LAOHA

Latin American Oral Health Association

Regional declaration for the advancement of oral health in Latin America and the Caribbean

Chapter: Dental Caries and Periodontal Disease

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1. Introduction

We are currently experiencing a period of remarkable progress in oral health worldwide, probably the most significant in many decades. The World Health Organization (WHO) resolution along with its strategy and action plan 2023-2030 (WHO, 2024), underscores the need to firmly integrate oral health into the chronic noncommunicable disease agenda, as well as into primary health care and universal access to health services initiatives. The WHO strategy and action plan offer a unique

opportunity to reorient the oral health agenda, recognizing the more structural determinants of oral health problems including social, political and commercial factors. This approach challenges the predominant perspective that focuses on individual behaviors and a clinical practice with an emphasis on interventionism and high technology. In addition, some countries have recently developed oral health policies and strategies; and initiatives such as the FDI Visions 2020 and 2030 and the Lancet Commission on Oral Health have been launched (Guarnizo-Herreño et al., 2024). It's relevant to mention that dental caries and periodontal disease are among the most prevalent diseases worldwide (Bernabe et al., 2025).

Oral health must be considered a human right. The existence of social gradients in oral diseases, including dental caries, requires policies that ensure quality dental care, a safe and equitable environment, and access to essential resources for health (social determinants of health) (Sampaio et al., 2021).

Since its founding in 2016, the Latin American Oral Health Association (LAOHA) has established itself as a non-profit organization dedicated to promoting oral health in Latin America and the Caribbean. It acts as a regional catalyst by strengthening academic collaboration, promoting innovative research and influencing public policy formulation. LAOHA has led high-impact initiatives, such as the Regional Consensus on Dental Caries (Sampaio et al., 2021) and Periodontics (Romito et al., 2020; Pannuti & Villar, 2024). It has also promoted curricular proposals for the teaching of cariology in the region (Sampaio et al., 2024; Martignon et al., 2024). Furthermore, it fosters dialogue, knowledge exchange and scientific research in order to improve the population's quality of life (www.laoha.org).

Thus, LAOHA, in collaboration with the Caribbean Oral Health Initiative (COHI) and the International Association for Dental, Oral, and Craniofacial Research - Latin American Region (IADR- LAR), proposes a joint declaration that recognizes oral health as a fundamental human right. The declaration highlights the impact of oral diseases on the quality of life in Latin America and the Caribbean, brings regional challenges to light and puts forward solutions grounded in successful practices and proposed improvements.

2. Reality of dental caries in Latin America and the Caribbean

Dental caries is a highly prevalent disease in Latin America and the Caribbean, affecting approximately 43% of children with primary dentition and 25% of adults in the region (WHO, 2022). Although a reduction in the disease's prevalence has been observed in some countries, untreated lesions remain among the most prevalent health conditions in Latin America and the Caribbean (Paiva et al., 2021).

In the region, dental caries inequities are mainly influenced by socioeconomic status, difficulty in accessing dental services, low health literacy and high consumption of foods rich in simple sugars (Martignon et al, 2021). Children are particularly vulnerable, with higher rates of untreated lesions in primary teeth compared to permanent teeth (Paiva et al, 2021). Socioeconomic inequities intensify the problem in the region, creating a cycle of poverty and oral health problems that affect the quality of life of the population (Paiva et al., 2021; Martignon et al, 2021).

The implementation of strategies to control and prevent dental caries in Latin America and the Caribbean is crucial. Some countries have adopted measures focused on the use of fluorides and control of consumption of simple sugars; however, the implementation of these policies varies among countries in the region (Paiva et al., 2023).

At the systemic level, some countries have consolidated programs for water and salt fluoridation, while others deal with technical, financial and logistical challenges that generate variations in fluoride concentration (Paiva et al., 2023). At the individual level, limited information on access to fluoride toothpastes and discrepancies in quantity and concentration recommendations between countries reveal the need for greater standardization (Paiva et al., 2023).

Several countries in Latin America and the Caribbean have implemented policies to limit sugar consumption. These policies include guidelines with recommendations on sugar consumption, the implementation of taxes on sugar-rich food products and the implementation of labeling policies and restriction of advertising of these products (Paiva et al., 2023).

