SPOR Evidence Alliance
Strategy for Patient-Oriented Research
Alliance pour des données probantes de la SRAP
Stratégie de recherche axée sur le patient

Strategy for Patient-Oriented Research
SPOR
Putting Patients First

Dental Service Utilisation Among Individuals and Families Living in a Situation of Socio-Economic Disadvantage in Canada

A Scoping Review

Date of Literature Search: 9/10/2024
Date of Submission: 4/30/2025

Prepared By:
Reyhaneh Yousefi, Laurence Paquet, Camille Léger, Jessica Burdick, Patrice Ngangue, Alyssa Bensoussan, Viyana Pour, Maryline Côté, Julie Sanfaçon, and Simon Bacon

Contact:
Simon L. Bacon, PhD, FTOS, FCCS, FABMR
Email: Simon.Bacon@concordia.ca

Suggested citation: Yousefi R, Paquet L, Léger C, Burdick J, Ngangue P, Bensoussan A, Pour V, Côté M, Sanfaçon J, and Bacon, SL. Dental Service Utilisation Among Individuals and Families Living in a Situation of Socio-Economic Disadvantage in Canada. The Montreal Behavioural Medicine Centre, META group, 30 April 2025.

META
CMCM MBMC

Land Acknowledgement(s)

SPOR Evidence Alliance operates from the St. Michael's Hospital, Unity Health Toronto which is located on the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island.

We are grateful to have the opportunity to work on these lands.

Funding Acknowledgement(s)

The Strategy for Patient-Oriented Research Evidence Alliance (SPOR EA) is supported by the Canadian Institutes of Health Research (CIHR) under the Strategy for Patient-Oriented Research (SPOR) initiative.

SLB is supported by the Fonds de recherche du Québec: Santé (FRQS) through the Chaire de recherche double en Intelligence Artificielle/Santé Numérique ET sciences de la vie program (309811).

JB is supported by the Canadian Behavioural Interventions and Trials Network (CBITN) Scholarship Program.

CL is supported by the Canadian Institutes of Health Research (CIHR) (CGRS D-203340).

NW is supported by the CIHR-SPOR Mentoring Chair programme (SMC-151518) and FRQS scholarships.

Project Contributors

Pegah Aghili, intern[1, 2, 3]: Screening
Simon Bacon, PhD, FTOS, FCCS, FABMR, co-lead [1, 4]: Project supervision
Alyssa Bensoussan, intern [1, 5]: Writing of the report
Jessica Burdick, PhD student [1, 4] : Screening, extraction, and writing of the report.
Maryline Côté, citizen partner and co-lead: Assisting in the development of the protocol, review of produced documents
Camille Léger, PhD student [1, 6] : Screening, extraction, and writing of the report.
Patrice Ngangue, MD, MSc, PhD, research assistant [1, 7]: Organising the writing of the report
Laurence Paquet, MSc, research assistant [1] : Project coordination, assisting in the development of the search strategy and of the protocol, screening, extraction, analysis and writing of the report.
Viyana Pour, intern [1, 2] : Writing of the report
Julie Sanfaçon, citizen partner : Review of produced documents
Nana Wu, PhD, post doctorate [1, 4, 8]: Development of the search strategy and the protocol.
Reyhaneh Yousefi, PhD, research assistant [1, 4]: Assisting in the development of the protocol, screening, extraction, analysis and writing of the report.

1. Montreal Behavioural Medicine Centre, CIUSSS-NIM
2. Concordia University, Department of Psychology
3. Concordia University, Department of Computer Science and Software Engineering (CSSE)
4. Concordia University, Department of Health, Kinesiology & Applied Physiology
5. McGill University, Department of Psychiatry
6. Université du Québec à Montréal, Department of Psychology
7. Université Laval, Faculty of Nursing
8. McMaster Health Forum, Department of Health Research Methods, Evidence, and Impact, McMaster University

Third-Party Materials

If you wish to reuse non-textual material from this report that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is required for such use and to obtain necessary permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned material rests solely with the user.

General Disclaimer

This report was prepared by the META group within the Montreal Behavioural Medicine Centre on behalf of the SPOR Evidence Alliance. It was developed through the analysis, interpretation and synthesis of scientific research and/or health technology assessments published in peer-reviewed journals, institutional websites and other distribution channels. It also incorporates selected information provided by experts and patient/citizen partners with lived experience on the subject matter. This document may not fully reflect all the scientific evidence available at the time this report was prepared. Other relevant scientific findings may have been reported since completion of this synthesis report.

The SPOR Evidence Alliance and the project team make no warranty, express or implied, nor assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, data, product, or process disclosed in this report. Conclusions drawn from or actions undertaken on the basis of, information included in this report are the sole responsibility of the user.

Table of Contents

Abbreviations and Definitions

Abbreviations

TDF Theoretical domains framework
AB: Alberta
AAHB: Alberta Adult Health Benefit
ACHB: Alberta Child Health Benefit
AHRNI: Applied Health Research Network Initiative
AHS: Alberta Health Services
BC: British Columbia
BFNH: Bruyere Family Health Network
CCHS: Canadian Community Health Survey
CDB: Canada Dental Benefit
CDC: community dental clinics
CDCP: Canadian Dental Care Plan
CHMS: Canadian Health Measures Survey
CIHR: Canadian Institutes of Health Research
COHI: Children's Oral Health Initiative
CRA: Canada Revenue Agency
CREMIS: Centre de recherche de Montréal sur l'inégalité sociale et les discriminations
DMFT: number of Decayed, Missing due to caries, and Filled Teeth in the permanent teeth
DTES: Downtown Eastside, DQA: Dental Quality Alliance
ED: Emergency department
FRSQ: Fonds de la recherche en santé du Québec
FSA: Forward Sortation Area
FTE: Full-time equivalent
FV: Fluoride Varnish
HSO: Healthy Smiles Ontario
IFHP: Interim Federal Health Program
JLDC: Jim Lund Dental Clinic
LICO: Low Income Cut Offs
LSIC: Longitudinal Survey of Immigrants to Canada
MB: Manitoba
MBM: Market Basket Measure
NFLD: Newfoundland and Labrador
NFP: Not-for-profit
NGO: Non-governmental organizations
NPHS: National Population Health Survey
NR: not reported
OH: Oral Health
PEI: Prince Edward Island
PHDC: Public Health Dental Clinics
PHIRN: Population Health Improvement Research Network
QC: Quebec
RSBO: Réseau de recherche en santé buccodentaire et osseuse
SCP: Schulich Clinical Practice
SES: socioeconomic status
SHINE: Student Health Initiative for the Needs of Edmonton
VC: Volunteer-charitable
YSB: Youth Services Bureau

Key Definitions:

Individuals and families living in a situation of socioeconomic disadvantage: Refers to both individuals and families from low socioeconomic status (SES) settings and with socio-economic disadvantages.

EXECUTIVE SUMMARY

Intro: Access to dental care in Canada is limited, especially for those without insurance coverage, creating disparities in oral health. Despite initiatives like the Canadian Dental Care Plan, many people fall into a "grey zone," unable to afford care and not qualifying for aid. Barriers like cost and health literacy exacerbate these inequities.

Methods: A scoping review was conducted to identify barriers and enablers to dental care for individuals and families living in a situation of socio-economic disadvantage. Using qualitative analysis methods, the findings were mapped onto the theoretical domains framework (TDF). Documented interventions aimed at mitigating these barriers were also synthesised.

Results: A total of 732 titles and abstracts were reviewed, 122 full-text articles were screened, and 50 additional records were examined through hand searches and snowballing. Ultimately, 42 articles were included, 26 focused on barriers and facilitators, 22 on interventions, including 6 reporting on both. Additionally, data were extracted from three articles reporting practitioners' perspectives. The most frequently identified TDF domains included ‘environmental context and resources’, ‘emotions’, and ‘social influences’. Among patients, key barriers to accessing dental care included financial hardship, time constraints, limited organisational resources, insufficient awareness of available programs, transportation difficulties, language and cultural issues, long wait times, childcare challenges, and fear or distrust of dental procedures and negative perceptions of dental care. For providers the most frequently identified TDF domains were 'environmental context and resources,' and 'social/professional role and identity including barriers such as staffing shortages and limited funding for treatments.

Missed appointments were frequent, prompting some clinics to adopt strategies such as double booking, though some practices subtly excluded individuals they saw as ‘less reliable’ such as individuals receiving financial aid. Five main types of approaches to improve access to dental care were identified, including local initiatives such as free clinics, federal programs, school interventions, provincial programs, programs to improve access to government programs and approaches that could not be categorised. While these programs were overall appreciated and improved the access to dental care, many still had hurdles to access them, they didn’t cover everything, didn’t provide sufficient funding to cover the cost of treatments, or didn’t address aspects (i.e., cultural or language barriers, health literacy, transportation) other than cost.

Conclusion: This scoping review provides a stepping stone to aid in understanding some of the areas that need to be considered to improve access to dental care in Canada. Clinicians, decision makers and researchers can use the domains identified to identify solutions to key barriers to access to dental care.

Protocol registration : https://osf.io/q38sy

Introduction : L'accès aux soins dentaires au Canada est limité, en particulier pour ceux qui n'ont pas de couverture, ce qui crée des disparités en matière de santé bucco-dentaire. Malgré des initiatives comme le Régime canadien de soins dentaires, de nombreuses personnes se trouvent dans une « zone grise », incapables de se permettre des soins dentaires. Des barrières telles que le coût et le niveau de littératie en santé aggravent ces inégalités.

Méthodes : Une revue de portée a été réalisée afin d'identifier les barrières et les facteurs facilitant l'accès aux soins dentaires pour les personnes en situation de défavorisation socio-économique, en cartographiant les résultats selon le *Theoretical Domains Framework* (TDF) à l'aide d'une analyse déductive et inductive. Les approches et les programmes visant à surmonter ces barrières ont aussi été examinées.

