on the needs, circumstances and oral health priorities within their countries and regions. Future work that needs to be undertaken at a country-level to improve access to oral health care is also highlighted.

The importance of improving access to oral health care

In 2012, FDI published Vision 2020 which served as the blueprint for FDI's advocacy activities. This provided the foundation on which Vision 2030 was built and a strengths, weaknesses, opportunities and threats (SWOT) analysis (Figure 1) was carried out to map out future advocacy priorities. This clearly outlined the need for further work around access to oral health care.

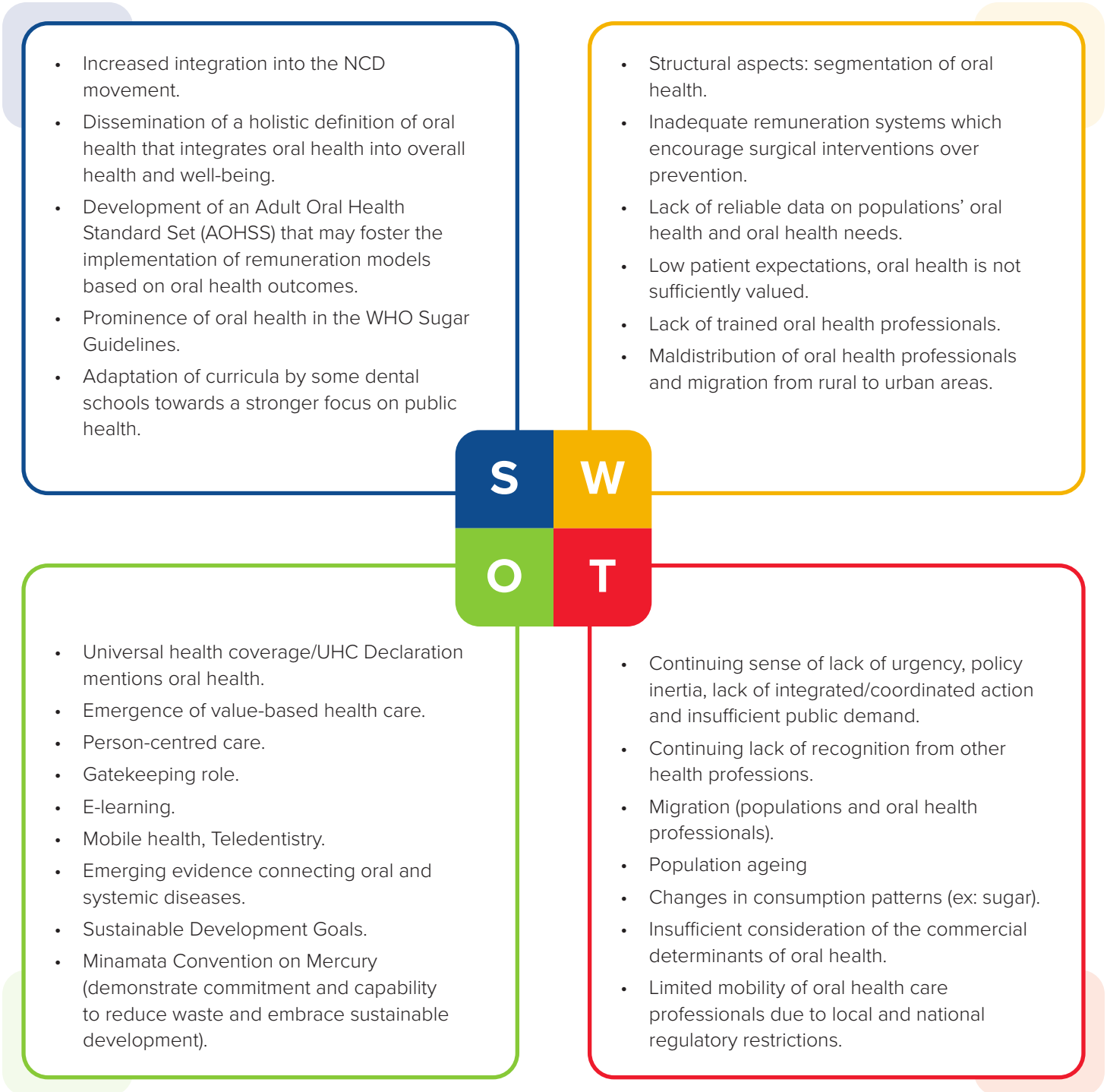
Strengths: what has the oral health community achieved towards 'leading the world to optimal oral health'?

Weaknesses: where are the remaining gaps?

Opportunities: within a changing global context, what are the main emerging opportunities the oral health community can build upon to 'lead the world to optimal oral health'?

Threats: within a changing global context, what are some of the main obstacles towards 'leading the world to optimal oral health'?

Figure 1. Vision 2030 SWOT analysis to define progress and future needs in oral health care



Primary health care

The concept of primary health care (PHC) for all dates back to the WHO's Alma Ata Declaration of 1978, which defined PHC as "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford."[7]

This declaration helped to establish the global health agenda and marked the beginning of a movement towards UHC. Since then, the concept of PHC for all has evolved to include a broader range of services, such as preventive care, health promotion, disease prevention and management, and health information systems.

Universal health coverage

As discussed earlier, there has been little improvement in the burden of oral diseases over the last 40 years. Furthermore, both high-income countries and LMICs are seeing an increase in the prevalence of NCDs and inequalities remain stark.

Defining universal health coverage and its dimensions

In 2012 the United Nations (UN) General Assembly endorsed the resolution on Global Health and Foreign Policy urging countries to accelerate progress towards UHC. WHO defines UHC as "Universal Health Coverage means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship. It covers the full continuum of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care".

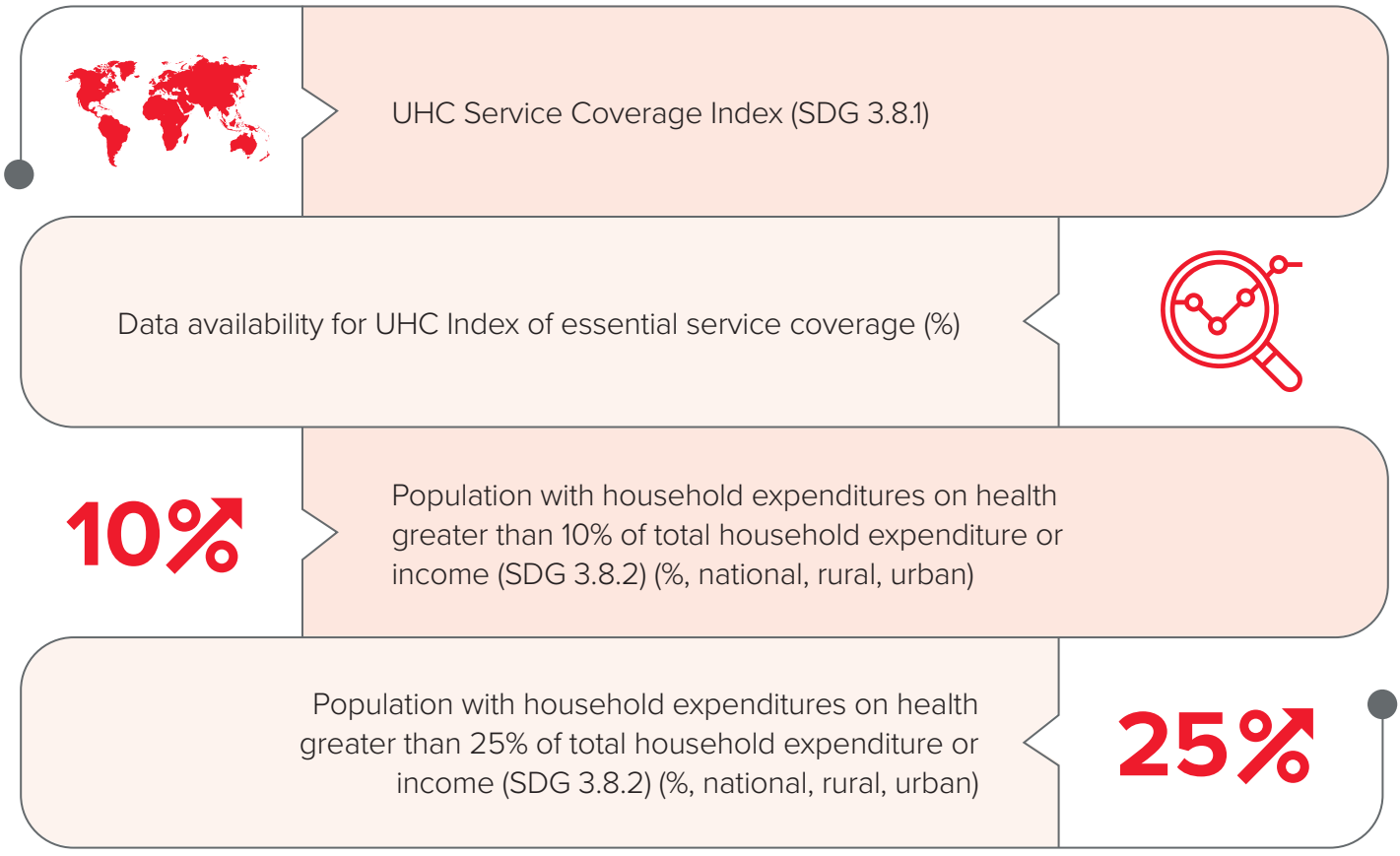
The Sustainable Development Goals (SDGs) were ratified in 2015. The SDG framework aims to link the social, economic, and environmental aspects of 16 substantive goals, and 42 targets. The final goal, number 17, is devoted to implementation.