Unfortunately, only a few countries in Latin America and the Caribbean have established clear and well-structured policies for the use of fluorides and the regulation of sugar consumption. This underscores the urgent need to deepen the understanding of the impact of such policies on oral health.

However, there are successful examples in the region. In Brazil there is the 'Smiling Brazil' oral health policy based on equitable access to dental services, distribution of fluoride toothpaste, water fluoridation and prevention programs (Ministry of Health Brazil, 2024). This reduced the prevalence of dental caries, although inequalities persist (Roncalli, 2011; Gomes et al., 2025). In Mexico, the implementation of a tax on unhealthy edible products was initiated which resulted in a reduction in their consumption and had a positive impact on oral health (Colchero et al., 2016; Hernandez-F et al., 2021). These results are consistent with data from other regions where similar taxes have shown benefits for oral health and overall public health (Rogers et al., 2023).

Additionally, the contributions of fluoride to oral health and its crucial role in the prevention of dental caries, especially in vulnerable populations, are recognized. Fluoride toothpaste is considered the main factor in the reduction of dental caries over the last century and is listed among WHO essential medicines (Bratthall et al., 1996; WHO, 2023). However, there are global debates on salt and water fluoridation, involving ethical, safety, policy, governance and cost-benefit analysis. It is reiterated that each Latin American country must define its own evidence-based guidelines, ensuring that public health policies related to fluoride are aligned with national priorities, scientific evidence and the needs of local communities.

3- Reality of Periodontal Disease in Latin America and the Caribbean

In Latin America and the Caribbean, the prevalence of gingivitis in adolescents ranges from 8.7% to 96.2% (Giacaman et al., 2016; Michel-Crosato et al., 2019). Periodontal disease, whose frequency increases with age, affects between 15.3% and 59.3% of adolescents, and between 11.6% and 99.9% of

adults. As for severe periodontitis, its prevalence varies between 5.8% and 29.7% in countries such as Brazil, Colombia, Chile and Uruguay. (Carvajal et al., 2024) These figures are associated with social determinants, behaviors such as smoking and health conditions such as type II diabetes (Reitsma et al., 2017; Antini et al., 2024). Although nationally representative studies have increased in the last decade, heterogeneity in methods and definitions, together with the lack of updated studies in many countries, hinders an accurate global description of the situation (Alawaji et al., 2022; Carvajal et al., 2024).

Considering the impact of periodontal disease on overall health, it is crucial to implement preventive strategies and recommendations that address inflammation, infection, and risk factors, especially in populations with low income and limited access to health services (Tonetti et al., 2017; Cota et al., 2021). Mechanical and chemical control of biofilm is essential to prevent gingivitis and other periodontal conditions (Figuero et al., 2020), and these measures should be tailored to all life stages, with special attention to children, adolescents, and patients with diabetes.

In addition, it is recommended to prioritize actions on social, political and commercial determinants, improving living and working conditions, ensuring equitable access to dental services and implementing innovative educational strategies (Watt & Marinho, 2005). WHO supports joint preventive strategies for oral health and chronic diseases given the existence of common risk factors (WHO, 2024). Additionally, in a Latin American consensus, the Ibero-Panamerican Federation of Periodontology concluded that the association between periodontal disease and other medical conditions should receive greater attention from health authorities to develop adequate prevention and management policies and strategies (Málaga-Figueroa et al, 2024).

It is essential to integrate public policies, civil society actions, advances in research, education, and private initiatives to prevent periodontal disease. In addition, collaborative work between entities must be strengthened to improve access to oral hygiene products, especially in disadvantaged areas. The population of Latin America and the Caribbean is diverse and deals with deep structural inequities that influence their behaviors and limit their ability to change habits (Duque et al, 2024).

There are relevant experiences in different Latin American countries on the incorporation of periodontal treatment. In the Dominican Republic, for example, a protocol has been established for the care of people living with diabetes and periodontal disease (MISPAS, 2024). In Chile, there is the Technical-Administrative Guidance for Periodontal Care in Patients with Diabetes Mellitus (MINSAL, 2023). For its part, Brazil has stood out as a global leader in the fight against smoking (Portes, 2018).