Résultats : Au total, 732 titres et résumés ont été examinés, menant à l'évaluation de 122 articles en texte intégral. Cinquante documents supplémentaires ont été identifiés et analysés à l'aide de recherches manuelles et de la technique du *snowballing*. Finalement, 42 articles ont été inclus : 26 se concentraient sur les barrières et les facilitateurs, et 22 sur les approches utilisées pour améliorer l'accès aux soins dentaires, six d'entre eux rapportant à la fois des barrières et des approches. De plus, des données provenant de trois articles qui rapportaient la perspective des équipes de soins dentaires ont été extraites bien que ce projet se concentrait principalement sur les individus et les familles socio-économiquement défavorisées. Les domaines du TDF les plus fréquemment identifiés étaient « contexte et ressources environnementales », « émotions » et « influences sociales ». Les principales barrières identifiées comprenaient le stress financier, le manque de temps, les ressources organisationnelles insuffisantes, la connaissance limitée des programmes disponibles, les difficultés de transport, les problèmes linguistiques et culturels, les longs temps d'attente, les défis liés à la garde d'enfants, ainsi que des facteurs comme la peur des procédures dentaires et les perceptions négatives des soins dentaires. Pour les prestataires, les domaines du TDF les plus fréquemment identifiés étaient « contexte et ressources environnementales », suivis de « rôle social/professionnel et identité ». Les principales barrières comprenaient les pénuries de personnel et le financement limité des traitements.

Les rendez-vous manqués étaient fréquents, et les cliniques utilisaient souvent des stratégies pour y faire face tel que la surréservation. Certaines pratiques excluaient subtilement les individus perçus comme « moins fiables » tel que les individus recevant une aide financière. Cinq grands types d'approches pour améliorer l'accès aux soins dentaires ont été identifiés, notamment des initiatives locales comme les cliniques gratuites, des programmes fédéraux, des interventions scolaires, des programmes provinciaux, des programmes pour améliorer l'accès aux programmes gouvernementaux, et des approches non catégorisées. Bien que ces programmes aient globalement été appréciés et aient amélioré l'accès aux soins dentaires, beaucoup rencontrent encore des obstacles, car ils ne couvrent pas tout, ne fournissent pas suffisamment de fonds pour couvrir le coût des traitements, ou ne traitent pas d'autres aspects que le coût.

Conclusion : Cette revue de portée constitue une étape importante pour améliorer l'accès aux soins dentaires. Les cliniciens, les décideurs et les chercheurs peuvent utiliser les domaines identifiés pour trouver des solutions aux principales barrières à l'accès aux soins dentaires.

Enregistrement du protocol : https://osf.io/q38sy

Introduction

Access to healthcare is a cornerstone of public health, yet disparities persist, particularly for services not universally covered by public health systems.[1] In Canada, while essential medical services are covered under provincial healthcare plans, dental care remains largely excluded, except in specific circumstances such as children, seniors, and individuals with disabilities meeting income criteria.[2] This gap leaves many individuals and families living in a situation of socio-economic disadvantage unable to afford necessary dental services. Despite recent efforts by the federal government to expand dental coverage through the Canadian Dental Care Plan, substantial barriers remain for individuals who are ineligible for these benefits.[3,4] Many individuals fall into a "grey zone," where they earn too much to qualify for public assistance yet lack access to employer-sponsored insurance or cannot afford out-of-pocket costs.[5] This exclusion exacerbates inequities in oral health outcomes, as untreated dental issues can lead to chronic pain, infection, and reduced quality of life.[6]

The current body of literature highlights numerous barriers and facilitators to dental care access. These include cost, transportation, cultural or language barriers, and health literacy.[7] However, existing syntheses often lack specificity to the Canadian context, where unique healthcare policies and socio-economic factors influence access. While individual studies in Canada have explored barriers and facilitators to dental care,[5] no comprehensive evidence synthesis has mapped these findings onto theoretical frameworks like the Theoretical Domains Framework (TDF). TDF is a comprehensive tool that synthesises constructs from 33 behaviour change theories into 14 key domains, such as "knowledge," "social influence", and "emotions". This framework offers a systematic approach to understanding the wide range of factors that influence health behaviours,[8] which can then be used to develop intervention targets that address the issues.[9]

This scoping review aimed to answer two main questions: 1) What are the barriers and facilitators to accessing and using dental care services for individuals and families living in a situation of socio-economic disadvantage in Canada?; and 2) What approaches can be taken to increase the access to or use of dental care services for individuals and families living in a situation of socio-economic disadvantage in Canada? The potential influences for accessing dental care were assessed through the lens of the TDF. The insights gained from this review are expected to be the building block for the development of evidence-informed approaches to reducing oral health inequities in Canada. Specifically, we anticipated identifying both systemic and community-based strategies that could bridge gaps in access, along with recommendations for scaling effective interventions to broader populations.

Methods

This was a registered scoping review (OSF: https://osf.io/q38sy), conducted in accordance with the *JBI methodology for scoping review*.[10]

Inclusion/exclusion criteria

For this scoping review, we included studies reporting primary data on barriers and facilitators to accessing and utilising dental care services among individuals and families living in a situation of socio-economic disadvantage in Canada as well as studies reporting on various approaches to improve access to dental care. Studies were eligible if they explored any modifiable or non-modifiable factors influencing dental service use from the perspectives of patients. Both qualitative and quantitative study designs were included. Articles published in English or French were considered for inclusion. Studies of both individuals and families from low socioeconomic status (SES) settings and with socio-economic disadvantages were included. However, to simplify the writing in this report we refer to both as 'individuals and families living in a situation of socioeconomic disadvantage'.

This review excluded studies focused on populations outside Canada or those that did not provide specific results for individuals or families living in a situation of socioeconomic disadvantage. Additionally, opinion papers, protocols, conference abstracts, and literature reviews were excluded. Studies solely addressing other types of healthcare services without mention of dental care were also not considered (see Table S1).

Search strategy

We searched the following databases to identify published literature: MEDLINE; Embase; PsycINFO; Web of Science; and CINAHL. The keywords were categorised into three main groups to include terms related to: 1) dental care; 2) barriers and facilitators; and 3) low SES (see Table S2). Reference lists of reviews identified during the screening process were screened to identify additional relevant publications. Additionally, grey literature was searched on websites of relevant organisations, such as the Government of Canada, the Canadian Dental Association, and the Ordre des dentistes du Québec. The search was conducted on September 10th, 2024.

Screening for inclusion

Peer reviewers conducted training on five articles and a pilot screening of 75 records to ensure a minimum inter-reviewer agreement of at least 85% prior to the main screening process. After removing duplicates, titles and abstracts were screened independently by two reviewers against

the predefined inclusion and exclusion criteria (see Table S1). Full-text articles of potentially eligible studies were subsequently assessed for inclusion. Inter-reviewer agreement rates during the title/abstract and full-text screening phases were 91.9% and 89.9%, respectively. Discrepancies were resolved through consensus or, when necessary, by consulting a third reviewer. The screening process was managed using Rayyan software to ensure consistency and transparency.

Data extraction

Peer reviewers independently extracted data on study characteristics and outcomes using a standardised data extraction template (see Tables S3 and S4). Extracted data included study design, population characteristics, and outcomes related to barriers and facilitators to accessing and utilising dental care services. Additionally, participant quotations from qualitative studies, survey findings from quantitative studies, and authors' interpretive summaries were identified and documented. Information on various approaches used to mitigate the barriers to the access to dental care for individuals living in a situation of socio-economic disadvantage was also extracted in a separate sheet. Conflicts or discrepancies during the extraction process were resolved through discussion among reviewers, with a third party consulted if consensus could not be reached. This systematic approach ensured consistency and accuracy in capturing relevant data.

Data analysis

We utilised analytical techniques consistent with prior research that applied the TDF to semi-structured interview data and systematic reviews.[11,12] This approach combines content analysis with framework analysis and involves three key steps: 1) conducting a deductive analysis by coding data according to TDF domains; 2) performing an inductive analysis to synthesise emerging themes; and 3) identifying the most relevant domains based on the data.

Deductive analysis: Peer review authors independently assigned the extracted data to the most appropriate theoretical domains based on their judgment. For instance, the qualitative statement, "After I pay my rent and my hydro and my phone, I'm left with about forty bucks a month to live on.", was categorised under the 'environmental context and resources' domain, while the survey finding of "Even though I look the person in the eye, I always come back to: 'oh, their teeth aren't nice' (. . .). Deep down, I'm judging the person", was classified under the 'social influences' domain. When data excerpts were relevant to multiple domains, they were coded to all applicable domains. Any discrepancies were resolved through discussion until consensus was reached.

Inductive thematic synthesis: Aligned with a framework analysis approach, the second step involved sifting and organising data within each domain to create emerging thematic patterns. Authors grouped similar data related to barriers and facilitators for accessing dental care within

each of the 14 TDF domains. Theme labels, representing broad thematic categories, and sub-theme labels, where applicable, describing more detailed aspects of the content, were then inductively generated for each cluster of similar data to articulate shared perspectives. To ensure consistency, the authors reviewed the data with a focus on three key areas: 1) grouping of similar data; 2) generation of overarching themes; and 3) accurate categorisation of themes under the appropriate TDF domain. Each identified theme or sub-theme was categorised as: a barrier if the data solely reflected obstacles (e.g., lack of access to affordable dental care); an enabler if the data solely reflected facilitators (e.g., availability of community dental programs); a mixed influence, if the data indicated both barriers and enablers (e.g., variable impacts of dental insurance policies).

Identifying important domains: Each TDF domain was assessed for its relevance using two predefined importance criteria:[9] 1) Frequency – the number of studies in which the domain was identified; and 2) Elaboration – the number of themes and sub-themes generated within each domain, indicating the richness of the data. These criteria ensured a systematic evaluation of the most consistently covered domains affecting access to and utilisation of dental care among individuals and families living in a situation of socio-economic disadvantage.

