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?

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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 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. Since its inception, ACFF has been the beneficiary of unrestricted Corporate Social Responsibility funding from Colgate, for which it is most grateful.

For more information, please visit www.acffglobal.org

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A Word of Thanks

As will become evident through reading this report, the participants involved in this first Canada Oral Health Policy Lab contributed with a breadth of knowledge, expertise and insight. We would like to thank all of them for joining this important event, and acknowledge that without them the significant outcomes detailed in this report would not have been achieved.

A special thank you goes to Professor Bob Schroth (University of Manitoba), co-Chair of ACFF's Canada-US Chapter, who helped convene the Policy Lab and delivered a presentation on the Canadian context to inform the discussions. Additional thanks also to Professor Paul Allison (McGill University), Dr Carlos Quinonez (Vice Dean and Director of the Schulich Dentistry School), Dr Khalida Hai-Santiago (Oral Health Consultant at the Government of Manitoba), Dr James Taylor (Federal Health Ministry, FDI CDOs & Dental Public Health Section), and Nick Miller (Alliance for a Cavity-Free Future) for their input to the organization and running of the event.

Foreword

Stop Caries NOW for a Cavity-Free Future

As Global Chair of the Alliance for a Cavity-Free Future, it was both a pleasure and a privilege to help facilitate this first and very timely National Oral Health Policy Lab in Canada. This is an opportune "moment in time" when a number of policy strands are coming together at the local, national and international levels to, at last, create opportunities make a real difference to the plight of infants and children suffering from the unacceptable burdens of dental caries (tooth decay).

For this largely preventable disease to still, in the 2020s, be the most common Non-Communicable Disease (NCD) both globally and locally is an indictment on modern society. The attendees at this first Canadian Policy Lab were united by a strong desire to find viable ways to move **Towards a Cavity-Free Future for Infants and Children in Canada.**

The participants at this Policy Lab comprised a deliberate and unusual mix of individuals ranging from oral health professionals to academics, clinicians, and those representing policy interests as well as other organisations. They all worked diligently and collegiately over a 24-hour period to co-create a range of solutions and ways of working to answer the specific Policy Lab question: **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?**

I would like to applaud and thank all the participants for their enthusiasm, professionalism and engagement in working though the complex issues encountered. They succeeded in **creating an "Ambition" for Canada to achieve by 2030,** which is to **deliver: enhanced prevention, wider access, improved outcomes and sustainable funding.** They also developed pragmatic ways to scope four key themes which have the potential to realise the agreed Ambition. These were around: **Strategic enablers, Upstream prevention, Oral health workforce, and Community empowerment.**

Having now articulated in this Report multifaceted ways of moving towards a Cavity-Free Future for Infants and Children in Canada, the challenge is now how best to engage with all the different stakeholders who need to work together to bring about the changes required. It is to be hoped that the Report itself can act as both a stimulus and a resource in order to move forward incrementally with the Next Steps outlined by the Policy Lab.

Professor Nigel Pitts
Global Chairman, Alliance for a Cavity-Free Future
Director of Innovation and Impact (FoDOCS), King's College London. Dean of Research Impact, King's College London

"It was very exciting to host the first ACFF policy lab outside of the UK right here in Canada. I personally believe the meeting brought together a very diverse group of individuals with expertise in different domains to tackle how best to maximize caries prevention and care among infants and children in Canada and internationally. There is tremendous change on the horizon for children's oral health in Canada and we hope that one of the outcomes of this meeting will be renewed emphasis on prevention instead of solely focusing on the treatment of caries."

- Bob Schroth

"Le laboratoire a été une expérience extraordinaire! En effet, réunir des personnes de différents horizons pour réfléchir à des solutions et générer des actions concrètes afin d'éliminer la carie dentaire chez les enfants est une façon novatrice de renforcir la capacité d'action collective pour améliorer la santé buccodentaire des populations. Merci!"

- Stephanie Morneau

"This policy lab on caries management strategies among children in Canada fell at a great time, given the significant changes currently emerging in Canada's dental care system. Having a broad range of people in one room, all interested in finding ways to better serve and care for the, often, most marginalized children in the country, generated some excellent and novel ideas to optimize these dental service changes for the maximum benefit to Canada's children."

- Paul Allison

How Can I Use This Document?

The ideas and suggested actions in this document are intended to be of use to anyone who is interested in bringing about a 'Cavity-Free Future' for infants and children in Canada. It is intended particularly to assist those working in and around the dental and oral health professions and industries, and to encourage policymakers to bring forward prevention-focused change that builds on the recent Government investment in the oral health of infants and children.

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

Inform

While the evidence and information needed to address a complex policy issue often already exists, we rarely have all the relevant data synthesised in a way which helps us to make sense of the problem. The infographic (found on the back of this document) and additional data provided within this report is intended to be a resource for advocates to inform both themselves and other stakeholders.

Share and connect

This report contains details of the concepts developed by our broad range of expert participants, and invites readers to contribute their time, expertise and advocacy skills to share and connect with the existing initiatives happening within Canada and elsewhere around the world.

Work together and act

Working together with the full range of stakeholders will be critical to the next steps in this journey towards a Cavity-Free Future for infants and children in Canada. Engaging and acting with the stakeholders shown in the "Win^{6} Cube" should continue. The stakeholders include: Government and health systems; Oral health care professionals; Other providers of services to infants and children (including those in other health professions, schools and social care); Patients, families and carers, local community bodies; Payers and insurers; Professional bodies, guidance and education providers; Dental and oral health industries.

Action is needed across four complementary themes, these are:

- Strategic enablers
- Upstream prevention
- Oral health workforce
- Community empowerment.

There are also a range of further ideas available in the Next Steps section of this document that can be explored.

Contents

1 The challenge: Untreated tooth decay afflicts up to 90% of children in some Canadian communities[1]

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.

Large numbers of young Canadian children experience ECC. While we currently lack national data on the prevalence of ECC (as children under six years of are were not included in Cycle 1 [2007-2009] of the Canadian Health Measures Survey), it is known to be a severe problem amongst First Nations, Inuit and Metis children, as well as those living in geographically remote regions. It is now well-established that up to 90% of children in some northern and remote Indigenous communities are affected by ECC.[1]

Children in urban areas, who are often perceived as lower risk for caries, are also affected by ECC in large numbers. This is particularly true for children in households with a lower socioeconomic status.

Those most at risk for ECC often face the greatest barriers in accessing oral health care services, and this can lead to a spiral of issues as severe, untreated ECC can impact other aspects of a child's oral health, their levels of nutrition, their growth and development and their overall quality of life.