4 - Common factors between dental caries and periodontal disease

Prevalence: Both conditions have been considered the most prevalent chronic diseases in humanity despite being largely preventable (Bernabe et al., 2025). In addition, dental caries and periodontal disease are the leading causes of tooth loss.

Dental biofilm: Its presence is necessary for both oral diseases to develop (Sanz et al., 2017).

Determinants: These are structural in nature (social, political, economic) which are expressed in aspects such as lack of quality oral hygiene and an unhealthy diet, in addition to lack of access to

dental care (Peres et al., 2019). Additionally, these determinants share common elements with other noncommunicable diseases, such as intake of free sugars, tobacco use, and harmful alcohol consumption.

Negative impact on quality of life: Both conditions can cause dental pain and interfere with essential activities such as chewing, speaking and sleeping, resulting in a deterioration of general wellbeing. (Bönecker et al 2012; Paiva et al., 2021; Chimbinha et al., 2023). They can also cause school absence, decreased work productivity (Peres et al., 2019), decreased self-esteem and tooth loss (Haag et al., 2017).

Population groups: Disproportionately affect the poorest and most marginalized groups in society, and are closely linked to socioeconomic conditions and broader social determinants of health (Peres et al., 2019).

5 - General recommendations

The implementation of strategies to control and prevent dental caries and periodontal disease in Latin America and the Caribbean is crucial. Some general recommendations are listed below:

5.1. Prioritize standardized epidemiological research focused on public health and collective interventions in the population and its multidiversity, promoting the formation of regional multicenter networks in Latin America.

5.2. Support the development of national oral health policy processes, including public policies and guidelines. Promote the development of national plans aligned with the WHO action plan.

5.3. Promote strategies that guarantee equitable access to quality dental services, with a focus on primary health care.

5.4. Encourage actions that integrate oral health throughout the life course, with interventions designed and adapted to the needs of each stage of development.

5.5. Empower civil society and promote its organization to facilitate dialogue with key stakeholders, fostering decision-making based on local realities and scientific evidence.

5.6. To foster research and innovation to develop and incorporate emerging digital technologies, such as Teledentistry, Digital Dentistry, and Artificial Intelligence, which facilitate the dissemination of best practices, access to strategic information, and data-driven decision-making and analytical intelligence, thereby improving the quality of individual and collective oral care.

6- Specific recommendations

As a result of the above, some specific recommendations are listed below:

6.1. Promote, with an intersectorial approach, the implementation of guidelines for the prevention of dental caries and periodontal disease, ensuring that evidence-based practices are followed and that

they respond to the local realities in the region.

6.2. Promote decent living conditions that enable the development of oral hygiene practices that include the use of fluoride, based on local regulations and an analysis of baseline levels in each community, to promote an optimal balance between preventive benefits and the safety of the population.

6.3. Promote the implementation of public measures that encourage healthy eating, with a particular emphasis on reducing the consumption of free sugars and preventing their introduction before the age of two.

6.4. Encourage the inclusion of cross-cutting competencies and skills in dental curricula to promote health and prevent dental caries and periodontal disease at the individual and community levels, recognizing the more structural determinants of oral health.

6.5. Develop and implement community education programs with innovative perspectives, emphasizing the empowerment and applicability of the right to oral health, integrated into countries' public policies.

6.6. Facilitate equitable access to quality dental services for the entire population, prioritizing a primary health care approach and integrating oral health into health system strategies. This includes incorporating it into life course programs, ensuring alignment with each country's structure and policies.

6.7. Establish partnerships with sectors such as education, community and industry to create mobilization strategies that address social determinants of health and promote a healthy environment.

6.8. Implement standardized monitoring and evaluation systems to measure the effectiveness of promotion and prevention policies and strategies, and make adjustments based on the results obtained.

6.9. Promote research on the impact of public policies on oral health, with emphasis on studies that evaluate the effect of interventions on vulnerable populations and existing inequities.

