

Towards a Cavity-Free Future for Children in Brazil



Building on the work of the Brasil Sorridente programme and the latest evidence on effective policy and practice, what local, regional and national actions can measurably improve caries prevention and minimally interventive care for children in Brazil?

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May 2026



Stop Caries NOW for a Cavity-Free Future

The Alliance for a Cavity-Free Future (ACFF)

The ACFF is a global not-for-profit organisation which seeks to promote integrated clinical and public health action to confront the burden of tooth decay, fight dental caries initiation and progression, and, along with a global community of supporters, progress towards a Cavity-Free Future and improved health for all age groups. The ACFF was established in collaboration with a worldwide panel of experts in dentistry and public health who share a fervent belief in joining together across professional, geographic, and stakeholder lines, to create a unified global movement committed to combating caries in communities around the world and promoting good oral health as an integrated part of improving general health and wellbeing.

For more information, please visit www.acffglobal.org

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The views contained in this report are those of the authors alone and do not necessarily reflect those of the Policy Lab participants.

A Word of Thanks

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The success of the Policy Lab would not have been possible without the enthusiastic and effective participation of all those attending the Policy Lab and we thank them for their contributions. Thanks as well to the wonderful translators who assisted the discussions at the event by providing instantaneous and flawless Portuguese to English and English to Portuguese translation throughout. We also acknowledge the support from the ACFF Board and an unrestricted grant from Colgate Palmolive which enabled the Policy Lab to happen.

Finally, huge thanks to Chris Brown of ACFF Global for helping organise the logistics of the Policy Lab and, from a distance, supporting the delivery of a successful event and this resulting Report.

Foreword



Stop Caries NOW for a Cavity-Free Future



The Oral Health Policy Lab held during March 2026 in São Paulo, Brazil, was the latest in a series convened by the Alliance for a Cavity Free Future (ACFF) charity since 2017. A Policy Lab is a collaborative workshop that brings together diverse stakeholders, informed by evidence, to make a breakthrough on a particularly challenging problem.

The first three ACFF Policy Labs addressed global questions around Moving Towards a Cavity Free Future and were held in London, England. These have been followed by country-level Policy Labs focused on agreeing actions and building momentum at the country-level. One was held in 2022 in Ottawa, Canada, and another in 2025 in Cape Town, South Africa, which led to the re-formation of an ACFF South Africa Chapter later the same year. This third

country-level Policy Lab was held in São Paulo, Brazil in March 2026.

Each country-level Policy Lab has been designed to answer very specific, locally developed questions. The overarching question for the Brazil Policy Lab was: “Building on the work of the Brasil Sorridente programme and the latest evidence on effective policy and practice, what local, regional and national actions can measurably improve caries prevention and minimally interventive care for children in Brazil?”

This recognised the great opportunities for caries control in Brazil, which has innovative Federal laws and policies at the National level, but also acknowledges the major challenges in enacting these policies across a country of such immense size through a complex chain of state and municipality structures. While recent initiatives have highlighted successful progress in implementing minimally interventive (MI) caries care using the ‘ART’ approach, there seems to have been comparatively little focus on prevention.

The ACFF was fortunate to have a local partner in Departamento de Odontologia Social Faculdade de Odontologia at the University of São Paulo to help us with the logistics and delivery of the Policy Lab, as well as providing invaluable insights on oral health in Brazil. We were also very fortunate to have an excellent local Planning Group which helped us recruit participants and deliver the Policy Lab.

The Policy Lab participants worked energetically through an intense 24-hour process to create, debate and refine what became five proposals for action. The enthusiasm and selfless teamwork were tangible throughout the event.

The next challenge is to maintain that momentum through the implementation of the resulting ideas. This involves forming up working groups to mobilise action on each proposal, establishing a Cavity-Free Brazil coalition to foster cooperation across health and education, and building sustainable local delivery through municipality-led partnerships. This is where the re-activation of the Brazilian Chapter of ACFF can play a key role as a national-level catalyst, convener and steward of the post-Policy Lab agenda.

We fervently hope that the implementation of the recommendations of this report will measurably improve both caries prevention and minimally interventive care for children in Brazil.

Professor Nigel Pitts FRSE BDS PhD FDS RCS (Eng) FDS RCS (Edin) FFGDP (UK) FFPH

Chief Executive Officer of the Alliance for a Cavity Free Future, Emeritus Professor of Oral Health and Impact, Kings’ College London.



“Participating in the Policy Lab was a recognition that science goes hand in hand with governance. Also, the burning house analogy was powerful in reshaping my thinking towards prevention being fundamental to minimally interventive care: ‘would you repair a house that’s on fire?’ ‘Or would you put the flames out first?’

- **Andrea Regina do Nascimento Vrech Coelho**

Oral Health Coordinator for the State Secretariat of Mato Grosso (Mato Grosso State)



“The Policy Lab is a transformative tool and it was very enjoyable to exchange ideas with a diverse group of colleagues from across Brazil.

- **Fernanda Campos de Almeida Carrer**

Professor at University of São Paulo (São Paulo State)



“This event was fantastic and through the exchange of knowledge between participants, it was evident we need to focus more on health than on disease.

- **Karina Camillo Carrascoza**

Dentist of SUS in the municipality of Itupeva (São Paulo State)



“I was able to learn about the realities of other places and bring some of those experiences back to my work as a community health worker. Together, we have the ability to improve oral health in Brazil.

- **Silvia Rafaela Fernandes Hermogenes**

Citizen and Community Oral Health Agent of SUS (Rio de Janeiro State)



How Can I Use This Document?

The ideas and proposals in this document are intended to be of use to anyone interested in improving oral health for children in Brazil through stronger prevention and more use of minimally interventive care. It is particularly relevant to those working in and around the dental and oral health professions, including oral health policy and delivery, public health and primary care, education and research.

Here are some examples of how this document might be used to shape and influence that change.

Inform

The evidence and insights which can shape policy and action to improve oral health already exist but need to be brought together in a way that helps different stakeholders make sense of both the problem and the practical routes to improvement. This report aims to provide that synthesis for Brazil.

Share and connect

This report is intended to support discussion, collaboration and further development. It can be used to connect stakeholders who share an interest in stronger prevention and minimally interventive care, but who work in different parts of the system.

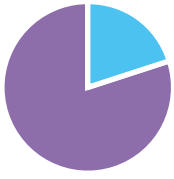
Work together and act

It is critical for all stakeholders to work together on the next steps in this journey towards better oral health for children in Brazil, especially in relation to the five proposals for action. This includes federal, state and municipal government; oral health teams; other health professionals and services; schools, early childhood settings and local community bodies; universities and professional bodies; organised civil society; industry and families and carers. The proposals are nationally relevant but intended to be adapted to different local realities.

The document also identifies areas for future focus and a set of next steps to help build on the work already completed.

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1. The Challenge:

More than 80% of children in Brazil suffer the pain and other problems of untreated tooth decay

1.1 Despite progress, childhood caries remains a major health challenge for Brazil

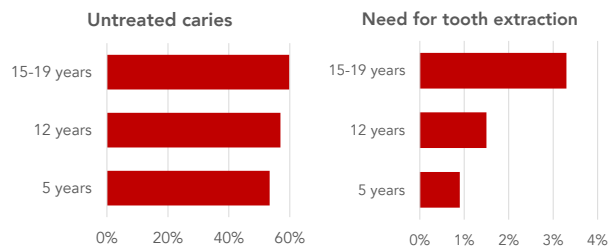
Dental caries (or tooth decay) is a chronic disease which adversely affects the mineralization of teeth. It is influenced by multiple biomedical factors such as diet (especially sugar consumption), the oral microbiome, and tooth integrity. Caries risk is also associated with many underlying social determinants of health, including low socioeconomic status, parental education, maternal nutrition, and psychosocial issues.

Tooth decay in children younger than six years of age is termed ‘Early Childhood Caries’ (ECC). Without prevention, or in the absence of ‘non-operative’ interventions at an early stage, ECC can advance to more severe levels of the disease, resulting in cavities (lesions involving loss of the tooth’s surface integrity), abscesses and pain. ECC has huge negative impacts on a child’s quality of life extending beyond the chronic pain to difficulty with eating and sleeping and poor school performance.

Brazil has made important progress over time in reducing dental caries amongst children. In 2010, Brazil joined the group of countries worldwide with the lowest overall levels of caries, a significant achievement.¹

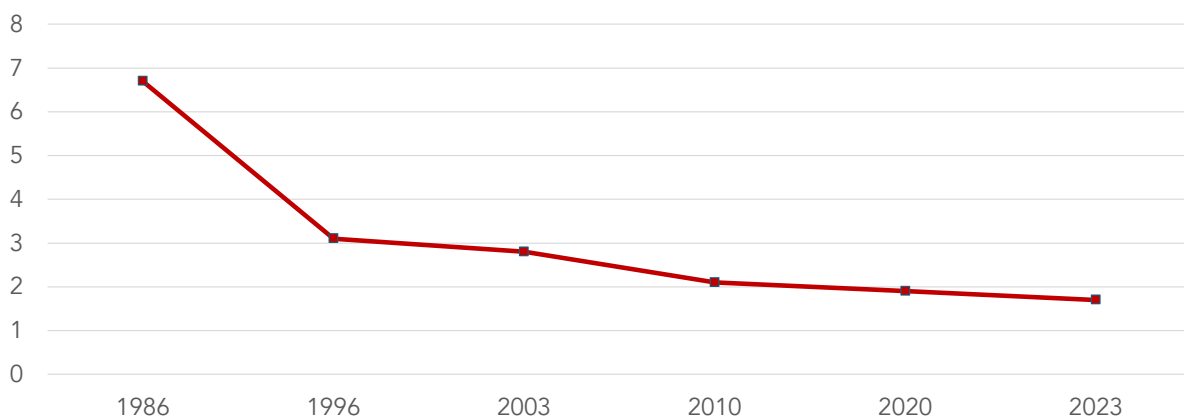
However, since that time, efforts to further reduce prevalence amongst children has slowed and dental caries remains a major public health challenge in Brazil:

- More than 50% of five-year-old children have at least one tooth affected by caries into dentine requiring treatment
- Around 80% of those affected primary teeth in 5-year-olds go untreated
- The rate of permanent caries into dentine in 12-year-olds remains high and over 80% of all adolescents have teeth affected by dental caries.
- The need for children’s teeth to be extracted is rising, often because of disease progression in untreated caries.²



The problems experienced in childhood then persist through life, with almost all adults in Brazil suffering the negative impacts of dental caries.








Average DMFT (Decayed, Missing, Filled Teeth) score at age 12 in Brazil



1 Ministry of Health, National Oral Health Survey – SB Brazil 2010

2 Ministry of Health, National Oral Health Survey – SB Brazil 2023

ICDAS Scoring System

- 0  Sound tooth surface
- 1  First visual change in enamel
- 2  Distinct visual change in enamel
- 3  Localised enamel breakdown due to caries with no visible dentine
- 4  Underlying dark shadow from dentine (with or without enamel breakdown)
- 5  Distinct cavity with visible dentine
- 6  Extensive distinct cavity with visible dentine

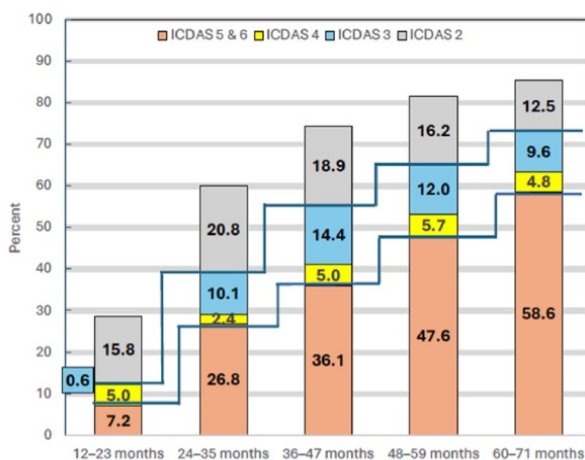
1.2 The problem starts earlier than routine data often reveal

The scale of the problem is also greater than the data currently points to. Conventional epidemiological methods, such as the WHO Basic Methods assessment (dmft: diseased, missing, filled teeth) records caries only once visible cavitation in dentine is present. This contrasts with the International Caries Detection and Assessment System (ICDAS) which reveals much higher rates of caries in children (including very young

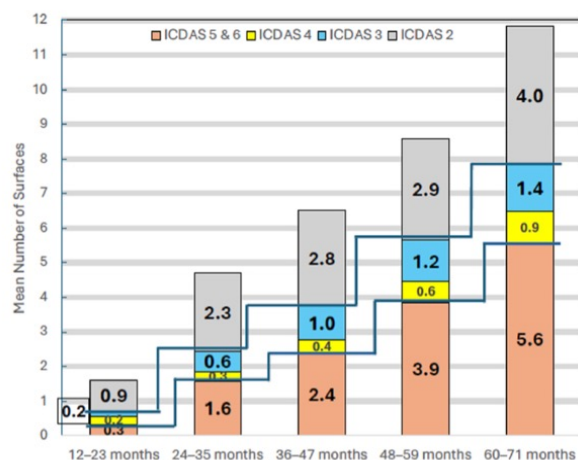
children) since the WHO Basic Methods threshold typically equates to ICDAS levels 5-6, leaving levels 1-4 undetected.

This matters because, in Brazil as in other countries, ICDAS reveals that the initial stages of caries disease are often well-established in two-, three- and four-year-olds and that the overall level of caries is significantly higher (as shown in the graphs below).³ Waiting until children are five or six before intervening means that the opportunity to prevent and control early lesions may already have passed.