Risk of bias assessment

The included studies were assessed using the Critical Appraisal Skills Programme Qualitative Checklist (http://www.casp-uk.net/casp-tools-checklists) and the Mixed Methods Appraisal Tool (https://www.mcgill.ca/familymed/research/projects/mmat). Mixed methods studies were appraised using both tools.

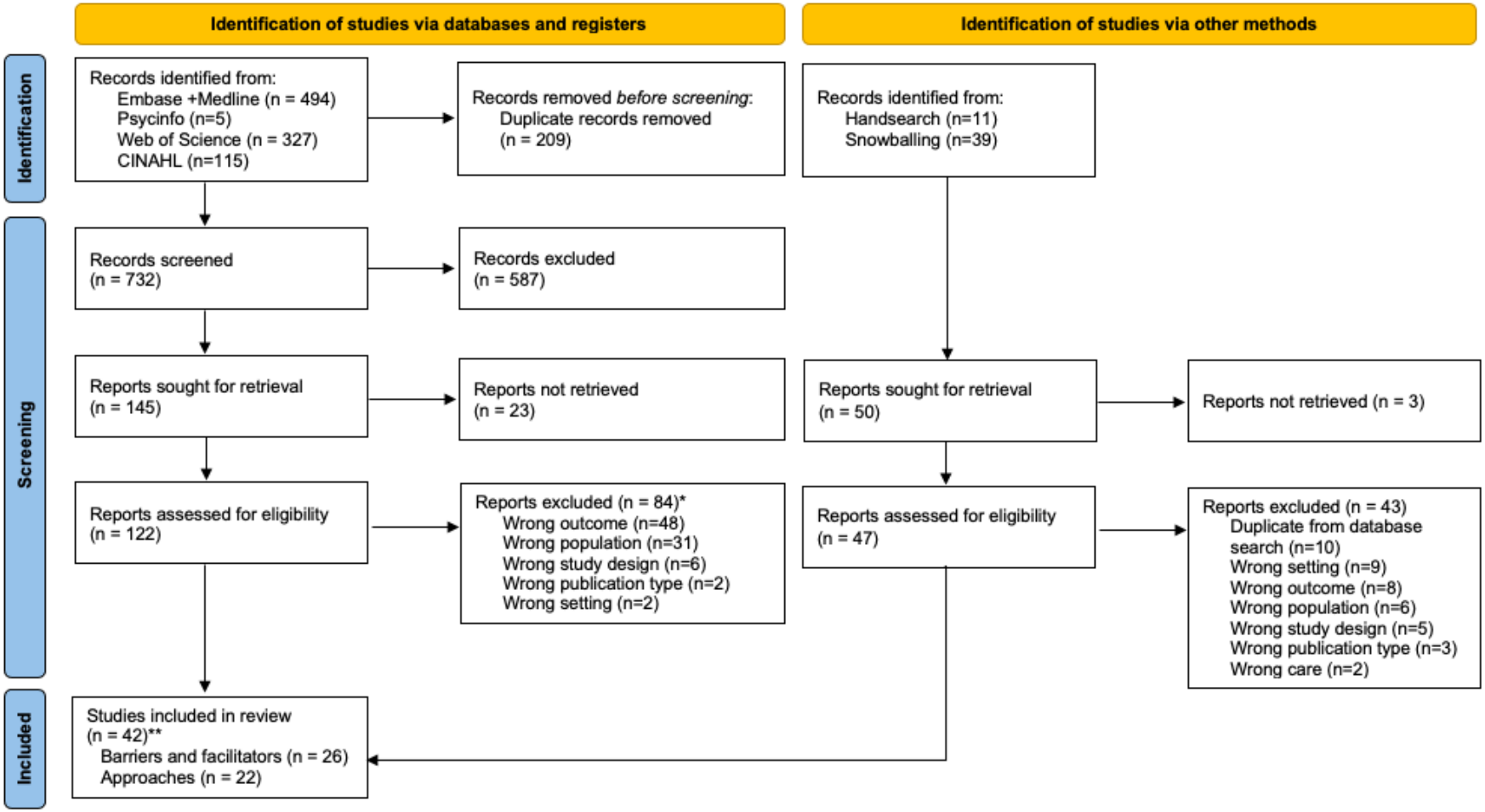
Results

Study characteristics

A comprehensive database search identified a total of 941 publications. Following the removal of duplicates, 732 titles and abstracts were reviewed, leading to the screening of 122 full-text articles. Ultimately, 38 publications met the predefined inclusion criteria and were incorporated into the review (see Figure 1). In addition, 50 additional records were screened through the hand search and snowballing process, leading to four additional included documents, leading to a total of 42 articles being included in this review. Of the 42 included records, 26 were included for barriers to and facilitators of accessing dental care (question 1, see Table 1) and 22 for approaches to improve dental care access (question 2). Of note, six of the above included studies were related to both questions 1 and 2. In addition, even though our study population was individuals and families living in a situation of socio-economic disadvantage, during the screening process we found studies reporting on the point of view of practitioners. A total of three of these kinds of articles were extracted for question 1 (See Table 2).

In total, 2,918,935 participants were involved across the 26 selected studies for question 1. Of the studies reporting on barriers and enablers to dental care (question 1), eight adopted qualitative methods, using interviews or focus groups for data collection, 17 studies employed quantitative methods, primarily surveys, while one study utilised mixed methodologies. Of the 22 articles reporting on approaches (question 2), ten used quantitative methods, six used qualitative methods, two utilised mixed methodologies, and four were either reporting on the development of an approach or only described the approach. Overall, they reported on approximately 272,600 individuals, including patients, health care professionals, children and parents. Three of the selected articles also reported on barriers and facilitators from the point of view of providers used qualitative methods.

Figure 1. PRISMA flow diagram of included and excluded studies



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: http://www.prisma-statement.org/

*Some studies were excluded for more than 1 reason

**6 studies were included for both outcomes

Table 1. Characteristics of studies reporting on barriers and enablers from the patients' perspective (n=26)

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
Abdelrehim, 2024	To examine the socio-demographic attributes of individuals with private dental insurance in Ontario, Canada, and to identify those who, despite having insurance, face financial barriers to accessing dental care.	Cross-sectional	Survey data (secondary analysis)	No external funding	People aged 12 years or older, living in private dwellings in Ontario, and who have private dental insurance.	17,678	Based on total household income	**Health regions (ON)** - West: 24.5% (23.5, 25.5) - Central: 29.5% (28.3, 30.7) - Toronto: 19.9% (18.1, 21.4) - East: 21.0% (20.1, 21.9) - North: 5.1% (4.8, 5.4)
Abdelrehim, 2023	- To explore trends in self-reported cost barriers to dental care in Ontario - To assess trends in the socio-demographic characteristics of Ontarians reporting cost barriers to dental care - To identify the trend in what attributes, predict reporting cost barriers to dental care in Ontario.	Cross-sectional	Secondary data analysis - Data is collected over the telephone or in-person, using computer-assisted personal interviewing (CAPI) or computer-assisted telephone interviewing (CATI) techniques.	No specific funding for this work	Ontarians aged 12+ years, living in private dwellings.	203,112	Based on total household income (income adequacy) **First (Lowest Income)** - 1 to 4 people: Less than $10,000 - 5 or more people: Less than $15,000 **Second (Lower Middle Income)** - 1 or 2 people: $10,000 to $14,999 - 3 or 4 people: $10,000 to $19,999 - 5 or more people: $15,000 to $29,999 **Third (Middle Income)** - 1 or 2 people: $15,000 to $29,999 - 3 or 4 people: $20,000 to $39,999 - 5 or more people: $30,000 to $59,999	Ontario

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
							Fourth (Upper Middle Income) - 1 or 2 people: $30,000 to $59,999 - 3 or 4 people: $40,000 to $79,999 - 5 or more people: $60,000 to $79,999 **Fifth (Highest income)** - 1 or 2 people: $60,000 or more - 3 or more people: $80,000 or more	
Abouseta, 2022	To examine whether the association of neighborhood-level SES with the cost of dental care and dental care outcomes differs between adolescents and young adults.	Cross-sectional	Secondary analysis of electronic dental records (billing records and demographic information) and data from Statistics Canada for neighborhood-level SES	Internal Research Grant from Schulich Dentistry	Aged 15–24 years at the time of the last dental visit at the dental clinics of Schulich School of Medicine & Dentistry at University of Western Ontario. Patients who had at least 1 additional treatment code within a 180-day period of the first recorded visit for each year studied were included in the study according to the protocol set by the DQA to ensure that there is no skew or bias	2,915	Neighborhood-level SES was described using: 1- Median household income. 2- Percentage of the population with less than secondary school education. 3- Percentage of the population speaking a non-official language at home (neither English nor French). 4- Percentage of the population that had lived in Canada for less than 10 years	London, ON (17 FSA codes)
Ahmad, 2014	To identify disparities in the availability of dentists in Canada's largest	Cross-sectional	Secondary data collection (geocoded	No declared financial interests	FSAs in the Metropolitan Toronto area with available	Average of 26,075 people per	Neighborhood based: Each FSA was classified into 1 of 4	Metropolitan Toronto, ON (96 FSA codes)