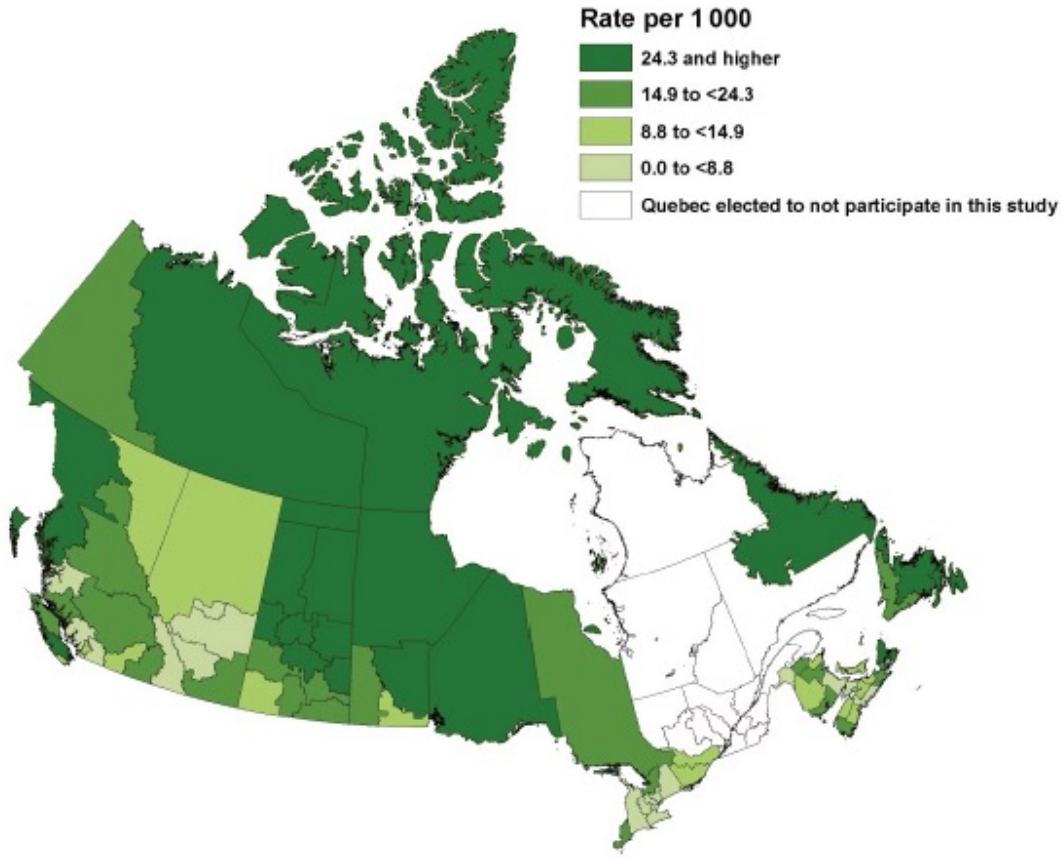
Across the population in Canada, 1.2% of children end up undergoing dental surgery under general anesthesia as a result of untreated ECC. This makes it the most common surgical procedure performed on pre-school children at most Canadian hospitals. Children from rural regions have rates of dental surgery to treat ECC that are three times higher than those in urban areas (as illustrated).[1]

Around the world, there is growing momentum to invest in oral health and to tackle the burden of dental caries, which is a largely preventable disease. Canada is part of this story as a key participant in World Health Organisation (WHO) and as a country that has recently made a significant financial commitment to the dental care of children.

Taken together, the decisions, resources and networks that have recently emerged offer a hugely encouraging context for accelerating progress towards a Cavity-Free Future for children in Canada.

1 Schroth, R.J., et al., Treating Early Childhood Caries under General Anesthesia: A National Review of Canadian Data. J Can Dent Assoc, 2016. 82:g20.

Rate of day surgery for dental caries among children 1- 4 years old, by health region, pooled over 4 years, 2010/11-2023/14[1]



1 Schroth, R.J., et al., Treating Early Childhood Caries under General Anesthesia: A National Review of Canadian Data. J Can Dent Assoc, 2016. 82:g20.

2 The opportunity: This is a 'moment in time' to maximise caries prevention and care for children in Canada

2.1 Global developments

World Health Organisation

The World Health Organisation (WHO) has agreed a Resolution on Oral Health[2] and consulted on an Oral Health Strategy, resulting in a Draft Global Oral Health Action Plan 2023 - 2030 with (for the Jan 2023 version[3]) 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, including 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 WHO Draft Global Oral Health Action Plan (2023-2030)[3] makes clear that we have the opportunity to prevent caries, and how succeeding in this would result in wider benefits to overall health. Caries shares common risk factors with other non-communicable diseases, including diabetes. Therefore, by reducing the prevalence of caries and minimizing its associated common risk factors, we can move towards improving wider health.

> "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."[3]

This is echoed in the recent Lancet Oral Health Series which calls for radical upstream public health changes in the way oral health is achieved,[4] combined with the need to engage with midstream and downstream activities.

Finally, the WHO has also added fluoride toothpaste and silver diamine fluoride to its lists of essential medicines for adults and children that all populations should have access to.[5,6]

World Dental Federation

In setting out its 'Vision 2030' the World Dental Federation (FDI) emphasizes 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 that confers on individuals' ability to function and socialise, rather than just the diseases that need to be treated.

2 World Health Organisation, Oral Health. Accessed 01/02/2023; Available from: https://apps.who.int/gb/ebwha/pdf_files/WHA74/A74_R5-en.pdf

3 World Health Organisation, Draft Global Oral Health Action Plan (2023-2030). Accessed 01/02/2023; Available from: https://www.who.int/publications/m/item/draft-global-oral-health-action-plan-(2023-2030)

4 Watt, R., et al., Ending the neglect of global oral health: time for radical action. Lancet, 2019. 394(10194):261-272. DOI: 10.1016/S0140-6736(19)31133-X

5 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

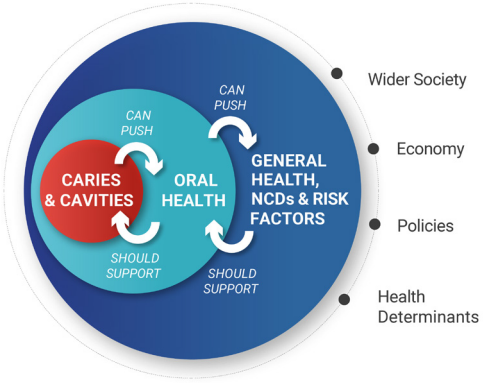
6 World Health Organisation, WHO Model List of Essential Medicines for Children - 8th list, 2021. Accessed 01/02/2023; Available from: https://www.who.int/publications/i/item/WHO-MHP-HPS-EML-2021.03

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).[7]

Alliance for a Cavity-Free Future

The Alliance for a Cavity-Free Future (ACFF) has promoted research and changes in policy and clinical practice worldwide with the aim of ensuring that all children born after 2026 remain cavity-free throughout their lifetime.[8] A key factor in achieving this is to highlight 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'[9]



The charity has developed frameworks and tools that assist in shaping oral health systems to focus more fully on prevention. These include the 'Caries Puzzle'[9] which shows the interlocking nature of an interprofessional approach to oral care, and highlights what changes are needed to deliver effective caries prevention across the board.