Whilst all of the goals are interlinked and indivisible, one goal is of particular relevance to this white paper: **SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages**.

Under this goal, the UN has made progress in increasing the life expectancy of people, reducing child and maternal mortality and communicable diseases. However, it acknowledges more efforts are required to address a range of other diseases including NCDs. Within SDG 3 there are 13 Targets and 28 Indicators, with one target being **SDG Target 3.8.1: Achieve universal health coverage** (Figure 2). UN definition: Achieve universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Figure 2. SDG Access to UHC indicators

SDG Target 3.8 - Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.



In September 2019, the UN High-Level Meeting on UHC officially acknowledged oral health as being a part of the UHC agenda.

One available metric to track progress on this is the UHC index. The UHC Index is on a scale from 0 to 100, where 100 is the optimal value. The UHC index is the geometric mean of 14 indicators measuring the coverage of essential services including reproductive, maternal, newborn and child health, infectious diseases, NCDs and service capacity and access, among the general and the most disadvantaged population.

Access to appropriate care: an important dimension of UHC

Prior to the COVID-19 pandemic, there was worldwide progress towards UHC. The UHC service coverage index (SDG indicator 3.8.1) increased from 45 in 2000 to 67 in 2019, with the fastest gains in the WHO African Region.

However, 2 billion people are facing catastrophic or impoverishing health spending (SDG indicator 3.8.2). The COVID-19 pandemic brought into sharp focus the impact of inaccessible care, for example, in oral health as delayed presentation and Do-It-Yourself dentistry were reported globally and communities reported a negative impact on their general and oral health. [10]

Additionally, inequalities continue to be a fundamental challenge for UHC as aggregated data masks within-country inequalities in coverage. Therefore, the WHO recommends reorienting health systems to PHC. PHC enables universal, integrated access in everyday environments to the full range of quality services and products people need for health and well-being, thereby improving coverage and financial protection. Most (90%) essential UHC interventions can be delivered through PHC and there are significant cost efficiencies in using an integrative PHC approach.[11]

Defining access to care

Access to oral health care has previously been defined as to "whether the patient is able to obtain and make use of dental care"[12]. In the context of oral health care where services have been significantly privatized and individuals may seek care to address concerns about their appearance, rather than for health concerns this definition can be unhelpful for decision-makers.[13] A more useful definition proposed by Harris (2013) states that individuals and communities have the opportunity to obtain dental services that they need including; relief of symptoms, restorative care, and complete care including prevention.[13]

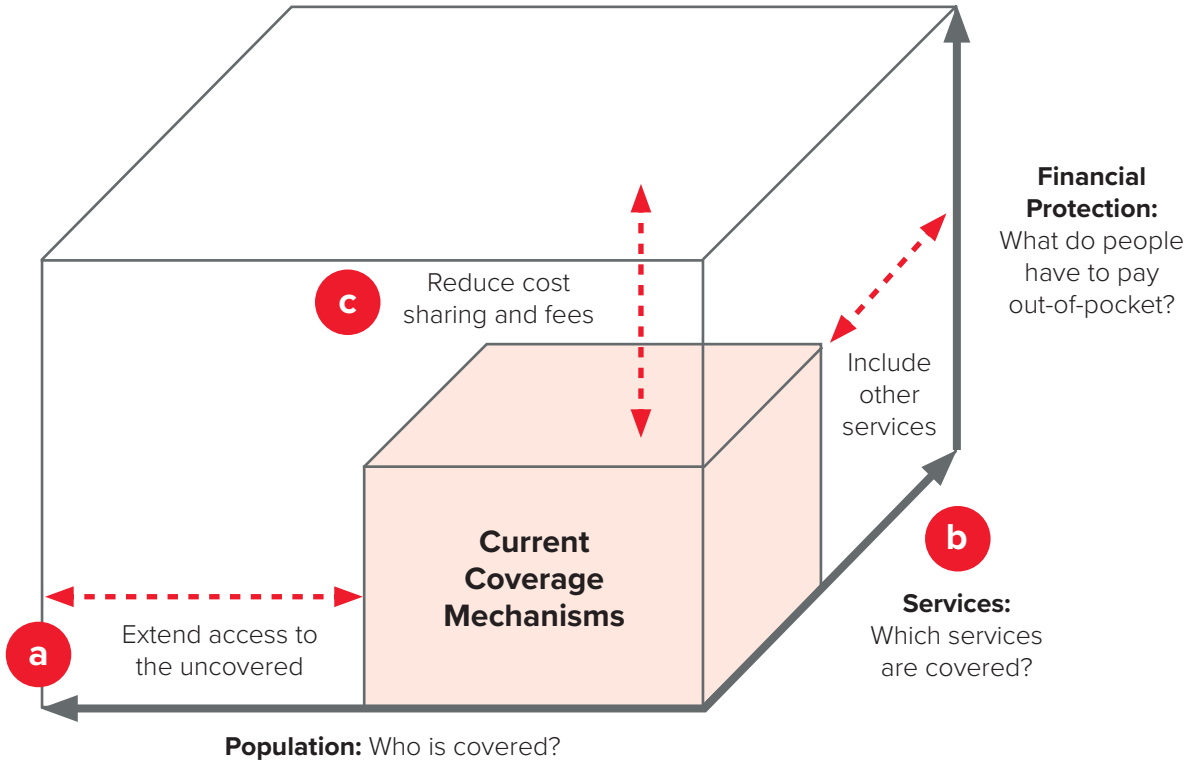
Many factors affect accessibility and utilization of oral health care services, including oral health literacy and cultural values, episodic availability of preventive and routine care, cost implications, and geographic location.[8]

It is important to recognize that there may be different aspects of coverage which can be defined. The WHO UHC Cube (Figure 3) is a framework to help policymakers and health care professionals evaluate and improve access to health care services for individuals and communities. The Cube Model that considers three key dimensions of access: availability, affordability, and acceptability.

- **Availability:** Availability refers to the presence of health care services and resources in a particular geographic location. It includes the availability of health care facilities, healthcare providers, medical equipment, and medicines. In evaluating the availability of health care services, the WHO UHC Cube considers factors such as distance, transportation, and the number of health care providers available.
- **Affordability:** Affordability refers to the cost of healthcare services and the ability of individuals and communities to pay for them. The WHO UHC Cube considers factors such as the cost of healthcare services, insurance coverage, and out-of-pocket expenses in evaluating affordability.
- **Acceptability:** Acceptability refers to the cultural and social acceptability of healthcare services. It considers factors such as language barriers, cultural norms, and patient preferences in evaluating the acceptability of healthcare services.

The WHO UHC Cube recognizes that access to health care is influenced by the interplay of these three dimensions, and that improving access to healthcare services requires a multifaceted approach that considers all three dimensions simultaneously. By using this framework, policymakers and healthcare professionals can identify the areas where access to healthcare services is lacking and develop targeted interventions to improve access to care.[14]

Figure 3. The WHO UHC cube: towards universal coverage



Why oral health is important and how it is part of the global agenda

FDI Vision 2030

FDI's Vision 2030 published in January 2021, identifies challenges that will confront dentistry and the oral health community over the next decade, and it proposes strategies for how these can be turned into opportunities to improve oral health, reduce oral health inequalities, and contribute to reducing the global burden of oral diseases.

The Vision 2030 report is constructed around three pillars, each with a major goal. Pillar One calls for essential oral health services to be integrated into health care in every country and for appropriate quality oral health care to become available, accessible and affordable for all. At present, many national health systems are not appropriately configured to provide oral health care. There are complex barriers that impede the integration of oral health into UHC and PHC that will be explored later in this document.

FDI collaborates with National Dental Associations (NDAs) worldwide on a series of projects that are designed to provide education, skills and improve access to care in remote communities. FDI regularly receives reports from NDAs to support their strategic planning and project development.

WHO Global Strategy on Oral Health 2023–2030

In May 2021, WHO's World Health Assembly adopted a historic resolution recognizing that oral health should be firmly embedded within the NCD agenda and that oral healthcare interventions should be included in UHC programmes, bringing oral health to the top of the global public health agenda. This momentum continued with the adoption of the Global Strategy on Oral Health in May 2022. The strategy further informed the development of a WHO global oral health action plan, including a framework for tracking progress with 11 global targets and 100 actions to be achieved by 2030, with responsibility spread across WHO Member States, the WHO Secretariat, International Partners, Civil Society and Private Sectors.