6.10. Promote the integration of oral health into general health programs, from the central to the local level, with a comprehensive, preventive, and interprofessional approach throughout the life course.

6.11. Listen to traditionally excluded communities to recognize their knowledge and coping strategies, co-designing with them sustainable and culturally relevant initiatives that guarantee the right to oral health in their local realities.

6.12. Promote continuing education for healthcare professionals, ensuring they are up to date on best practices for the diagnosis, prevention, monitoring, and management of caries and periodontal disease, with a social, community, and interdisciplinary approach.

6.13. Strengthen the capacities of community organizations members to promote collective action, participate in, and influence decision-making processes related to their oral health.

6.14. Expose the strategies used by the sugar-sweetened beverage and ultra-processed food industry to influence public policy and research agendas.

6.15. Participate in social mobilization initiatives to demand the right to health at the local, regional, and global levels, promoting impact studies.

6.16. The effective implementation of the WHO Framework Convention on Tobacco Control as a key tool for reducing tobacco consumption and its effects on public health (WHO, 2003), with an emphasis on the young population.

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CARIBBEAN ORAL HEALTH INITIATIVE NETWORK

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Thus, LAOHA, in collaboration with the Caribbean Oral Health Initiative (COHI) and the International Association for Dental, Oral, and Craniofacial Research - Latin American Region (IADR- LAR), proposes a joint declaration that recognizes oral health as a fundamental human right. The declaration highlights the impact of oral diseases on the quality of life in Latin America and the Caribbean, brings regional challenges to light and puts forward solutions grounded in successful practices and proposed improvements.

2. Reality of dental caries in Latin America and the Caribbean

Dental caries is a highly prevalent disease in Latin America and the Caribbean, affecting approximately 43% of children with primary dentition and 25% of adults in the region (WHO, 2022). Although a reduction in the disease's prevalence has been observed in some countries, untreated lesions remain among the most prevalent health conditions in Latin America and the Caribbean (Paiva et al., 2021).

In the region, dental caries inequities are mainly influenced by socioeconomic status, difficulty in accessing dental services, low health literacy and high consumption of foods rich in simple sugars (Martignon et al, 2021). Children are particularly vulnerable, with higher rates of untreated lesions in primary teeth compared to permanent teeth (Paiva et al, 2021). Socioeconomic inequities intensify the problem in the region, creating a cycle of poverty and oral health problems that affect the quality of life of the population (Paiva et al., 2021; Martignon et al, 2021).

The implementation of strategies to control and prevent dental caries in Latin America and the Caribbean is crucial. Some countries have adopted measures focused on the use of fluorides and control of consumption of simple sugars; however, the implementation of these policies varies among countries in the region (Paiva et al., 2023).

At the systemic level, some countries have consolidated programs for water and salt fluoridation, while others deal with technical, financial and logistical challenges that generate variations in fluoride concentration (Paiva et al., 2023). At the individual level, limited information on access to fluoride toothpastes and discrepancies in quantity and concentration recommendations between countries reveal the need for greater standardization (Paiva et al., 2023).

Several countries in Latin America and the Caribbean have implemented policies to limit sugar consumption. These policies include guidelines with recommendations on sugar consumption, the implementation of taxes on sugar-rich food products and the implementation of labeling policies and restriction of advertising of these products (Paiva et al., 2023).

Unfortunately, only a few countries in Latin America and the Caribbean have established clear and well-structured policies for the use of fluorides and the regulation of sugar consumption. This underscores the urgent need to deepen the understanding of the impact of such policies on oral health.

However, there are successful examples in the region. In Brazil there is the 'Smiling Brazil' oral health policy based on equitable access to dental services, distribution of fluoride toothpaste, water fluoridation and prevention programs (Ministry of Health Brazil, 2024). This reduced the prevalence of dental caries, although inequalities persist (Roncalli, 2011; Gomes et al., 2025). In Mexico, the implementation of a tax on unhealthy edible products was initiated which resulted in a reduction in their consumption and had a positive impact on oral health (Colchero et al., 2016; Hernandez-F et al., 2021). These results are consistent with data from other regions where similar taxes have shown benefits for oral health and overall public health (Rogers et al., 2023).