'The ACFF Cavity-Free Puzzle'

In 2021, the ACFF Making Cavities History Taskforce launched its 'Global Consensus' report[9] 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 'Policy Labs',[10,11,12] which brought together representatives from many of the world's leading dental universities and Associations, as well as dental practitioners and public health professionals.[9]

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

8 The Alliance for a Cavity-Free Future, The Alliance for a Cavity-Free Future. Accessed 01/02/2023; Available from: https://www.acffglobal.org

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

10 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

11 Mazevet, M., Pitts, N. & Mayne, C. Dental Policy Lab 2 - towards paying for health in dentistry. Br Dent J, 2021. 231, 759–763. DOI: 10.1038/s41415-021-3725-1

12 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

The Policy Lab programme has since developed into an Oral Health Policy Lab Network that aims to support individual countries in implementing these recommendations.

Working through 29 'Chapters' with a network across over 50 countries, ACFF pursues a 'glocal' approach – drawing on global knowledge and best-practice tailored to the specific circumstances found locally. Each Chapter is run by dedicated local teams of dental and public health professionals and educators. The Canada-US Chapter of the ACFF has been the driving force in organising this first exemplar of a country-level Oral Health Policy Lab.

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 move clinical practice away from a simplistic assessment of 'no obvious decay' or 'obvious decay'. This enables dentists to improve patient care by more precisely monitoring caries development which enables more informed diagnosis and care planning.[13]

CariesCare International

The work pioneered by the ICDAS Foundation, aided by ACFF and the King's Global Collaboratory for Caries Management (GCCM), has developed into CariesCare International (CCI) which promotes a patient-centred, risk-based approach to caries management. Its practice guide,[14] designed for dental practitioners, is focused on health outcomes with priority given to maintaining oral health and preserving tooth structure. The '4D model' it promotes (shown below), based on the International Caries Classification and Management System (ICCMS™), 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.[15]

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.[16]

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').

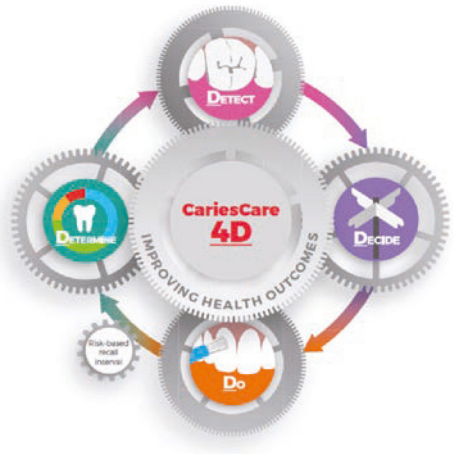
13 Pitts, N., et al., ICCMS™ Guide for Practitioners and Educators. Global Collaboratory for Caries Management, 2014.

14 Martignon, S., et al., CariesCare practice guide: consensus on evidence into practice. Br Dent J, 2019. 227, 353–362. DOI: 10.1038/s41415-019-0678-8.

15 World Dental Federation, Caries lesions and First Restorative Treatment. Accessed 01/02/2023; Available from: https://www.fdiworlddental.org/carious-lesions-and-first-restorative-treatment

16 CariesCare International, CariesCare International. Accessed 01/02/2023; Available from: https://cariescareinternational.com/

'CariesCare International "4D" cycle'[14]



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

Internationally Accepted Caries Terminology[17]

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, behavioral, psychosocial, and environmental factors. As a consequence of this process, a caries lesion develops.

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.

Other developments around the world

Elsewhere globally, there have been encouraging developments in oral health policy development which offer easily accessible lessons for Canada 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
- In the UK, the National Health Service reforms provide for the development of a broader oral health team including oral health educators, hygienists and therapists
- The EXPRESO pilot in France seeks 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).[18]

14 Martignon, S., et al., CariesCare practice guide: consensus on evidence into practice. Br Dent J, 2019. 227, 353–362. DOI: 10.1038/s41415-019-0678-8.

17 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

18 Ministère des Solidarités et de la Santé. Expérimentation prévention et intervention minimale en santé orale (EXPRESO). Journal Officiel de la République Française, 2021. 0068.

2.2 Developments in Canada

Federal Dental Care proposal

In March 2022, the federal government committed $5.3 billion to provide dental care for the uninsured, beginning with children under 12 years of age. Now referred to as the 'Canada Dental Benefit', the program currently will target children under 12 years of age from families with an annual income of less than $90,000.[19]

Canadian Caries Risk Assessment Tool

The Canadian Caries Risk Assessment Tool[20] (< 6 years) is for use by non-dental primary care providers. This has now been included in the Rourke Baby Record and assists with prevention, accessing fluoride varnish application and getting a referral to a dental provider.

Silver diamine fluoride (SDF) for non-restorative management of caries

Approval for the use of SDF is part of a growing acceptance of 'medical management' of caries, compared with more traditional surgical management involving, for example, 'drill and fill'.[6] The Non-Insured Health Benefits program is the first insurer to cover SDF for registered First Nations and Inuit children.

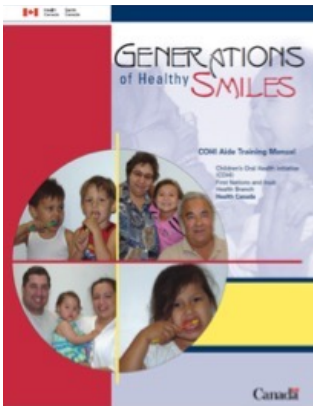
First dental visit by 12 months of age

The Canadian Dental Association's (CDA) recommendation for a first dental visit by the eruption of the first tooth and no later than 12 months of age, signals an increased emphasis on the promotion of oral health and prevention of dental disease for infants and children. Many provinces have now developed campaigns targeting parents to promote first dental visits by a child's first birthday, and there is growing awareness of this important milestone.

1-5 year olds within Cycle 7 of Canadian Health Measures Survey

The inclusion, for the first time, of children aged between 1 and 5 in cycle 7 of the Canadian Health Measures Survey will lead to much better national data on the prevalence of early childhood caries (ECC) in infants and preschool children.

Children's Oral Health Initiative (COHI)[21]



The Department of Indigenous Services' 'COHI', which started in 2004 in some Canadian First Nation and Inuit communities, aims to shift the focus from treating disease to prevention and less invasive care. It targets pregnant women, parents and caregivers of preschool and school age children, offering screening, 1-1 oral health information sessions, fluoride varnish, sealants and atraumatic restorative treatment (ART).

Dental Therapy Program

The upcoming opening of an Indigenous dental therapy education program and dental therapy school at the University of Saskatchewan[22] is a major boost to the development of the oral health workforce working with communities that currently experience the greatest levels of harm from caries and other oral diseases.