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
	urban centre, Toronto, and explore whether distributional disparities are associated with underlying factors, such as affordability as measured by average household income.		dentist data and census data)		data from the 2006 Census	FSA	groups based on average annual household income: - low ($40,000–$60,000), - middle (> $60,000–$80,000), - upper middle (> $80,000–$100,000) and - high (> $100,000–$400,000)	
Amegbor, 2018	To examine the level of public support for dental care and its effect on utilization across the three selected provinces (AB, MB, and NFLD).	Cross-sectional	Survey (2012 CCHS annual component conducted by Statistics Canada)	Government (Canada Research Chairs program)	Canadian population aged 12+ years, living in AB, MB, or NFLD	10,763	Based on the household income (individuals in the three lowest categories, <59,999$ per year)	- AB (n=5,520) - MB (n=3,486) - NFLD (n=1,765)
Amin, 2014	To explore reasons for the underuse of dental services covered by a government-funded program in AB.	Cross-sectional	Survey questionnaire	Government (AB Human Services)	Receiving either ACHB and the AAHB programs, and having at least one child	1,303 children from 597 households	Participants were recipients of government-funded health benefit programs intended for low-income families (ACHB or AAHB programs)	**AB** - Edmonton: 23.6% (n=141) - Calgary: 26.0% (n=155) - Other: 50.4% (n=301)
Amin, 2011	To explore the utilization of dental services for children among low-income families receiving assistance from 2 provincial health benefit programs in AB, ACHB and AAHB programs.	Cross-sectional	Telephone interviews	NR	Families with at least one child receiving ACHB or AAHB	820 respondents (405 from ACHB and 415 from AAHB)	Families eligible for ACHB or AAHB programs based on income threshold and receiving ACHB or AAHB programs	**AB (ACHB)** - Calgary: 29.9% (n=121) - Edmonton: 24.9% (n=101) - Other: 45.2% (n=183) **AB (AAHB)** - Calgary: 23.6% (n= 98) - Edmonton: 27.5% (n=114) - Other: 48.9% (n=203)
Bedos,	To explore:	Qualitative	Focus group	Government	Francophones aged	72	Individuals who	All individuals lived in

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
2009	• How do people on social assistance perceive and experience oral health? • What kinds of strategies do they develop to improve oral health?		and interviews	(FRSQ Network for Oral and Bone Health Research and the Canadian Institutes of Health Research)	20-55 years receiving public assistance and living in a disadvantaged neighborhood in Montreal	57 from 8 focus groups and 15 from interviews	received public assistance	Montreal
Bedos, 2005	To understand the rationale behind the behaviour of persons receiving public assistance when tooth pain occurs and to identify their indicators of dental health and illness.	Qualitative	Focus group to discuss various themes and a short questionnaire about socio-demographic variables.	Government (FRSQ-RSBO and a research fellowship from CIHR)	Francophones aged 20 to 55 years receiving public assistance	57 (8 focus groups)	Receiving public assistance	Disadvantaged neighbourhood in Montreal, QC
Bedos, 2003	To describe the dental care pathway of the underprivileged when confronted with symptoms, and to understand how this pathway might be interrupted and possibly lead to tooth extractions.	Qualitative	Semi-structured one-on-one interviews	Government (FRQS and CIHR)	Individuals aged 30 to 50 years, receiving welfare and who have experienced a dental problem during the 12 months preceding the interview.	16	Being on welfare	**Montreal neighbourhoods, QC** -Hochelaga–Maisonneuve: 50% (n=8) - Verdun: 50% (n=8)
Calvasina, 2014	To examine predictors of unmet dental care needs among a sample of recent immigrants to Canada over a 3.5-year period.	Cross-sectional analysis of longitudinal data	Interviews and surveys	Government (PHIRN & AHRNI)	Non-refugee immigrants aged 18-60 years old who left their country of origin directly to immigrate to Canada (landed from abroad), applied through a Canadian Mission abroad, reported an unmet dental care	2,126	Based on annual income (40,000$ and less)	Urban areas across Canada

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
					need over the years after immigrating to Canada and arrived in Canada between October 2000 and September 2001			
Dong, 2011	To better understand how Chinese immigrants access dental health services and to identify the kind of difficulties they encounter when seeking dental treatment.	Qualitative	Individual, semi-structured qualitative interviews (1.5 hrs)	Government (FRSQ, and by a post-doctoral grant from CIHR)	First-generation economic immigrants, aged ≥ 20 years of age, born in China, and residing in Montreal	12	First-generation immigrants; low incomes because of unemployment or short-term employment	Montreal, QC
Hau, 2017	- To design a tool and strategy to collect OH info in a low-income community - To characterize the OH status and related factors among low-income adults in the DTES community - To identify the explanatory factors for their OH status.	Cross-sectional	- OH screening - A survey designed with questions adapted from the CHMS and categorized into 5 modules	Government (New Emerging Team Oral Health Disparities Grant of the CIHR) Foundation (BC Cancer Foundation)	Individuals aged 19 years or older currently living in Vancouver's DTES for at least 3 months.	356	Low-income status was determined in accordance with the Low Income Cut-Offs established by Statistics Canada. Low income was determined as receiving less than $20,000 per annum for an individual living in a single person household	**Residency in DTES, Vancouver, BC** - <1 years: 9% (n=31) - 1-8 years: 39% (n=140) - 8+ years: 51% (n=182)
Lévesque, 2009	To develop a DVD to provide a means for people living on welfare—given their vulnerability to societal prejudices and very low socioeconomic position—to voice their opinions, perceptions, and experiences related to poverty and oral	Qualitative	Workshops, Interviews	Government (FRSQ-RSBO)	- Workshop: NR - Video (DVD): Individuals living on welfare or having experienced welfare were approached in Montreal	Workshop: 10 Video: 6	Individuals living on welfare or having experienced welfare	Most participants live in the underprivileged neighbourhoods of Verdun and Hochelaga-Maisonneuve in Montreal, QC

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
	health.							
Locker, 2011	1) To document the percent and characteristics of adult Canadians who encounter financial barriers to dental care; 2) To assess the associations between income, dental insurance and financial barriers; 3) To assess the consequences of these financial barriers in terms of the use of services and oral health outcomes.	Cross-sectional	Telephone interview survey undertaken by a large commercial social research organization.	NR	Canadian adults aged 18+ years	2,027	Based on household income Household income was assessed using a six-category ordinal variable ranging from "Less than $20,000 per annum" to "$120,000 or more."	NR
Menon, 2024	To investigate the perspectives of parents of children under 12 years old on dental care accessibility challenges and the Interim CDB in anticipation of CDCP.	Cross-sectional	15 min online survey	Government	Parents of children < 12 years of age. Annual household income < $90,000 Canadian. Participants aged 18+	2,201	Annual household income < $90,000	**Province** - Atlantic: 7.7% (n=170) - Quebec: 21.8% (n=480) - Ontario: 37.7% (n=829) - MB/Saskatchewan: 8.0% (n=175) - AB: 12.0% (n=264) - BC/North: 12.9% (n=283) **Urban/Rural** - Urban: 81.2% (n=1,787) - Rural: 18.8% (n=392)
Millar, 1999	To examine the extent to which Canadians are covered by dental insurance, and how such coverage affects their use of dental services	Cross-sectional	Data from the 1996/97 NPHS	NR	Canadians aged 15 years or older	70,884 (resampled into a 23,444 weighed sample)	Based on household income **Lowest/Lower-middle** - 1 or 2: Less than $14,999 - 3 or 4: Less than	**Province** - Newfoundland: (n=827) - PEI: (n=808) - Nova Scotia: (n=852) - New Brunswick: (n=902) - Québec: (n=2,412)

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
							$19,999 - 5 or more: Less than $29,999 **Middle** - 1 or 2: $15,000 to $29,999 - 3 or 4: $20,000 to $39,999 - 5 or more: $30,000 to $59,999 **Upper-middle** - 1 or 2: $30,000 to $59,999 - 3 or 4: $40,000 to $79,999 - 5 or more: $60,000 to $79,999 **Highest** - 1 or 2: $60,000 and over - 3 or 4: $80,000 and over - 5 or more: $80,000 and over	- Ontario: (n=37,716) - MB: (n=11,417) - Saskatchewan: (n=904) - AB: (n=13,683) - BC: (n=1,363) **Residence** - Rural: (n=14,999) - Urban: (n=55,842) - Missing: (n=43)
Muirhead, 2009	To identify predictors of dental care utilization by working poor Canadians	Cross-sectional stratified sampling study	Telephone surveys	Not explicitly stated; research supported by institutions	Working poor Canadians aged 18-64 years who worked for pay for at least 20 hours a week in the reference year and were not full-time students, and who lived in the 10 Canadian provinces	1,049	An annual family income below $34,300	Newfoundland, PEI, Nova Scotia, New Brunswick, Québec, Ontario, MB, Saskatchewan, AB, BC

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
					excluding Yukon, Northwest Territories, and Nunavut			
Murphy, 2024	To estimate the prevalence of visiting a dental professional in the past year, as well as cost-related avoidance of oral health care in Canadian children and youth aged 1 to 17 years. Additionally, it sought to examine the association of dental insurance and other socioeconomic factors with the use of oral health care services.	Cross-sectional	Survey - 2019 Canadian Health Survey on Children and Youth (CHSCY) **Two questionnaires used:** - one to the person most knowledgeable about the selected child or youth aged 1 to 17 years, - one directly to the selected youth aged 12 to 17 years.	Government	Canadians aged 1 to 17 years (as of January 31, 2019) living in the 10 provinces and the 3 territories	47,347	Based on AFNI (based on net family income minus the Canada Child Benefit minus the amount of Registered Disability Savings Plan plus the Canada Child Benefit repaid): - 1st quintile: <$39,481 - 2nd quintile: $39,481 to <$73,295 - 3rd quintile: $73,295 to <$105,787 - 4th quintile: $105,787 to <$149,704, - 5th quintile: $149,704 or more AFNI cut-offs were broken into three categories to align with the CDCP's policy framework: - <$70,000 - $70,000 to <$90,000 - $90,000 or more	**Rurality status** - Population centre: 82.1% (81.6-82.5) - Rural: 17.9% (17.5-18.4) **Province or territory** - NFLD: 1.3% (1.3-1.3) - PEI: 0.4% (0.4-0.4) - Nova Scotia: 2.3% (2.3-2.3) - New Brunswick: 1.9% (1.9-1.9) - Quebec: 22.2% (22.0-22.3) - Ontario: 38.9% (38.8-39.0) - MB: 3.9% (3.8-3.9) - Saskatchewan: 3.5% (3.4-3.5) - AB: 13.3% (13.2-13.4) - BC: 12.0% (11.9-12.1) - Territories: 0.5% (0.4-0.5)
Noushi, 2020	To understand the experiences and expectations of underprivileged people about dental care and contribute to the development of person-centred care in dentistry.	Qualitative	Semi-structured individual interviews	Fondation Marcelle & Jean Coutu, CREMIS, and RSBO	Being at least 18 years, able to speak French or English, and consulting the JLCD	13	Participants who attended the free JLDC in Montreal (clinic offering free dental care to low income and homeless Montrealers without access to dental insurance, which	Montreal, QC