The vision of the Global Strategy on Oral Health is UHC for oral health for all individuals and communities by 2030 enabling them to enjoy the highest attainable state of oral health and contributing to healthy and productive lives. The Global Strategy on Oral Health identifies six strategic objectives:

- Oral Health Governance
- Oral Health Promotion and Oral Disease Prevention
- Health Workforce
- Oral Health Care
- Oral Health Information Systems
- Oral Health Research Agendas

WHO Global Oral Health Status Report

Nearly 20 years after the publication of the World Oral Health Report in 2003, WHO launched the latest Global Oral Health Status Report (GOHSR) in 2022. The GOHSR, provides the first-ever comprehensive picture of the oral disease burden and highlights challenges and opportunities to accelerate progress towards UHC for oral health. It includes the oral health profiles of countries based on the latest available data from the Global Burden of Disease (GBD) project, the International Agency for Research on Cancer (IARC) and global WHO surveys.

A set of country oral health profiles accompanies the GOHSR and within each of these reports, data concerning the oral health workforce, availability of procedures for detecting, managing and treating oral diseases in the primary care facilities in the public health sector and oral health interventions included as part of health benefit packages are reported. The report and the related country profiles are part of a set of tools and processes in the wider context of strengthening oral health awareness and action, together with the 2021 World Health Assembly resolution on oral health (WHA74.5), the WHO Global Strategy on Oral Health (WHA75/10 Add. 1) and others.

The release of these high-level political documents creates a global momentum to bring oral health to the top of the public health agenda.

Challenges and barriers in integrating oral health into PHC

Human resources

Oral health workforce

Currently 69% of the oral health workforce provides care to just 27% of the global population. [7] In both high-income countries (HICs) and LMICs the oral health workforce is primarily situated in urban areas, leaving rural communities without access to care.[15] The migration of oral health professionals is a long-standing phenomenon as they seek better salaries and working conditions in other countries and as a consequence the health workforce in their own country is liable to be weakened. [7]

There is a lack of oral health work force planning in many countries and most countries use the simplistic dentist-population ratio. Furthermore, there is slow progress to adopt innovative workforces models..[16-18] This simple measure does not take into account the differences in workforce between countries and regions, it also fails to consider important factors such as the workforce distribution, the composition of services, how they are delivered and by whom. [15]

Despite the feminization of the oral health workforce, there remains a persistent gender inequality in terms of salary, and female representation in oral health leadership and academia. This gap only widens at each stage of the career path.[19] Similarly, in many HICs a lack of diversity can be observed in the admission of dental students, and those entering leadership and academic positions.[20] An absence of clinicians from diverse backgrounds can lead to missed understandings when providing care to people living in areas of high social deprivation and a lack of providers in rural and underserved areas.[16] In addition, it may prove a barrier to access to those from minorities where they do not feel the profession represents them.[22]

The COVID-19 pandemic had a serious impact on the oral health workforce, compounding existing challenges with recruitment and retention.[23,24] At an individual and clinic/practice level, new and existing challenges include salaries, working hours, work-life balance, burn-out, and employment versus practice ownership.[7]

Finally, the practice of dentistry by individuals who lack the proper qualifications, regulation, and adherence to professional standards poses significant risks to public health and safety. This unregulated form of dental practice may have consequences that may be severe, including improper diagnosis, ineffective treatments, substandard infection control practices, and the potential for permanent harm to patients. Moreover, these unlicensed practitioners tend to operate in unregulated settings, such as makeshift clinics or private homes, further increasing the risks associated with their services. Efforts must be made to raise awareness about this unregulated practice of dentistry, enforce strict regulatory measures, and educate the public on the importance of seeking dental care from qualified and licensed professionals to ensure their oral health and well-being.

Non-oral health workforce

Historically, oral health care was provided by barber-surgeons and upon professionalization dentistry was not recognized by the wider healthcare establishment. Despite the passage of time, oral health care has remained siloed from the medical profession in terms of financing, education and service delivery.[25] Other healthcare professionals outside of oral health often have limited understanding of oral diseases, relevant preventive messages and can lack the knowledge to signpost patients appropriately.[21] As highlighted in Box 1 there are barriers and opportunities to engage with the wider healthcare team and communities to improve access to oral health care.

The WHO's Global Oral Health Action Plan 2023–2030, and FDI's Vision 2030 calls for the integration of oral health into PHC. However, barriers exist at macro level (supportive policies, systems integration, budget allocation, interdisciplinary education and training), meso level (organizational set up, working environment, time constraints, and shortage of resources and manpower) and micro level (knowledge, attitudes, perspectives, beliefs and values).[27–29]

Box 1: Access to care: challenges and opportunities from Uganda

Uganda is a landlocked Sub-Saharan African country referred to as the “Pearl of Africa”. Uganda has one of the fastest growing populations globally, which tripled from 1980 to 2015. The present population is estimated to be 46 million of which 25% live in urban areas, meaning 75% reside in rural areas and experience significant challenges in accessing oral health care.

The health system operates under a decentralized hierarchal system, typically the first point of contact within the health centre would be a nurse.

- Government Ministry leadership
  - Policy
  - Major referral hospitals
- District leadership
  - Hospital
  - Health centres I - III
  - Village health teams

Uganda is divided into 112 districts, of which currently, eight districts have no public oral healthcare services and twenty-two districts have just one dental clinic. There are significant challenges in providing access to care for this population namely: the rapidly growing population poses an increase in both communicable and NCDs, private oral healthcare services are mainly available in urban areas, and the population is not adequately educated as to when to seek oral health care.

There are unique opportunities to improve access to care in Uganda; Village Health Teams are well placed within their communities and hold a high level of cultural competence to deliver appropriate oral health education and direct individuals to oral healthcare services. At a policy level, the Ugandan National Minimum Healthcare Package is regularly reviewed and revised to offer minimum essential medical care to populations based on the prevailing diseases burden and new interventions. In addition, the recent publication of the WHO Global Oral Health Strategy and FDI’s Vision 2030 provides pertinent evidence that supports and advocates for the inclusion of oral health care and increased public spending to provide this essential service.

Information and research

Social determinants of health

The social determinants of health (SDH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.

The SDH have an important influence on health inequities – the unfair and avoidable differences in health status seen within and between countries. In countries at all levels of income, health and illness follow a social gradient: the lower the socioeconomic position, the worse the health.

As discussed earlier, oral diseases are not evenly distributed across populations. SDH are well recognized for their influence on oral health, and oral health behaviours. [30,31] SDH also affect the utilization of oral healthcare services; ethnic minorities, immigrants, marginalized and excluded groups, people living with disabilities, and people from low socioeconomic backgrounds are less likely to access care. Even in regions with a higher human development index (HDI) access to care is unequally distributed between different socioeconomic groups. Among individuals' access to care is linked with social support, health literacy, psychosocial factors, and overall health (Figure 4).[32]

Additionally, the downstream factors that affect individual health highlight the importance of health-related behaviours such as diet, alcohol, tobacco, and personal hygiene.[31]

Commercial determinants of health

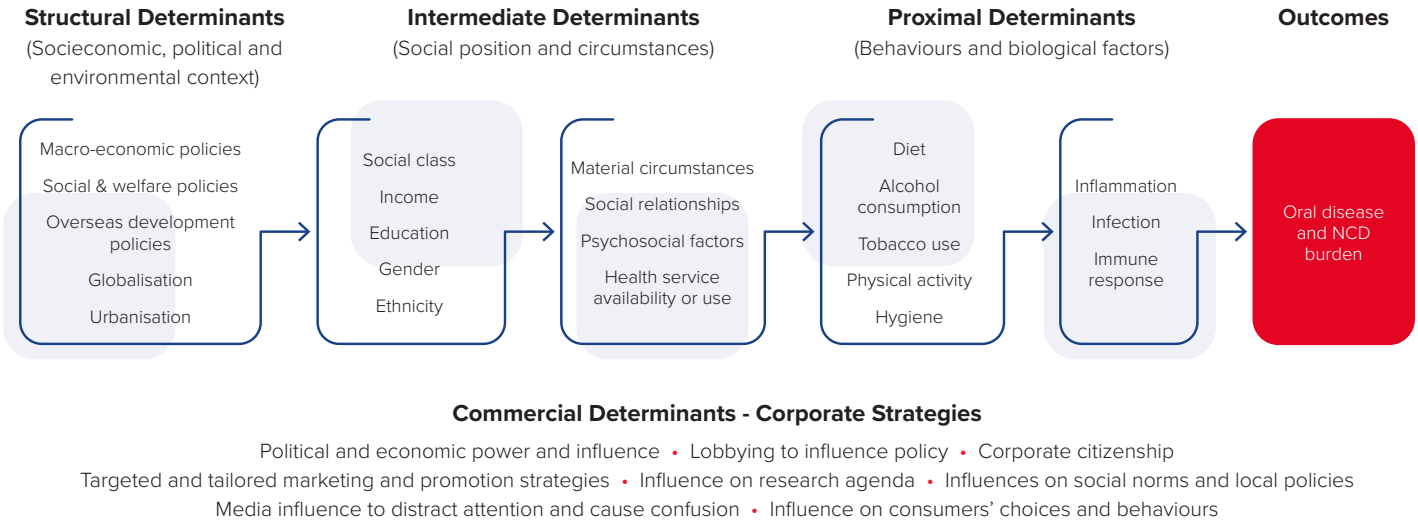
Commercial determinants of health (CDoH) are the private sector activities impacting public health, either positively or negatively, and the enabling political economic systems and norms.