Position Statement on "Early Childhood Caries in Indigenous Communities"

The publication of the Joint Canadian Paediatric Society's and American Academy of Pediatrics' position statement makes clear the priority that must be given to ECC in Indigenous communities given the scale of child health disparity when compared with the general population of both countries.[23]

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19 Government of Canada, Canada Dental Benefit. Accessed 01/02/2023; Available from: https://www.canada.ca/en/revenue-agency/services/child-family-benefits/dental-benefit.html

20 Canadian Dental Association, Canadian Caries Risk Assessment Tool (< 6 years). Accessed 01/02/2023; Available from: http://www.cdaadc.ca/en/oral_health/cfyt/dental_care_children/risk_assessment.asp

21 Health Canada, First Nations and Inuit Health Branch, Generations of healthy smiles: COHI aide training manual. Accessed 15/02/2023; Available from: https://publications.gc.ca/collections/collection_2016/sc-hc/H34-137-2005-eng.pdf

22 University of Saskatchewan, USask Collaboration establishes first dental therapy degree program in Canada. Accessed 01/02/2023; Available from: https://news.usask.ca/articles/colleges/2022/usask-collaboration-establishes-first-dental-therapy-degree-program-in-canada.php

23 Canadian Paediatric Society, Early Childhood Caries in Indigenous Communities. Accessed 01/02/2023; Available from: https://cps.ca/en/documents/position/early-childhood-caries

6 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

3 The Policy Lab: How to maximise caries prevention and care amongst infants and children

To think through how best to make progress in tackling the 'caries challenge' amongst infants and children in Canada, a Policy Lab was run in Ottawa in November 2022.

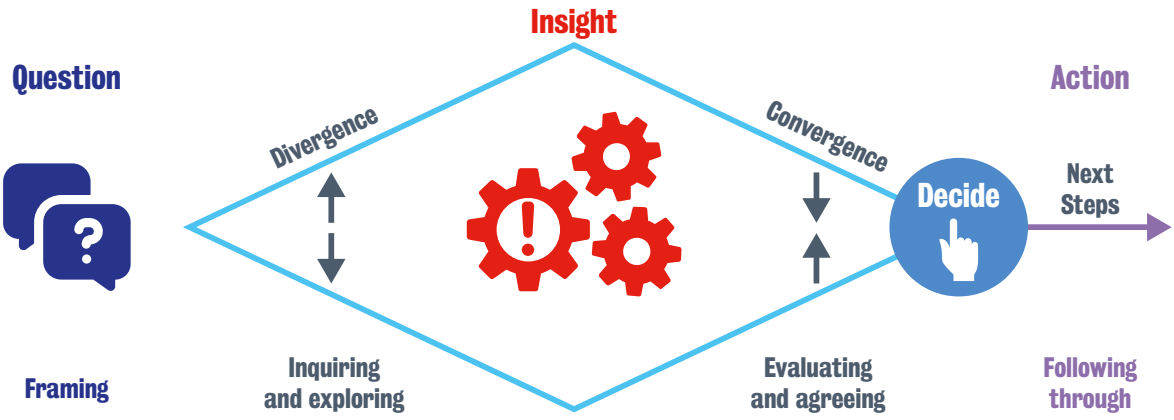
A Policy Lab is a collaborative workshop that brings together diverse stakeholders, informed by evidence, to make a breakthrough on a particular problem. They are designed as fast-paced and interactive events that make the most of experience within the group. Participants were drawn from across Canada, including dental and other health professionals and practitioners, policy makers and academics.

The overarching question for the Policy Lab was:

> **"Given recent developments in oral health care, what else is needed in terms of investments or other conditions to maximize caries prevention and care amongst infants and children."**

The Policy Lab was hosted by the ACFF with the event facilitated and written up by a team from ACFF Global, who had been involved in designing and running three previous Dental Policy Labs. In this case, the event was run over 24 hours, enabling those taking part to steadily build a set of ideas together in the workshop setting and through informal conversations.

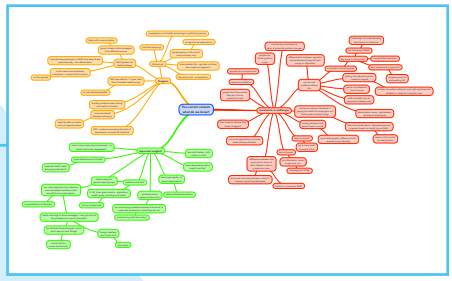
The workshop process follows a 'diamond flow' as shown. This focuses the group on the overarching question, brings in a variety of inputs and exercises to broaden out the thinking, before distilling key insights that are then drawn together and assessed to create a set of practical proposals for action.



The diagram below shows the different stages of the workshop as it moved through the diamond flow.

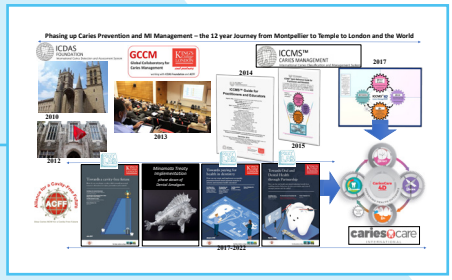
Reviewing the current position

- What progress has been made so far, where has it been fastest and greatest?
- What are the biggest constraints or challenges?
- What other facts, figures or examples are worth knowing about to inform the discussions?
- What are the most important insights to frame and inform the discussions?



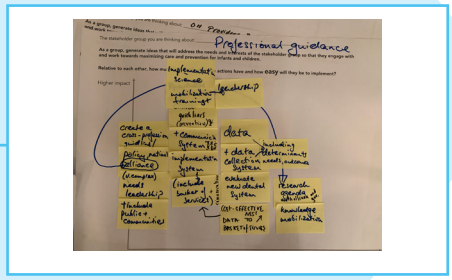
Identifying the opportunities for change

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



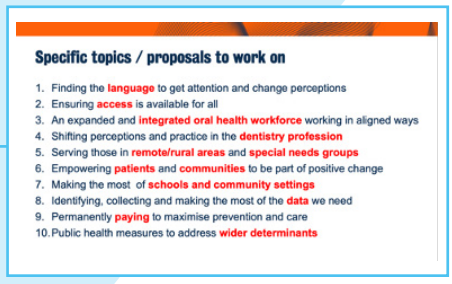
Generating a long list of potential ideas for action

- What actions could be considered from the perspective of different stakeholders?
- How much impact would these actions have in the short- and longer-term?
- How much effort and resource would be needed to implement these actions?



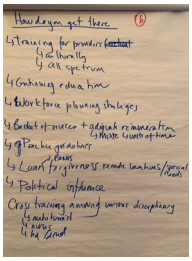
Working up a short list of proposals

- What is the 'ambition' for 2030 – what will have changed in the way caries prevention and care is organised and delivered?
- What tangible outcomes will the proposal bring about?
- What needs to happen and who would be involved?
- What would be the milestones between then and now?



