



Global oral health status report

Towards universal
health coverage for
oral health by 2030

Regional summary
of the Region of the
Americas



World Health
Organization

Global oral health status report: towards universal health coverage for oral health by 2030. Regional summary of the Region of the Americas

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Region of the Americas



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Foreword



Oral diseases are among the most common noncommunicable diseases worldwide, affecting an estimated 3.5 billion people. The burden is increasing, particularly in low- and middle-income countries.

Good oral health is essential for eating, breathing and speaking, and contributes to overall health, well-being and confidence in interacting with others. But oral health is challenged by a range of diseases and conditions, and stark and persistent inequalities in the burden of disease and access to oral health care. Disadvantaged and marginalized people are more likely to be at risk of oral diseases and their negative consequences.

The good news is that many oral diseases can be prevented and treated. Cost-effective preventive and clinical interventions are available, together with approaches to tackle risks common to all noncommunicable diseases, with the potential to be effective in a range of contexts, including low- and middle-income countries.

Oral health has long been neglected in the global health agenda. Our biggest challenge now is ensuring that all people, wherever they live and whatever their income, have the knowledge and tools needed to look after their teeth and mouths, and access to prevention and care when they need it. For this to happen, all countries need sufficient staff trained in oral health, and oral health services must be included in national health coverage packages, either free of charge or at a price that people can afford.

The adoption by WHO Member States of a historic resolution on oral health at the World Health Assembly in 2021 was an important step forward. The development and adoption of a comprehensive Global Strategy on Oral Health, with a bold vision for universal coverage of oral health services by 2030 was another milestone. The Global Oral Health Action Plan to be discussed in 2023 will include a monitoring framework, with clear targets to be achieved by 2030. These policies will provide us with a clear path towards ensuring oral health for all.

This WHO *Global Oral Health Status Report* provides a comprehensive picture of the oral disease burden, the resources available for oral health, and the challenges ahead.

The report also includes country profiles, and will serve as a baseline for tracking progress. Integrating oral health promotion and care into primary health care and UHC benefit packages will be key to success. WHO is committed to providing guidance and support to countries to help make this happen.

I am confident that this report will contribute to continued and increased efforts to improve oral health globally, so that no one is left behind with preventable and treatable oral diseases.

A handwritten signature in black ink, which appears to read 'Tedros Adhanom Ghebreyesus'. The signature is fluid and cursive, with a large initial 'T'.

Dr Tedros Adhanom Ghebreyesus
Director-General, World Health Organization

What is oral health?

The WHO defines *oral health* as the state of the mouth, teeth and orofacial structures that enables individuals to perform essential functions, such as eating, breathing and speaking, and encompasses psychosocial dimensions, such as self-confidence, well-being and the ability to socialize and work without pain, discomfort and embarrassment. Oral health varies over the life course from early life to old age, is integral to general health and supports individuals in participating in society and achieving their potential.



1

Towards global oral
health equity through
universal health coverage



Oral diseases, while largely preventable, pose a significant global health burden and affect people throughout their life course, causing physical symptoms, functional limitations and detrimental impacts on emotional, mental and social well-being.

In 2021 at the Seventy-fourth World Health Assembly, the landmark resolution WHA74.5 on oral health was adopted (1). It recognizes that oral health should be embedded within the noncommunicable disease (NCD) agenda and that essential oral health care intervention should be included in universal health coverage (UHC) benefit packages. As such, it calls on Member States to shift from the traditional curative approach to oral health care towards a promotive and preventive approach.

The World Health Organization (WHO) Region of the Americas is home to 35 countries, with a combined population of more than 1 billion. The burden of oral diseases is high in the Region, affecting more than 467 million people (46.3% of the population) in 2019, which highlights the need for action to prevent and control oral diseases.

This regional summary draws on the WHO *Global oral health status report* (2), published in 2022, which provides a comprehensive overview of the global oral disease burden, the global health importance of oral health and the impact of oral diseases over the life course. The summary focuses on the oral health status in the Region of the Americas and is split into four sections: (a) oral diseases are global and regional health problems; (b) the burden of the main oral diseases; (c) key challenges and opportunities towards oral health for all in the Region of the Americas; and (d) road map towards UHC for oral health 2030.

2

Oral diseases are
global and regional
health problems



Oral diseases present an increasing global and regional burden

- Oral diseases are the most widespread of the more than 300 diseases and conditions that affect humanity. About 3.5 billion people worldwide were affected by oral diseases in 2019. Between 1990 and 2019, estimated case numbers of oral diseases increased by more than 1 billion. This translates to a 50% increase, which is larger than the population increase of about 45% during the same period.
- Over the last 30 years (1990–2019), estimated case numbers of major oral diseases (caries of deciduous and permanent teeth, edentulism, severe periodontal disease and other oral disorders combined) in the Region of the Americas grew by more than 151 million – a 48.0% increase, greater than the estimated population increase of 41.8% during the same period.
- In 2019, the Region had more than 467 million cases of the major oral diseases combined.