Percentage of untreated decay



Mean number of untreated decayed surfaces



(Using ICDAS on children aged 12-71 months across all 11 Latin American countries with data aggregated and weighted by age group based on the number of participants in each country)

3 Villena, R. S., & Pitts, N. B. et al. (2025). ICDAS adaptation for early childhood caries: An epidemiological study in 11 Latin American countries. JDR Clinical & Translational Research. <https://doi.org/10.1177/23800844251368372>

1.3 The burden of poor oral health falls much harder on some children than others

Levels of ECC vary noticeably by region across Brazil, with dental caries disproportionately harming children in more disadvantaged communities. Prevalence often varies widely across and within countries because of political, social, and commercial factors beyond dental care delivery. Economic status plays a part in this and a WHO meta-analysis demonstrated how poorer DMFT scores at 12 years-of-age are associated with lower household income levels.^{4,5,6}

Children in remote territories and socially vulnerable communities also face much weaker access to prevention and early care. In 2023:

- over half of children in the North did not seek dental care when it was needed (or had care sought for them) compared with 35% in the Central-West
- 60% of 5-year-old children in Piauí and Goiás had one or more untreated cavities compared with 24% in São Paulo.⁷

Lower access leads to worse health outcomes, later presentation and a far greater likelihood of extraction or other late-stage responses. These differences in oral health then further compound the disadvantages experienced by some children across their lives compared with others.

1.4 Social, cultural and behavioural factors undermine preventative behaviours and compromise prompt and appropriate treatment

The basic root causes of ECC include high sugar consumption, poor oral hygiene practices (especially not brushing teeth regularly with fluoridated toothpaste) and limited access to dental care.⁸ These in turn are affected by access to and the affordability of toothpaste, toothbrushes and professional oral or dental services.

There are, in addition, a complex mix of other social, cultural and behavioural factors which leave some children more exposed to it than others:

- lack of knowledge (for example, that sugared drinks cause tooth decay)
- practices and beliefs (for example, that it is not important to look after primary teeth, that caries is an infectious disease, that replacement teeth are better than your own)
- low expectations (for example, that family or community members have always lost their teeth and that is to be expected)
- poor interactions with healthcare (for example, pessimism about the support available or a lack of trust in healthcare workers)

Rates of 5-year-old children with decayed, restored and lost teeth in 2023



4 Kemparaj, V. M., Aradhya, M. R. S., & Umashankar, G. K. (2021). Global trends in dental caries among 12-year-old children – A review. *Journal of Indian Association of Public Health Dentistry*. <https://doi.org/10.4103/2319-5932.1851421>

5 Vukovic, A., et al. (2025). Caries status in 12-year-old children, geographical location and socioeconomic conditions across European countries: A systematic review and meta-analysis. *International Journal of Paediatric Dentistry*, 35(2), 201–215. <https://doi.org/10.1111/ipd.13245>

6 Global Data on Dental Caries Prevalence (DMFT) in Children Aged 12 years, WHO, 2000

7 Ministry of Health, National Oral Health Survey – SB Brazil 2023

8 Meyer, F., & Enax, J. (2018). Early Childhood Caries: Epidemiology, Aetiology, and Prevention. *International Journal of Dentistry*, 2018, Article 1415873. <https://doi.org/10.1155/2018/1415873>

- low levels of health literacy and language barriers that hinder the spread and take-up of knowledge related to oral health promotion and prevention.

All of this can lead to a preference for extraction over restoration (and certainly a lack of prevention) often compounded by late-stage patient presentation.



Internationally Accepted Caries Terminology⁹

What is dental caries?

Dental caries is a biofilm-mediated, diet modulated, multifactorial, non-communicable, dynamic disease resulting in a net mineral loss of dental hard tissues. It is determined by biological, behavioural, psychosocial, and environmental factors. As a consequence of this process, a caries lesion develops.

What is early childhood caries (ECC)?

ECC is defined as the presence of one or more decayed (non-cavitated or cavitated lesions), missing or filled (due to caries) surfaces, in any primary tooth of a child under six years of age. Primary teeth maintain the space for the permanent teeth and are essential to a child's wellbeing since dental caries on primary teeth may lead to chronic pain, infections, and other morbidities.

What is a dental cavity?

A tooth with caries that has progressed far enough to produce a collapse in the integrity of the outer enamel, exposing the inner dentine. This stage of caries typically leads to a restoration or filling.

What is cavity-free?

Cavity-free implies that there are no detected cavities in dentine. However, thorough clinical examination may reveal the presence of non-cavitated and/or micro-cavitated carious lesions.

ACFF has also promoted a simple 'Public' Definition of Caries

"Dental caries, also known as tooth decay, is the disease that will cause dental cavities if not stopped."

Undetected Caries in Infancy: A Patient Vignette

Ana is two, and her mother thinks the brown marks on her baby teeth are harmless. Everyone says that baby teeth are not that important and they will fall out anyway. At the clinic, no one checks her mouth. At daycare, toothache makes her quiet, tired and reluctant to eat. By school age, decay has become infection, missed learning and fear of treatment. Each delay in getting care makes the next problem harder. What began as undetected caries in infancy becomes a pattern of pain, absence and disadvantage.

⁹ Machiulskiene, V., et al., Terminology of Dental Caries and Dental Caries Management: Consensus Report of a Workshop Organized by ORCA and Cariology Research Group of IADR. Caries Res, 2020. 54:7–14. DOI: 10.1159/000503309



2. The Opportunity:

Improved prevention and MI care can enable Brazil to overcome its childhood caries challenge

2.1 World Health Organization (WHO)

The WHO Global Oral Health Action Plan (2023-2030) makes clear that preventing dental caries is achievable and would deliver enormous wider health benefits.¹⁰ Caries shares common risk factors with other non-communicable diseases, including diabetes and cardiovascular disease. Reducing the prevalence of caries by minimizing its associated common risk factors will also improve overall health.

The Action Plan has the following overarching goals:

- By 2030, 80% of the global population will be entitled to essential oral health care services
- By 2030, the combined global prevalence of the main oral diseases and conditions over the life course will show a relative reduction of 10%.

This is a major commitment to investing in the future of oral health on a global basis. It sets out recommendations for the education of health professionals, the need to focus on the role of primary care and the importance of integrated teams for oral health as part of the wider healthcare workforce.

The November 2024 WHO Global Oral Health Meeting (GOHM) in Bangkok, Thailand, reaffirmed a collective commitment towards accelerating the implementation of the WHO Global Oral Health Action Plan 2023-2030 in all countries. This event brought together around 350 participants from more than 100 countries, including 12 health ministers, representatives from 35 UN agencies and non-state actors. It was the first ever global meeting on oral health where combined WHO teams from Geneva and the Regional Offices met with senior country ministers (typically a country's chief dental officer and lead on universal health coverage/NCDs).

The resulting 2024 Bangkok Declaration 'No Health Without Oral Health' has been used to advocate for better prioritization of prevention and control of oral diseases at national level and at international level.¹¹

WHO Upstream, Midstream and Downstream measures

"Most oral diseases and conditions are preventable and can be effectively addressed through population-based public health measures. Upstream policy interventions, such as those targeting social and commercial determinants, are cost-effective with high population reach and impact. Midstream initiatives include creating more supportive conditions in key settings like households, schools, workplaces, long-term care facilities and community venues. Downstream interventions are also critical, including essential prevention and evidence-based clinical oral health care."

WHO Global Oral Health Action Plan (2023- 2030) page 3

The December 2025 UN declaration on non-communicable diseases recognises oral diseases as a major health and economic burden, states that they are largely preventable, and calls for health promotion, prevention, early detection and treatment through stronger primary care integration. This has been followed by the WHO Cyprus Declaration on Oral Health in May 2026 which frames oral health as a human right rather than a privilege and reaffirms that there is "no health without oral health." This is directly relevant to Brazil, because it supports a broader and more system-wide understanding of how childhood caries can be reduced.

The new WHO guideline on 'Environmentally Friendly and Less Invasive Oral Health Care' will have profound implications for future prevention and management of dental caries worldwide: prevention first is one of its core guiding principles, sugar reduction and optimal fluoride use are presented as fundamental pillars, and early and minimally invasive care is seen as essential to preserving tooth structure.¹²

¹⁰ <https://www.who.int/publications/i/item/9789240090538>

¹¹ https://cdn.who.int/media/docs/default-source/ncds/mnd/oral-health/bangkok-declaration-oral-health.pdf?sfvrsn=15957742_4

¹² <https://www.who.int/publications/i/item/9789240116948>

Finally, the WHO has also added various fluoride products, including fluoride toothpaste and silver diamine fluoride (SDF), along with resin sealants and restorations, to its list of essential medicines for adults and children that all populations should have access to.^{13,14}

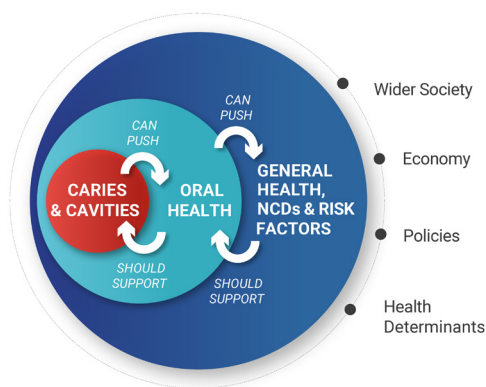
2.2 FDI World Dental Federation

In its ‘Vision 2030’, the World Dental Federation (FDI) emphasises the centrality of oral health to overall health and encourages dentists to give equal or greater focus to maintaining good overall oral health and the benefits of this for an individual’s ability to function and socialise, rather than just the diseases that need to be treated.

Oral health means the health of the mouth. No matter what your age, oral health is vital to general health and well-being. Oral health 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 (head, face, and oral cavity).¹⁵

2.3 Alliance for a Cavity-Free Future (ACFF)

The Alliance for a Cavity-Free Future promotes research and changes in policy and clinical practice worldwide, with the aim of ensuring that all children remain cavity-free throughout their lifetime.¹⁶



Key to this is highlighting the compelling link between caries and cavities and the general health experienced by an individual or seen across whole population groups, as illustrated.

‘Interrelationships between caries and cavities, oral health, and wider health’

A central message running through ACFF’s work is that progress depends on more than dentistry alone. Better oral health requires coordinated action across clinical practice, public health, education, nutrition, policy, data and wider health systems — a logic that is highly relevant in Brazil, where progress depends on linking oral health far more closely to maternity care, family health teams, schools, municipal implementation and broader prevention.

In 2021, the ACFF Making Cavities History Taskforce launched its ‘Global Consensus’ report¹⁷ with a range of policy proposals that can be used by countries around the world to take steps towards achieving a cavity-free future. These recommendations built on the outputs of three preceding ‘Policy Labs’ which brought together representatives from many of the world’s leading dental universities and associations, as well as dental practitioners and public health professionals.^{18,19,20}

Working through 29 ‘Chapters’ across over 50 countries (each run by dedicated local teams of dental and public health professionals and educators), ACFF pursues a ‘glocal’ approach – drawing on global knowledge and best-practice tailored to the specific circumstances found locally. With this aim, the Policy Lab programme has evolved into an Oral Health Policy Lab Network that now supports individual countries to translate global knowledge into locally relevant action.

13 World Health Organisation, WHO Model List of Essential Medicines- 22nd list, 2021. Accessed 01/02/2021; Available from: <https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2021.02>

14 World Health Organisation, WHO Model List of Essential Medicines for Children - 8th list, 2021. Accessed 01/02/2023; Available from: <https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2021.03>

15 Glick, M., et al. Vision 2030: Delivering Optimal oral Health for All. Geneva: FDI World Dental Federation, 2021

16 The Alliance for a Cavity-Free Future, Accessed 20/02/2025; Available from: <https://www.acffglobal.org>

17 Pitts, N. & Mayne, C. A Global Consensus for Achieving a Dental Cavity-Free Future. 2021 DOI: 10.18742/pub01-045

18 Vernazza, C., et al., Dental Policy Lab 1- towards a cavity-free future. Br Dent J, 2021. 231,754–758. DOI: 10.1038/s41415-021-3723-3

19 Mazevet, M., Pitts, N. & Mayne, C. Dental Policy Lab2-towards paying for health in dentistry. Br Dent J, 2021.231,759–763. DOI: 10.1038/s41415-021-3725-1

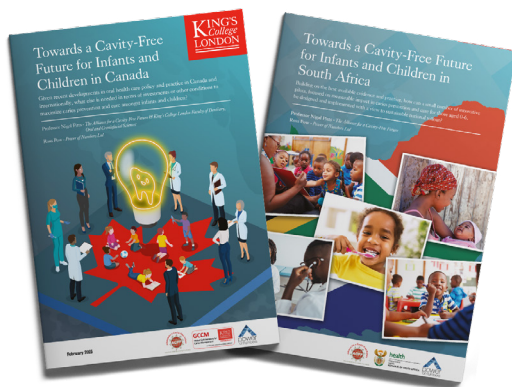
20 Pitts, N., et al., Dental Policy Lab 3: towards oral and dental health through partnership. Br Dent J, 2021. 231,764–768. DOI: 10.1038/s41415-021-3733-1



The four key areas of focus for policy development which were highlighted in the Consensus document were:

1. Effective prevention and management of dental caries and cavities across the life course
2. Addressing caries and cavities risk factors across the life course to fight major non-communicable diseases
3. Integration of primary and secondary prevention across the life course to address the burden of cavities and caries
4. Comprehensive data collection for effective prevention and management of dental caries and cavities

Both Canada (2022) and South Africa (2025) have used the Policy Lab process as a way to accelerate significant action on achieving a cavity-free future for their children.^{21,22}



2.4 ICDAS Foundation

Over the last 20 years there has been steady development of tools and knowledge to enable the dental profession to tackle the burden of caries. Beginning in 2002, the International Caries Detection and Assessment System (ICDAS) Foundation started work to harmonise caries detection and assessment across research, education, practice and public health.