Suggesting next steps

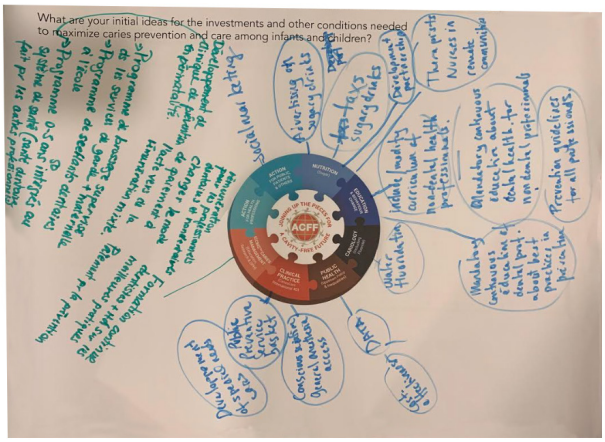
- What could be done to follow through on the outputs of the Policy Lab?
- Which stakeholders might be the focus for initial engagement?



4 The Ambition for 2030: Enhanced prevention, wider access, improved outcomes and sustainable funding

The Policy Lab created an ambition for what maximising caries prevention and care for infants and children could achieve.

How adapting the caries puzzle helped inform the Canada policy lab ambition



The ambition by 2030:

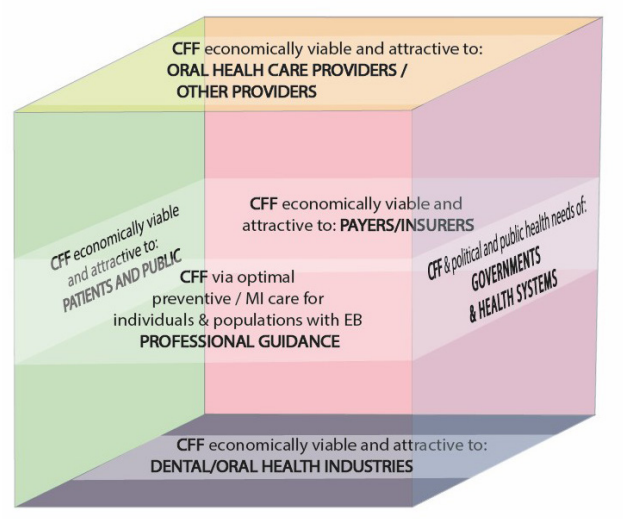
1. Equitable access to a continuum of prevention and care service provision (primordial, primary, secondary, tertiary, quaternary), that has been co-designed with communities
2. 90% of children to be covered by insurance and accessing primary and preventive care
3. ECC reduced on average by 10% across all children, with the greatest decrease amongst those with the highest rates of ECC currently
4. Dental professionals recognized as part of an integrated health care team and part of the healthcare system
5. An integrated and standardized oral health data system in place with the necessary information on caries prevention and care
6. Permanent funding for infant and children's oral health prevention and care.

To help make progress as quickly as possible, it was suggested a number of guiding principles should be adhered to:

- Understanding different population needs as part of designing and implementing change
- Learning from existing good practice, in Canada and internationally, rather than 'reinventing the wheel'
- Developing tailored approaches that balance the role of Federal and Provincial/Territorial governments and local municipalities
- Engaging different stakeholders appropriately in all the planning and 'first step' actions.

Elaborating on the final point, the 'Win[6] Cube'[10] adapted for Canada and illustrated below emphasizes that successfully implementing the necessary changes to maximize caries prevention and care will require the buy-in of stakeholders who can all contribute to solutions that take into account their respective interests.

Win[6] Stakeholder Cube –collaboration to achieve a Cavity-Free Future (CFF)



10 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

The stakeholder analysis also points to how expectations may need to be challenged when a shift is needed in some stakeholder beliefs and behaviours.

Amongst dental professionals

Experience worldwide suggests there can be a professional inertia in not understanding or adopting the alternatives to more traditional treatments. A strong voice from professional leaders is required to shift that. This includes raising awareness of the growing body of evidence which highlights the frequent reoccurrence of dental caries and relapse following restorative dental treatment under general anaesthesia.

Amongst the public

Dental pain and disease are experienced as the 'norm' in many communities. This affects expectations and motivations in challenging the 'status quo' and changing available services and may also affect their take-up. However, children know what pain is and don't want to have fillings, so it is crucial to find ways to respond to this.

Amongst the oral care workforce

Recruitment, retention and remuneration are challenges for parts of the oral health workforce, including dentists. Consequently, there is a need to build confidence that it is possible to create a Canada-wide oral health workforce with the appropriate capacity, skills and coverage to fully capitalize on the new political will to improve children's oral health.

Amongst provinces, territories and municipalities

Not only are the inequities of caries in children more prevalent in some areas of the country than others, but there are also significant differences in the policies pursued to tackle this issue. This can be seen in the specific oral health programs offered (including what is done around fluoridation) and the tracking (or lack thereof) and measurement of oral health status and outcomes.

Amongst employers

While the insurance industry is increasingly being encouraged to cover 'paying for prevention' to maintain health rather than just treatment for disease, this will have only limited effect if employers do not evolve in the same way in terms of what they are looking for from the insurance they provide to staff.

5 The proposed actions: Creating momentum towards the 2030 Ambition

Having articulated an ambition for what can be achieved by 2030, Policy Lab participants were confident that momentum can quickly be created in designing and implementing the changes needed to realize this and were hopeful that a range of practical early successes can be realized.

While there is significant work to be done in aligning, coordinating and resourcing the required contributions from different stakeholders – including oral health care professionals, oral health educators, professional bodies, national, provincial and territorial governments, industry, third sector, patients and the public – there is already so much to build on. Consequently, the suggested actions that follow should be seen more as evolution than revolution.

The 'first steps' proposed during the Policy Lab are shown in Figure 2.

Figure 2: Proposed actions for making progress towards a Cavity-Free Future for infants and children in Canada

Strategic enablers	• Sustainably fund caries prevention and care • Make the most of data
Upstream prevention	• Focus policy on the wider determinants of health and especially sugar consumption • Promote locally appropriate fluoride strategies
Oral health workforce	• Shift perceptions and practice in the oral health profession from treatment to prevention • Expand and integrate the oral health workforce
Community empowerment	• Co-design culturally and community appropriate services with patients and communities • Develop practical tools or apps to empower parents and families in prevention

Details on each of these actions are set out in the remaining sections of this report.

5.1 Strategic enablers:

While this moment in time offers a tremendous opportunity to improve the oral health of infants and children, two critical enablers have to be put in place if the full potential is to be realised – future funding needs to be sustainable and better data is required to underpin service design and assessments of 'what works'.

Sustainably fund caries prevention and care

The Federal Government's investment in the dental health of children under 12 through the Dental Benefits Act[19] can be a springboard to all parts of government coming together to find sustainable long-term ways of funding the changes needed to maximize caries prevention and care for all infants and children. A key part of this is the need to connect all Federal, Provincial and Territorial public plans to ensure they are complementary and maximize value for money.