Oral diseases share risk factors with other NCDs and have impacts along the life course

- Shared, modifiable NCD risk factors include high intake of free sugars, all forms of tobacco use and harmful alcohol use. Taking a common risk factor approach to the prevention of oral diseases by embedding oral health within the broader NCD agenda ensures that progress can be made across a range of NCDs, including oral diseases, diabetes, cancer and cardiovascular diseases.
- The Region of the Americas is experiencing a rising prevalence of NCDs that in 2019 accounted for the loss of 226 million disability-adjusted life years, 121 million years due to premature death, and 105 million years of life lived with disability or ill health (3).
- In 2019, 16% of the population in the Region was aged 60 years or older. By 2030, 1 in 6 people will be 60 years or older, and this is projected to increase to 36% by 2100 (4). These demographic and epidemiological transitions in the Region will affect the burden of oral diseases and subsequent responses. Poor oral health among older people can negatively affect daily activities and can result in specific challenges related to pain, impaired chewing and nutritional deficiencies.

Oral diseases disproportionately affect disadvantaged populations in society

- Stark and persistent inequalities in oral health status exist across different population groups. Inequalities result from a complex array of interconnecting factors, many of which are beyond individuals' control. Oral diseases disproportionately affect poor, vulnerable and/or marginalized members of societies, often including people who are on low incomes; people living with disability; older people living alone or in care homes; people who are refugees, in prison or living in remote and rural communities; and people from minority and/or other socially marginalized groups.
- Access to oral health services is uneven within and among countries. Availability of oral health services is not aligned with the needs of the population. Those with the greatest need often have the least access to services, (see the case study [United States] on the next page).

Reforming access to oral health care to address disparities (United States)

In February 2007, 12-year-old Deamonte Driver died in Maryland after complications from an avoidable dental infection. “Twelve-year-old Deamonte Driver died of a toothache Sunday. A routine, \$80 tooth extraction might have saved him. If his mother had been insured. If his family had not lost its Medicaid. If Medicaid dentists weren’t so hard to find. If his mother hadn’t been focused on getting a dentist for his brother, who had six rotted teeth,” wrote Mary Otto on the Metro page of the Washington Post on 28 February 2007 (5).

Deamonte’s death brought to light the long-standing issue of access to oral health care for Maryland’s poor children. Reports at that time showed that 71% of children on Medicaid in Maryland (ages 0–20) had received no dental services during the previous year, and more than 11 000 of these children had not seen a dentist in 4 years. As a result, more than 30% of Maryland’s elementary school children had untreated caries. Because of poor Medicaid reimbursement rates, only 12% of Maryland dentists were full participants in the program.

Otto’s article in the Washington Post sparked global media attention, which then led to a collaboration among oral health advocates, civil society organizations, policy-makers and legislators to prioritize the oral health agenda.

“The oral health reforms first is about a tragedy of a child that rants and improvements to oral health surveillance and infrastructure statewide. As a result of numerous oral health policy reforms and initiatives, utilization rates of oral health care increased as did the number of dentists participating in the state Medicaid programme, making Maryland a role model for other states (6).

“The story of Deamonte Driver continues to be told, not just in Maryland but around the country. It has become part of an ongoing movement to improve access to oral health services to Americans of all ages who might otherwise go without care,” Otto says. She highlights the difficulties that economically disadvantaged people are facing and

the need to integrate oral health into overall health care in her book *Teeth* (2017) (7).

Since Deamonte’s death, access to dental services for all has been identified as an important component of comprehensive health care for children. In 2009, the reauthorization of the Children’s Health Insurance Program (CHIP) required states to provide dental coverage to enrolled children and gave states the option to provide dental benefits to certain children who did not qualify for full CHIP coverage. In 2010, the health reform bill known as the Affordable Care Act required that starting in 2014, all insurance plans to be offered through new health insurance exchanges had to include oral health care for children and prohibited insurers from charging out-of-pocket expenses for preventive paediatric oral health services (8).