CDoH include all products and services provided by private entities to gain a financial profit, as well as market strategies, working conditions, production externalities and political activities, such as misinformation, lobbying and donations. Some parts of the private sector also use instrumental, structural and discursive power to undermine public health policies that threaten profits.

Commercial activities, especially by transnational corporations, affect NCDs, infectious diseases and pandemics, injuries and climate change. These impacts also worsen inequities between and within countries. Profit shifting and the aggressive use of trade agreements by the unhealthy commodity industries are particularly detrimental to the global south.

Simultaneously, the private sector is an indispensable partner for development by, for example, creating vaccines, medicines and assistive products, financing, building infrastructure and delivering health services towards UHC or by ensuring food security. Governments should work to leverage these opportunities while protecting populations from harm.[33]

Figure 4. Social and commercial determinants of oral diseases[2]



Service delivery

Health systems impact on access to oral health care

Integrated care is structured around three levels: the macro level (system), the meso level (organizational), and the micro level (clinical).[27]

At macro level the incorporation of both vertical and horizontal integration can improve the provision of continuous, coordinated services across the care continuum. Vertical integration is related to the idea that diseases are treated at different levels of specialization. On the other hand, horizontal integration is improving the health of people and populations through peer-based interprofessional collaboration.[27]

However, despite calls for integration, access to oral healthcare services particularly in LMICs remains a challenge. Current research shows that access to general medical care is not correlated with access to oral health care.[34]

Access to medicines and technologies

WHO's Essential Medicines List (EML) and Essential Medicines List for Children (EMLc) aim to identify those chemical agents, medicines, medical devices, and other medical products that everyone should always have access to, and that all governments should ensure are available and affordable to their populations. In 2021, a new section which includes fluoride, silver diamine fluoride and glass-ionomer cement was added to the EML and EMLc.[35] Adding these items is crucial to increase access to oral health promotion and care. Despite this inclusion a recent review of the affordability of fluoride toothpastes globally revealed they are still highly unaffordable in LMICs.[36]

The use of digital technologies to address the macro and micro oral health needs of individuals and communities is growing at a rapid pace. However, there are a number of ethical and social concerns that should be considered to avoid widening inequalities. There is a perception that digital technologies are aimed at oral healthcare professionals working in HIC and providing cosmetic and advanced restorative care, meanwhile neglecting the oral health needs of those in lower socioeconomic and vulnerable groups. Insufficient digital literacy threatens to leave cohorts of the population behind, including the elderly. Additionally, there are ongoing concerns about data privacy and sharing that continue to present ongoing concerns. And finally, the ease of information sharing online can mislead people about oral health care and perpetuate misinformation and unrealistic expectations of "cosmetic dentistry".[37]

Financing

Economic factors affecting access to oral health care

The aim of UHC is to ensure people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship. Despite the global calls for the integration of PHC into UHC, primary health care remains underfunded globally and disproportionately in LICs.[38]

However, oral health care globally is largely provided by the private sector and infrequently included in health insurance packages. Where oral health care is covered by insurance packages the inclusion of preventive care is often limited.[39-41] Leaving families and individuals bearing the cost of private oral healthcare services, thus excluding people with low incomes and marginalized groups from accessing oral health care. In the absence of preventive oral health care, coupled with limited access, the failure of a person's dentition can result in a catastrophic health impact.

The challenge of appropriate funding of health systems rests on the question of how to use resources both efficiently and equitably. There are important questions to be answered by policymakers with input from stakeholders including the dental profession and citizens when assessing the needs of an oral health system. Including which services and which individuals should be covered and how resources should be prioritized.

Difficult decisions often need to be taken about which services or population groups should be allocated less funding in order to allow funding of higher priority areas. Often oral health is seen as less of a funding priority due to a lack of understanding of the impact of oral health and within oral health services, funding may be directed at the wrong groups or services due to a lack of systematic, evidence-based and participatory decision making.[42] Finally, poor access to oral health care poses an economic impact on the healthcare system due to the inappropriate use of medical healthcare facilities to seek emergency care and pain relief. [43]

Governance

Good governance should exist at a national level to ensure value for money, healthcare arrangements are monitored and controlled and accountability is present. If good governance exists, policies identifying strategies to improve health should be identifiable and with the legal framework to ensure they are implemented.[44]

Political prioritization of oral health

The wealth of a country determines the health of its population, additionally the distribution of that wealth has a significant impact. This may be because governments invest less in policies or infrastructures that support education, health and social services.[45] Differences in oral disease burden can be identified in welfare state regimes and in particular universal welfare policy regimes for example Scandinavia.[46]

Global oral health has been a low political priority resulting from complex issues rooted in political systems, its stakeholders, lack of coherence, and a lack of agreement on the problem.[47] Despite the burden of oral diseases being at a critical level; attention and allocation of resources is often redirected to specific diseases. There remains a disconnect between oral health professionals, dental public health academics, medicine and overall health resulting in the exclusion of oral health from PHC.[47]

According to WHO, only 38% of countries currently have an oral health policy, and in order to develop these policies countries are recommended to conduct a national oral health survey, which can be costly and require significant logistics which are prohibitive in LMICs.

Solutions

Human resources

Oral health workforce

Both the WHO Global Oral Health Strategy and FDI's Vision 2030 call for innovative solutions to solve the oral health workforce shortage. The need to improve access to care is driving efforts to develop new workforce models and extend existing ones. The composition of the workforce is influenced by the oral health needs of the public, patients' oral health literacy and preventive health behaviours, and the policy and regulatory environments in which oral health providers are located.[48]

Additionally, there are calls to evolve intra- and inter-professional curriculum to include the integration of oral health into the general health agenda, with a greater focus on prevention of disease through the common risk factor approach. Modern curricula should develop competency-based skills in interprofessional communication and utilize problem-based learning to create clinicians who are invested in the overall health of their communities.

Building a diverse oral health workforce is a key component of access to care. The lack of a diverse workforce contributes to linguistic and cultural barriers, bias and clinical mistrust.[49] A diverse and culturally competent oral health workforce can help to expand oral healthcare access in underserved populations, inspire research with populations that have been neglected, increase the availability of clinical supervisors and academics and help to inspire future clinicians from underrepresented communities and meet the needs of diverse students in the field.[50]

The WHO document, "Increasing access to health workers in remote and rural areas through improved retention. Global policy recommendations," sets out a series of recommendations and strategies to encourage healthcare professionals to work in rural areas. Primarily, adhering to the principle of health equity will help in allocating available resources in a way that contributes to the reduction of avoidable inequalities in health. And grounding rural retention policies in the national health plan will provide a framework for holding all partners accountable for producing tangible and measurable results.[51]

Non oral health workforce

The oral health sector should seek to work with other health professionals to design strategies to integrate health and social care at all levels:

- Population-wide policy measures that seek to enhance awareness of risk factors for NCDs.
- Community-based programmes carried out in schools, workplaces, and communities to promote oral and general health and overall well-being.
- Person-centred healthcare services using tools such as health coaching.

Current research shows that the PHC team understands their role in supporting the oral health of their patients. Providing competencies and guidance on appropriate care management can lead to effective coordination and consistency between oral health providers and the wider PHC team. Additionally, research shows that providing

competency training in oral health to the wider PHC team significantly increases their confidence in delivering oral health prevention.[29]

Competency training should be incorporated into initial training curricula as well as provided as continuing professional development to established practitioners. As highlighted in Box 2 the engagement of the wider healthcare team provides an effective intervention to improve oral health at opportune moments across the life course.

Box 2: Educating the whole healthcare team on maternal and child oral health

With the objective of reducing inequalities in oral health and having access to most children, in Peru a project was proposed to be merged with the national strategy for the control and development of children, which includes the programming of vaccinations and follow-up of children under 5 years of age. In Peru, the top National Health Strategy is childhood vaccination due to its obligatoriness to enter school and is supervised through a vaccination card. On average, children visit the health centre 10 times during their first four years of life, unfortunately most do not see a dentist during that period.

Children in Peru were experiencing an extremely high prevalence of dental caries before the age of four and therefore, it was clear a new model of care was required. A study was constructed to assess interventions when providing oral health education and preventive treatment by oral health professionals and the paediatric team. Group A (Active Intervention Group): Nurses were trained by the research team (4 modules – Oral health and caries prevention), training dentists (3 modules-Minimal Intervention Dentistry for children), printed materials of oral health advice and Oral Health Control Card annexed to the Mother & Child programme (as an interconnection between both professionals to monitor).

Group B (Passive Intervention Group): Nurses participated in an informative session (1 module) and received all printed materials for oral health advice. Dentists were trained (3 modules-Minimal Intervention Dentistry). Group C (Control Group): nurses received one hour lecture on the importance of oral health. Dentists received no training.

The key elements of the intervention were to train parents and caregivers in the importance of oral health through nurses and dentists. Conduct well-child controls that incorporated oral health and the early detection of carious lesions. Well trained oral health professionals to promote healthy behaviours, and minimally invasive preventive care using fluoride varnish and atraumatic restorative treatment (ART sealants and restorations).