A key aim of the ICDAS System was to move away from a simplistic assessment of 'no obvious decay' or 'obvious decay' by including histologically validated

stages of enamel caries which precede end-stage disease in the dentine and pulp. This system in various formats enables dentists to improve patient care by more precisely monitoring caries development which enables more informed diagnosis and care planning.²³ It also helps in the public health domain by giving policy makers a more sensitive estimate of the prevalence of the disease across different age cohorts.

2.5 CariesCare International

The work pioneered by the ICDAS Foundation, aided by ACFF and the Global Collaboratory for Caries Management (GCCM), has also developed into CariesCare International (CCI) which promotes a patient-centred, risk-based approach to caries management. Its practice guide, designed for dental practitioners, is focused on health outcomes with priority given to maintaining oral health and preserving tooth structure.²⁴ The '4D model' it promotes (shown below), based on the International Caries Classification and Management System (ICCMS)TM, sets out best-practice for the dental workforce to prevent caries and minimize operative care. This approach was approved for use globally by the FDI in 2019, as part of a growing consensus to move towards preventive dental medicine.²⁵

21 Pitts, N., Pow, R. (2023). Towards a Cavity-Free Future for Infants and Children in Canada: Given recent developments in oral health care policy and practice in Canada and internationally, what else is needed in terms of investments or other conditions to maximize caries prevention and care amongst infants and children? doi.org/10.18742/pub01-111

22 Pitts, N., Pow, R. (2025). Towards a Cavity-Free Future for Infants and Children in South Africa: Building on the best available evidence and practice, how can a small number of innovative pilots, focused on measurable impact in caries prevention and care for those aged 0-6, be designed and implemented with a view to sustainable national rollout? doi.org/10.5281/zenodo.15088641

23 Pitts, N. B. et al. (2014). ICCMSTM Guide for Practitioners and Educators. Global Collaboratory for Caries Management. <https://doi.org/10.5281/zenodo.853106>

24 Martignon, S., et al., Caries Care practice guide: consensus on evidence into practice. Br Dent J, 2019.227,353-362. DOI: 10.1038/s41415-019-0678-8.

25 World Dental Federation, Caries lesions and First Restorative Treatment. Accessed 20/02/2025; Available from: <https://www.fdiworlddental.org/carious-lesions-and-first-restorative-treatment>

‘CariesCare International “4D” cycle’



Determine	Determine patient level risk
Detect	Detect and Assess caries staging and activity
Decide	Decide on a personalised care plan
Do	Do appropriate tooth and patient preserving caries prevention and control interventions

In response to the Covid-19 pandemic, CCI’s CariesOUT project has produced extensive learnings on how to use IT and non-aerosol generating procedures in providing comprehensive care.^{26,27}

CCI also contributes to the education of practitioners and policymakers around the world in developing an understanding and consistent use of caries-related terminology – for example, what prevention means to different stakeholders (primary, secondary, tertiary and beyond) and how ‘CariesCare’ relates to keeping people ‘cavity free’ (as opposed to ‘caries free’).

These approaches matter in Brazil not only because they reveal earlier disease, but because they support decision-making across education, practice, research and public health. They demonstrate that integrating earlier lesion assessment, risk-based care and prevention-oriented management into policy and guidance is both achievable and practical.

2.6 International Association for Paediatric Dentistry (IAPD)

The 2019 Bangkok Declaration under the auspices of the International Association for Paediatric Dentistry (IAPD) sought to gain worldwide support for an evidence-based definition and a common understanding of the evidence around the aetiology, risk factors, and interventions to reduce Early Childhood Caries (ECC), as well as to mobilize collaborative approaches and policies to diminish this chronic disease.

The Declaration (supported by a comprehensive review article) recommends four priorities for multiple stakeholders to act on as shown below.²⁸

2.7 Other developments around the world

Elsewhere globally, there have been encouraging developments in oral health policy development which offer easily accessible lessons for Brazil to draw on.

- The EU-endorsed Childsmile Project from Scotland demonstrates how achieving significant improvements in the proportion of children who are cavity-free can be accompanied by financial savings
- The EXPRESO pilot in France sought to redesign the dental payment system with the aim of shifting treatment intervention to a mixed model, based on capitation and patient-profile elements, thereby encouraging dentists to work with higher-risk populations (this builds on ideas generated at the ACFF Policy Lab 2)²⁹
- Sir Michael Marmot’s reports on the social determinants of health emphasize how economic disparities create a ‘health gradient’, where poorer children suffer worse outcomes, meaning that interventions should be universal (available to everyone) but delivered at a scale and intensity proportionate to the level of disadvantage.³⁰


26 Caries Care International, Caries Care International. Accessed 01/02/2023; Available from: <https://cariescareinternational.com/>

27 Martignon, S., Beltrán, E., Douglas, G. et al. How did CariesCare International perform under pandemic conditions in children? A one-year, multicentre, single-group, interventional study. *Br Dent J* (2025). <https://doi.org/10.1038/s41415-025-8640-4>

28 Tinanoff N, Baez RJ, Diaz, Guillory C, et al. Early childhood caries epidemiology, aetiology, risk assessment, societal burden, management, education, and policy: Global perspective. *Int J Paediatr Dent*. 2019;29:238 - 248. <https://doi.org/10.1111/ipd.12484>


29 Ministère des Solidarités et de la Santé. Expérimentation prévention et intervention minimale en santé orale (EXPRESO). *Journal Officiel de la République Française*, 2021.0068.


30 Marmot M. Closing the health gap. *Scandinavian Journal of Public Health*. 2017;45(7):723-731. doi:10.1177/1403494817717433



Action on EARLY CHILDHOOD CARIES


from multiple stakeholders is needed **NOW** in **FOUR KEY AREAS**






ONE

RAISE AWARENESS OF EARLY CHILDHOOD CARIES with parents, caregivers, dentists, paediatricians, nurses, other health professionals and stakeholders.




TWO

LIMIT SUGAR INTAKE in foods and drinks and avoid free sugars for children under 2 years of age.




THREE

PERFORM TWICE DAILY TOOTHBRUSHING with all children, using an age-appropriate amount of fluoridated toothpaste (at least 1,000ppm).




FOUR

PROVIDE FIRST PREVENTIVE GUIDANCE in the first year of life through health professionals or community health workers (where possible building on existing programmes e.g. vaccinations) and ideally refer for dental visits for comprehensive continuing care



Stop Caries NOW for a Cavity-Free Future

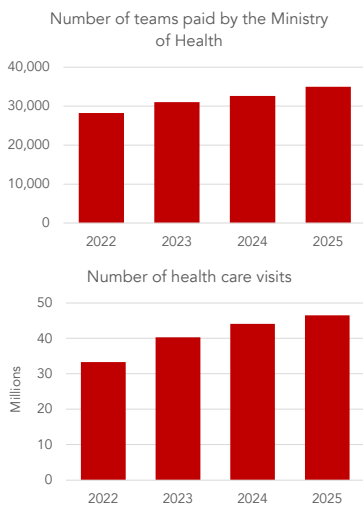


IAPD
International Association of Paediatric Dentistry

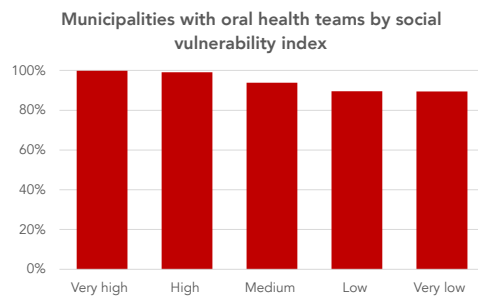
An output from the IAPD Global Summit on Early Childhood Caries, 2018. This document was facilitated by support from the Alliance for a Cavity-Free Future. Reference: Patil, N, Bhanu, R, Diaz-Guadalupe, C, et al. Early Childhood Caries. *Orp J Bangkok Declaration*. 2019;29: 354-366.

2.8 Oral health developments in Brazil

Brazil's Unified Health System (SUS) is public, universal and free at the point of care. Within that, Brasil Sorridente is the largest public oral health programme in the world and provides a substantial national platform for change. Funded through taxes, the programme supports 35,000 oral health teams delivering over 46 million health care visits a year.³¹



The family health strategy covers the whole of Brazil so that most municipalities have an oral health team, especially those with the most vulnerable populations.



SUS has decentralised governance with a number of key actors at different levels, working together with joint responsibility and public accountability, to form and implement policy:

- Federal – funding, policies, technical support
- States – regional planning and specialised care
- Municipalities – primary care and service delivery.

The role of State and Municipal oral health coordinators is especially important in translating national policy objectives into reality at a local level. While municipal

³¹ Brazilian Ministry of Health. e-Gestor Atenção Básica and SISAB – Sistema de Informação em Saúde para a Atenção Básica. Brasília: Ministério da Saúde. Available at: <https://egestorab.saude.gov.br/> and <https://sisab.saude.gov.br/> (Accessed: 25 May 2026).

autonomy allows tailored solutions, it can also lead to variation in implementation, especially given the very different geographic, population and economic characteristics of each location. Communities in areas furthest from large cities find accessing oral health services more challenging (eg parts of the Amazon region, Indigenous villages, traditional communities). In these places, there has been success with innovative solutions, such as the use of river-based mobile teams.



The Ministry of Health uses a range of oral health quality indicators (see box) to incentivise oral health teams towards preventive actions (such as supervised toothbrushing) and away from mutilating procedures (such as tooth extraction).³² The latest performance figures show:

- 0.5% of the child population receives supervised brushing (with or without the use of plaque-disclosing agents)
- 27.5% of all dental procedures are preventive (eg application of cariostatic agent/sealant/topical fluoride, dental plaque disclosure, temporary sealing of dental cavity, oral hygiene instruction)
- 6.8% of all restorative treatment is done using ART.

Brasil Sorridente oral health quality indicators for oral health teams

- First scheduled dental appointment in primary health care
- Completed dental treatment in primary health care
- Tooth extraction rate in primary health care
- Supervised toothbrushing in primary health care
- Preventive dental procedures in primary health care
- Atraumatic restorative treatment (ART) in primary health care

The performance of oral health teams on these target measures is monitored by the Ministry of Health and determines the level of funding each municipality receives from federal government.³³ Tying funding for oral health teams to MI procedures such as atraumatic restorative treatment (ART) has seen an 85% increase in the number of ART procedures carried out between 2024 and 2025. Crucially, other MI treatments (such as using cariostatic agents, sealants, or fluoride varnish) are not currently included so do not result in increased funding.

Most recently, March 2026 saw the launch of the Smiling Child Project, an initiative aimed at tackling childhood dental caries by helping states and municipalities to expand the use of MI care with young children through schools rather than relying on conventional clinic-based pathways. The project trains teams in the school-based delivery of ART supported by risk triage and prevention. There is also an emphasis on data collection and evaluation through the use of indicator dashboards for monitoring activity.³⁴

After a successful national mobilisation 'Day-B', the challenge now is to include a wider set of MI invasive procedures in the oral health monitoring and financing indicators and to train the 35,000 oral health teams in these techniques.



32 Ministry of Health Ordinance No. 3,493, of April 10, 2024

33 <https://sisaps.saude.gov.br/sistemas/siaps/>

34 <https://site.fo.usp.br/noticias/projeto-crianca-sorridente-tem-coordenacao-de-duas-docentes-da-casa/>



3. The Policy Lab: Measurably improving caries prevention and minimally interventive care for children in Brazil

The Brazil Oral Health Policy Lab was convened in São Paulo on 4th and 5th March 2026 to identify practical actions that could strengthen caries prevention and minimally interventive care for children across Brazil.

A Policy Lab is a collaborative workshop that brings together diverse stakeholders, informed by evidence, to make a breakthrough on a particular problem.³⁵ They are designed as fast-paced and interactive events that make the most of the knowledge and experience within the group. Participants were drawn from across Brazil, including people with lived experience, policymakers, state and municipality health system managers, researchers, oral health professionals, educators and other stakeholders.

The overarching question for the Policy Lab:



Building on the work of the Brasil Sorridente programme and the latest evidence on effective policy and practice, what local, regional and national actions can measurably improve caries prevention and minimally interventive care for children in Brazil?

The Policy Lab was hosted by the ACFF, working with a group from the University of São Paulo and guided by a local Planning Group of experienced individuals. The event was facilitated and written up by a team from ACFF Global, who had been involved in designing and running previous Policy Labs, including those in Canada (2022) and South Africa (2025).

Run over 24 hours and informed by a pre-event briefing pack, the Policy Lab process enables those taking part to steadily build a set of ideas together both during the formal parts of the workshop and through informal conversations. The process follows a ‘decision diamond flow’ as shown. This focuses the group on the overarching question, brings in a variety of inputs and exercises to broaden out the perspectives, before distilling key insights that are then drawn together and assessed to create a set of practical proposals for action.