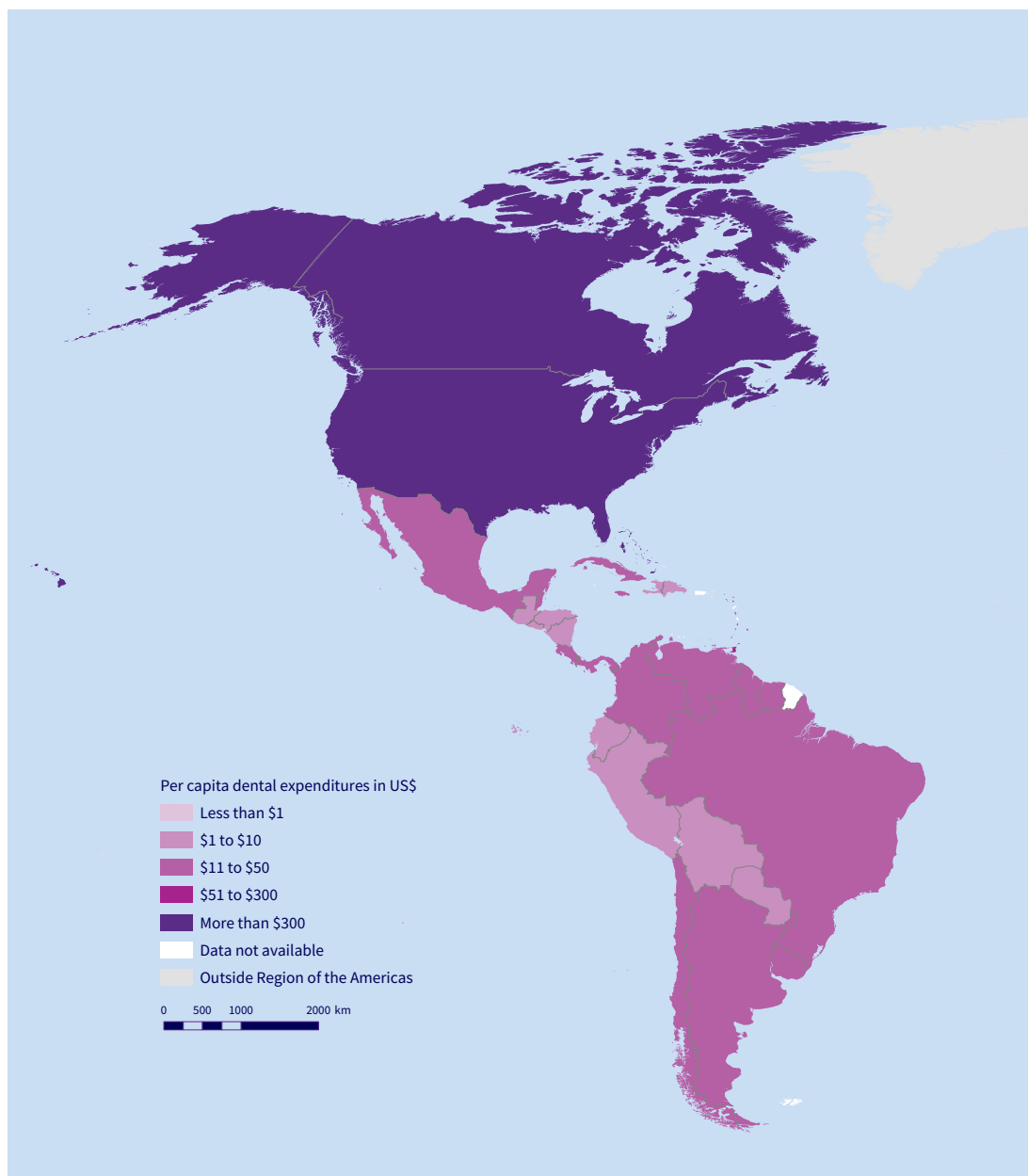


The economic burden of oral diseases is very high

- In the Region of the Americas, the total direct expenditure due to oral diseases is about US\$ 157 billion. At the same time, productivity losses from oral diseases are estimated to be around US\$ 106 billion – the highest expenditure among WHO regions in 2019.
- Within the Region, about half of the countries spent between US\$ 11 and US\$ 50 per person per year on oral health care in 2019, 10 countries spent between US\$ 1 and US\$ 10, and seven high-income countries spent between US\$ 51 and US\$ 600 (Fig. 1).
- Oral health care is often associated with high out-of-pocket expenditures because private practitioners predominantly provide the services, which are usually only partially or not at all covered by government programmes and/or insurance schemes.



Fig. 1. Per capita dental expenditures in US\$ per country in the Region of the Americas (2019)



Data Source: Global oral health status report: towards universal health coverage for oral health by 2030. Geneva: World Health Organization; 2022. <https://www.who.int/team/noncommunicable-diseases/global-status-report-on-oral-health-2022/>
Map Creation Date: 28 February 2023. Map Production: WHO GIS Centre for Health, DNA/DDI © WHO 2023. All rights reserved.

There are gaps in the oral health workforce

- Oral health care is often characterized by low workforce numbers, a predominance of private provision models, underresourced public services, inadequate task sharing and skill mixes within teams, limited or no access for rural, remote or disadvantaged populations, and lack of financial protection and coverage.
- Vast inequalities in access to oral health services also exist within and among countries in the Region of the Americas. For example, the number of dentists per 10 000 population ranges from 0.1 to 16.7, with a regional average of 5.7, higher than the global average of 3.3. For countries where data are available, the number of dental prosthetic technicians per 10 000 population ranges from 0.0 to 1.2, with a regional average of 0.7, and the number of dental assistants and therapists ranges from 0.0 to 14.3, with a regional average of 4.3; the global averages are 0.6 and 1.9, respectively.