Additionally, the contributions of fluoride to oral health and its crucial role in the prevention of dental caries, especially in vulnerable populations, are recognized. Fluoride toothpaste is considered the main factor in the reduction of dental caries over the last century and is listed among WHO essential medicines (Bratthall et al., 1996; WHO, 2023). However, there are global debates on salt and water fluoridation, involving ethical, safety, policy, governance and cost-benefit analysis. It is reiterated that each Latin American country must define its own evidence-based guidelines, ensuring that public health policies related to fluoride are aligned with national priorities, scientific evidence and the needs of local communities.

3- Reality of Periodontal Disease in Latin America and the Caribbean

In Latin America and the Caribbean, the prevalence of gingivitis in adolescents ranges from 8.7% to 96.2% (Giacaman et al., 2016; Michel-Crosato et al., 2019). Periodontal disease, whose frequency increases with age, affects between 15.3% and 59.3% of adolescents, and between 11.6% and 99.9% of adults. As for severe periodontitis, its prevalence varies between 5.8% and 29.7% in countries such as Brazil, Colombia, Chile and Uruguay. (Carvajal et al., 2024) These figures are associated with social determinants, behaviors such as smoking and health conditions such as type II diabetes (Reitsma et al., 2017; Antini et al., 2024). Although nationally representative studies have increased in the last decade, heterogeneity in methods and definitions, together with the lack of updated studies in many countries, hinders an accurate global description of the situation (Alawaji et al., 2022; Carvajal et al., 2024).

Considering the impact of periodontal disease on overall health, it is crucial to implement preventive strategies and recommendations that address inflammation, infection, and risk factors, especially in populations with low income and limited access to health services (Tonetti et al., 2017; Cota et al., 2021). Mechanical and chemical control of biofilm is essential to prevent gingivitis and other periodontal conditions (Figuero et al., 2020), and these measures should be tailored to all life stages, with special attention to children, adolescents, and patients with diabetes.

In addition, it is recommended to prioritize actions on social, political and commercial determinants, improving living and working conditions, ensuring equitable access to dental services and implementing innovative educational strategies (Watt & Marinho, 2005). WHO supports joint preventive strategies for oral health and chronic diseases given the existence of common risk factors (WHO, 2024). Additionally, in a Latin American consensus, the Ibero-Panamerican Federation of Periodontology concluded that the association between periodontal disease and other medical conditions should receive greater attention from health authorities to develop adequate prevention and management policies and strategies (Málaga-Figueroa et al, 2024).

It is essential to integrate public policies, civil society actions, advances in research, education, and private initiatives to prevent periodontal disease. In addition, collaborative work between entities must be strengthened to improve access to oral hygiene products, especially in disadvantaged areas. The population of Latin America and the Caribbean is diverse and deals with deep structural inequities that influence their behaviors and limit their ability to change habits (Duque et al, 2024).

There are relevant experiences in different Latin American countries on the incorporation of periodontal treatment. In the Dominican Republic, for example, a protocol has been established for the care of people living with diabetes and periodontal disease (MISPAS, 2024). In Chile, there is the Technical-Administrative Guidance for Periodontal Care in Patients with Diabetes Mellitus (MINSAL, 2023). For its part, Brazil has stood out as a global leader in the fight against smoking (Portes, 2018).

4 - Common factors between dental caries and periodontal disease

Prevalence: Both conditions have been considered the most prevalent chronic diseases in humanity despite being largely preventable (GBD, 2025). In addition, dental caries and periodontal disease are the leading causes of tooth loss.

Biofilm: Its presence is necessary for both oral diseases to develop (Sanz et al., 2017).
Determinants: These are structural in nature (social, political, economic) which are expressed in aspects such as lack of quality oral hygiene and an unhealthy diet, in addition to lack of access to dental care (Peres et al., 2019). Additionally, these determinants share common elements with other noncommunicable diseases, such as intake of free sugars, tobacco use, and harmful alcohol consumption.