The study revealed a significant reduction in dentin caries lesions, and a significant increase in dental attendance. The children in Group A did not need to be sent to hospitals for specialized interventions, they could all be treated at the health centre, which in terms of cost-benefit is an important factor to consider. Therefore, illustrating the positive impact engaging with the wider healthcare team to prevent oral disease.

Villena R, Pesaressi E, & Frencken J. (2019). Reducing carious lesions during the first 4 years of life. *The Journal of the American Dental Association*. DOI 150. 10.1016/j.adaj.2019.04.003.

Solutions: Human Resources

- There is an urgent need to engage other stakeholders in the discussion to build a cohesive primary healthcare team that includes oral health.
- Strategies for oral health workforce retention in rural and deprived areas;
- A curriculum that includes interprofessional collaboration;
- Equitable access to oral health professions for different ethnicities and sociodemographic groups.
- Develop an appropriately trained oral health workforce including wider social settings e.g., teachers.
- Change the perception of the wider healthcare workforce to integrate oral health into PHC.
- Develop competency-based elements of the initial curriculum as well as continuing professional development training for the wider health and care workforce.

Information and research

The FDI Policy Statement "Oral Health and the Social Determinants of Health" calls for action to recognize the impact of the social determinants of health on oral health and to tackle oral diseases following a common risk factor approach. Furthermore, FDI calls for the engagement of key partners WHO and the International Association for Dental Research (IADR) to develop an integrated approach to reduce oral health inequalities globally. There is a need for improved and systematic collection and reporting of oral health data to facilitate the monitoring of disease levels and trends, the impact of oral diseases, treatment needs and priorities. Appropriate workforce planning and service delivery relies upon the availability of up-to-date data. The WHO provides several standardized data collection tools for children and adults that can be implemented in both HIC and LMIC countries.[52]

Solution(s): Information and Research

- Support NDAs and universities in implementing country-level data collection.

Service delivery

Prioritization of oral health

At policy level, the profile of oral health needs to be raised through better communication of the prevalence and impact of oral diseases as well as the potential positive effect of oral health. As well as focusing on potential costs savings in increasing prevention and early access for treatment, it can be powerful to describe the positive value of oral health. It may be helpful to draw on wider effects of oral health care, particularly where this has a positive effect on the management of other health conditions.

Where access to oral health care is poor, prioritization of oral health by individuals is influenced by their need perception (or demand), rather than the assessment of healthcare providers, which can lead to inappropriate or limited care being sought. Not having access to oral health care is a significant predictor for attending emergency, or medical facilities for dental pain.[29] Increasing access to PHC may help increase oral health literacy as well as increasing the value of oral health to individuals.

Health systems

Oral health should be integrated into all service levels in PHC through the development of a new workforce that incorporates primary care and oral health care. This approach presents several advantages. Firstly, improving access through contact with primary care providers who have frequent and predictable contact with patients. With the appropriate training, primary care providers can risk assess, screen and monitor comorbidities (diabetes, cardiovascular disease). Primary care providers can additionally, provide preventive advice in a common risk factor approach (tobacco cessation, dietary advice), and signpost to oral healthcare services. [53]

Culturally appropriate community-led oral health initiatives

have been proven to be successful. The inclusion of community representatives from the outset increases trust in the project and ensures that potential interventions are relevant to the community.

Policymakers will be required to develop and review all aspects of PHC services including staffing levels, skill mix and competencies. Referral pathways and support mechanisms should be established that provide communication with other areas of the health system. Following this, policymakers should expand oral health care through primary health facilities meanwhile ensuring oral health care is safe, effective and protects the safety of patients.[54]

Research shows that the publication of policies and examples of successful integration of oral health programmes highlights the importance of financial support from governments, stakeholders and civil society at macro level.[55] An example of the integration of oral health into the wider healthcare system is presented in Box 3.

Solutions: Service and Delivery

- Support NDAs to advocate for and develop national oral health strategies.
- Collect and disseminate case studies of effective vertical and horizontal integration.
- Ensure wider PHC professionals are able to provide good oral health promotion messages and signpost to oral health services.

Box 3: Core20Plus5

Core20PLUS5 (Figure 5) is the National Health Service (NHS) England approach to inform action to reduce healthcare inequalities at both national and system level. The approach defines a target population – the 'Core20PLUS' – and identifies '5' focus clinical areas requiring accelerated improvement.

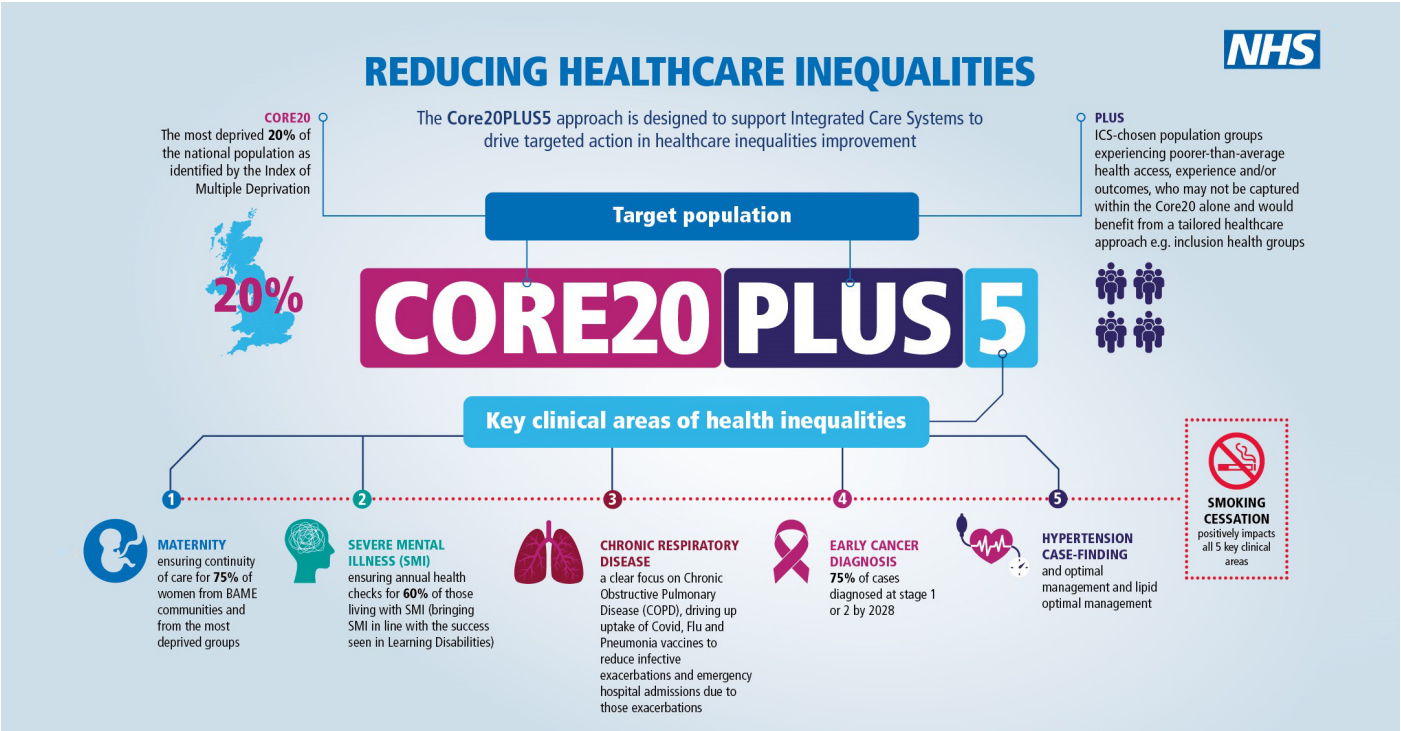
- Core 20 - The most deprived 20% of the national population as identified by the national Index of multiple deprivation (IMD).
- PLUS population groups include ethnic minority communities; inclusion health groups; people with a learning disability and autistic people; coastal communities with pockets of deprivation hidden amongst relative affluence; people with multi-morbidities; and protected characteristic groups; amongst others.
- 5 represents the five clinical areas (epilepsy, diabetes, asthma, oral health and mental health) of focus for wider actions and system change to improve care.

The approach, which initially focused on health care inequalities experienced by adults, has now been adapted to apply to children and young people.

The initiative calls on health and care professionals and regional commissioners in England to take action to reduce health care inequalities. With the advocacy of the Chief Dental Officer in England, oral health has been recognized as a key component for success in this integrated approach. The recognition combined with the re-orientation away from top-down direction, enables communities and local stakeholders to identify opportunities for evidence-based targeted interventions to improve access, experience and outcomes for patients at higher oral health risk.

Key to the on-going success of integrating oral health into "general health pathways" has been advocacy from the profession focused on broadening health and social care colleagues' appreciation of the evidence base, common risk factors and association of oral health with general health and well-being. Through effective partnership, taking the time to listen to those already working with communities and learning from the experience of others engaged in similar work, legacy barriers have steadily been overcome, ensuring that high quality dental care is available to those who are most in need. This has been underpinned by a national framework of priorities, evidence based clinical guidance for the development of integrated care pathways, which support locally determined services. Within this we can "make every contact count" and improve outcomes as well as address inequality.