3

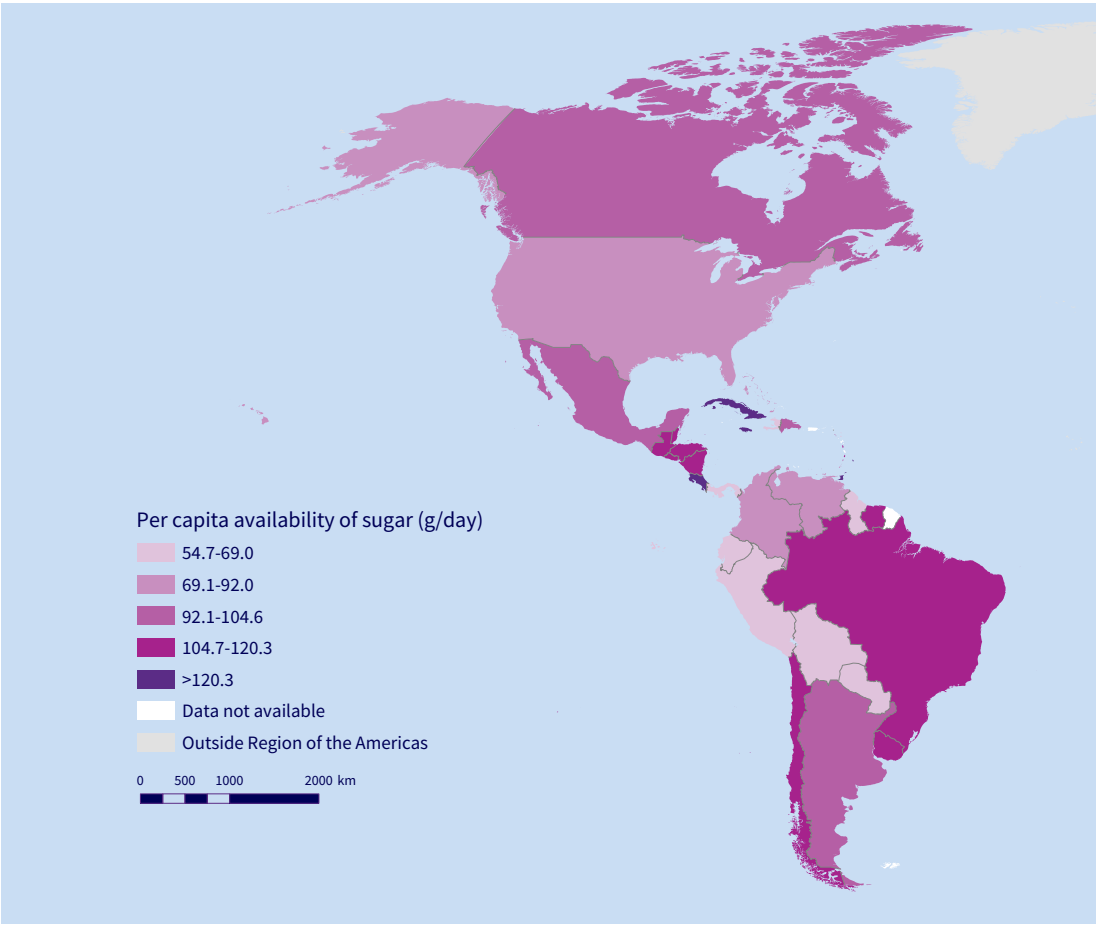
The burden of the main oral diseases



Dental caries

Dental caries is a gradual loss and breakdown of tooth hard tissues that results when free sugars contained in food or drink are converted by bacteria into acids that destroy the tooth over time. Dental caries affects all age groups, starting with the eruption of the first teeth, increasing in prevalence until late adulthood and remaining at high levels until older age. Dental caries is the most common NCD worldwide, with more than one third of the global population living with untreated dental caries. Consumption of free sugars is the main dietary factor in the development of dental caries, and the Region of the Americas has a high consumption of sugar, although consumption varies among countries. The per capita availability of sugar in the Region ranges from 54.7 to 148.2 grams/day (Fig. 2).

Fig. 2. Per capita availability of sugar (grams/day) in the Region of the Americas (2019)



Data Source: Global oral health status report: towards universal health coverage for oral health by 2030. Geneva: World Health Organization; 2022. [https:// www.who.int/team/noncommunicable-diseases/ global-status-report-on-oral-health-2022/](https://www.who.int/team/noncommunicable-diseases/global-status-report-on-oral-health-2022/)
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At the regional level, the prevalence of dental caries in deciduous and permanent teeth was unchanged between 1990 and 2019. The Region has a high prevalence of caries of deciduous teeth (43.2%; Fig. 3) and of permanent teeth (28.2%; Fig. 4), with almost 322 million total cases of caries in 2019.

Fig. 3. Estimated prevalence of caries of deciduous teeth in people aged 1–9 years per country in the Region of the Americas (2019)