At the start of the event, participants were optimistic that it would be possible to improve caries prevention and increase the use of MI care despite some of the persistent challenges in implementing policy ambitions. The discussions that emerged were energetic and purposeful. Encouraged by the range of perspectives represented and by the practical, grounded nature of the proposals that emerged, the group were extremely positive at the end of the Policy Lab. In particular, there was a shared recognition that now is the time to consolidate and accelerate progress and that Brazil has the policy foundations, skills and collective desire to do this.



³⁵ <https://www.dropbox.com/scl/f/ydhpnw2n867gflun74hz2/Using-Policy-Labs-as-a-process-to-bring-evidence-closer-to-public-policy-making-a-guide-to-one-approach.pdf?rlkey=lmrf8hkkhp31pi2uf37yyson&e=1&dl=0>

The diagram below shows the different stages of the Policy Lab as it moved through this diamond flow.

Reviewing the current situation in Brazil

- What does the data tell us about children’s oral health in Brazil?
- What are the problems and barriers to progress that need to be addressed?
- What other factors need to be considered in making progress?



Drawing on ideas for improvement

- What are the lessons from developments internationally that show how progress might be made in Brazil?
- How do the impacts of previous Policy Labs point to opportunities in Brazil?
- What is happening in Brazil that can be built on?



Specifying the problems to be addressed

- Which problems reflect reality in your context?
- Which are true ‘system problems’ and not just symptoms?
- Are there any problems/barriers missing from the list?
- Which ones could realistically be improved in 1-2 years?



Generating proposals for action

- What is the delivery chain to implement your proposal?
- Which potential barriers might the proposal face?
- What ideas do you have to strengthen the proposal from your experience/perspective?





4. The ingredients for sustainable improvement in prevention and the use of MI care

4.1 Shifting the focus from disease management to maintaining health

Rather than actively promoting oral health, the current model is designed to respond to disease. A health-focused model means reaching children earlier, identifying and monitoring earlier lesions, valuing those who remain cavity-free, and building care pathways that do not rely on pain as the point at which contact with the patient is initiated.

The historical context shaped early Brazilian public dental care to be exclusionary, curative and fragmented, reliant on low-complexity, often mutilating treatments that were available only to some population groups. Some of that legacy persists and is why prevention, earlier contact and equality of access all now need much stronger emphasis.

On a practical level, it is also clear that the current high levels of untreated cavities means that Brazil cannot treat its way out of this oral health challenge. Waiting for children to present in pain and then responding with episodic treatment will not solve a problem of this scale. Prevention, early detection and MI care are essential to any realistic response.

4.2 It is critical to have a consistently understood definition of MI care

Variation in terminology is always a challenge across countries and regions of the world but, without a clear and consistent understanding of what constitutes effective MI care, local practice will inevitably vary to the detriment of some children.

Historically, some have used 'MI' to mean Minimally Invasive, even though there is still invasion of the tooth structure. Instead, MI should be taken as Minimally Interventive, meaning practitioners should only undertake intervention when essential, in line with the principles of interventive care shown below.

This shifts professional practice from a 'do nothing and wait' approach to 'aggressive prevention and review', a key aim of the WHO Guideline on 'Environmentally Friendly and Less Invasive Oral Health Care', which will have profound implications for future prevention and management of dental caries worldwide.³⁶

Stage of caries progression	Principle of MI care	Intervention escalation (examples)
Healthy	Prevention and non-invasive care	Behaviour change (brushing, sugar consumption), fluoride varnish/gel, silver diamine fluoride (SDF) if high risk
Early lesion	Early detection and non-invasive care	Fluoride varnish/gel, SDF, sealants
Progressing lesion	Non- or micro-invasive care	SDF, sealants, resin infiltration
Cavitated lesion	Minimally-interventive treatment	ART, selected caries removal
Advanced disease	Minimum effective intervention	Conventional restorative care, surgery only if necessary

³⁶ WHO Guideline on environmentally-friendly and less invasive oral health care for preventing and managing dental caries. Available from: <https://www.who.int/publications/i/item/9789240116948> (accessed 27/05/2026)



Put the fire out first!

Restoring a tooth with active caries rather than preventing the caries in the first place is the same as trying to repair a house that is on fire.

In choosing to follow these principles of MI care, practitioners can optimise the balance between potentially conflicting considerations:

- Best available evidence – treatment decisions that are grounded in the most current and scientifically rigorous clinical data
- **Preference** – aligning clinical outcomes with the needs and desires of the patient and family
- **Resource allocation** – making best use of available materials, finances and clinical space for efficient care delivery
- **Effect** – prioritising the long-term impact on the patient’s oral health and disease suppression
- **Simplicity** – utilising straightforward protocols that reduce complexity and the potential for error
- **Comfort** – ensuring a positive low-stress experience for the patient to encourage lifelong dental health.

Encouragingly, research in Brazil suggests that dentists are significantly more likely to choose a treatment if it ensures a painless experience and that a significant proportion (42%) will accept non-perfect restorative outcomes if the underlying disease can be successfully managed (even if reintervention may later be needed).³⁷

However, several cultural and practical obstacles still must be overcome if MI care is to be comprehensively and consistently provided to children in Brazil:

- Access to high-quality dental materials can be restricted by budgets or administrative processes
- School schedules can reduce the flexibility and continuity of clinical activities
- Delayed or incomplete parental informed consent can restrict student participation
- Perceptions that MI techniques are inferior to invasive treatments can reduce acceptance among parents and professionals.

4.3 More effective implementation requires understanding how to shift the way a system works

The challenge in Brazil is not primarily about identifying the right policy direction. It is about making implementation clearer, more practical and more consistent so that national guidance and policy ambition is realised at the local level. Sustainable change in delivery happens when the desired processes and behaviours are embedded in the system and become the default way things get done.

Such system change involves identifying and influencing the system ‘actors’ who have the power, responsibilities and resources to make the change happen:

³⁷ Machado et al. How different attributes are weighted in professionals’ decision-making in Pediatric Dentistry. BMC Oral Health. 2024;24(1):474. doi:10.1186/s12903-024-04090-3. Available at: <https://pubmed.ncbi.nlm.nih.gov/38641652/>

- Authority – who can mandate that the change should happen?
- Incentives – what can be done to motivate and reward the change?
- Workflows – how can the default way that things get done be altered?
- Accountability – who will be held to account for making sure the change is effective and sustained?

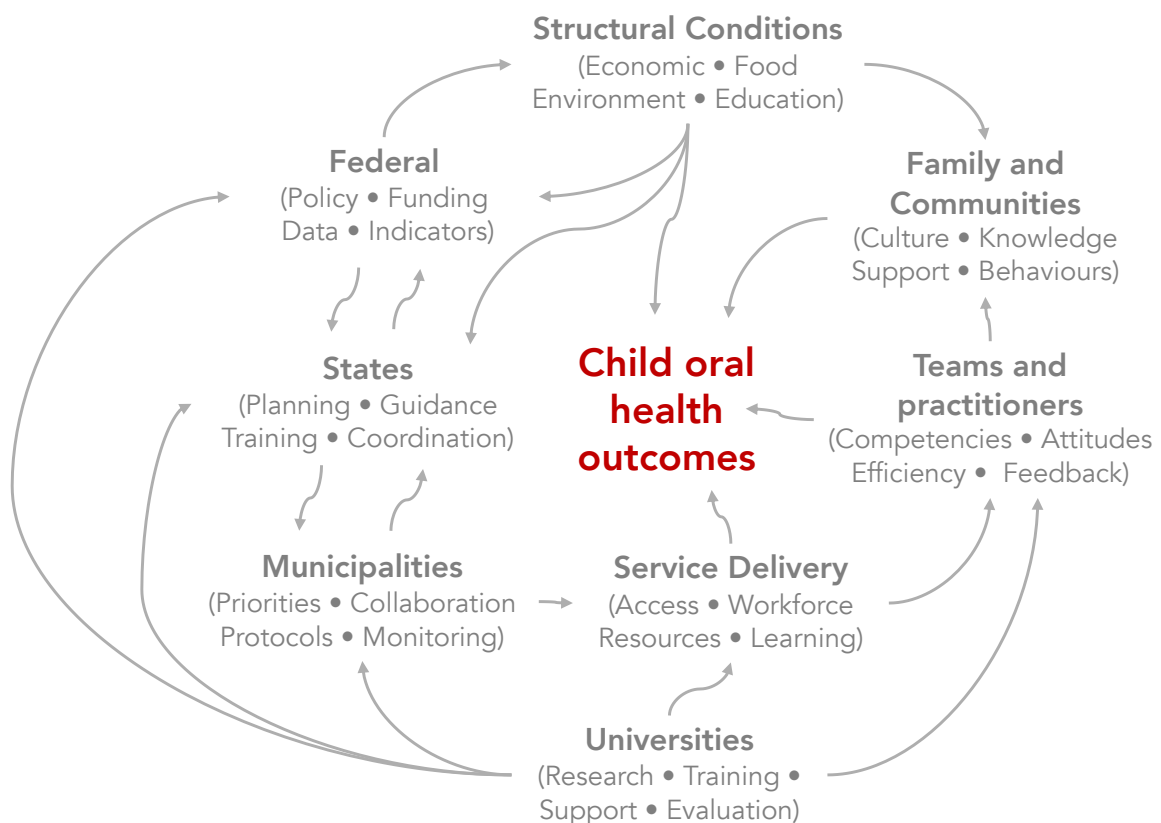
The diagram below shows the principal actors in Brazil’s oral health system.

Municipalities in particular are critical actors in translating national policy into improved delivery of oral health care and must be central to improving prevention and the use of MI care. However, many municipalities are still in the early stages of their planning on how to do this or are hesitant about how to make effective progress.

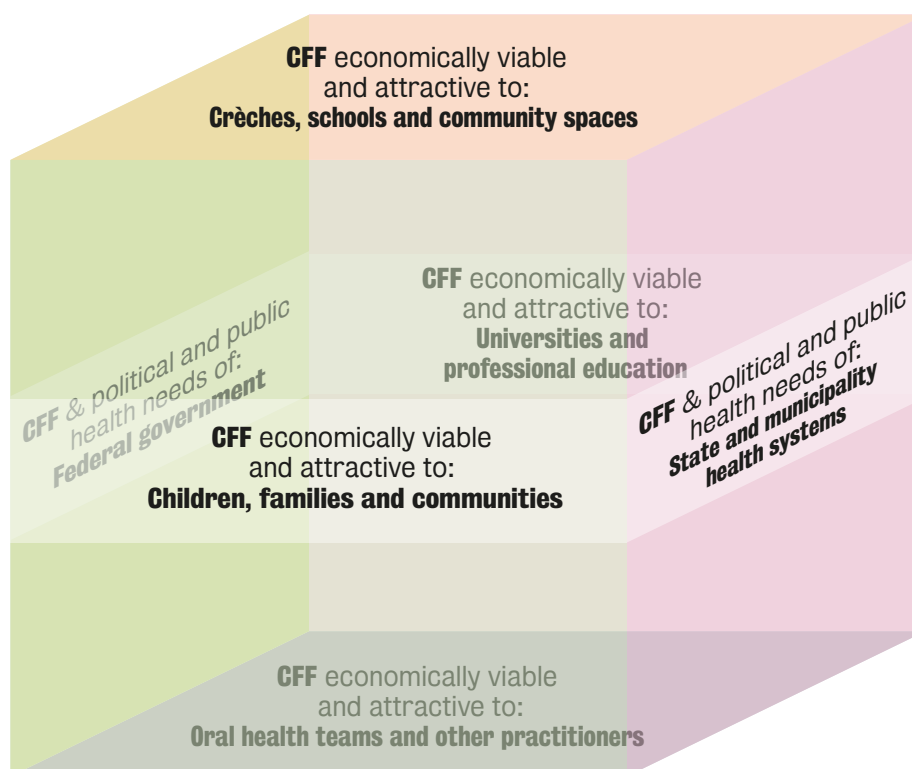
A major challenge for them is training and organising the workforce, as progress will depend on more than dentists.³⁸

Wider health teams, schools, teachers, community health workers, universities and civil society organisations all have important roles to play.

In addition to the municipalities, successful change will require the needs and interests of all stakeholders to be taken into account if successful and sustainable change is to be achieved.



38 Giralde, A. I. (2025). Implementação das diretrizes estaduais de saúde bucal em São Paulo e enfrentamento da cárie dentária em escolares: agenda para organização de serviços e Odontologia de Mínima Intervenção [Doctoral thesis, Universidade de São Paulo]. Faculdade de Odontologia, Universidade de São Paulo. DOI: 10.11606/T.23.2025.tde-14102025-114338



“CFF”: Cavity-Free Future

The needs and interests of different stakeholders presented using the ACFF’s Win6 Cube:

SIDE 1 – Children, families and communities

Having the knowledge and resources to help children avoid the harms of ECC and other diseases

SIDE 2 – Oral health teams and other practitioners

Having a sufficient and suitably trained oral health workforce (dental and other staff)

SIDE 3 – Federal government

Having cost-effective improvement in prevention, service delivery and outcomes

SIDE 4 – Universities and professional education

Having the evidence and capacity to train the workforce in prevention and MI care

SIDE 5 – State and municipality health systems

Having implementable actions that can deliver for local populations

SIDE 6 – Crèches, schools and community spaces

Having settings that enable children and their families/carers to access care and preventive support



4.4 Oral health quality indicators can be used to instigate change and to drive the data needed to monitor and evaluate impact

Experience has shown that the national oral health quality indicators, linked as they are to funding and performance assessment, are a powerful lever in shaping local implementation priorities. Extending these indicators to include additional preventive and MI measures can be used to trigger change at a local level. As well as providing a national overview of progress, the resulting data from tracking these indicators can help inform local decision-making and improve accountability.