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
							often encompasses a large immigrant population reflective of the Montreal community, to visit it, individuals are required to live under the Threshold of Poverty)	
Nurelhuda, 2021	To test the pathway model by exploring pathways to oral health care among humanitarian migrants in another Canadian province (Ontario); and to explore the perception of humanitarian migrants of the IFHP which had been reformed in 2016 to provide more extensive—yet still basic—dental services to its beneficiaries.	Qualitative	Focus group discussions in multiple languages (4 focus groups were held, one each in English, Spanish, Arabic, and Dari.)	Government (CIHR)	Individuals aged at least 18 years who arrived in Canada as refugees or asylum seekers (from the Middle East, Central and South America, South Asia, and Africa), and have previous experience with the dental care system in Canada	27 (divided in four focus groups)	78% of included individuals had an annual income below minimum wage and 78% of included individuals were unemployed	Urban centers in Ontario (Toronto and Ottawa)
Quiñonez, 2010	To explore the development of Canadian dental care policy and the place of the WP within it. This paper describes this development and presents findings from a 2007 national survey of WP adults concerning their oral health and dental care experiences within the context of such policy. Ultimately, the aim of this research is to	Mixed methods	Telephone interviews and historical review	NR	Individuals aged 18 to 64 years who worked for pay for a minimum of 910 hours (part-time) in the reference year, are not full-time students, and have a low family income according to the MBM	1,049	Low family income according to the MBM. The MBM defines a low-income person as someone whose disposable income falls below the cost of the goods and services (e.g., food, clothing, shelter) in the market basket in their community. The MBM ranges from $22,017 to $29,343 across	NR

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
	inform debates on access to dental care and the working poor						Canada.	
Sadeghi, 2012	To summarize oral health status and access to dental care among different socio demographic subgroups in Ontario using 2005 CCHS data	Cross-sectional	Secondary analysis of the CCHS 2005 Public Use Microdata Files (PUMF) for the CCHS Cycle 3.1, which collected data between January and December 2005, were used in this study. PUMFs provide data collected from all respondents in a less detailed format. More details about the CCHS are provided by Statistics Canada	Government (Public Health Ontario, Population Health Improvement Research Network, Government of Ontario, CIHR)	People aged 12 years or older, living in private dwellings in Ontario (the CCHS includes individuals from all over Canada but only Ontarians were of interest in this study)	41,766	Based on household annual income	Private dwellings in Ontario
Thompson, 2014	To determine the demographic and socioeconomic characteristics of Canadians who avoided the dentist and declined recommended dental treatment because of	Cross-sectional	At home survey and clinical examination in a mobile clinic	Government (PHIRN & AHRNI).	People living in privately occupied dwellings across Canada and consenting to the clinical examination in a mobile health clinic	5,604 surveyed (18 excluded for not attending the dental examination)	Based on income adequacy (considering the number of people in the household) **Lower** - One or two: 14,999$ or less	Participants from different regions across Canada (e.g., BC, Prairies, Ontario, Quebec, Atlantic provinces)

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
	cost.						- Three or four: 19,999$ or less - More than four: 30,000$ or less **Lower middle** - One or two: 15,000$-29,999$ - Three or four: 20,000$-39,999$ - More than four: 30,000$-59,999$ **Upper middle** - One or two: 30,000$-59,999$ - Three or four: 40,000$-79,999$ - More than four: 60,000$-79,999$ **Upper** - One or two: 60,000$-100,000+$ - More than two: 80,000$-100,000+$	
Thompson, 2012	To determine the demographic and socioeconomic characteristics of Canadians who avoid the dentist and decline recommended dental treatment due to cost, and to determine their oral health status and dental treatment needs. 1) To determine the socio-economic and demographic characteristics of	Cross-sectional	Secondary data analysis of the 2007-09 CHMS - Includes a household interview and a clinical examination	Government (PHIRN of the AHRNI)	Individuals aged 6 to 79 years, living in privately occupied dwellings and residing in the ten provinces and three territories	5,586 (for a weighted total of 29,157,460)	**Lower** - 1 or 2: $14,999 or less - 3 or 4: $19,999 or less - More than 4: $30,000 or less **Lower Middle** - 1 or 2: $15,000 to $29,999 - 3 or 4: $20,000 to $39,999 - More than 4: $30,000 to $59,999 **Upper Middle** - 1 or 2: $30,000 to $59,999	Private households in Canada

Author, year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of participants	Definition of low SES	Place of residence
	Canadians reporting cost barriers to dental care. 2) To examine the oral health status of Canadians reporting cost barriers. 3) To assess the clinically determined treatment needs among those reporting cost barriers. 4) To determine what predicts reporting cost barriers.						- 3 or 4: $40,000 to $79,999 - More than 4: $60,000 to $79,999 **Upper** - 1 or 2: $60,000 to $100,000+ - More than 2: $80,000 to $100,000+	
Wallace, 2012	To explain the interaction of social and political activities that influence access to oral healthcare for vulnerable communities.	Qualitative	In person interviews. At the end of each interview participants were asked for basic demographic information along with information about how they perceived their oral health status.	Government (CIHR)	Low-income individuals, dentists and other health-care or social service-providers	60 (41 low-income adults, 6 dentists,13 health and social service providers)	The article does not define low-income individuals, but the author provided this additional info: “people who have experienced difficulty accessing dental care because of financial circumstances (N=41)” and recruitment was in locations providing services to low-income people. In addition, most included individuals received social assistance.	Urban and semi-urban areas in BC

AB: Alberta, **AAHB**: Alberta Adult Health Benefit, **ACHB**: Alberta Child Health Benefit, **AHRNI**: Applied Health Research Network Initiative, **BC**: British Columbia, **CCHS**: Canadian Community Health Survey, **CDB**: Canada Dental Benefit, **CDC**: community dental clinics, **CDCP**: Canadian Dental Care Plan, **CHMS**: Canadian Health Measures Survey, **CIHR**: Canadian Institutes of Health Research, **CREMIS**: Centre de recherche de Montréal sur l’inégalité sociale et les discriminations, **DTES**: Downtown Eastside, DQA: Dental Quality Alliance, **FRSQ**: Fonds de la recherche en santé du Québec, **FSA**: Forward Sortation Area, **IFHP**: Interim Federal Health Program, **JLDC**: Jim Lund Dental Clinic, **LSIC**: Longitudinal Survey of Immigrants to Canada, **MB**: Manitoba, **MBM**: Market Basket Measure, **NFLD**: Newfoundland and Labrador, **NPHS**: National Population Health

Survey, **NR**: not reported, **OH**: Oral Health, **PEI**: Prince Edward Island, **PHIRN**: Population Health Improvement Research Network, **RSBO**: Réseau de recherche en santé buccodentaire et osseuse, **SCP**: Schulich Clinical Practice, **SES**: socioeconomic status

Table 2. Characteristics of studies reporting on barriers and enablers from the providers' perspective (n=3)

Author/ year	Objective	Study design	Data collection method	Source of fundings	Target population (inclusion criteria)	# of included participants	Definition for low SES	Place of residence
Wallace, 2013	To explain from the perspective of senior staff how five CDCs in BC provide services.	Qualitative study	A trained interviewer used an interview guide for the first open ended interviews developed from our general assumptions about how and why the clinics operated.	Government (CIHR "NET" Grant)	Senior staff who could accurately and comprehensively describe the development and operations of the not-for-profit CDC.	8 (from 5 clinics)	Not-for-profit CDC serving the low-income population	Low-income community in BC
Bedos, 2014	To understand how dentists deal with problems encountered with people on social assistance. More specifically, we wanted to know the kinds of strategies that dentists developed with respect to organisational, biomedical, and financial issues associated with people on social assistance.	Qualitative study	French language in-depth, semi-structured interviews. Most were organised in dentists' offices and lasted between 60 and 120 minutes; they were audio-recorded and then transcribed verbatim.	Government (CIHR and FRSQ-RSBO)	General dentists with various levels of professional exposure to poverty, professionals practicing in different types of neighbourhoods	33 dentists	Dentists providing care to people on social assistance	Montreal, QC
Wallace, 2015	To examine CDCs as health equity interventions from the perspectives of individuals establishing and operating the clinics.	Qualitative study	Interviewed either individually or in a small group.	Government (CIHR)	Participants involved in establishing and operating CDCs	17 participants from 10 clinics	CDCs offering services to low-income individuals	BC

BC : British Columbia, **CDC** :community dental clinics, **CIHR** :Canadian Institutes of Health Research, **FRQS** :Fonds de la recherche en santé du Québec, **QC**: Quebec, **RSBO** :Réseau de recherche en santé buccodentaire et osseuse

Risk of bias

On average, quantitative studies had a score of 84%. The only mixed method study scored 50%, mainly because they did not appropriately link the results obtained from the two methodologies used. As for the qualitative studies, they scored an average of 88%. (See Tables S5-S7).

Deductive analysis

A total of 109 data units were collected from the patient's perspective, which included 39 qualitative data points and 70 quantitative data points (e.g., proportions of participants agreeing with specific questionnaire items or reported odds ratios). No influences were observed within the TDF domains of 'skills,' 'optimism', 'reinforcement', 'goals', or 'memory, attention and decision process.' An analysis of the total themes and sub-themes revealed that 55% (11 themes and five sub-themes) of themes and subthemes identified were barriers, 38% (eight themes and three sub-themes) were mixed, and 7% (two themes) were enablers (See Table 3).