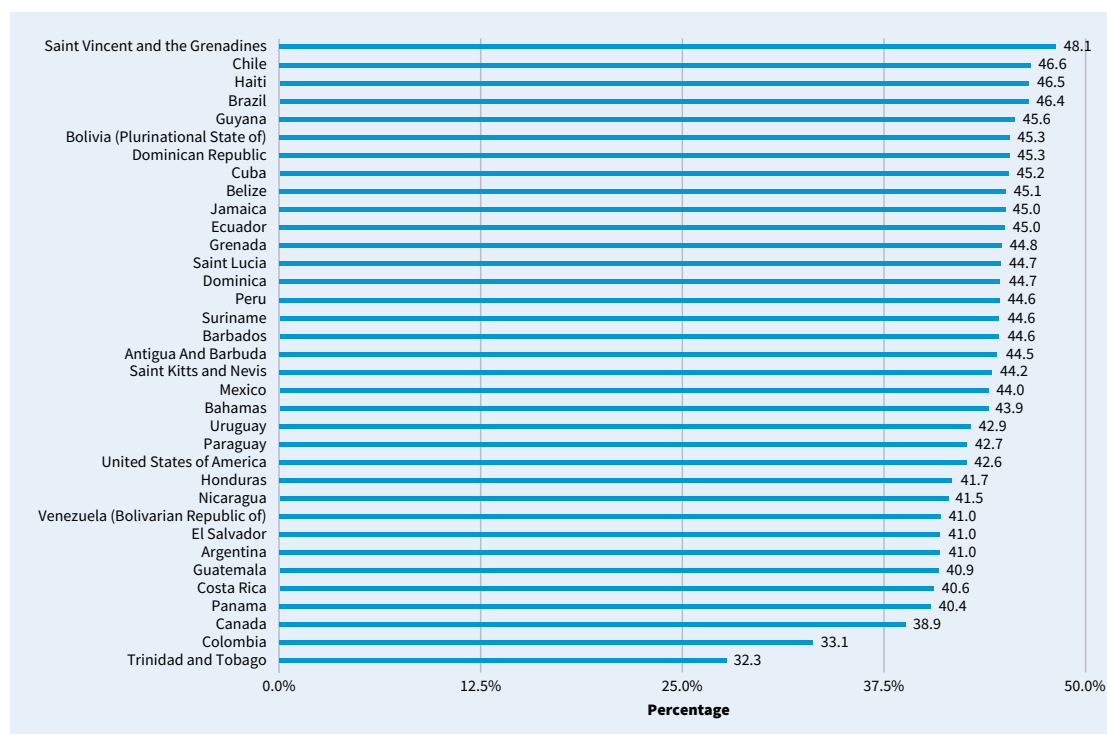
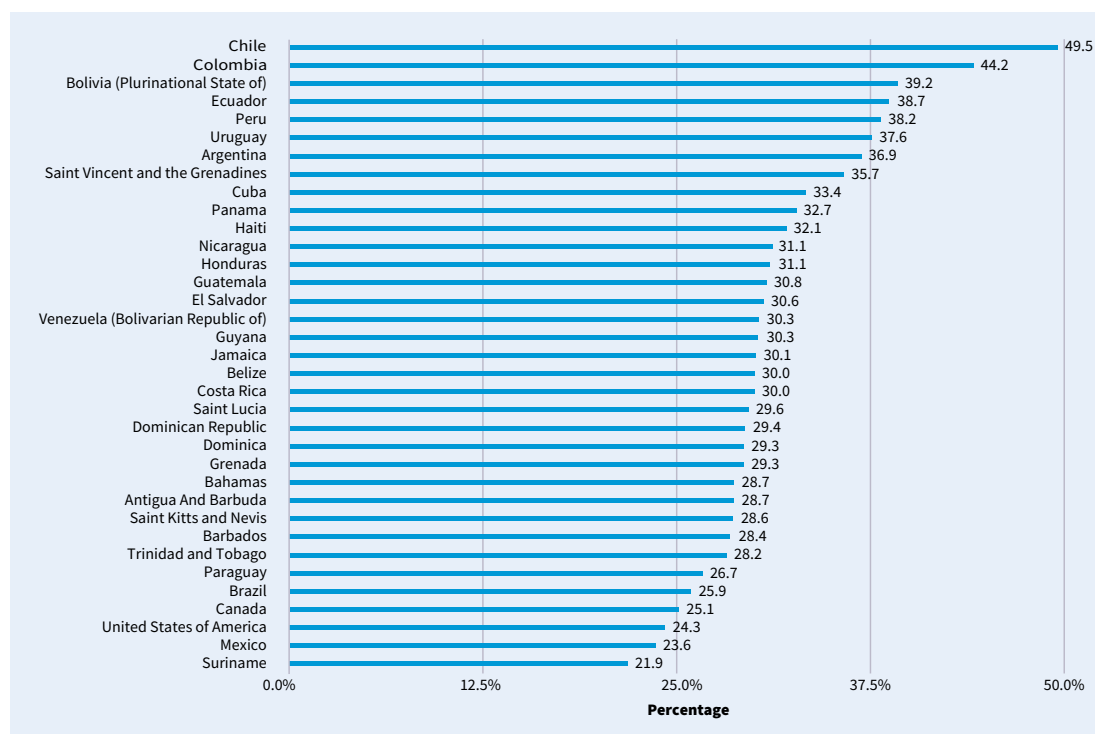


Fig. 4. Estimated prevalence of caries of permanent teeth in people aged 5 years or more per country in the Region of the Americas (2019)