Negative impact on quality of life: Both conditions can cause dental pain and interfere with essential activities such as chewing, speaking and sleeping, resulting in a deterioration of general wellbeing. (Bönecker et al 2012; Paiva et al., 2021; Chimbinha et al., 2023). They can also cause school absence, decreased work productivity (Peres et al., 2019), decreased self-esteem and tooth loss (Haag et al., 2017).

Population groups: Disproportionately affect the poorest and most marginalized groups in society, and are closely linked to socioeconomic conditions and broader social determinants of health (Peres et al., 2019).

5 - General recommendations

The implementation of strategies to control and prevent dental caries and periodontal disease in Latin America and the Caribbean is crucial. Some general recommendations are listed below:

5.1. Prioritize standardized epidemiological research focused on public health and collective interventions in the population and its multidiversity, promoting the formation of regional multicenter networks in Latin America.

5.2. Support the development of national oral health policy processes, including public policies and guidelines. Promote the development of national plans aligned with the WHO action plan.

5.3. Promote strategies that guarantee equitable access to quality dental services, with a focus on primary health care.

5.4. Encourage actions that integrate oral health throughout the life course, with interventions designed and adapted to the needs of each stage of development.

5.5. Empower civil society and promote its organization to facilitate dialogue with key stakeholders, fostering decision-making based on local realities and scientific evidence.

5.6. To foster research and innovation to develop and incorporate emerging digital technologies, such as Teledentistry, Digital Dentistry, and Artificial Intelligence, which facilitate the dissemination of best practices, access to strategic information, and data-driven decision-making and analytical intelligence, thereby improving the quality of individual and collective oral care.

6- Specific recommendations

As a result of the above, some specific recommendations are listed below:

6.1. Promote, with an intersectorial approach, the implementation of guidelines for the prevention of dental caries and periodontal disease, ensuring that evidence-based practices are followed and that they respond to the local realities in the region.

6.2. Promote decent living conditions that enable the development of oral hygiene practices that include the use of fluoride, based on local regulations and an analysis of baseline levels in each community, to promote an optimal balance between preventive benefits and the safety of the population.

6.3. Promote the implementation of public measures that encourage healthy eating, with a particular emphasis on reducing the consumption of free sugars and preventing their introduction before the age of two.

6.4. Encourage the inclusion of cross-cutting competencies and skills in dental curricula to promote health and prevent dental caries and periodontal disease at the individual and community levels, recognizing the more structural determinants of oral health.

6.5. Develop and implement community education programs with innovative perspectives, emphasizing the empowerment and applicability of the right to oral health, integrated into countries' public policies.

6.6. Facilitate equitable access to quality dental services for the entire population, prioritizing a primary health care approach and integrating oral health into health system strategies. This includes incorporating it into life course programs, ensuring alignment with each country's structure and policies.

6.7. Establish partnerships with sectors such as education, community and industry to create mobilization strategies that address social determinants of health and promote a healthy environment.

6.8. Implement standardized monitoring and evaluation systems to measure the effectiveness of promotion and prevention policies and strategies, and make adjustments based on the results obtained.

6.9. Promote research on the impact of public policies on oral health, with emphasis on studies that evaluate the effect of interventions on vulnerable populations and existing inequities.

6.10. Promote the integration of oral health into general health programs, from the central to the local level, with a comprehensive, preventive, and interprofessional approach throughout the life course.

6.11. Listen to traditionally excluded communities to recognize their knowledge and coping strategies, co-designing with them sustainable and culturally relevant initiatives that guarantee the right to oral health in their local realities.

6.12. Promote continuing education for healthcare professionals, ensuring they are up to date on best practices for the diagnosis, prevention, monitoring, and management of caries and periodontal disease, with a social, community, and interdisciplinary approach.

6.13. Strengthen the capacities of community organizations members to promote collective action, participate in, and influence decision-making processes related to their oral health.

6.14. Expose the strategies used by the sugar-sweetened beverage and ultra-processed food industry to influence public policy and research agendas.

6.15. Participate in social mobilization initiatives to demand the right to health at the local, regional, and global levels, promoting impact studies.

6.16. The effective implementation of the WHO Framework Convention on Tobacco Control as a key tool for reducing tobacco consumption and its effects on public health (WHO, 2003), with an emphasis on the young population.

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