Table 3. Frequency and elaboration within each of the TDF domains, presented in rank order from most important to least important

TDF domain (rank order)	Frequency of influences			Number of studies identified	Level of elaboration	
	Barriers only	Enablers only	Mixed		Number of themes	Number of sub-themes
1. Environmental context and resources	46	1	21	24	8	5
2. Emotions	7	0	7	8	3	0
3. Social influences	0	0	12	6	2	2
4. Beliefs about consequences	1	0	6	6	2	0
5. Knowledge	0	1	3	4	2	1
6. Behavioural regulation	1	0	0	1	1	0
7. Beliefs about capabilities	1	0	0	1	1	0
8. Social/professional role and identity	1	0	0	1	1	0
9. Intention	1	0	0	1	1	0

TDF: Theoretical Domains Framework

Inductive analysis

Table 4 lists all themes generated within each TDF domain, alongside supporting examples of extracted data. Below, we present a narrative description of the themes within domains that were identified as high in importance.

- Environmental context and resources, such as lack of time, financial stressors and restrictive insurance policies were significant barriers, often preventing individuals from seeking necessary care. Some individuals were denied care due to their inability to pay upfront or had to navigate bureaucratic hurdles between dental providers and welfare offices without clear solutions.[13] However, certain enablers, such as flexible payment options (e.g., cash or credit payments), were identified as facilitators of dental care utilisation.[14]
- Limited organisational resources and financial instability made it difficult for some patients to plan and prioritise dental appointments, as immediate survival needs often took precedence over preventive healthcare. Additionally, a lack of information and/or knowledge about available programs and eligibility criteria prevented many from accessing benefits.[15,16]
- Accessibility issues, including transportation difficulties further complicated dental visits, particularly for those in rural areas.[17]
- Language and cultural barriers also contributed to dissatisfaction, as some patients struggled with communication, while others felt overlooked in a fast-paced Western healthcare system, where the culture of “busyness” extended to dentistry.[16,18]
- Long waiting times also presented a significant barrier to dental care, as patients often struggled to schedule timely appointments despite following conventional procedures. Some found the delays unreasonable, while others, particularly newcomers, felt overwhelmed by managing multiple healthcare appointments.[5,15,18]
- The lack of childcare resources created another barrier, making it difficult for parents to attend dental appointments without proper support, especially when they could not afford to miss work or school.[19]
- Emotional factors, including fear of dental procedures and negative emotions associated with dental care, discouraged people from seeking treatment.[20]
- The behaviour and attitudes of dental professionals played a mixed role; some patients identified examples of empathy and clear communication, while others felt judged or pressured into unnecessary treatments. The patient-dentist relationship was seen as crucial, with participants valuing clear communication, involvement in treatment decisions, and a respectful clinical environment.[13,15,16]
- Social influences, such as the perception of dental health’s impact on appearance and self-esteem, shaped attitudes toward care-seeking. [21]
- Perceptions of dental care varied, with some participants recognising oral health as essential to overall well-being, while others saw no immediate need for dental visits. Participants often relied on their own ability to diagnose a problem and tended to distrust the

dentist. Additionally, skepticism about the effectiveness of certain treatments led some to distrust dentists, believing they prioritised financial gain over patient care.[5,13,18,20]

Table 4. Key themes from the patients' perspective, corresponding data excerpt(s), and quotes of barriers and enablers coded to each of the domains of the Theoretical Domains Framework

Theme	Barrier/Enabler/ Mixed influence	Exemplar data excerpt(s)
Environmental context and resources		
Financial stressors	Barrier	*Author interpretation*: The fees for certain treatments were also viewed as excessive and inaccessible and were a source of frustration. [Bedos 2003] *Quotes:* "I made another visit to ***, but he told me, 'We can't do anything for you because it's too expensive'. Then I said, 'Can I pay little by little?' He said to me, 'No, to start we need 200 dollars.' But I don't have that." [Bedos 2003]
Practicality and coverage of insurance plans	Mixed	*Author interpretation*: The first snag appeared in the search for a dentist: 1 participant was turned away by the practitioner's receptionist because she was not covered under the programme for welfare recipients (a recipient must wait one year after registering for welfare), so she postponed her search for several months until she was eligible for free care. [Bedos 2003] *Quotes:* Interviewer: "Did you talk to him [the dentist] personally or was it his receptionist?" Participant: "It was her; she went to see him in the back, then he came to see, he checked my welfare claims booklet, he checked where it said, 'dental care'. He said, 'Listen, make arrangements with the welfare office.' And the welfare office says, 'Make arrangements with a dentist." [Bedos 2003]
Accessibility and travelling issues	Barrier	*Author interpretation*: Transportation was also highlighted as both a financial and organizational issue for individuals living outside densely populated urban areas and having little access to neighbourhood dental professionals. [Lévesque 2009] *Quotes:* "If you haven't planned for the bus ticket . . . or for the carpooling fees, then it's a problem. Or if there is no bus, and the carpooling schedules don't match your dentist appointment . . . then you need to find somebody." [Lévesque 2009] "a really difficult time finding a dentist that actually... bills the government. All of them now want you to pay and then get reimbursed ... they prefer to see patients that have the means and the money to get their teeth fixed so they're automatically paid". [Wallace 2012]
Culture and language	Mixed	*Author interpretation*: Language barriers were found to contribute to a reduced satisfaction with services provided. [Nurelhuda 2021]

		Some participants also denounced Western society's culture of "busyness" that also applied to dentistry. According to them, it leads patients to feel neglected, forgotten, and undervalued. Participants illustrated this phenomenon by explaining that certain clinicians overbook and rush through dental appointments, thereby making them feel like a burden. [Noushi 2020] *Quotes:* "A barrier is the language and technical words that we don't know, and which make communication difficult." [Nurelhuda 2021] "Today it's fast, fast, fast, fast, fast, fast, you know? That's the problem, it's fast, fast, fast, so we forget, we forget the person sometimes. The person is important." [Noushi 2020]
Financial facilitators	Enabler	*Author interpretation*: Paying for dental care with cash or credit was a significant enabling resource predictor of dental utilization. [Muirhead 2009]
Long waiting time	Barrier	*Author interpretation*: Participants complained about the long time they had to wait before they could schedule an appointment. They followed the conventional pathway in the model; yet they did not always receive care within a window of time they felt was reasonable. Others reported that long waiting time was a barrier because they found it difficult to keep track of their appointments. As newcomers, they were overwhelmed by the list of appointments to which they had to attend. As a result, they were not able to obtain the treatment they needed. [Nurelhuda 2021] *Quotes:* "If I tell the dentist that it is an emergency, I will still have to wait for at least 20 days for my appointment." [Nurelhuda 2021]
Lack of time	Barrier	*Quotes:* When asked "why non-users did not receive dental services covered by the program", individuals replied "lack of time". [Amin 2014]
Lack of childcare resources	Barrier	*Quotes:* When asked "What difficulties users of the program experienced", individuals replied "Lack of childcare to get to dental appointment". [Amin 2014]
Emotion		
Negative emotions associated with dental care	Barrier	*Author interpretation:* Submission to prolonged pain was considered to be a consequence not of bravery but of fear of the dentist. The tooth pain participants endured on their own was less frightening and less invasive than the pain they endured during treatment. Women more clearly identified their fear than men did. Many women were terrified by the anesthetic injection, the specific purpose of which is to prevent pain during the treatment. [Bedos 2005] *Quote:* "It scares me, so for me to go and see a dentist ... it really needs to hurt so much that I can't

		handle it, and there's nothing else [that can] be done! When I have a toothache, my children tell me, 'Mom, go to the dentist.' I'm not about to tell my children that I'm scared to go to the dentist. I tell them, 'Yeah, yeah, I'll go tomorrow.' I'll take some Tylenol . . . I don't tell them I'm scared of the dentist . . . they don't need to know that." [Bedos 2005]
Behaviour of dentist/care team	Mixed	*Author interpretation:* Participants explained how dentists' lack of certain qualities, such as friendliness and respect, could lead to unproductive and potentially harmful clinical visits. A participant, for instance, criticized shaming tactics that would reveal clinicians' lack of empathy. He argued that they should be avoided because they create an unsafe space where the patient does not feel cared for. [Noushi 2020] *Quote:* "He wasn't rude or anything like that, it was just the way he spoke to you, you know? You would, you would know very well when he was disappointed. it was more, very much like a father figure, like he cared, he just, all the work he did when I was a kid, and he would see it go away. So, he was, he was pretty stern and open about his thoughts, but he wasn't, he wasn't bad in any ways, just very straightforward. [. . .] After a while, I was just too ashamed to look down the guy who's been working on my teeth my whole life and for him to see what happened. I was just, I couldn't, couldn't get myself to do it. [. . .] I guess maybe it's like an old school versus new school. Because I know they have bedside manners so maybe he comes from a different, a different time when it wasn't such a thing, but no, it was very much more like business than interpersonal, for sure." [Noushi 2020]
Dentists' skill in managing pain	Mixed	*Author interpretation:* The participants demonstrated two major needs: to obtain an emergency appointment and to find humane, honest dentist who would not cause pain. [Bedos 2003] *Quote:* "Here [community centre] they gave me several names, then eventually I got to know a man whose son always went to the same place, he was pleased with his visits. I said, 'OK, I'll go there, because I'm afraid of dentists.' He said to me, 'Don't worry, since he's been going there it's been fine.' So, I'll go there too." [Bedos 2003]
Social influences		
The importance of physical attractiveness of the	Mixed	*Author interpretation:* When asked about the meaning of oral health and the value of teeth, male as well as female participants insisted on the tremendous importance of appearance and, comparatively, put little emphasis on dental disease. This does not mean that they considered

teeth on social interactions		diseases and their symptoms as minor issues—they acknowledged suffering from them—but that appearance was paramount. They consequently defined oral health in a social as opposed to a biomedical perspective, the "visible" taking over the "invisible". [Bedos 2009] *Quote:* "Even though I look the person in the eye, I always come back to: 'oh, their teeth aren't nice' (. . .). Deep down, I'm judging the person." [Bedos 2009] "You know, you have yellow teeth, you smile at people, and you feel uncomfortable." [Bedos 2009]
Patient-dentist relationship	Mixed	*Author interpretation*: Interviewees also expressed the importance of communication and being involved in their treatment planning and overall decision making. The question of choice regarding certain types of treatment options was brought up, and it was pointed out that dental health professionals should not automatically assume that someone on welfare cannot afford a more expensive intervention, as some patients may be willing to borrow money for treatment. [Lévesque 2009] That dentists are not to be trusted and might take advantage of their position of power to increase the number of treatments, even if these are not very effective. Thus, according to these participants, dentists encourage the preservation of teeth for financial interests rather than for medical reasons. [Bedos 2003] Participants meant they wanted a respectful clinical environment that would treat them as whole people and would not focus strictly on their dental ailments. For them, this feeling of being cared for depended on qualities that clinicians and their staff should have, such as kindness and the ability to provide them with adequate information about their oral health. [Noushi 2020] *Quote*: "When the time came to repair a broken filling, he didn't ask me my opinion. He decided, as he was injecting me, to use an amalgam. It was difficult to talk and tell him I wanted a composite. . . . I would have liked for him to ask me what I wanted." [Lévesque 2009] Interviewer: "You didn't say to yourself that if you had gone to the dentist sooner, it would have been possible to care for the tooth instead of having it extracted?" Participant: "They would have done a root canal on me, that's for sure, and I don't want anything to do with that!" Participant: "Dentists are always looking for this or that, so they won't have to pull the tooth out, just to make more money. That's for sure." [Bedos 2003]