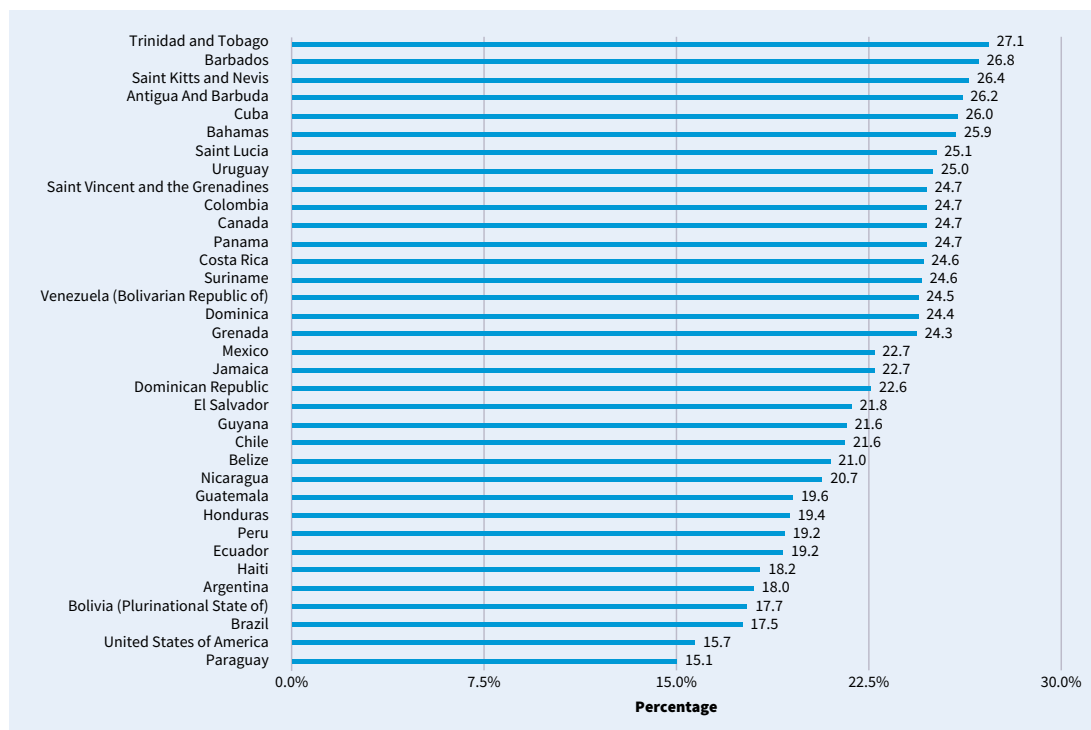


Severe periodontal disease

Periodontal disease is a chronic inflammation of the soft and hard tissues that support and anchor the teeth. Severe periodontal disease, defined as the presence of a pocket of more than 6 mm depth, is a condition of public health concern. Poor oral hygiene is a major behavioural risk factor for periodontal disease, in addition to common NCD risk factors like tobacco use.

Among the WHO regions, the Region of the Americas had one of the higher increases in prevalence (19.7%) of severe periodontal disease between 1990 and 2019, with a prevalence of 18.9% in 2019 among people aged 15 years or older (Fig. 5). Because prevalence of severe periodontal disease peaks around 55 years of age and remains high until old age, it is likely the Region will experience a higher regional burden of disease in the future due to the growing ageing population.

Fig. 5. Estimated prevalence of severe periodontal disease in people aged 15 years or older per country in the Region of the Americas (2019)