The ability to plan long-term for investment in infant and child oral health would open the way for some very effective interventions to be supported, for example:

- economic support for fluoride varnish applications (as is funded for physicians in the US)
- extending to oral health professionals the federal government loan forgiveness program for those committing to work in remote locations or dental public health clinics
- increasing the number of salaried community service providers to ensure the necessary skills are available to serve more remote or disadvantaged communities
- expanding childhood oral health promotion (for example, building on the Healthy Smile Happy Child Initiative).

Ideally, considerations of sustainable future funding would be part of a wider conversation with professional bodies, insurers and others. This should explore how funding for dental care can be brought more into the broader healthcare system, enabling a more joined-up approach to the planning and delivery of better oral health at a population level.

A more joined-up approach would also help open the door to redesigning dental payment systems and remuneration policies so that these resource and incentivize prevention. The EXPRESO model in France provides an excellent example of how to go about this.[18]

Securing sustainable funding and changing remuneration policies will both require economic evidence that demonstrates the value of a Cavity-Free Future and the benefits of focusing on prevention and non-operative care. Work should be commissioned to calculate this value for Canada, including reductions in direct and indirect costs (for example, less school hours missed, fewer hospital visits, etc.) and drawing on learning from international examples such as the EU-endorsed Childsmile Project. This can then also be used in educating insurance brokers, advisors and payors on the benefits and value for money of the preventive model.

Finally, a more extensive program of pediatric oral health research is recommended. This would inform policy and service development by investigating levels of access to care, variations in oral health status and outcomes, oral-systemic relationships, opportunities for clinical trials of new treatment approaches, outcomes from increased prevention, and program value-for-money evaluations.

Make the most of data

There is a pressing need to broaden and improve the quality of data available in relation to oral health in infants and children, including that needed to identify and manage caries at an individual and population level. This requires development of a set of minimum outcome measures for oral health, perhaps like that used in the US. Agreeing this on a Canada-wide basis would be hugely beneficial in building baseline data to understand fully the scale of the caries problem nationally and locally (including prevalence, severity, demand for treatment under general anesthesia, disparities among population groups and other inequalities).

The data definitions (including disease classification) should then be standardized across dental coding systems to be used universally for feeding into billing codes and care claims, and for calculating economic support to preventive reimbursement.

At an individual level, this data can be used to tailor prevention measures and care for a patient. When aggregated it would help develop oral health status

19 Government of Canada, Canada Dental Benefit. Accessed 01/02/2023; Available from: https://www.canada.ca/en/revenue-agency/services/child-family-benefits/dental-benefit.html

18 Ministère des Solidarités et de la Santé. Expérimentation prévention et intervention minimale en santé orale (EXPRESO). Journal Officiel de la République Française, 2021. 0068.a

profiles at local, provincial and the national level, including tracking how many children get first visits by 12 months of age and how many are accessing preventive services.

Opportunities should be sought wherever possible to translate what has been measured into yardsticks that a wider audience can understand (either in dollar figures or other measures of the burden of disease). This 'knowledge translation' should also exploit notions of counterfactuals (what would have happened to population oral health had we not done this?).

All of this will require work with patients and professionals to gain access to clinic and claims data, and reassurances around data anonymization and use.

5.2 Upstream prevention

Focus policy attention on the fact that oral health is heavily influenced by the wider determinants of health and especially sugar consumption

Oral health is strongly associated with social determinants of health, including poverty, housing, water quality and educational attainment. Every possible opportunity should be taken to focus the attention of policymakers at all levels of government on the oral and other health benefits (and associated avoided costs) that would accrue from investing in these determinants.

There is no doubt either that reducing sugar consumption at a population level would have a significant positive impact on oral health as well as obesity, diabetes and other non-communicable diseases. Many countries have used sugar taxes to reduce consumption (some focused on sugar sweetened beverages and some on its wider use) and driving reformulation can also be successful. Ultimately, it would be desirable for excess sugar consumption to be viewed in similar ways to the unhealthy use of alcohol or smoking.

Promote locally appropriate fluoride strategies

The benefits of fluoride as part of an overall strategy to improve oral health are clear.[3] As noted earlier, fluoride toothpaste is now recognized by WHO as an essential medicine.[5,6] There are several ways this can done:

- wherever it is feasible and acceptable, both politically and to the public, water fluoridation should be implemented at a municipality level
- fluoride toothpaste should be promoted as part of oral hygiene routines. To support this, oral health suppliers could be approached to provide this free, or at discounted rates, to daycare centres and schools as part of their social responsibility efforts
- insurance coverage should be extended to cover fluoride varnish applications at least twice a year for children, especially those at higher risk such as in remote or Indigenous communities
- establishing guidelines for dentists in the consistent use of SDF.

More radically, publicly-subsidized fluoridated salt could be offered to those in remote and rural areas and to special needs communities. This would offer a choice to those in places where there is no fluoride in the water. As well as requiring contracts between the federal government and (preferably domestic) salt suppliers, this initiative would require discussions with Indigenous governments and the dental profession.

5.3 Oral health workforce

Shift perceptions and practice in the dentistry profession from treatment to prevention

Maximising the prevention and care of caries in infants and children will require a change in the perceptions and expectations of some within the dental profession. There is a role here for strong professional leadership that sends out consistent messages on the value of and scope for prevention and the recognition that restorative treatment of caries doesn't eliminate the future risk of reoccurrence.

3 World Health Organisation, Draft Global Oral Health Action Plan (2023-2030). Accessed 01/02/2023; Available from: https://www.who.int/publications/m/item/draft-global-oral-health-action-plan-(2023-2030)

5 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

6 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

Ideally, dental care would be seen as an integrated part of a broader understanding of oral health. This would emphasize the desirability of meeting patient needs in ways that address the overall health of an individual rather than just treating disease. Such a shift needs a different language – 'preventing oral disease' would become 'improving oral health and oral functioning', for example eating, talking, smiling and supporting social interactions.

Such messaging must be, of course, supported by evidence, with suitable resources and continuing professional development available to all dentists throughout their careers. This should prioritize non-restorative management of caries (such as topical fluorides, SDF, ART) and clinical guidelines for treatment (including the appropriateness of general anesthetic).

The CariesCare International consensus protocols for a risk-based, minimally interventive approach to caries management offer a model for this.[13,14] As noted previously, this focuses on risk assessment, behaviour change, home care and a patient-centred approach, as well as resorting to clinical tooth-preserving treatment only if required. The CariesOUT Project also offers learning on how to provide comprehensive care without aerosols.[16]

Building good preventive practice across the dental profession also involves appropriate patient surveillance, including systematically capturing the present state of caries, including initial lesions. If comprehensively available at an individual level, this data could then be aggregated up to reveal inequalities across populations or groups and used, on a longitudinal basis, to assess the impact of policy interventions.

Expand and integrate the oral health workforce

Having a sufficiently large and skilled enough workforce across every location in Canada, especially one that is sustainably funded, is a significant challenge. To achieve this, the growing international consensus (echoed by the Policy Lab participants) is that all aspects of early childhood oral health should be fully integrated into the primary care and wider health system. This would allow for an expansion of the wider oral health team to encompass as many as possible of the professionals and other caregivers involved with children from birth until age 12. This could include oral health educators, hygienists, therapists, nutritionists, nurses, social service workers and mental health professionals, amongst others.