Figure 5: NHS Core20PLUS5



Private sector engagement

The private sector has a significant role in improving access to care and improving oral health. Manufacturers and suppliers should aim to establish sustainable, ethical and transparent long-term partnerships with national actors. By implementing health promotion activities and providing supplies in LMIC resource settings that address dental caries and periodontal disease their actions can minimize oral diseases, and they can advocate for government initiatives to make these products more affordable.

In addition, policymakers and NDAs should work with corporate groups of private dental practices where these exist to ensure good alignment between the private providers and national/regional initiatives.

Medicines and technologies

The WHO Model List of Essential Medicines and Model List of Essential Medicines for Children was updated in 2021 to include fluoride and an initial selection of fluoride-containing and fluoride-releasing products (silver diamine fluoride and glass ionomer). Despite this inclusion a recent review of the affordability of fluoride toothpastes globally revealed they are still highly unaffordable in LMICs.[36] Therefore, it is critical that policymakers recognize the importance of ensuring this essential product is available at an affordable cost. Furthermore, the development of country and context specific standard treatment guidelines on the indication and use of medicines to be used in dental treatments is required.

Despite the concerns around digital technology discussed earlier in this white paper, teledentistry is an innovative approach to providing dental care that is rapidly gaining popularity. It is a method of delivering dental care services remotely through digital communication technologies such as video conferencing, virtual consultations, and mobile apps. This technology has the potential to greatly improve access to dental care, particularly for individuals who live in remote or underserved areas, or those who have difficulty leaving their homes due to mobility issues or transportation limitations. By eliminating the need for in-person visits, Teledentistry can also help to reduce costs and increase efficiency in the delivery of dental care. Additionally, it has been found to be effective in improving patient outcomes and increasing patient satisfaction. Overall, teledentistry holds great promise in expanding access to dental care and improving oral health outcomes for a broader population.[37]

Oral health and general health colleagues experience challenges with sharing of patient medical records as systems are not integrated, electronic or interoperable. The predominant approach for oral health professionals is to gather a patient's medical history through patient-reported medical histories. Research shows that there is varied reliability of this information that can create a safety issue, and places a burden on the patient to accurately convey their medical status.[56] Policies that support the integration of medical and dental records would increase the quality and safety of patient care, especially those with existing medical conditions. Advancements in health technology can support electronic Medical Record solutions that allow healthcare professionals to simultaneously access and update patient information.

As discussed earlier in this white paper, there is a lack of awareness of the links between oral health, general health and their management. To support the integration of oral health into PHC, it is recommended to develop an electronic decision support system to support oral health and general health professionals recognize the increased risks for oral disease and systemic disease and plan the care for their patients accordingly.

Solutions: Medicines and Technology

- Advocate for the availability of the WHO EML.
- Advocate for the implementation of TeleDentistry and TeleHealth.

Financing

Economic factors

Health systems are influenced by the amount of funding they receive, how funds are distributed to providers, and the mechanisms in place to pay providers and patient co-payments (if any). The establishment of an optimal funding arrangement is the primary way to support the implementation of PHC. Furthermore, the shift from intervention based care to oral health in PHC requires strong political leadership and long-term commitment, as well as engagement with stakeholders at all levels.[38]

At policy level, governments should invest further in oral health and particularly oral health PHC. Decisions about the use of oral health resources should be transparent, evidence-based and participatory. In addition, resource-allocation decisions should be made in such a way as to reduce inequalities, providing access to care for the groups with highest dental need and those at greatest risk of oral disease including vulnerable groups and those with higher barriers to access. A number of frameworks exist to aid resource allocation and prioritization decisions and these should be utilized.[42] Once services are agreed, these should be designed to be the most cost-effective possible and drawing on economic evaluation techniques will be necessary to determine the best design of service to implement.

Whilst different provider remuneration systems have different advantages and disadvantages[57] the aim should be to pay for outcomes rather than interventions. It may be that blends of different payment systems provide the optimal incentives to provide high-quality essential care to those in most need but the blend of choice of system needs to be carefully designed to reflect the context.

Patient co-payments are common in oral health, even in publicly funded systems. Where resources allow, these co-payments should be minimized or removed, but this may need to be targeted at specific groups who have the greatest financial barriers to accessing care.

Where an insurance-based approach to patient co-payment is in place, insurance providers should ensure preventive services are included and coordinate with both medical and dental providers.

NDAs should advocate for each of these aspects of the economics of an optimal oral health system and should be involved in the participatory decision making.

Solutions: Financing

- Further research is needed to understand the effects of different provider remuneration systems.
- Prospective research relating to the effect of co-payments and different mechanisms for co-payment is minimal and more needs to be undertaken.
- More training and examples of using frameworks for priority setting within oral health systems need to be provided.

Governance

Political commitment to the inclusion of oral health into PHC is essential. NDAs should work with policymakers to ensure an actionable national-level oral health policy is in place that aligns with FDI's Vision 2030 and the WHO Global Oral Health Strategy. Each country should have in place an oral health unit within the Ministry of Health to oversee deployment and provide technical advice for the national oral health policy.

To achieve improvements in oral health, oral health care systems must address the social determinants of health at individual and population level. The development of oral health care systems should be co-designed with the input of all parties including systems users and those involved in the delivery and monitoring of care.[44]

Oral health should be embedded in all policies. The evidence that oral diseases share common risk factors and determinants with other NCDs justifies the inclusion of oral health in a Health in All Policies (HiAP) approach. This would shift the predominant focus of oral health away from technical interventions towards an approach based on tackling the social determinants of health.

Solutions: Governance

- Support NDAs to advocate for and develop national oral health strategies
- Advocate for WHO Best-Buys and the Essential Medicines List

Advocacy and global alliances

FDI, in partnership with the NCD Alliance, World Health Professionals Alliance (WHPA), IADR and the WHO has a major responsibility to make the case for the integration of oral health care into all health systems.

Despite NCDs continuing to be the number one cause of death and disability globally, accounting for 74% of all deaths and more than three out of four years lived with a disability. Oral diseases continue to be the greatest burden on health, affecting 45% of the global population across the life course.

An estimated 80% of NCDs, including oral disease, are preventable and are driven by modifiable risk factors including tobacco use, unhealthy diet and excess free sugars, physical inactivity and the harmful use of tobacco.

Ensuring oral health is integrated into PHC will require close cooperation not only within the dental profession but also forging new intersectoral partnerships and shift the predominant focus of oral health away from technical interventions towards an approach based on social justice and consideration of the social determinants of health. [7]

The WHO Global Oral Health Strategy sets out key deliverables for civil society, and FDI is committed to supporting the implementation of these.

Solution: Advocacy at all levels for improvements across the Social Determinants of Health

- Working with others in the global health community to determine best approaches to common risk factors.

The role of patient advocacy

FDI's Vision 2030 highlights that there is a need to engage people in the development of strategies to improve oral health in order to truly deliver people-centred care in a tailored and relevant way. It also responds to one of the guiding principles of WHO's Global Strategy on Oral Health, which outlines the need for more people-centred oral health care. FDI committed to deliver on the Global Charter on Meaningful Involvement of People Living with NCDs, launched by the NCD Alliance in September 2021.

Citizen engagement motivates people to become oral health advocates and demand that their health is prioritized, through highlighting the catastrophic impact poor oral health has on their quality of life, including their economic, social, emotional, and mental well-being. NDAs should seek out the citizen voice in their own decision making and advocate for good citizen involvement in governmental decision making relating to oral health.

Conclusion

As countries strive to achieve UHC, it presents an ideal opportunity to advocate for the integration of oral health into PHC. The primary oral healthcare strategy supports health equity while empowering oral disease prevention and health promotion. Risk assessment, oral health assessment, preventive intervention, communication, education, and interprofessional collaborative practice are just a few of the different areas it covers.

This white paper outlines the key barriers and opportunities for policymakers and NDAs to assess their own process gaps and make decisions on the implementation. NDAs are well-placed as national-level leaders to conceptualize integrations, implement collaborative practices, and involve the relevant stakeholders to make effective and positive change in their countries.

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Roundtable Participants

The FDI Access to Care through Primary Health Care roundtable was held at FDI Headquarters in Geneva, Switzerland on 7 March 2023, and brought together a diverse set of stakeholders to discuss the barriers and opportunities in integrating oral health into primary health care and identify further work to be undertaken to improve access to oral health care globally.

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Appendices

Appendix 1: FDI Policy Statement on Improving Access to Oral Healthcare

Improving Access to Oral Healthcare

ADOPTED by FDI General Assembly
October, 1998 in Barcelona, Spain

REVISED by FDI General Assembly
September, 2021 in Sydney, Australia

Context

Despite being largely preventable, oral diseases are highly prevalent conditions, affecting more than 3.5 billion people around the world.[1] Oral diseases have substantial effects and consequences, causing pain and sepsis, reduced quality of life, lost school and work days, family disruption and decreased work productivity. The costs of dental treatment can be considerable for both the individual and the wider healthcare system.[2] Many factors influence oral health and the prevalence and severity of oral diseases. Access to adequate, quality and affordable oral health services, however, remains a major obstacle in achieving optimal oral health.