		"You want friendly people too, like the receptionist and you know, you need to feel that you are being cared for, you are, you are a person, and you are somebody." [Noushi 2020]
Beliefs about consequences		
Perceived need for and importance of dental care	Mixed	*Author interpretation:* Many of the participants spoke of oral health as a fundamental component of overall health. [Nurelhuda 2021] The most common reported reason (50.7%) for not going to the dentist was no perceived need. [Amin 2014] *Quotes:* "The centre of all body functions is the mouth. So, the hygiene for oral cavity has to be kept in mind." She then recited a poem by the Persian poet Saadi: "If one organ is in pain, other organs are not at peace as well." [Nurelhuda 2021] When asked "why non-users did not receive dental services covered by the program" or "what difficulties users of the program experienced" individuals replied, "no dental problems", or "too young for a dental check-up". [Amin 2014]
Perceived effectiveness of the dental treatments	Barriers	*Author interpretation:* Individuals believed that that the endodontic treatment would not be very effective and would merely delay the extraction by a few months or years. [Bedos 2003] *Quote:* Interviewer: "You didn't say to yourself that if you had gone to the dentist sooner, it would have been possible to care for the tooth instead of having it extracted?" Participant: "They would have done a root canal on me, that's for sure, and I don't want anything to do with that!" Participant: "Dentists are always looking for this or that, so they won't have to pull the tooth out, just to make more money. That's for sure." [Bedos 2003]
Knowledge		
Having knowledge about existing programs, eligibility criteria for inclusion, and dental coverage	Mixed	*Author interpretation:* Difficulties in accessing information on dental care coverage, overcoming embarrassment and shame presents an additional challenge for some in their quest to inform themselves about dental care coverage. [Lévesque 2009] *Quote:* "I'm ashamed of my situation," said Lucie, "and I find I appear to be begging when I inquire about something. . . . 'Is this covered on welfare? Is this treatment paid for?' . . . There is nowhere I can go to check on what exactly is covered by the welfare program. And I find it embarrassing to ask." [Lévesque 2009]

Involvement in their care	Enabler	*Author interpretation:* Participants emphasized the need to get appropriate information about their dental care in layperson's terms since technical terminology and jargon were not sufficiently informative and left room for potential misunderstandings. Therefore, participants recommended professionals to be aware of the way they provide information to ensure that they are well understood. Participants also mentioned how they wanted the clinician to explain the various care options they have based on their needs and in terms they can understand. This level of communication would be paired with the possibility to deliberate with their dentist, discuss their preferences, and then jointly choose the best option according to their needs. Providing care in this way supports each person's role in the patient-dentist relationship through shared decision-making. [Noushi 2020] *Quote:* "By somebody sticking something in my mouth and going '10 inches, eight, three, two, one [said in a robotic voice]', and talking to a dental hygienist means nothing to me. By him saying to me 'You have periodontal', means nothing to me." [Noushi 2020]
Behavioural regulation		
Patients lack of organisational resources	Barrier	*Author interpretation:* Scheduling constraints and preferences differing circumstances alter a person's perspectives on time or ability to project oneself into the future and how this affects one's management of appointments. [Lévesque 2009] *Quote:* "Being on welfare is survival on a daily basis. You don't know what tomorrow will bring." [Lévesque 2009] "The first week of the month, that's when they need to give out appointments. . . They've just gotten their money . . . they have some money. From the middle of the month on, forget it! If they haven't planned for the expense or even if they have planned and another unexpected expense comes up, the dentist appointment is going to get put on the back burner." [Lévesque 2009]
Beliefs about capabilities		
Self-reliance for diagnosing dental problems	Barriers	*Author interpretation:* Participants relied on their own ability to diagnose a problem, and they tended to distrust the dentist. [Bedos 2005]
Social/professional role and identity		

Social role/identity conflicts	Barriers	*Quote:* Parents were asked specifically if the barrier applied to them, 19% replied “cannot miss school or work” [Menon 2024]
Intentions		
Intentions	Barrier	When asked “If I had a bit of extra money, I would schedule more regular dental care appointments for my children/ If I had a bit of extra money, I would schedule more regular dental care appointments for myself”, 79.9% replied that they would schedule more regular dental care appointments for their children or themselves (82.1%) if they had a bit of extra money. [Menon 2024]

Importance of TDF domains

Domain frequency: The data units were coded most frequently into the following domains: 1) 'environmental context and resources' (n=24 studies, [92%]); 2) 'emotions' (n=8, [31%]); 3) 'social influences' (n=6, [23%]); 4) 'beliefs about consequences' (n=6, [23%]); and 5) 'knowledge' (n=4, [15%]) (Table 3). Domains such as 'behavioural regulation', 'beliefs about capabilities', 'social/professional role and identity', and 'intention' were each reported by one study (4%), respectively (Table 3).

Level of elaboration: Approximately 75% of themes/sub-themes relating to barriers, and all themes/sub-themes relating to enablers, and mixed themes/sub-themes were captured in the same five theoretical domains (Table 3).

The rank order of domain importance: The 14 theoretical domains are presented in rank order (Table 3). In general, there was good convergence between frequency (the number of studies in which the domain was evident) and elaboration (the number of themes and sub-themes based on the inductive analysis).

Approaches to mitigate the barriers to the access and utilisation of dental care

Various approaches taken across Canada to mitigate the barriers to the access to dental care were also extracted (Table 5). Overall, three federal programs were identified, one was reported in two articles. Two of these three federal programs are currently still active (as of March 2025),[5,22] with The Interim Canada Dental program closing on June 30, 2024.[19,23] One program aiming to facilitate access to federal programs was also identified, along with two articles reporting on provincial programs that are still active (as of March 2025).[5,22] In addition, eight articles reported on local initiatives such as affordable or free clinics across Canada, along with four articles reporting on school-based interventions. Five local initiatives reported by six out of the eight articles [16,24–28] are still active. However, it is unclear whether the following initiatives were still active at the time of this review: Interdisciplinary, Teaching Medical and Dental Clinic for Inner City Street Youth[29]; and Community dental clinics in BC.[30] Three school-based interventions are still active,[31–33] though it is unclear whether the Aim High Demonstration program is still being delivered.[34] One article also reported on a program helping parents pay for their children's dental care if paying for it would cause them financial hardship. This program was mentioned in the context of children being identified at school and the possibility of using this program to cover the care needed outside of the school screening program. Two other programs were identified but could not be classified into a category. One of them offered financial support to holocaust survivors, which is still active[35] and the other aimed to sensitise dental care providers to the reality of living in a situation of socio-economic disadvantages through an educational DVD, and it is unclear whether this is still active.[36]

Table 5. Approaches taken to mitigate the impact of barriers on the access to dental care

Author/ year	Name of the program	Objective	Target population (inclusion criteria)	Setting and time period	Description of the programme	Impressions on the programme
Federal Government Programs						
Mathu-Muju, 2017 Peer-reviewed	Children's Oral Health Initiative (COHI)	It was developed to improve access to preventive dental care for Indigenous children and their caregivers living in the 636 geographically isolated reserves across Canada.	Indigenous pregnant women, 0- to 7-year-old children and their caregivers, living on reserves.	Pregnant women, 0- to 7-year-old children and their caregivers from Indigenous communities (Reserves in Canada) 2005/2006 to 2011/2012 (data collection) 2005 and onward (programme)	The Children's Oral Health Initiative (COHI) is a federally funded, community-based preventive dental program implemented in remote Canadian Indigenous communities. The program offers preventive dental services, including sealants, fluoride varnish applications, glass ionomer restorations (ART), and oral health counseling. These services are provided by contracted dental professionals who visit the communities periodically, including COHI preventive services. The COHI Aide plays a key role by visiting families at home to introduce the program, explain its purpose, and encourage enrollment by obtaining parental consent for children's participation. Oral health education is also a focus during this initial visit. After children receive their first oral health screening from the COHI dental therapist or hygienist, the	Children in COHI communities with strong support from community health workers have better access to preventive dental services compared to those in communities with less support. Children in the Uninterrupted Service group generally showed the highest rates of enrollment and service delivery, which remained stable over time. In contrast, children in the Sporadic Service group had lower rates of enrollment and service delivery, with these numbers staying low throughout the study period. The findings of this study showed that community oral health workers played a key role in encouraging program enrollment and enhancing the delivery of preventive dental services.