The aim then should be to work with dental associations and education providers to ensure that all members of this extended team have the same training on basic oral health knowledge and skills. This could cover use of the Public Health Agency of Canada sponsored Caries Risk Assessment Tool developed by the University of Manitoba,[20] the ability to triage, the provision of prevention and anticipatory guidance, the application of fluoride varnish application or SDF and referrals to dental providers so that individuals are able to find a 'dental home'.

In parallel, dental education can emphasize how dental care professionals are part of a broader healthcare team, using practical demonstrations in clinical practice sessions that share examples of how they can work in integrated ways with other team members. Professional bodies, health education institutions and regulators would be key stakeholders in making this approach work.

More integrated working also requires common tools (such as that used in Quebec) for sharing information across the oral health workforce as well as investment in 'implementation science' to support knowledge mobilization across the whole team, helping ensure consistent and collaborative approaches.

5.4 Community empowerment

Co-design culturally and community appropriate services with patients and communities

Ensuring every infant and child in Canada has access to the help they need to maximize caries prevention and care clearly involves putting in place the necessary resources and ensuring that parents and other carers have the knowledge they need to take advantage of those resources.

However, effective access is also about how those resources and knowledge translate into attitudes and behavior – it is so much more than providing a health

13 Pitts, N., et al., ICCMS™ Guide for Practitioners and Educators. Global Collaboratory for Caries Management, 2014.

14 Martignon, S., et al., CariesCare practice guide: consensus on evidence into practice. Br Dent J, 2019. 227, 353–362. DOI: 10.1038/s41415-019-0678-8.

16 CariesCare International, CariesCare International. Accessed 01/02/2023; Available from: https://cariescareinternational.com/

20 Canadian Dental Association, Canadian Caries Risk Assessment Tool (< 6 years). Accessed 01/02/2023; Available from: http://www.cdaadc.ca/en/oral_health/cfyt/dental_care_children/risk_assessment.asp

promotion pamphlet. The main success factor in achieving that sort of change is co-designing services and programs with individuals and communities that support oral health as part of wider health. This requires building capacity and capability within communities to be part of that process of co-design.

It is vital to recognize that all communities are different (for example, First Nations compared with metropolitan areas) and what is seen as a 'community setting' will be variable. This requires intersectoral collaboration, with oral health providers working with other health and non-health stakeholders (such as education, welfare, religious structures, and other community groups).

The aim should be a continuum of support for oral health that distinguishes between school-based and non-school based populations. This is important as the setting can often dictate the level of engagement and collaborative behaviors with different health professions. Equally, it is critical to reach out to where the infants and children are, rather than always expecting them to travel. This involves using a mix of settings to maximize access (schools, daycare, religious settings, cultural settings, etc.), particularly for those children who have special needs.

Service and program design should focus on addressing prenatal, maternal, and early childhood risk factors and establishing oral hygiene routines early (for example, the use of fluoride toothpaste and promotion of a first dental visit no later than the first birthday).

Working to meet the needs of those in remote and rural areas, and special needs communities is also a priority. There are already good examples here of how to work with 'local champions' and build on existing community assets to create tailored and sustainable interventions.

Develop practical tools or apps to empower parents and families in prevention

Previous international Dental Policy Labs have emphasized the fundamental role of patients and the public in bringing about a Cavity-Free Future.[10,11,12] There is huge scope to help people make changes in their behaviors which benefit the prevention and management of caries (for example, eating less sugar and brushing with fluoride toothpaste). Consequently, in the context of infants and children in Canada, a key goal should be to empower parents and families to be as involved as possible.

Ideas for this include the development of apps that would combine imaging with question prompts to offer a form of 'oral health thermometer' to help predict if a child is at higher risk. Such apps could also support preventive behaviors (diet, sugar avoidance, tooth brushing, referring to professional care, etc.).

The development of such resources could be done through national or regional competitions, drawing on existing clinical risk assessments or other knowledge translations that the public might find useful in empowering their own dental health and that of their children.

10 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

11 Mazevet, M., Pitts, N. & Mayne, C. Dental Policy Lab 2 - towards paying for health in dentistry. Br Dent J, 2021. 231, 759–763. DOI: 10.1038/s41415-021-3725-1

12 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

6 The next steps

The feedback from participants following the Policy Lab has been very positive. This has underscored the value achieved in bringing together a diverse mix of perspectives, including those from the different oral health professions, academic research, policymaking and funding.

Working with the full range of stakeholders will be critical to the next steps in this journey towards a Cavity-Free Future for infants and children in Canada. As shown in the Canadian "Win[6] Cube", this includes:

- Government and health systems
- Oral health care professionals
- Other providers of services to infants and children (other health professionals, schools, social care, etc.)
- Patients, families and carers, local community bodies
- Payers and insurers
- Professional bodies, guidance and education providers
- Dental and oral health industries.

The graphic below suggests which of these groups might be an initial focus to engage with on the major themes for action that have emerged from the Policy Lab.

Strategic enablers	Upstream prevention	Oral health workforces	Community empowerment
• Sustainably fund caries prevention and care • Make the most of data	• Focus policy on the wider determinants of health and especially sugar consumption • Promote locally appropriate water fluoride strategies	• Shift perceptions and practice in the dentistry profession from treatment to prevention • Expand and integrate the oral health workforce	• Co-design culturally and community appropriate services with patients and communities • Develop practical tools or apps to empower parents and families in prevention
Stakeholder suggestions for initial engagement around the Policy Lab themes for action			
• Government and health systems • Dentists and other oral health care professionals • Payers and insurers • Professional bodies, guidance and education providers	• Dental and oral health industries • Government and health systems • Dentists and other oral health care professionals • Patients, families and carers, local community bodies	• Government and health systems • Dentists and other oral health care professionals • Other providers of services to infants and children • Payers and insurers • Professional bodies, guidance and education providers	• Dental and oral health industries • Government and health systems • Other providers of services to infants and children • Patients, families and carers, local community bodies

One way to spread the ideas from the Policy Lab would be to run a 'listening exercise', where representatives from each of these groups have the opportunity to share their own perspectives, prompted by consideration of the Policy Lab proposals. This will begin the process of co-creating with these groups a shared ambition that builds on what has been suggested and starts to chart out practical contributions each can make.

To help do this, there are a number of complementary models of organising that can help identify and mobilise the resources needed to build some momentum:

- A sponsoring committee could be formed to continue thinking and planning around how to broaden the stakeholder engagement
- Individual working groups could be set up for each of the themes, drawing on people with the particular skills, contacts and motivations to drive progress
- A broader network could be created, inviting all those interested in being part of improving the oral health of infants and children
- An open conference could be convened to springboard off publication of the report, giving a wide range of potential collaborators the chance to come together for a dialogue on how to work together.