There are also opportunities for widening the use of e-SUS to monitor food and diet, to make race, economic and other factors more transparent, and to designing indicators that reward health-promoting activity rather than only recording treatment once disease is advanced.

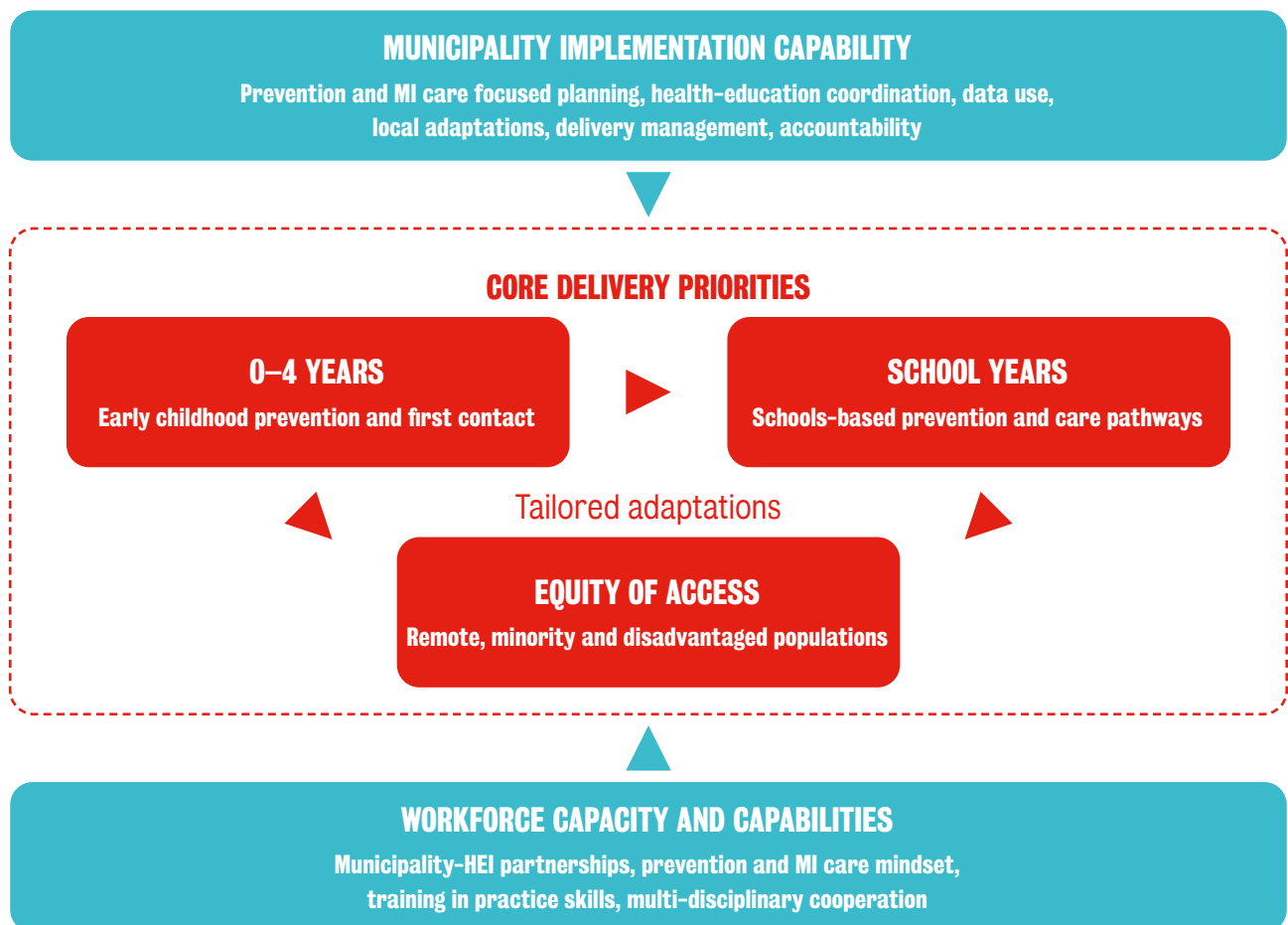
Underpinning all of this data collection is the need for accurate caries assessment that can feed into effective risk classification. While ICDAS is not currently used within Brazil public health services, the State of São Paulo has introduced a specific caries risk classification system which maps to the ICDAS extended caries categorisation. This new system is now being rolled out across Brazil with the aim of prioritising resolution of the most urgent treatment needs.³⁹

³⁹ USP, Implementation of the “Sorriso Feliz” Project to Strengthen Primary Oral Health Care in Early Childhood within Early Childhood Education in the State of São Paulo



5. Policy Lab proposals for action

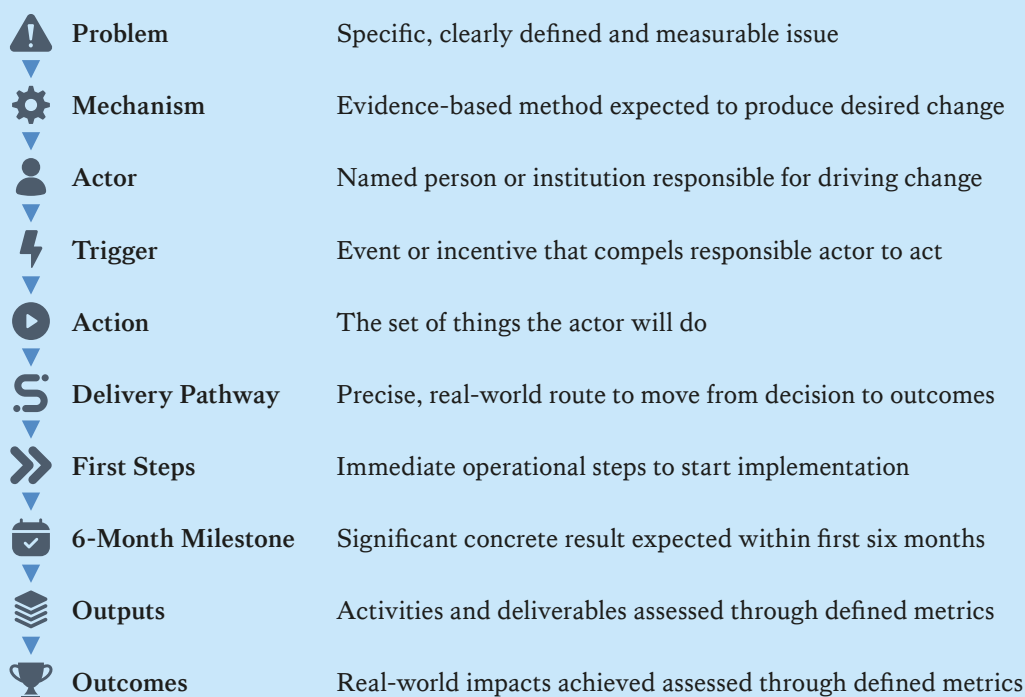
Five proposals for action from the Policy Lab



The Policy Lab participants generated five proposals for action:

1. Investing in prevention and very early first contact for the youngest children (0-4 years-of-age)
2. Strengthening the capability of municipalities to implement consistently effective prevention and MI care
3. Prioritising equitable access to oral health services for remote, minority and disadvantaged populations.
4. Instigating municipality-HEI partnerships to deliver evidence-based training and CPD on prevention and MI care
5. Formalising health-education co-operation to make the most of schools as a setting for oral health prevention and MI care.

An implementation delivery chain was used to guide the design of each action. This starts with clarifying the problem to be addressed and moves through the action to be taken to the outcomes to be achieved.



The remainder of this section considers each action in turn.

5.1 Investing in prevention and very early first contact for the youngest children (0–4 years-of-age)

The problem addressed

- Very young children (0–4 years) are not consistently reached by the oral health system before the first teeth develop
- Many children develop caries before they ever see a dental professional and disease progression is often advanced by age five
- Epidemiology does not detect earlier stage caries (first survey is at age five) and there is no way to monitor the on-going success of preventive and other interventions
- Earlier initiatives targeting pregnant women, new mothers and young children did not produce sustained improvements in oral health outcomes through later childhood
- Opportunities to identify risk and initiate prevention within maternal and child health services, early childhood care and community health programmes are not consistently used

- Dental professionals also vary in how strongly they prioritise arresting disease progression in deciduous teeth.

The mechanism for change

- Repeated education aimed at parents/carers to reduce dietary risks (especially sugar)
- Facilitating regular optimal fluoride use through twice-daily brushing
- Assessing children continually at a young age to build risk classification to target subsequent preventive support (eg sealants, varnishes, etc).

The actors to be involved

- Municipalities to build locality partnerships that include oral health teams, other parts of the health-care system which have contact with pregnant women and young mothers (eg maternity and infant services), creches and other childcare settings, and community organisations used by parents/carers with young children
- State and Municipality Oral Health Coordinators to:
 - fund and coordinate training that expands the workforce able to provide dietary and oral

health care advice to parents with the youngest children (eg nurses, creche staff, teachers and teaching assistants, other family-facing services)

- extend this capacity-building to include the skills needed to undertake an oral health assessment and refer children if there is a risk of disease progression.

The trigger for action

- Establishment of a specific set of health-focused indicators for very early childhood, initiated by the Ministry of Health as part of the Oral Health Indicators, with links to funding that flows through states to municipalities.
- The aim is to reward the maintenance of health rather than only the treatment of disease so that the system values children who remain healthy.
- An age-based approach offers the best formulation for these indicators:

Age 0	100% to have a visit from the oral health team
Age 1	100% have access to oral health advice 80% have daily supervised brushing 90% are caries-free in enamel 80% have diet low in sugar and ultra-processed foods
Age 2-4	100% have access to oral health advice 100% have daily supervised brushing 80% are caries-free in enamel 80% have diet low in sugar and ultra-processed foods 100% of children assessed to have risk of disease progression are referred for additional preventive intervention

The actions and delivery pathway

- Federal government to instigate new early childhood oral health indicators and tie funding to performance.
- States and municipalities to work together to:
 - establish local partnerships focused on very early childhood oral care, bringing together oral health teams with other health services (pregnancy, maternity wards, early childhood surveillance, vaccination appointments, community visits), childcare and community family services
 - create adaptable 'locality partnership' agreements which can bring relevant organisations together to collaborate

- adapt training to build wider workforce able to deliver oral health advice and undertake risk classification
- provide materials to support education on use of fluoride toothpaste, nutrition, diet and feeding practices
- ensure all very young children have e-SUS registration and referral for an initial home visit (within first year).

- Oral health teams to lead locality partnerships in organising regular contact with children, coordinating this by capturing relevant information on e-SUS.

The first steps

- Federal government to fund rapid economic modelling to demonstrate the health and financial value of early prevention building on available evidence.
- Federal government to draft and approve the oral health indicators and tie to available funding
- Federal government and states to develop implementation guidance for municipalities
- Municipalities in each state to identify demonstration localities where an initial set of partnerships can be trialled
- Launch partnerships in trial localities.

The six-month milestones

- Oral health indicators for the youngest children are in place
- Funding has been allocated to developing pilot locality partnerships
- Pilots are visibly operating in at least 10 municipalities with early evidence that the model can work in practice.

The longer-term outputs and outcomes

- Achievement of Oral Health Indicators
- A much higher proportion of children remaining cavity-free at age 5
- Improved oral and general health indicators in children starting school along with reductions in conditions associated with unhealthy diet.

5.2 Formalising health-education partnerships to make the most of schools as a setting for oral health prevention and MI care

The problem addressed

- Schools are an important setting where children and families can be reached early to improve how prevention is practised at home, yet oral health is not consistently integrated into school health education, family engagement or wider child health promotion.
- Co-ordination between the health and education sectors can be weak. Even though schools and teachers often provide access to children for oral health activities, they receive little or no feedback about what those activities achieve, which undermines joint ownership and the motivation to sustain engagement.

The mechanism for change

- Ensure that both health and education sectors see schools as settings in which attitudes, expectations and routines related to oral health are formed for children and parents alike (not simply as sites for delivering procedures).
- Demonstrate to the education sector the contribution it makes to oral health by sharing feedback on the activities and benefits from the oral health activities undertaken in schools.
- Establish much stronger joint working between the health and education sectors through integrated data, jointly developed protocols and technical notes.

The actors to be involved

- Federal government to support closer working between education and health in relation to oral health in schools
- States and municipalities to:
 - strengthen local working between health teams and schools
 - use integrated data to identify and share the impact of the collaboration.

The trigger for action

- An inter-departmental co-operation agreement on oral health to be established between the Ministries of Health and Education
- Renewed emphasis on oral health as a priority action within the School Health Program (PSE).

The actions and delivery pathway

- Establishment of a ‘Cavity-free Brazil’ national coalition that regularly brings together partners in health, education, social services and paediatric care to promote cooperation across these areas
- The published co-operation agreement between the Ministries of Health and Education
- Financial incentives put in place linked to health improvement targets at state and municipality level.

The first steps

- Establishing a workgroup to progress this proposal
- Convening initial discussions with the national leaderships of the oral health and school health programmes.

The six-month milestones

- The coalition established with a 6-monthly meeting schedule in place.
- Oral health re-emphasised as a PSE priority (and ideally visible in the next PSE ordinance).

The longer-term outputs and outcomes

- Outputs:
 - Published guidance on health-education co-operation working to use schools for oral health prevention
 - Technical notes standardising actions between health and education
 - Training of 60% of oral health teams
 - Integrated data system
- Outcomes at two years:
 - Fewer children at high caries risk
 - Lower rates of urgent care among children.