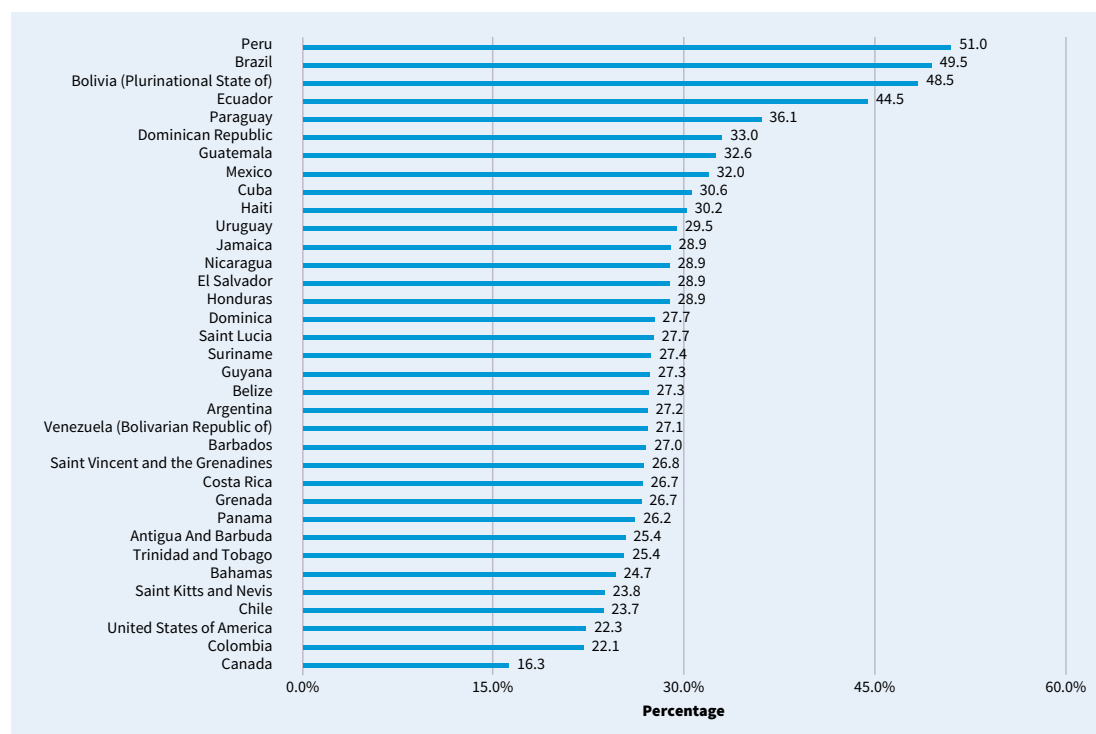
Edentulism

Losing teeth is generally the end point of a lifelong history of oral disease, primarily advanced dental caries and severe periodontal disease, but tooth loss can also result from trauma; all can possibly lead to tooth extraction. Edentulism is a stark indicator of social and economic inequalities, with disadvantaged populations disproportionately experiencing total tooth loss.

Among the WHO regions, the Region of the Americas had just over one fifth of cases of edentulism in 2019, with almost 75 million cases occurring in people aged 20 years or more. This equates to a prevalence of 10.5%. The Region had the third highest increase in prevalence (14.5%) of edentulism between 1990 and 2019, almost double the global average increase of 8.0%.

Maintaining functional teeth is critical for supporting healthy ageing, but almost one in three (29.6%) adults aged 60 years or older in the Region suffered from complete tooth loss in 2019, compared with the global average of 22.7%. Country prevalence of edentulism in this age group ranged from 16.3% to 51.0% (Fig. 6).

Fig. 6. Estimated prevalence of edentulism in people aged 60 years or older per country in the Region of the Americas (2019)

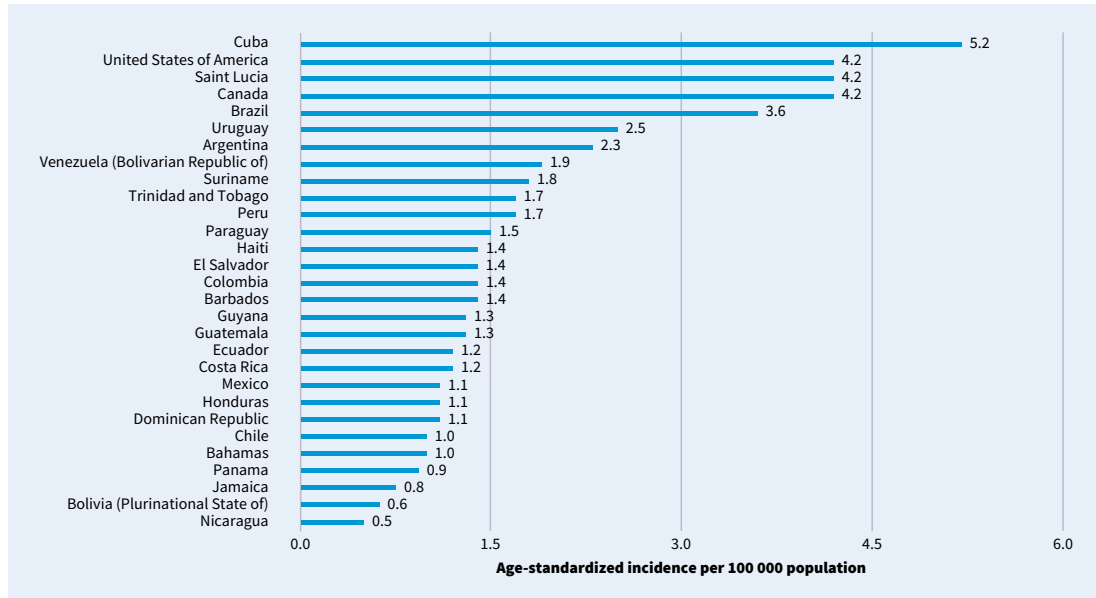


Oral cancer

In 2020, the Region of the Americas had an estimated 45 357 new cases of oral (lip and oral cavity) cancers, accounting for 12% of the total estimated number of new cases globally. There were more than 12 500 deaths from oral cancers in the Region in 2020. Incidence rates of oral cancer vary from low to high within the Region, with a range of between 0.5 and 5.2 per 100 000 people (Fig. 7). Differences largely follow patterns of the main risk factors, including tobacco use and alcohol consumption. Human papillomavirus infection is increasingly contributing to oropharyngeal cancers of specific populations.



Fig. 7. Estimated age-standardized incidence rates of lip and oral cavity cancer in people of all ages per 100 000 population per country in Region of the Americas (2020)



Note. Based on 29 countries where data were available.