In whatever ways the ideas from the Policy Lab are taken forward, ACFF, both globally and through its Canada-US Chapter, is committed to supporting all those in Canada who aspire to a future for infants and children in Canada where the pain and other harms of tooth decay are a thing of the past.

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 (D^3MFT). 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 early-stage dental caries to prevent the development of cavities and limit the need for restorative treatment.

DENTAL CARIES

The disease and disease process known as tooth decay. Dental caries (tooth decay) is a dynamic, multifactorial disease in which the hard tissues of the teeth demineralize at a faster rate than they can replenish the minerals lost (remineralisation).

DMFT

An index for measuring Decayed, Missing and Filled Teeth.

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.

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.

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 – QUARTERNARY

Prevention of medical harm from over-medicalization 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. [ICCMS™ [13]/ CariesCare International 4D[14] is an example of such a preventively oriented pathway.]

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.

WHO

The World Health Organisation.

A very recent initiative has defined consensus on terminology in the areas of dental caries and dental caries management. This is a useful resource for 59 terms in cariology.[17]

13 Pitts, N., et al., ICCMS™ Guide for Practitioners and Educators. Global Collaboratory for Caries Management, 2014.

14 Martignon, S., et al., CariesCare practice guide: consensus on evidence into practice. Br Dent J, 2019. 227, 353–362. DOI: 10.1038/s41415-019-0678-8.

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Towards a Cavity-Free Future for Infants and Children in Canada–Policy Lab Outcomes

1. The Challenge: Untreated tooth decay afflicts up to 90% of children in some Canadian communities.

- Dental caries (or tooth decay) in children younger than six is termed 'Early Childhood Caries' (ECC). Dental caries in children can result in cavities, abscesses and pain, as well as lead to other complications.
- There is a lack of national data on overall prevalence of ECC, but it is known to be a severe problem amongst First Nations, Inuit and Metis Children. Up to 90% of children in some northern and remote indigenous communities are affected.
- Children in urban areas in households with a lower socioeconomic status are particularly affected in large numbers.
- Across Canada, 1.2% of children end up with dental surgery under general anesthesia. Children in rural areas are three times more likely to need dental surgery than children from urban areas.

2. The Opportunity: This is a 'moment in time' to maximize caries prevention and care for children in Canada.

2.1. **Global Developments:** The WHO has agreed a Resolution on Oral Health and consulted on an Oral Health Strategy, resulting in a Draft Global Oral Health Action Plan with the overarching goals of a 10% relative reduction in oral diseases and conditions as well as ensuring 80% of the global population will be covered by essential oral health care services. The FDI has emphasized the centrality of oral health to overall health in its Vision 2030.

2.2. **Developments in Canada:** The Federal government has committed $5.3 billion to provide dental care for the uninsured. Now referred to as the 'Canada Dental Benefit', the program currently will target children under 12 years of age from families with an annual income of less than $90,000.

3. The Policy Lab: How to maximize caries prevention and care amongst infants and children.

- A policy lab is a collaborative workshop that brings together diverse stakeholders to discuss and make a breakthrough on a particular problem. This policy lab focused on what else was needed in terms of investments or other conditions to maximize prevention and care amongst infants and children.

4. The Ambition for 2030 developed at this lab is for: Enhanced prevention, wider access, improved outcomes and sustainable funding.

- Six Ambitions for 2030:
  - Equal access to prevention and care tailored to communities
  - 90% of children to be covered by insurance with access to primary and preventive care
  - ECC reduction on average by 10%
  - An integrated healthcare team that is part of the healthcare system
  - A data system with the information on caries prevention and care
  - Permanent foundation for infant and children oral health prevention and care.

- Four guiding principles:
  - Understanding different population needs
  - Learn from existing good practice in Canada and internationally
  - Tailored approaches that balance Federal, Province/Territory and local municipalities
  - Engage different stakeholders in planning and 'first step' actions.

5. The proposed actions: Creating momentum towards the 2030 Ambition

5.1. **Strategic enablers:**

- Sustainable funding would allow very effective interventions to be supported, while finding a more joined-up approach to planning and delivery of oral health would allow a redesigning of dental payment systems and remuneration policies.
- There is a pressing need to improve the quality of available data. This requires a set of minimum outcome measures Canada-wide. Data definitions should then be standardized across the dental coding system.

5.2. **Upstream prevention:**

- Focus policy attention on the fact that oral health is heavily influenced by the wider determinants of health and especially sugar consumption.
- Locally appropriate fluoride strategies will provide benefits as part of an overall strategy to improve oral health.

5.3. **Oral health workforce:**

- Shift perceptions and practice amongst the dentistry profession from treatment to prevention and care.
- All aspects of early childhood oral health should be fully integrated into the primary care and wider health systems. This would allow for an expansion of the wider oral health team to encompass as many professions and other caregivers as possible.

5.4. **Community empowerment:**

- Services must be co-designed with patients and communities so that they are culturally and community appropriate.
- Developing practical tools and apps will help empower parents and families to take part in the prevention of ECC.

6. Next Steps

- Work with the full range of stakeholders in order to achieve a Cavity-Free Future.
- Run listening exercises where each group is invited to share their perspectives and consider the Policy Lab proposals.
- A range of ways to take these steps forward have been proposed in the full document.

Based on the advice and policy recommendations from the Oral Health Policy Lab in Ottawa.

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?

THE CHALLENGE

Untreated tooth decay afflicts up to 90% of children in some Canadian communities

THE OPPORTUNITY

This is a 'moment in time' to maximize caries prevention and care for children in Canada

THE AMBITION FOR 2030

Enhanced prevention, wider access, improved outcomes and sustainable funding

THE FIRST STEPS:
ACTIONS TO CREATE MOMENTUM TOWARDS THE 2030 AMBITION

STRATEGIC ENABLERS

- Sustainably fund caries prevention and care
- Make the most of data

UPSTREAM PREVENTION

- Focus policy on the wider determinants of health and especially sugar consumption
- Promote locally appropriate water fluoride strategies

ORAL HEALTH WORKFORCE

- Shift perceptions and practice in the dentistry profession from treatment to prevention
- Expand and integrate the oral health workforce

COMMUNITY EMPOWERMENT

- Co-design culturally and community appropriate services with patients and communities
- Develop practical tools or apps to empower parents and families in prevention

MAKING IT HAPPEN

Working together with the full range of stakeholders will be critical to the next steps in this journey towards a Cavity-Free Future for infants and children in Canada. Stakeholders include:

- Government and health systems
- Oral health care professionals
- Other providers of services to infants and children
- Patients, families and carers, local community bodies
- Payers and insurers
- Professional bodies, guidance and education providers
- Dental and oral health industries

Engaging and acting across four complementary themes is essential. The themes identified are:

• Strategic enablers • Upstream prevention • Oral health workforce • Community empowerment

Alliance for a Cavity-Free Future ACFF Stop Caries NOW for a Cavity-Free Future

GCCM Global Collaboratory for Caries Management working with ICDAS Foundation and ACFF

King's College London and partners

power of numbers