5.3 Prioritising equitable access to oral health services for remote, minority and disadvantaged populations

The problem addressed

- Children in remote and disadvantaged communities receive far less prevention and early care.
- Minority race and ethnic groups (eg black and brown) and those disadvantaged by social or economic conditions also experience lower access, later presentation, poorer care and, in some cases, weaker technology provision.
- Delayed and lower-quality access contributes to higher rates of extraction and worse health outcomes, a pattern that is both unjust and preventable.

The mechanism for change

- Implement 'active case finding' strategies in every territory to identify overall where the greatest needs are and to prioritise individual cases.
- Expand and coordinate the local oral health workforces (oral health teams plus those in health, education, and other organisations) to improve the effectiveness of outreach.
- Ensure the consistent use of risk classification and prioritisation methods to identify real need and prioritise interventions.
- Identify where already existing service programmes and strategies (eg fluoridation, use of mobile units, etc) are not being implemented in the places that need them most.

The actors to be involved

- National coordination bodies focused on black and indigenous populations
- Ministry of Health
- State and municipality health secretariats and oral health coordinators
- Local oral health teams
- Local communities and civil society
- Universities
- Industry and funding organisations.

The trigger for action

- Equity needs to be written into the incentive architecture, not left as a general aspiration that the system may or may not act on.
- This is best achieved by instigating a national oral health equity indicator.

- Ideally this should be created by adapting an existing population-linkage or engagement indicator so that it becomes specific to oral health and sensitive to inequity.

The actions and delivery pathway

- Strengthen the articulation of oral health equity considerations within broader oral health/health strategic plans
- Map local populations to identify needs
- Dialogue with oral teams and communities to understand local realities (including existing service coverage, levels of community trust and engagement, etc).
- Development of evidence-based strategies, implementation guidance, and practical tools (with input from the communities they are intended to serve) to help municipalities prioritise access.
- Regular feedback to policy makers and communities, with transparency in how race and ethnicity data is captured and used to build trust and avoid biases.

The first steps

- Creation of a working group to plan initiation of the local mapping exercise.
- Drafting strategies and implementation guidelines with representative actors.

The six-month milestones

- Representative working group established and operating
- Initial draft strategies and implementation guidance in place
- Public consultation underway on proposals.

The longer-term outputs and outcomes

At two years:

- National oral health indicator modified to reflect equality of access
- Implementation guidance and practical toolkits to support prioritisation fully rolled out
- Local mapping and population engagement processes completed in all municipalities.

At five years:

- Significantly improved access for relevant populations:
 - 50% increase in preventive interventions
 - 50% increase in PCOP (initial scheduled dental appointment)
 - 50% increase in completed MI treatments

- Increased awareness of available preventive support and MI care amongst remote, minority and disadvantaged communities.

5.4 Strengthening the capability of municipalities to implement consistent effective prevention and MI care

The problem addressed

- Municipal health systems vary widely in their ability to translate national oral health policy into consistent prevention and minimally interventive (MI) care across the very varied social contexts and large numbers of oral health teams.
- National directives can lose force before they reach practical delivery, and local routines often default towards ART alone rather than a fuller prevention-plus-MI model.
- Many municipality managers lack practical guidance, operational tools and implementation support to embed prevention and MI approaches.
- Other challenges include procuring materials, redesigning clinical workflows, organising and training the workforce, and supporting teams to shift practice towards earlier disease arrest and prevention.
- As a result, prevention and MI care are implemented unevenly despite strong national policy direction.

The mechanism for change

- Creation of a stronger implementation chain including:
 - a consistent definition of what constitutes effective prevention and MI care and a vision of what successful implementation can look like in a variety of different settings
 - much more effective communication across levels of government, from federal to state to municipal level (including articulating the case for change based on health, population and economic benefits)
 - more practical support to strengthen the oral-health coordination roles at both state and municipality levels.
- Improving municipality implementation capability by:
 - translating policy into municipality delivery protocols

- providing procurement guidance and service planning tools
- being clear on the roles to be played (eg how health-education partnerships can work).

The actors to be involved

- Federal government to:
 - be clearer on what constitutes effective prevention and MI
 - establish additional oral health indicators to cover a wider range of MI interventions linked to funding
 - strengthen state oral health coordinator roles (creating or formalising these where they are currently weak or absent)
 - create template delivery protocols, procurement guidance, service planning tools and partnership agreements that can be tailored at a state and municipality level.
 - State oral health coordinators to:
 - work with municipality oral health coordinators to ensure a more consistent translation of federal policies into local implementation
 - develop the necessary delivery protocols guidance on oral health coordinators to cooperate across health, education and social services.
 - Municipality oral health coordinators to:
 - take responsibility for ensuring that local implementation reflects the ambition of national policy
 - make use of resources and guidance provided by state and federal government to build a broader workforce focused on oral health, establish the necessary local partnerships and ensure that procurement and service planning delivers effective prevention and MI care for children.
- ### The trigger for action
- A widely shared national vision of what can be achieved through prevention and MI care, making the gains visible and credible rather than abstract
 - Additional Oral Health Indicators that fund the whole range of effective prevention and MI approaches (including those that are tied to the value of keeping children healthy at different ages).

The actions and delivery pathway

- Initiate communication across government and across health and education to begin planning for more consistent implementation
- Put in place municipality delivery protocols needed to deliver required actions (eg put in place materials procurement, undertake workforce development, distribute protocols for prevention and MI care, etc)
- Capability building:
 - training on delivering prevention and MI care to different parts of the workforce (eg oral hygiene guidance, supervised tooth brushing protocols, etc)
 - introducing the more detailed risk classification system
 - ensuring acquisition of the necessary equipment, instruments and supplies (eg oral health kits)
 - establishing referral pathways for those at risk of disease progression.

The first steps

- Establish new oral health quality indicators to support health and promote prevention and MI care
- Seek federal and state funding to support a more consistent implementation of national policy
- Develop draft municipality delivery protocol.

The six-month milestones

- 50% coverage of preventive oral health actions
- 25% of treatments are MI care in participating municipalities.

The longer-term outputs and outcomes

- At two years:
 - 75% coverage of preventive oral health actions
 - 50% of treatments are MI care in participating municipalities.
- At three years:
 - Reduced caries severity
 - Fewer urgent visits in primary care
 - 85% of schools monitored by the School Health Programme
 - 95% of care needs resolved in primary care.

5.5 Instigating municipality-HEI partnerships to deliver evidence-based training and CPD on prevention and MI care

The problem addressed

- Clinical culture and practice do not consistently prioritise prevention and MI care over more invasive treatment.
- Where attempts at MI care are considered, it is more likely to involve expanding ART rather than increasing efforts aimed at prevention.
- Professional education and continuing professional development (CPD) are failing to shift this culture as it often places insufficient priority on prevention and MI care in the curriculum or does not ground its work in the latest scientific evidence.
- Oral health teams often lack access to continuing education in MI care that can translate into practical service delivery.
- Approaches to caries assessment, prevention and MI techniques vary across training institutions, causing confusion and contributing to differences in clinical practice.

The mechanism for change

- Ensuring training and continuing education of all oral health teams in the application of preventive and MI care approaches.
- Delivering this training and continuing education through formal, continuous and sustainable partnerships between municipality health services and their local higher education institutions.
- Partnership structures must be able to function even where a municipality does not have a university of its own.
- Basing the training and continuing education provided in every territory on the same latest scientific evidence and implementation best-practice.
- Professionals are more likely to adopt MI approaches when training addresses not only the technical content but also the comfort, simplicity, practicality and confidence needed to use it in real service conditions.
- The aim is not a one-off training course, but an enduring bridge that can translate evidence into practice and survive political change.

The actors to be involved

- The Ministry of Health's General Coordinator of Oral Health to stimulate local higher education collaborations across the whole country
- State and municipality health secretaries and health managers to form up the partnerships with local higher education institutions
- Institutional managers at higher education institutions who can formalise the partnerships on behalf of the universities.

The trigger for action

- A Ministry of Health oral health quality indicator that places value on the oral health workforce undertaking continuing education during working hours.
- Secondary triggers include:
 - Municipal guidelines linked to the indicator
 - Ministry of Health guidance or funding mechanisms that enable partnerships for municipalities that do not have a local university capable of delivering appropriate training.

The actions and delivery pathway

- Creation of a Ministry of Health indicator
- Development of guidelines for municipalities on how to create effective health-HEI partnerships
- Local mapping of oral health teams baselines knowledge/skills and training/development needs
- Forming up of potential partnerships by building on existing contacts and networks supported by the Ministry of Health
- Formalisation of partnerships with development of joint action plans
- Implementation of educational and CPD activities
- Measurement of the reach of educational activities
- Feedback on the impact of education on service design and care provided
- Improvement cycle to further develop knowledge base and refine future education and training.

The first steps

- Creation of Ministry of Health indicator
- Knowledge mapping and assessment of readiness for change among oral health teams and municipalities in the use of prevention and MI care.

The six-month milestones

- Instigation of the new oral health indicator focused on continuing education for oral health teams
- At least 250 new municipality-HEI partnerships established across Brazil
- Examples of joint municipal action plans for continuing education under development.

The longer-term outputs and outcomes

- At two years:
 - structured continuing education for prevention and MI care operating across at least 50% of municipalities
 - 80% or more of oral health teams trained in participating municipalities
 - at least 60% of oral health teams can demonstrate a measurable improvement in their readiness for change.
- At three years:
 - structured continuing education for prevention and MI care operating across at least 70% of municipalities
 - a 60% increase in the number of preventive MI procedures (eg guidance, fluoride, SDF, sealants)
 - a 50% increase in curative MI procedures (eg ART)
 - 90% of oral health teams trained in prevention and MI care.



6. Next steps: moving from proposals to sustained delivery

The Brazil Policy Lab demonstrated both the scale of the challenge and the strength of the opportunity. It brought together people with different responsibilities, expertise and experience, but with a shared belief that childhood caries can be prevented, detected earlier and managed in ways that protect children's health, confidence and future wellbeing.

The energy and positivity generated during the Policy Lab now need to translate into practical action. The quality of the proposals shows that Brazil does not need to start from scratch. It already has strong policy foundations, professional commitment, local experience, academic expertise and a growing evidence base for prevention and MI care. The five proposals from the Policy Lab all build on this.

The next step is to turn these proposals into working models that scale up to become routine practice across the whole country, all with the aim of delivering measurable improvements for children and families. This section presents a proposal for how that can be organised.

6.1 Coordinated action should progress at different levels

Successful change within Brazil requires alignment at every level of government, practical and feasible ways to implement improvements, and locally owned delivery. Consequently, the Policy Lab proposals cannot be implemented by a single organisation or through a purely top-down process. Instead, they require:

- a national launchpad to create the shared conditions for action
- working groups to turn each proposal into a practical delivery model
- municipality-led partnerships to adapt and sustain implementation in real settings
- a broad coalition of partners from across different sectors whose cooperation is essential in reaching children earlier and more consistently.

This multi-level model is intended to provide a time-limited way to mobilise action in a way that complements existing structures. It helps clarify who needs to initiate the work, who needs to develop it, and how lasting change can be embedded locally.

A national launchpad to create the shared conditions for action

It is proposed that a reconstituted ACFF Brazil Chapter act as a national launchpad for the next phase of work. Its role would be to support federal, state, municipality, academic and professional stakeholders to convene, connect and create the shared conditions that make delivery possible.

This would include:

- Agreeing a strengthened set of national oral health quality indicators
- Developing and testing an improved child oral health assessment/risk-classification tool
- Strengthening how oral health data is captured, analysed, fed back and used for improvement across the system
- Maintaining national momentum and visibility for the five proposals
- Helping identify early demonstration sites and supporting learning between them.

Aiming for widespread adoption of an improved child oral health assessment/risk-classification tool is an especially important task. This could be done by adapting and strengthening existing Brazilian caries risk classification tools to ensure they capture earlier-stage disease in a way that is clinically useful, feasible for oral health teams, compatible with e-SUS and aligned with ICDAS principles.

Adoption of this tool is crucial not only to properly understand the epidemiology of dental caries as a disease, but to have it as a delivery tool in helping identify which children need advice, prevention, MI care, referral or follow-up.

Working groups to turn each proposal into a practical delivery model

Each of the Policy Lab proposals needs a working group whose role would be to develop, test, refine and spread practical delivery models. They should help create routes into local delivery through municipalities, schools, higher education institutions, health services and community partners (not to centralise implementation).

These working groups should be time-limited (eg with a 12-month mobilisation ambition) and given a clearly defined remit:

- refine the proposal
- define the minimum viable delivery model
- suggest adaptations that could work in different localities
- identify policy, data, training and procurement requirements
- select or support demonstration sites
- set short- and medium-term delivery milestones
- define the necessary assessment, monitoring and evaluation requirements
- feed learning back into the ACFF Brazil Chapter.

Municipality-led partnerships to adapt and sustain implementation in real settings

Responsibility for implementing the delivery models created by the Policy Lab proposal working groups would rest with local partnerships initiated and led by municipalities. A key role of these partnerships will be to adapt the delivery models to reflect the realities of their different localities and population groups.

The composition of local partnerships will vary by proposal as shown in the table below.

A broad coalition of partners from across different sectors

All the Policy Lab proposals rely on partners from several sectors working in more aligned and collaborative ways. This includes:

- Oral health
- Paediatric health
- Maternity and early childhood services
- Education
- Community organisations and families.