The major barriers to accessing and utilizing oral healthcare include oral health literacy and cost, uneven distribution of the oral health workforce, low prioritization of oral health, cultural values and beliefs that do not promote healthy lifestyles, the episodic availability of preventive and routine care, a lack of health or dental insurance, a lack of political will to include oral health in the essential health services and other socio-economic factors.[3,4]

Thus, this revised Policy Statement affirms FDI's position that supports the goal of equal access to oral health services for all populations, addresses barriers to access to oral healthcare and promotes the belief that universal health coverage (UHC) provides an opportunity for oral health services to become more integrated into the wider healthcare system and to be more accessible and responsive to the oral healthcare needs of the population.[5]

Scope

This Policy Statement addresses barriers to accessing and utilizing oral health services at personal, community, organization, institution and system levels. It suggests strategies that are evidence-based and community-based, and which integrate oral health into general health and involve all oral health team members and other non-dental personnel. FDI believes that the key test of access is equity. This Policy Statement consequently complements other FDI Policy Statements that are devoted to the subset of populations at risk of unequal access to oral healthcare, such as displaced persons[6], the underserved and vulnerable[7], persons with disabilities[8] and ageing populations.[9]

Definitions

Access: Freedom or ability to obtain or make use of[10]
Accessibility: The ease with which healthcare can be reached in the face of financial, organizational, cultural, geographical and emotional barriers[11]

Utilization: To make the actual use of a service

Universal health coverage: "Ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user to financial hardship.[12]

PRINCIPLES: Target 3.8 of the 2030 United Nations Sustainable Development Goal[3] (the health goal) aims to "achieve universal health coverage, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all."[13]

Policy

1. FDI states that:
   - oral health is inseparable from general health;
   - oral diseases share common risk factors with other non-communicable diseases (NCDs), such as tobacco use, physical inactivity, obesity, unhealthy diet, excess sugar consumption, harmful alcohol consumption and HPV infection;
   - poor oral health is linked with many NCDs, mostly bi-directional, such as diabetes, cardiovascular disease, cancer and adverse birth outcomes.
2. FDI supports:
   - the integration of oral health care into UHC to improve oral health outcomes and reduce inequalities in access to care;
   - that any efforts to increase access to healthcare through reforms to insurance programmes should include oral health benefits.
3. FDI recommends:
   - empowering patients to utilize oral healthcare by raising awareness, using culturally competent and plain language materials of health literacy for oral health education, coordinating oral healthcare services and eliminating individual and structural barriers to oral healthcare;
   - integration of oral health promotion and educational activities with disease prevention and control related to other NCDs to improve population health and reduce health disparities;
   - integration of oral health into health promotion services and activities in all types of settings such as schools, nursing homes and end-of-life care facilities;
   - integration of oral health education, screening, prevention and promotion into primary healthcare to assure the equitable and holistic provision of oral health throughout life;
   - integration of oral health into general health and

vice versa in professional education, training and research;
- integration of oral health into the advocacy for legislative action on general public health including the legislation on tobacco control, harmful alcohol use, added sugar intake and obesity prevention;
- effective and appropriate use of all members of the dental team, as defined by their scope of practice in each country/region for better serving the public;
- improving patient access to specialist care, when needed, either in the dental clinic or hospital setting;
- collection of data through effective surveillance to support, inform and evaluate health policies to improve oral health;
- expanding the reach of the oral health workforce by innovative methods such as teledentistry and mobile dentistry;
- adoption of the "dental home" concept, namely the ongoing dentist-patient relationship with the inclusion of all aspects of oral healthcare being delivered continuously in a patient-centred way.[14]

4. FDI states that all healthcare professionals (other than members of the dental team) have roles to play in oral health. Improved oral health can be achieved by non-oral health professionals via patient referral for oral healthcare after initial screening, application of topical fluorides, educating patients on tobacco cessation, healthy eating, reduction in sugar intake and harmful alcohol consumption, and effective oral hygiene care.

5. FDI encourages governments to incentivize dentists and other members of the dental team who provide services in underserved areas.

Keywords

Access to oral healthcare, utilization of oral healthcare, universal health coverage, dental home, prevention

Disclaimer

The information in this Policy Statement was based on the best scientific evidence available at the time. It may be interpreted to reflect prevailing cultural sensitivities and socio-economic constraints.

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Appendix 2: List of Acronyms and Glossary

List of Acronyms

CRFA	Common risk-factor approach
HiAP	Health in All Policies
IADR	International Association for Dental Research
LMICs	Low- and middle-income countries
NCDA	NCD Alliance
NCDs	Noncommunicable diseases
OHiAP	Oral Health in All Policies
OECD	Organization for Economic Co-operation and Development
OOP	Out-of-Pocket expenditure
SDGs	Sustainable Development Goals
UN	United Nations
UHC	Universal Health Coverage
FDI	FDI World Dental Federation
WHO	World Health Organization

Glossary

Term	Definition	Reference source
Availability, accessibility, and affordability	**Availability** Need to have sufficient quantity of functioning public health and healthcare facilities, goods and services, and programmes. **Physical accessibility** The availability of good health services within reasonable reach of those who need them and of opening hours, appointment systems and other aspects of service organization and delivery that allow people to obtain the services when they need them. Universal health coverage and universal access, Bulletin of the World Health Organization 2013; 91:546–546A. As defined in the human rights context, "[h]ealth facilities, goods and services must be within safe physical reach for all sections of the population, especially vulnerable or marginalized groups, such as ethnic minorities and indigenous populations, women, children, adolescents, older persons, persons with disabilities and persons with HIV/AIDS, including in rural areas". **Economic accessibility, or affordability** is a measure of people's ability to pay for services without financial hardship. It takes into account not only the price of the health services but also indirect and opportunity costs (e.g., the costs of transportation to and from facilities and of taking time away from work). Affordability is influenced by the wider health financing system and by household income.	World Health Organization. Availability, Accessibility, Acceptability. Available from: https://www.who.int/gender-equity-rights/knowledge/AAAQ.pdf?ua=1 [Accessed 15 July 2020]. World Health Organization. Gender, equity and human rights. Available from: https://www.who.int/gender-equity-rights/understanding/accessibility-definition/en/ [Accessed 15 July 2020].
Basic package of oral care	A basic package or oral care includes Oral Urgent Treatment (OUT) which has three fundamental elements (relief of oral pain, first aid for oral infections and dento-alveolar trauma, referral of complicated cases), Affordable Fluoride Toothpaste (AFT) and Atraumatic Restorative Treatment (ART)	FDI World Dental Federation. The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva: FDI World Dental Federation; 2015 Available from: https://www.fdiworlddental.org/sites/default/files/media/documents/complete_oh_atlas.pdf [Accessed 15 July 2020].

Behaviour Change Communication tools (BCC tools)	It is the strategic use of communication approaches to promote changes in knowledge, attitudes, norms, beliefs and behaviours. The term refers to the coordination of messages and activities across a variety of channels to reach multiple levels of society, including the individual, the community, services and policy.	
Collaborative practice	Collaborative practice in healthcare occurs when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, carers and communities to deliver the highest quality of care across settings. * Practice includes both clinical and non-clinical health-related work, such as diagnosis, treatment, surveillance, health communications, management and sanitation engineering.	World Health Organization. Framework for Action on Interprofessional Education & Collaborative Practice. Available from: https://apps.who.int/iris/bitstream/handle/10665/70185/WHO_HRH_HPN_10.3_eng.pdf;jsessionid=23A79F87D7558248D7CFC786D80B8FAD?sequence=1 [Accessed 15 July 2020].
Commercial determinants of health	The commercial determinants of health are strategies and approaches used by the private sector to promote products and choices that are detrimental to health.	Kickbusch I, Allen L, Franz Ch. The commercial determinants of health. The Lancet. 2016;4(12): E895-E896. doi.org/10.1016/S2214-109X(16)30217-0.
Common risk-factor approach (CRFA)	The Common Risk Factor Approach is a guiding principle for developing evidence-based, population-wide interventions that address social determinants of health to reduce disease burden.	FDI World Dental Federation. Noncommunicable Diseases. Available from: https://www.fdiworlddental.org/resources/policy-statements-and-resolutions/noncommunicable-diseases [Accessed 15 July 2020].
Essential health package	Detailed lists of interventions/services (preventive, promotive, curative, rehabilitative and palliative) across different levels of care, endorsed by the government at the national level, or agreed to by a substantial group of actors when services are to be provided in areas outside of government control. These interventions should be available to all, safe, people-centred, and of assured quality to be effective.	World Health Organization. Working Paper on the Use of Essential Packages of Health Services in Protected Emergencies. Available from: https://www.who.int/health-cluster/about/work/task-teams/EPHS-working-paper.pdf [Accessed 15 July 2020].
Free sugars	Free sugars are those that are added to foods and drinks by the manufacturer, cook, or consumer, and sugars naturally present in honey, syrups, fruit juice and fruit juice concentrates. It does not refer to sugar that is naturally present in fruits, vegetables, and milk.	World Health Association. Sugars intake for adults and children. Geneva: World Health Organization; 2015 Available from: https://apps.who.int/iris/bitstream/handle/10665/149782/9789241549028_eng.pdf?sequence=1 [Accessed 14 July 2020].
Health in All Policies (HiAP)	HiAP is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. As a concept, it reflects the principles of: legitimacy, accountability, transparency and access to information, participation, sustainability, and collaboration across sectors and levels of government.	World Health Organization. Health in All Policies (HiAP) Framework for Country Action, January 2014. Available from: https://www.who.int/healthpromotion/hiapframework.pdf [Accessed 15 July 2020].
Health Literacy	The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (Ratzan and Parker, 2000). Full source: Ratzan SC, Parker RM. 2000. Introduction In: National Library of Medicine Current Bibliographies in Medicine: Health Literacy. Selden CR, editor; , Zorn M, editor; , Ratzan SC, editor; , Parker RM, editor. , Editors. NLM Pub. No. CBM 2000-1. Bethesda, MD: National Institutes of Health, U.S. Department of Health and Human Services.	Institute of Medicine (US) Committee on Health Literacy; Nielsen-Bohlman L, Panzer AM, Kindig DA, (eds). What Is Health Literacy? in Health Literacy: A Prescription to End Confusion. Washington (DC): National Academies Press (US); 2004 Available from: https://www.ncbi.nlm.nih.gov/books/NBK216035 [Accessed 14 July 2020].
Intra-professional and inter-professional education	Intra-professional education means that all students of the dental profession (e.g. dentists, dental therapists, dental assistants) are trained together and inter-professional education. Conversely, interprofessional education means that students of different health professions (e.g. dentists, physicians, nurses) have a joint educational curriculum.	FDI World Dental Federation. Optimal Oral Health through Inter-Professional Education and Collaborative Practice. Available from: https://www.fdiworlddental.org/sites/default/files/media/news/collaborative-practice_digital.pdf [Accessed 15 July 2015].