4

Key challenges and opportunities towards oral health for all in the Region of the Americas



Challenges	Opportunities
1. Oral health governance	
<ul style="list-style-type: none">■ Thirteen countries (39.4%)^a did not have a national oral health policy, action plan or strategy in place.■ Ten countries (31.3%)^b did not have dedicated staff for oral diseases in the NCD Department of the Ministry of Health.■ Of the 14 countries represented, three (21.4%) had phased out dental amalgam in line with the Minamata Convention on Mercury, nine (64.3%) were in the process of phasing down, and two (14.3%) had no plans to phase down (9).	<ul style="list-style-type: none">■ Develop new national oral health policies that align with the WHO Global Strategy on Oral Health (10) and national NCD and UHC policies. The Global Oral Health Action Plan (11) outlines 100 proposed actions (for Member States, the WHO Secretariat, international partners, civil society organizations and the private sector) across six strategic objectives. The accompanying global monitoring framework identifies 11 core and 29 complementary indicators to track and monitor progress on implementation of the Global Oral Health Action Plan.■ Allocate dedicated staff and funds for oral health at the Ministry of Health or other national governmental health agency, ensuring integration with the NCD and UHC agendas.■ Twenty-eight countries (80.0%) are parties to the Minamata Convention on Mercury, which aims to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. Become a party to the Minamata Convention on Mercury and accelerate implementation of measures to phase down the use of dental amalgam in accordance with the Minamata Convention on Mercury.

Challenges	Opportunities
2. Oral health promotion and oral disease prevention	
<ul style="list-style-type: none"> ■ Fourteen countries (40.0%) have not implemented a tax on sugar-sweetened beverages. ■ Fluoride toothpaste was unaffordable in Brazil and affordable in nine other countries. The remaining 25 countries (71.4%) had no data available. 	<ul style="list-style-type: none"> ■ Implement policy measures aiming to reduce intake of free sugars, such as (a) nutrition labelling: front-of-pack or other interpretative labelling to inform about sugars content, including mandatory declaration of sugars content on prepackaged food; (b) reformulation limits or targets to reduce sugars content in foods and beverages; (c) public food procurement and service policies to reduce offering food high in sugars; (d) policies to protect children from the harmful impact of food marketing, including for foods and beverages high in sugars; and (e) taxes on sugar-sweetened beverages and sugars or foods high in sugars. ■ The addition of fluoride toothpaste to the WHO model lists of essential medicines in 2021 (12) is an opportunity to improve affordability and availability of fluoride toothpaste and products. ■ Optimize digital technologies for oral health care to improve oral health literacy, health worker training, early detection of oral diseases and oral health surveillance within national health systems.

Challenges	Opportunities
3. Oral health workforce	
<ul style="list-style-type: none">■ Inequalities exist in the ratio of oral health workforce to population among high-income, upper middle-income and lower middle-income countries.■ In most countries of the Region, dentist-centred workforce models dominate, with inadequate task sharing and skill mixes within a wider team.	<ul style="list-style-type: none">■ Integrate oral health care into primary health care at all service levels, including required staffing, skill mixes and competencies.■ Develop an innovative workforce model for oral health to respond to population oral health needs. Workforce trained and legally permitted to respond to the oral health needs of all population groups may include oral health professionals and other primary health care workers, including community health workers.

Challenges	Opportunities
4. Oral health care in primary health care	
<ul style="list-style-type: none"> ■ Integration of oral health care into NCD management and primary health care is fragmented and, in some countries, nonexistent. ■ The predominance of private oral health care models in many countries leads to high out-of-pocket expenses, particularly for disadvantaged populations. 	<ul style="list-style-type: none"> ■ Increase access to safe, effective and affordable essential oral health care as part of national UHC benefits packages with improved financial protection. ■ In the primary care facilities in the public health sector, there was high availability of (a) oral health screening for early detection of oral diseases in 28 countries (84.8%)^a; (b) urgent treatment for providing emergency oral care and pain relief in 26 countries (78.8%)^a; and (c) basic restorative dental procedures to treat existing dental decay in 26 countries (76.5%)^c. Expand coverage of essential oral health care by planning for the availability, accessibility, acceptability and quality of skilled health workers able to deliver an essential package of oral health care for all.

Note. Where indicated, percentage(s) were calculated among ^a 33 countries, ^b 32 countries, and ^c 34 countries, which excludes countries where data were not available.

5

A road map towards UHC for oral health



Adoption of resolution WHA74.5 on oral health (1) was a significant milestone towards repositioning oral health as part of the global health agenda in the context of UHC.

As a first step in the implementation of the resolution on oral health, Member States adopted the Global Strategy on Oral Health at the Seventy-fifth World Health Assembly in 2022 (10). The Global Oral Health Action Plan (2023–2030) is the second step in the implementation of the resolution on oral health (11). It is grounded in the Global Strategy on Oral Health's vision, goal, guiding principles, strategic objectives and roles outlined for Member States, the WHO Secretariat, international partners, civil society and the private sector. The Global Oral Health Action Plan provides concrete guidance to progress the oral health agenda in countries and proposes a monitoring framework with targets to track progress towards 2030.

Recognition of oral diseases as global and regional public health problems will continue to generate momentum and action by all stakeholders, guided by the Global Strategy on Oral Health (10). This will be possible only with the concerted efforts of all stakeholders, including governments, the United Nations system, intergovernmental bodies, nonstate actors, nongovernmental organizations, professional associations, youth and student organizations, patients' groups, academia, research institutions and the private sector. Working together, these stakeholders can achieve the ambitious targets put forward in the draft Global Oral Health Action Plan (11) and make substantial progress towards closing the global gaps in oral health by 2030 – UHC for oral health.

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