PROPOSAL	KEY PARTNERS
Proposal 1: 0–4 years	<ul style="list-style-type: none"> • Oral health teams • Maternity/infant care • Vaccination services • Crèches • Community health workers • Family-facing services
Proposal 2: Municipality health and education departments	<ul style="list-style-type: none"> • Schools • School leaders • PSE structures • Oral health teams. • Procurement leads
Proposal 3: Equity of access	<ul style="list-style-type: none"> • Municipality health leaderships • Community organisations • Indigenous/Black/Brown population representatives • Mobile teams • Universities • Data teams
Proposal 4: Municipality implementation capability	<ul style="list-style-type: none"> • State and municipality oral health coordinators • Oral health teams • Procurement and service planning leads • Data teams
Proposal 5: Workforce capacity and capabilities	<ul style="list-style-type: none"> • Municipality health leaderships • Higher education institutions • Professional bodies • Local training providers

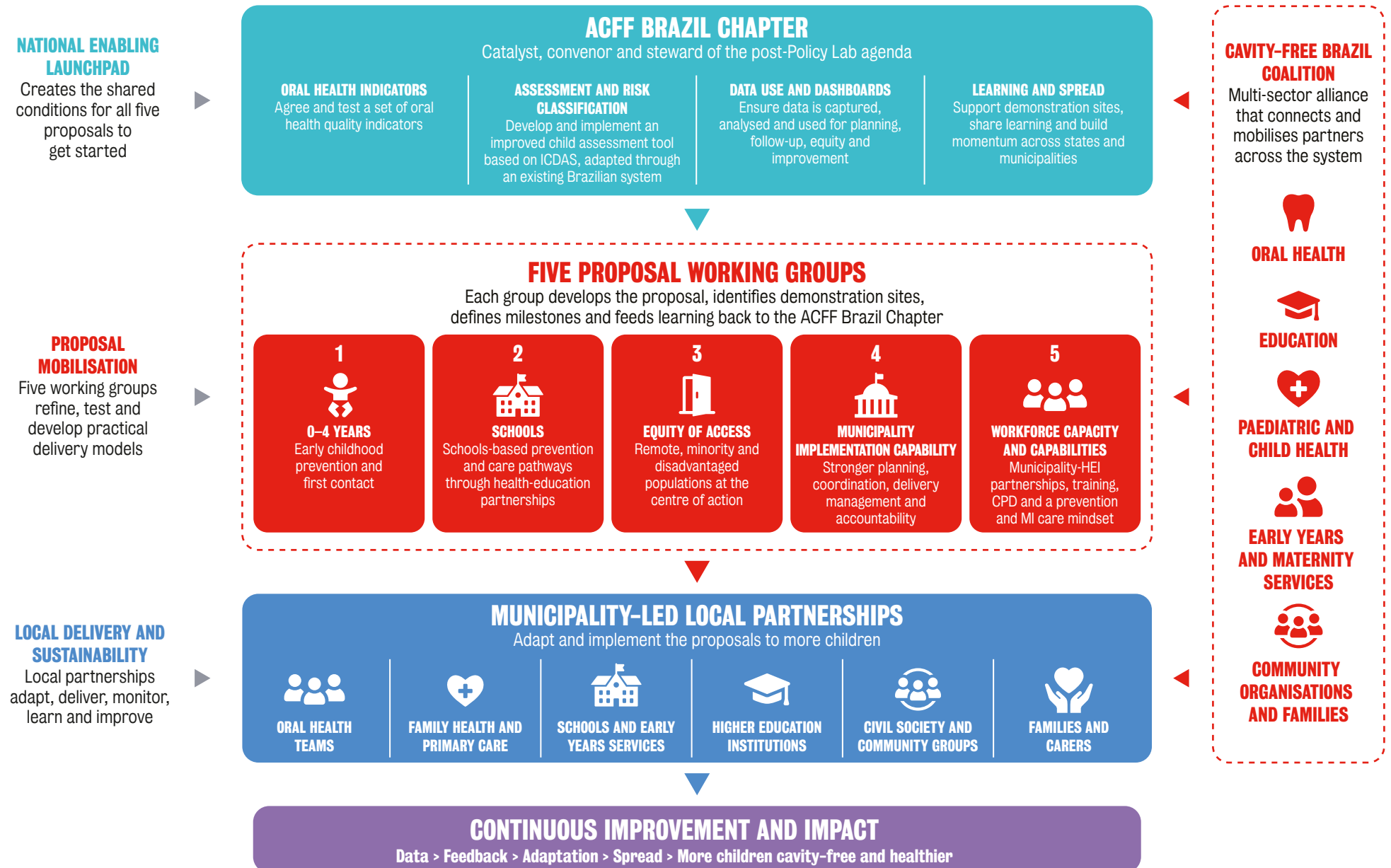
To foster this cross-sector connection, it is proposed to establish a 'Cavity-Free Brazil' coalition (an implementation idea from one of the five Policy Lab proposals). Complementing the work of the national launchpad and proposal working groups, the coalition should:

- build shared commitment, ensure that prevention and MI care are embedded in the thinking of all partner organisations
- raise awareness of the proposals, mobilise resources to assist with these and help identify demonstration sites
- provide a regular overview of what is happening across partners, spotting opportunities for further collaboration and avoiding fragmentation.

Please see the proposed model for coordinated action at different levels on the following page.



The proposed model for coordinated action at different levels



The proposed responsibilities for each of the main actors

ACTOR	MAIN RESPONSIBILITIES	WHAT IT SHOULD NOT BECOME
ACFF Brazil Chapter	National-level catalyst, convenor and steward of the post-Policy Lab agenda; supports the initial enabling work on indicators, assessment and data	A parallel delivery authority or substitute for federal, state or municipal responsibilities
Cavity-Free Brazil coalition	Multi-sector alliance bringing together oral health, education, paediatric health, early childhood services, community organisations and families	A national umbrella body directing implementation
Five proposal working groups	Develop the five proposals into practical delivery models, identify demonstration sites, define milestones and support early learning	Permanent committees disconnected from delivery
State and municipality oral health coordinators	Translate national ambition into practical implementation support, protocols, training, procurement and accountability	Passive recipients of national guidance
Municipality-led local delivery partnerships	Deliver the changes in real settings: homes, clinics, schools, crèches, communities and mobile/outreach services	One-size-fits-all implementation models
Higher education institutions	Support training, CPD, assessment development, evaluation and evidence-to-practice translation	Occasional external trainers only
Data and improvement teams	Turn indicators and assessment data into practical feedback for planning, prioritisation and improvement	Data collection for reporting only

6.2 Further work on upstream public health interventions could follow

A further strand of work should consider the upstream conditions that shape children's oral health before they reach services. The Policy Lab focused on practical proposals that can be taken forward quickly, but longer-term progress will also depend on stronger action to:

- reduce sugar exposure
- protect and extend effective water fluoridation
- shift public attitudes towards primary teeth, diet, brushing and early prevention.

This should include exploring how oral health can be built into wider child health, nutrition, education and non-communicable disease strategies, and how large-scale public communication can make cavity prevention a shared expectation across families, schools, communities and services.

Both the ACFF Brazil Chapter and the Cavity-Free Brazil coalition could extend their support to these areas once progress with the initial five Policy Lab proposals has been achieved.

6.3 The ACFF commitment

The proposals in this report will need to be refined, adapted and owned by those responsible for policy, implementation, education, professional practice and community engagement in Brazil. The ACFF will stand alongside those partners, supporting this next phase of work in line with its role as advisor and facilitator. This could include:

- helping to convene stakeholders
- connecting Brazilian leaders with international learning
- supporting the development of a Brazilian ACFF Chapter
- maintaining focus on the shared goal of a cavity-free future for children.

In whatever ways the ideas from the Policy Lab are taken forward, ACFF is committed to supporting all those in Brazil who aspire to a future where the pain and harm of tooth decay in childhood becomes a thing of the past.

List of potential additions and modifications to Brazil's oral health quality indicators

Below are candidate indicators for development and testing with a view to using either at a national level for funding and accountability or locally for delivering demonstration sites, dashboards or improvement learning.

A. Early childhood oral health indicators: 0–4 years

Age 0

- 100% of children to have a visit from the oral health team

Age 1

- 100% have access to oral health advice
- 80% have daily supervised brushing
- 90% are caries-free in enamel
- 80% have diet low in sugar and ultra-processed foods

Age 2–4

- 100% have access to oral health advice
- 100% have daily supervised brushing
- 80% are caries-free in enamel
- 80% have diet low in sugar and ultra-processed foods
- 100% of children assessed as at risk of disease progression are referred for additional preventive intervention

B. Expanded prevention and MI care indicators

- Inclusion of silver diamine fluoride use
- Inclusion of fluoride varnish use
- Inclusion of sealants
- Inclusion of broader cariostatic agents
- Stronger capture of non-operative preventive care
- Stronger capture of minimally interventive care beyond ART
- Indicators that reward children remaining healthy, not only procedures delivered after disease is present

C. Workforce development indicator

- Ministry of Health oral health quality indicator that values oral health teams undertaking continuing education during working hours
- Measures of workforce coverage, such as proportion of oral health teams trained in prevention and MI care
- Measures of improvement in readiness for change or practical competence in prevention and MI care

D. School oral health / PSE-linked indicators

- Proportion of schools monitored by the School Health Programme for oral health activity
- Coverage of school-based preventive oral health actions
- Proportion of children receiving supervised toothbrushing in school or early-years settings
- Proportion of children identified as high-risk who receive referral/follow-up
- Shared health-education feedback measures showing what school-based oral health actions achieved

E. Equity of access indicator

- A national oral health equity indicator, ideally adapted from an existing population-linkage or engagement indicator
- Access measures disaggregated by geography, race/ethnicity, socioeconomic status and remote/community status
- Increase in preventive interventions for remote, minority and disadvantaged populations
- Increase in first scheduled dental appointments among priority populations
- Increase in completed MI treatments among priority populations
- Transparent use of race and ethnicity data to support accountability and trust

F. Data-use and implementation indicators

- Proportion of municipalities using detailed and timely oral health data for local planning and improvement
- Proportion of oral health teams with usable dashboards or feedback loops
- Proportion of children with oral health risk classification recorded in e-SUS or linked systems
- Proportion of referred children receiving follow-up
- Proportion of municipalities with active health-education or municipality-HEI partnership agreements



Glossary of key terms

This glossary defines how the terms are used in the context of this report. It does not aim to provide an update to already existing definitions.

ART

Atraumatic Restorative Treatment - preparation and filling of cavities with hand instruments and minimal tissue removal.

CAVITY

A tooth with caries that has progressed far enough to produce a collapse in the integrity of the outer enamel, exposing the inner dentine. This stage of caries typically leads to a restoration or filling.

CARIES PREVALENCE

A population measure of the disease experience. Traditionally, survey methods have only recorded some later stages of caries (using the DMFT index) at the cavity threshold (D3MFT). More recently, comprehensive assessments of both early- and late-stage disease provide an estimate of the total caries present.

CARIES PREVENTION AND CONTROL

The continuing assessment and management of teeth to avoid caries development, spot early-stage dental caries, prevent the development of cavities, and avoid the need for restorative treatment.

DENTAL CARIES

Dental caries (or tooth decay) is a chronic disease which adversely affects the mineralization of teeth. It is influenced by multiple biomedical factors such as diet (especially sugar consumption), the oral microbiome, and tooth integrity.

DMFT

An index for measuring Decayed, Missing and Filled Teeth.

EARLY CHILDHOOD CARIES (ECC)

The presence of one or more decayed (non-cavitated or cavitated lesions), missing or filled surfaces in any primary tooth of a child under six years of age.

E-SUS

The electronic health information system used within Brazil's Unified Health System (SUS).

INTERNATIONAL CARIES CLASSIFICATION AND MANAGEMENT SYSTEM (ICCMS)

A framework linked to ICDAS and CariesCare International to support prevention-oriented clinical decision-making.

INTERNATIONAL CARIES DETECTION AND ASSESSMENT SYSTEM (ICDAS)

A harmonised system for caries detection and assessment that captures disease at earlier and later stages, enabling more informed clinical and public health decision-making.

GLOCAL

Glocal – a concept promoted by the ACFF in which global evidence is applied locally.

HEALTH OUTCOMES

Benefits to a patient (or group of patients) as the result of a series of interventions.

MINIMALLY INTERVENTIVE CARE

An approach that prioritises prevention, early detection, non-invasive or minimally invasive intervention and preservation of tooth structure. Sometimes understood through the linked ideas of comfort, simplicity, effect, best available evidence, patient preference and resource allocation.

NON-COMMUNICABLE DISEASES (NCDs)

Medical conditions or diseases that are not caused by classical infectious agents. NCDs can refer to chronic diseases which last for long periods of time and progress slowly.

ORAL HEALTH TEAM

The oral health workforce operating within Brazil's primary care system, typically alongside family health teams.

PAYMENT SYSTEM

The system that generates payments which directly determine or influence the personal income of the primary care dentist.

PREVENTION – PRIMORDIAL

Prevention of the risk factors of the disease.

PREVENTION – PRIMARY

Prevention of the disease (in the absence of the disease).

PREVENTION – SECONDARY

Prompt detection of early-stage disease to provide effective arrest and/or regression of caries prior to the cavity stage.

PREVENTION – TERTIARY

Prevention applied to later stages of caries (cavity stage). It aims to prevent further hard tissue destruction, pulpal involvement, and tooth loss, and restore function and aesthetics while preventing the initiation of new disease.

PREVENTION – QUARTEINARY

Prevention of medical harm from over-medicalisation or overtreatment.