Minamata Convention on Mercury	A global treaty to protect human health and the environment from the adverse effects of mercury.	FDI World Dental Federation. Dental Amalgam Phase Down. Available from: https://www.fdiworlddental.org/resources/policy-statements/dental-amalgam-phase-down [Accessed 15 July 2015].
Oral disorders	These are the disease conditions that affect oral health, which is multi-faceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex.	FDI World Dental Federation. FDI's definition of oral health. Available from: https://www.fdiworlddental.org/oral-health/fdi-definition-of-oral-health [Accessed 15 July 2015].
Oral Health in All Policies (OHiAP)	Similar to Heal in All Policies (HiAP), OHiAP is an approach to public policies across sectors that systematically takes into account the oral health implications of decisions, seeks synergies, and avoids harmful oral health impacts in order to improve population health and health equity.	World Health Organization. Health in All Policies (HiAP) Framework for Country Action, January 2014. Available from: https://www.who.int/healthpromotion/hiapframework.pdf [Accessed 15 July 2020].
Oral health literacy	ADA policy defines oral health literacy as the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate oral health decisions.	American Dental Association. Health Literacy in Dentistry. Available from: https://www.ada.org/en/public-programs/health-literacy-in-dentistry [Accessed 15 July 2020].
Oral Health-related Quality of Life (OHRQoL)	OHRQoL is defined as 'a multidimensional construct that reflects (among other things) people's comfort when eating, sleeping and engaging in social interaction; their self-esteem; and their satisfaction with respect to their oral health' (US Department of Health and Human Services). Popular OHRQoL instruments include OHIP, GOHAI, and OIDP.	FDI World Dental Federation. Oral Health and Quality of Life. Available from: https://www.fdiworlddental.org/resources/policy-statements-and-resolutions/oral-health-and-quality-of-life [Accessed 15 July 2020].
Out-of-Pocket expenditure (OOP)	Out-of-pocket payments (OOPs) are defined as direct payments made by individuals to healthcare providers at the time of service use.	World Health Organization. Health financing. Out-of-pocket payments, user fees and catastrophic expenditure. Available from: https://www.who.int/health_financing/topics/financial-protection/out-of-pocket-payments/en/ [Accessed 15 July 2020].
People-centred care	People-centred care: care that is focused and organized around the health needs and expectations of people and communities rather than on diseases. People-centred care extends the concept of patient-centred care to individuals, families, communities and society. Whereas patient-centred care is commonly understood as focusing on the individual seeking care—the patient—people-centred care encompasses these clinical encounters and also includes attention to the health of people in their communities and their crucial role in shaping health policy and health services.	World Health Organization. Health Systems Strengthening Glossary. Available from: https://www.who.int/healthsystems/hss_glossary/en/index8.html [Accessed 15 July 2020].
Phase down of dental amalgam	In 2013, the Minamata Convention on Mercury was agreed. It was ratified in 2017. The phase down of dental amalgam is a task to reduce the use of dental amalgam through increased prevention, health promotion, and research on advanced restorative materials and techniques – maintaining or improving adequate clinical performance. Emphasis is also given to strengthening dental students' curricula towards prevention and teaching alternative restorative materials and techniques, including the minimum intervention approach, where appropriate.	FDI World Dental Federation. Dental Amalgam Phase Down. Available from: https://www.fdiworlddental.org/resources/policy-statements/dental-amalgam-phase-down [Accessed 15 July 2020].

Primary health care	Primary health care is a whole-of-society approach to health and well-being centred on the needs and preferences of individuals, families, and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental, and social health and well-being. It provides whole-person care for health needs throughout the lifespan, not just for a set of specific diseases. Primary health care ensures people receive comprehensive care – ranging from promotion and prevention to treatment, rehabilitation and palliative care – as close as feasible to people's everyday environment.	World Health Organization. Primary health care. Available from: https://www.who.int/news-room/fact-sheets/detail/primary-health care [Accessed 15 July 2020].
Quality (of care)	Quality of care includes six dimensions. It implies a care that is: **effective**, delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need; **efficient**, delivering health care in a manner which maximizes resource use and avoids waste; **accessible**, delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need; **acceptable/patient-centred**, delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities; **equitable**, delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status; **safe**, delivering health care which minimizes risks and harm to service users. In dentistry, FDI defines quality as an iterative process involving dental professionals, patients and other stakeholders to develop and maintain goals and measures to achieve optimal health outcomes.	World Health Organization. Quality of Care: A process for making strategic choices in health systems. France: World Health Organization; 2006 Available from: https://www.who.int/management/quality/assurance/QualityCare_B.Def.pdf [Accessed 15 July 2020]. FDI World Dental Federation. Quality in Dentistry. Available from: https://www.fdiworlddental.org/resources/policy-statements-and-resolutions/quality-in-dentistry [Accessed 15 July 2020].
Social determinants of health	The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries.	World Health Organization. Social determinants of health. Available from: https://www.who.int/social_determinants/sdh_definition/en/ [Accessed 15 July 2020].
Universal Health Coverage (UHC)	Universal health coverage (UHC) means that all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship. This definition of UHC embodies three related objectives: 1. Equity in access to health services - everyone who needs services should get them, not only those who can pay for them; 2. The quality of health services should be good enough to improve the health of those receiving services; and 3. People should be protected against financial risk, ensuring that the cost of using services does not put people at risk of financial harm. UHC is firmly based on the WHO constitution of 1948 declaring health a fundamental human right and on the Health for All agenda set by the Alma Ata declaration in 1978. UHC cuts across all of the health-related Sustainable Development Goals (SDGs) and brings hope of better health and protection for the world's poorest.	World Health Organization. Health financing for universal coverage. Available from: https://www.who.int/health_financing/universal_coverage_definition/en/ [Accessed 15 July 2020].

Value-based payments (or performance-based payments)	Performance-based payment (PBP), performance-based funding: Payment or funding conditional upon taking a measurable action or achieving a predetermined performance target. May refer to transfer of funds by donors to recipient countries, or to payment of providers or provider organizations for reaching service targets.	WHO, derived from Eichler R. Can ''Pay-for-Performance'' increase utilization by the poor and improve the quality of health services. Washington, D.C., Center for Global Development, 2006. Available at: http://www.cgdev.org/doc/ghprn/PBI%20Background%20Paper.pdf World Health Organization. Health Systems Strengthening Glossary. Available from: https://www.who.int/healthsystems/hss_glossary/en/index8.html [Accessed 15 July 2020].
WHO Reports	Resolution on Oral Health Global Strategy on Oral Health Global Oral Health Action Plan Global Oral Health Status Report	World Health Organization. Global oral health status report: towards universal health coverage for oral health by 2030. Executive summary. Geneva: World Health Organization; 2022. Licence: CC BY-NC-SA 3.0 IGO
Workforce planning	The purpose of workforce projections is to rationalize policy options based on a financially feasible picture of the future in which the expected supply of Human Resources for Health (HRH) matches the requirements for staff within the overall health service plans. The formulation of national human resources for health (HRH) policies and strategies requires an evidence-based planning to rationalize decisions. A range of tools and resources exist to assist countries in developing a national HRH strategic plan.	World Health Organization. Models and tools for health workforce planning and projections. Switzerland: World Health Organization; 2010 Available from: https://www.who.int/workforcealliance/knowledge/resources/models_hrh_planning/en/ [Accessed 15 July 2020].

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