PREVENTIVELY ORIENTED PATHWAY

A clinical pathway which includes determining caries risk, detecting and assessing caries lesions, deciding on appropriate care from a menu of preventive and operative choices, and doing patient centred, tooth preserving care. [ICCMSTM / CariesCare International 4D is an example of such a preventively oriented pathway.]

PROGRAMA SAÚDE NA ESCOLA (PSE)

The School Health Programme — Brazil's integrated health and education programme.

RESTORATIVE – ONLY PATHWAY

A clinical pathway from diagnosis to treatment planning which relies solely on surgical intervention as the treatment.

SDF

Silver Diamine Fluoride – a therapeutic intervention involving painting SDF fluid on open, unrestored caries lesions to promote their arrest.

SISTEMA ÚNICO DE SAÚDE (SUS)

Brazil's Unified Health System.

WHO

The World Health Organisation.

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References

1. Ministry of Health, National Oral Health Survey – SB Brazil 2010
2. Ministry of Health, National Oral Health Survey – SB Brazil 2023
3. Villena, R. S., & Pitts, N. B. et al. (2025). ICDAS adaptation for early childhood caries: An epidemiological study in 11 Latin American countries. *JDR Clinical & Translational Research*. <https://doi.org/10.1177/23800844251368372>
4. Kemparaj, V. M., Aradhya, M. R. S., & Umashankar, G. K. (2021). Global trends in dental caries among 12-year-old children – A review. *Journal of Indian Association of Public Health Dentistry*. <https://doi.org/10.4103/2319-5932.185142>
5. Vukovic, A., et al. (2025). Caries status in 12-year-old children, geographical location and socioeconomic conditions across European countries: A systematic review and meta-analysis. *International Journal of Paediatric Dentistry*, 35(2), 201–215. <https://doi.org/10.1111/ipd.13245>
6. Global Data on Dental Caries Prevalence (DMFT) in Children Aged 12 years, WHO, 2000
7. Ministry of Health, National Oral Health Survey – SB Brazil 2023
8. Meyer, F., & Enax, J. (2018). Early Childhood Caries: Epidemiology, Aetiology, and Prevention. *International Journal of Dentistry*, 2018, Article 1415873. <https://doi.org/10.1155/2018/1415873>
9. Machiulskiene, V., et al., Terminology of Dental Caries and Dental Caries Management: Consensus Report of a Workshop Organized by ORCA and Cariology Research Group of IADR. *Caries Res*, 2020. 54:7–14. DOI: 10.1159/000503309
10. <https://www.who.int/publications/i/item/9789240090538>
11. https://cdn.who.int/media/docs/default-source/ncds/mnd/oral-health/bangkok-declaration-oral-health.pdf?sfvrsn=15957742_4
12. <https://www.who.int/publications/i/item/9789240116948>
13. World Health Organisation, WHO Model List of Essential Medicines- 22nd list, 2021. Accessed 01/02/2021; Available from: <https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2021.02>
14. World Health Organisation, WHO Model List of Essential Medicines for Children - 8th list, 2021. Accessed 01/02/2023; Available from: <https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2021.03>
15. Glick, M., et al. Vision 2030: Delivering Optimal oral Health for All. Geneva: FDI World Dental Federation, 2021
16. The Alliance for a Cavity-Free Future, Accessed 20/02/2025; Available from: <https://www.acffglobal.org>
17. Pitts, N. & Mayne, C. A Global Consensus for Achieving a Dental Cavity-Free Future. 2021 DOI: 10.18742/pub01-045
18. Vernazza, C., et al.,. Dental Policy Lab 1- towards a cavity-free future. *Br Dent J*, 2021. 231,754–758. DOI: 10.1038/s41415-021-3723-3
19. Mazevet, M., Pitts, N. & Mayne, C. Dental Policy Lab2-towards paying for health in dentistry. *Br Dent J*, 2021.231,759–763. DOI: 10.1038/s41415-021-3725-1
20. Pitts, N.,et al., Dental Policy Lab 3: towards oral and dental health through partnership. *Br Dent J*, 2021. 231,764–768. DOI: 10.1038/s41415-021-3733-1
21. Pitts, N., Pow, R. (2023). Towards a Cavity-Free Future for Infants and Children in Canada: Given recent developments in oral health care policy and practice in Canada and internationally, what else is needed in terms of investments or other conditions to maximize caries prevention and care amongst infants and children? doi.org/10.18742/pub01-111
22. Pitts, N., Pow, R. (2025). Towards a Cavity-Free Future for Infants and Children in South Africa: Building on the best available evidence and practice, how can a small number of innovative pilots, focused on measurable impact in caries prevention and care for those aged 0-6, be designed and implemented with a view to sustainable national rollout? doi.org/10.5281/zenodo.15088641
23. Pitts, N. B. et al. (2014). ICCMS™ Guide for Practitioners and Educators. Global Collaboratory for Caries Management. <https://doi.org/10.5281/zenodo.853106>
24. Martignon, S., et al., Caries Care practice guide: consensus on evidence into practice. *Br Dent J*, 2019.227,353–362. DOI: 10.1038/s41415-019-0678-8.
25. World Dental Federation, Caries lesions and First Restorative Treatment. Accessed 20/02/2025; Available from: <https://www.fdiworlddental.org/carious-lesions-and-first-restorative-treatment>
26. Caries Care International, Caries Care International. Accessed 01/02/2023; Available from: <https://cariescareinternational.com/>
27. Martignon, S., Beltrán, E., Douglas, G. et al. How did CariesCare International perform under pandemic conditions in children? A one-year, multicentre, single-group, interventional study. *Br Dent J* (2025). <https://doi.org/10.1038/s41415-025-8640-4>
28. Tinanoff N, Baez RJ, Diaz, Guillory C, et al. Early childhood caries epidemiology, aetiology, risk assessment, societal burden, management, education, and policy: Global perspective. *Int J Paediatr Dent*. 2019;29:238-248. <https://doi.org/10.1111/ipd.12484>
29. Ministère des Solidarités et de la Santé. Expérimentation prévention et intervention minimale en santé orale (EXPRESO). *Journal Officiel de la République Française*, 2021.0068.
30. Marmot M. Closing the health gap. *Scandinavian Journal of Public Health*. 2017;45(7):723-731. doi:10.1177/1403494817717433
31. Brazilian Ministry of Health. e-Gestor Atenção Básica and SISAB – Sistema de Informação em Saúde para a Atenção Básica. Brasília: Ministério da Saúde. Available at: <https://egestorab.saude.gov.br/> and <https://sisab.saude.gov.br/> (Accessed: 25 May 2026).
32. Ministry of Health Ordinance No. 3,493, of April 10, 2024
33. <https://sisaps.saude.gov.br/sistemas/siaps/>
34. <https://site.fo.usp.br/noticias/projeto-crianca-sorridente-tem-coordenacao-de-duas-docentes-da-casa/>
35. <https://www.dropbox.com/scl/fi/ydhpnw2n867gffun74hz2/Using-Policy-Labs-as-a-process-to-bring-evidence-closer-to-public-policy-making-a-guide-to-one-approach.pdf?rlkey=lmrf8hkkhp31pi2uf37yyson&e=1&dl=0>
36. WHO Guideline on environmentally-friendly and less invasive oral health care for preventing and managing dental caries. Available from: <https://www.who.int/publications/i/item/9789240116948> (accessed 27/05/2026)
37. Machado et al. How different attributes are weighted in professionals' decision-making in Pediatric Dentistry. *BMC Oral Health*. 2024;24(1):474. doi:10.1186/s12903-024-04090-3. Available at: <https://pubmed.ncbi.nlm.nih.gov/38641652/>
38. Giralde, A. I. (2025). Implementação das diretrizes estaduais de saúde bucal em São Paulo e enfrentamento da cárie dentária em escolares: agenda para organização de serviços e Odontologia de Mínima Intervenção [Doctoral thesis, Universidade de São Paulo]. Faculdade de Odontologia, Universidade de São Paulo. DOI: 10.11606/T.23.2025.tde-14102025-114338
39. USP, Implementation of the “Sorriso Feliz” Project to Strengthen Primary Oral Health Care in Early Childhood within Early Childhood Education in the State of São Paulo

Executive Summary

Towards a Cavity-Free Future for Children in Brazil – Outcomes from an ACFF Policy Lab in São Paulo, March 2026

1. The Challenge: More than 80% of children in Brazil suffer the pain and other problems of untreated tooth decay

- The problem starts earlier than routine data often reveals. Conventional epidemiological methods, such as the WHO Basic Methods assessment records caries only once visible cavitation in dentine is present.
- The burden of poor oral health falls much harder on some children than others. Levels of Early Childhood Caries (ECC) vary noticeably by region across Brazil, with dental caries disproportionately harming children in more disadvantaged communities.
- Social, cultural and behavioural factors undermine preventative behaviours and compromise prompt and appropriate treatment.

2. The Opportunity: Improved prevention and MI care can enable Brazil to overcome its childhood caries challenge

- **Global developments:** These include The WHO Global Oral Health Action Plan (2023-2030) which makes clear that preventing dental caries is achievable and would deliver enormous wider health benefits, re-emphasised by the 2024 WHO Global Oral Health Meeting (GOHM) in Bangkok and the resulting 2024 Bangkok Declaration 'No Health Without Oral Health', supported by: The December 2025 UN Declaration on non-communicable diseases that recognises oral disease as a major health and economic burden, the new WHO guideline on 'Environmentally Friendly and Less Invasive Oral Health Care', the FDI World Dental Federation and its 'Vision 2030', The Alliance for a Cavity Free Future (ACFF) activities and documents, the work of the ICDAS Foundation and use of its related tools, as well as the work of the International Association for Paediatric Dentistry (IAPD) and its 2019 Declaration on ECC.
- **Developments in Brazil:** Brazil's Unified Health System (SUS) is public, universal and free at the point of care. Within that, Brasil Sorridente is the largest public oral health programme in the world and provides a substantial national platform for change. Funded through taxes, the programme supports 35,000 oral health teams delivering over 46 million health care visits a year. The family health strategy covers the whole of Brazil so that most municipalities have an oral health team, especially those with the most vulnerable populations.

3. The ACFF Brazil Oral Health Policy Lab: measurably improve caries prevention and minimally interventive care for children

- A Policy Lab is a collaborative workshop that brings together diverse stakeholders to discuss and make a breakthrough on a particular problem.
- Run by ACFF, guided by an expert local Planning Group and assisted in logistics and insights by the Departamento de Odontologia Social, Faculdade de Odontologia at the University of Sa Paulo, the ACFF Brazil Oral Health Policy Lab focused on the specific question: "Building on the work of the Brasil Sorridente programme and the latest evidence on effective policy and practice, what local, regional and national actions can measurably improve caries prevention and minimally interventive care for children in Brazil?"

4. The ingredients for sustainable improvement in prevention and the use of MI care

- Shift the focus from disease management to maintaining health.
- Have a consistently understood definition of MI care.
- Understand how to shift the way a system works.
- Introduce new oral health quality indicators to instigate change and to drive the data needed to monitor and evaluate impact.

5. The Proposed Actions

- Investing in prevention and very early first contact for the youngest children (0-4 years-of-age).
- Strengthening the capability of municipalities to implement consistently effective prevention and MI care.
- Prioritising equitable access to oral health services for remote, minority and disadvantaged populations.
- Instigating municipality-HEI partnerships to deliver evidence-based training and CPD on prevention and MI care.
- Formalising health-education co-operation to make the most of schools as a setting for oral health prevention and MI care.

6. Next Steps

- Coordinated action should progress at different levels and successful change within Brazil requires alignment at every level of government, practical and feasible ways to implement improvements, and locally owned delivery.
- Adopt a multi-level model intended to provide a time-limited way to mobilise action in a way that complements existing structures and will consist of: a national launchpad to create the shared conditions for action (a reconstituted ACFF Brazil Chapter); working groups to turn each proposal into a practical delivery model (time-limited); municipality-led partnerships to adapt and sustain implementation in real settings; a broad coalition of partners from across different sectors whose cooperation is essential in reaching children earlier and more consistently ('Cavity-Free Brazil Coalition').
- Further work on upstream public health interventions could follow to consider the upstream conditions that shape children's oral health before they reach services e.g. reduce sugar exposure, protect and extend effective water fluoridation, shift public attitudes towards primary teeth, diet, brushing and early prevention, explore how oral can be built into wider child health, nutrition, education, disease strategies and public communication.

Based on the advice and policy recommendations from the Brazil Oral Health Policy Lab in São Paulo, March 4-5th 2026.

Towards a Cavity-Free Future for Children in Brazil

Building on the work of the *Brasil Sorridente* programme and the latest evidence on effective policy and practice, what local, regional and national actions can measurably improve caries prevention and minimally interventive care for children in Brazil?



THE CHALLENGE:
More than 80% of children in Brazil suffer the pain and other problems of untreated tooth decay



THE OPPORTUNITY:
Improved prevention and MI care can enable Brazil to overcome its childhood caries challenge



THE INGREDIENTS
for sustainable improvement in prevention and the use of MI care are now well known from Brazilian & International evidence



The 3rd ACFF country-level Policy Lab was held in São Paulo, Brazil in March 2026

The Lab was facilitated by a team from ACFF Global, guided by an expert local Planning Group and assisted in logistics and insights by the Departamento de Odontologia Social, Faculdade de Odontologia at the University of São Paulo.

NEXT STEPS: MOVING FROM PROPOSALS TO SUSTAINED DELIVERY