					Aide arranges dental appointments for those requiring ART or sealant applications. The COHI Aides also regularly apply fluoride varnish, helping to expand the program's clinical preventive efforts.	
Menon, 2024 pre-print	Interim Canada Dental Benefit	Break down financial barriers (i.e. address the affordability dimension), thereby enhancing the accessibility of dental services for lower-income families by providing coverage for uninsured Canadians.	Families with annual household income < $90,000 Canadian and children <12 years old. Additionally, families must have filed a 2022 tax return with the Canada Revenue Agency (CRA) and incurred out-of-pocket dental care expenses for their child between October 1, 2022, and June 30, 2024	Families with annual household income < $90,000 Canadian and children <12 years old October 2022 and forward (programme year) March 2023 (data collection)	NR	Respondents clearly expressed tremendous support for the interim CDB policy developed by the federal government as a precursor to the CDCP.
Nurelhuda, 2021 Peer-reviewed	Interim Federal Health Program (IFHP)	To provide essential health and dental care coverage for refugees and asylum seekers in Canada until they become eligible for provincial or territorial health insurance.	Refugees and asylum seekers	Urban centers in Ontario (Toronto and Ottawa) 2019-2020 (data collection) NR but reformed in 2016 to provide more expensive dental services (programme)	The IFHP offers limited dental coverage for emergency procedures and basic preventive care, aiming to reduce access barriers for humanitarian migrants. This program, which has been adjusted several times over the years, provides essential health services, including dental care, to humanitarian migrants until they qualify for provincial or territorial health insurance. Dental coverage under the IFHP was significantly reduced in 2012 and 2014.	Participants expressed dissatisfaction due to inadequate coverage, lack of transparency, and logistical challenges. Many resorted to self-medication or transnational care for unmet needs.

					In 2016, the program was restructured to cover more services, such as simple fillings and dentures (with preauthorization). However, treatments like root canal procedures, sedation, orthodontics, scaling, and root planning were excluded. In 2020, additional treatments were added to the preauthorization list, though they now have a maximum dollar limit.	
Schroth, 2023 Peer-reviewed	Interim Canada Dental Benefit	Increase access to dental care for uninsured children <12 years of age in Canada.	Individuals aged <12 years from families with annual incomes <$90,000 without private dental insurance. Families must be Canadian citizens or permanent residents of Canada.	Nationwide program targeting uninsured families with children under 12 years. 2022-2023 (up to March) data collection 2022–2024 (Interim program) programme	The federal government committed $5.3 billion to provide dental care for the uninsured, targeting children under 12. Families must meet eligibility criteria, including income thresholds, lack of private dental insurance, and having incurred dental care costs. Families can receive up to $650 per child based on income brackets (if the family's adjusted net income is <$70,000, while $390 is provided if the family's adjusted net income is between $70,000 and $79,999, and $260 if it is between $80,000 and $89,999). The program aims to reduce financial barriers while a permanent Canadian Dental Care Plan (CDCP) is developed.	The first year of the Interim Canadian Dental Benefit (CDB) saw over $197 million distributed to 321,000 children, with significant uptake. However, challenges remain, including digital access issues, regional inequities, and affordability of higher-cost procedures. While the program has increased awareness of dental care needs, it still requires improvements in access and equity. The Interim CDB has generated enthusiasm by aiming to improve dental care affordability and empower Canadians in healthcare decisions. However, participation is lower among higher-income groups, possibly due to less need, lack of awareness, or the reduced benefits they receive, making the program less appealing to

						them.
Access to Government Programs						
Harrison, 2003 Peer-reviewed	Community Dental Facilitator Project	To facilitate access to available funding for dental treatment, and, subsequently, to facilitate access to the treatment itself by overcoming barriers such as language and mistrust of bureaucracy.	Children in grades three to seven at two elementary schools in the community - Lord Strathcona and Admiral Seymour (low-income neighbourhood)	Children in grades three to seven at the two elementary schools in the community - Lord Strathcona and Admiral Seymour (Vancouver, Richmond Health Board) NR year	The program trained facilitators to assist families with applying for government dental funding, booking appointments, and escorting children to clinics. It focused on overcoming systemic and logistical barriers to dental care.	Barriers to dental care reported by families who interacted with the community dental facilitator project: Lack of information about funding programs, language, no family dentist, financial barriers, work situation, need to work for income, and mistrust of bureaucracy. For families in need, language barriers, excessive bureaucracy, and lack of program information in appropriate languages are significant barriers for families to access these programs. Many families needed help scheduling the required appointments with a dental office.
Provincial Programs						
Amin, 2011 Peer-reviewed	Alberta Child Health Benefit Alberta Adult Health Benefit programs	To assist low-income Albertans in accessing prescription drugs, essential diabetes supplies, and dental, optical and emergency ambulance services.	Low-income families and their children, up to age 18 years (up to age 20 years if they live at home and are attending high school)	Low-income families living in Alberta Survey conducted in 2009. Unknown year for programme Low-income individuals or families living in Alberta Survey conducted in 2009 Unknown year for programme	These programs aim to assist low-income families by covering expenses for essential healthcare services, including dental services. The ACHB program supports children up to 18 years old (or up to 20 years if they live at home and are attending high school). The benefits cover a range of services such as prescription drugs, diabetes supplies, dental, optical, and emergency ambulance services. The programs	The role of the health benefit programs in facilitating access to dental services for children in low-income households was determined by asking survey respondents if they agreed with the following statement: "The program helps you (or your children) get dental services that you would not otherwise be able to receive." A total of 377 (93.1%) of the 405 ACHB clients and 356 (85.8%) of the 415 AABH respondents agreed that the program helped them or their

					were designed to improve access to healthcare services for economically disadvantaged families, and this study explores their effectiveness in facilitating access to dental care for children.	children to get dental services that they would not otherwise be able to receive.
Amin, 2014 Peer-reviewed	Alberta Child Health Benefit	To provide low-income Albertans with premium-free diabetic supplies, prescription drugs and dental, optical and emergency ambulance services to ensure their optimal health and well-being.	Low-income families with at least one child living in Alberta	Low-income families with at least one child living in Alberta 2011 (data collection year) Unknown year for programme	Similarly to insurance, it covers some aspect of care for low-income families with at least one child	Most participants (88.3%) considered the Alberta health benefit programs helpful in terms of providing dental services that they would not otherwise be able to use.
	Alberta Adult Health Benefit programs		Low-income individuals or families living in Alberta	Low-income individuals or families living in Alberta 2011 (data collection year) Unknown year for programme	Similarly to insurance, it covers some aspect of care for low-income individuals and families	
Local Initiatives (Affordable or Free Clinics)						
Durbin, 2023 Peer-reviewed	Healthy Smiles Ontario (HSO)	Provides access to free preventive, restorative, and emergency dental services for children and youth 17 years old and under from low-income households.	Children and youth 17 years old and under from low-income households in Ontario	Children from low-income families living in Ontario 2015 (programme) NR data collection year	The service offers free preventive, restorative, and emergency dental care for children and youth aged 17 and under from low-income families. HSO was created through the merging of six public dental programs for children. Its services are provided in both public and private dental clinics, with providers compensated through salaried models in public clinics and either fee-for-service or salaried arrangements in private	In 2020, the Ontario Dental Association reported that fewer than 50% of eligible children received HSO services. This could be attributed to factors such as limited clinic hours, accessibility challenges (e.g., time and cost of travel, childcare needs at home), awareness issues (e.g., oral health literacy, lack of knowledge about the program, and the enrollment process), and acceptability concerns (e.g., mistrust of or disrespect from oral health care

					clinics.	providers). For HSO services, dentist compensation rates are, on average, 63% lower than the fees recommended by the Ontario Dental Association. These low reimbursement rates in HSO may hinder the program's effectiveness by impacting the frequency of service delivery.
Kallal, 2021 Peer-reviewed	SHINE (Student Health Initiative for the Needs of Edmonton) Dental Clinic	To provide free dental services to low-income individuals and reduce oral health inequalities	Low-income individuals	Urban, inner-city areas (in Edmonton) Established in 2004 (programme) NR data collection year	SHINE is a free service ran by volunteer undergraduate students from the University's dentistry and dental hygiene programs. This initiative strives to address dental health disparities by improving access to oral care for low-income individuals. The services provided at SHINE include dental hygiene treatments, restorative procedures, and emergency care such as tooth extractions. Clients are seen on a walk-in basis and are prioritized for treatment based on their age, pain level, and presence of infections. While SHINE gives priority to youth, it offers services to anyone unable to afford dental care. For cases that are too complex to treat at SHINE, referrals are made to the University of Alberta School of Dentistry's clinic. This referral ensures continued	Only 1 out of the 5 participants knew about SHINE, although all were familiar with the community health facility where SHINE is located. If health brokers were more aware of SHINE's services, they could connect their clients to the clinic, helping to raise awareness among marginalized groups. The lack of awareness about SHINE among both health brokers and their clients was identified as a barrier to access. Health brokers also suggested that two potential barriers to care at SHINE could be limitations in language services and perceived discrimination. The volunteers at SHINE primarily speak English, and there were concerns about perceived oppression and marginalization, particularly among homeless and low-income individuals, which was recognized as a barrier to healthcare in general.

					care, free of charge, for children under 18. However, depending on the treatment needed, adults referred from SHINE may be responsible for covering part or all the costs for care at the School of Dentistry.	
Noushi, 2020 Peer-reviewed	Free Jim Lund Dental Clinic (JLDC) in Montreal	To offer free dental care to low-income and homeless Montrealers without access to dental insurance	Low-income and homeless Montrealers without access to dental insurance, which often encompasses a large immigrant population reflective of the Montreal community	Low-income and homeless Montrealers without access to dental insurance NR year for programme	Offers free dental care to low- income and homeless Montrealers.	Individuals who receive care from the clinic seem to enjoy the care received.
Patterson, 2011 Peer-reviewed	Student Health Initiative for the Needs of Edmonton (SHINE) clinic Dentistry	To provide free clinical health services, including dental care and public education, to underserved youth regardless of their ability to pay or where they live.	Youth aged 15 to 25 years from Edmonton's inner city, including individuals challenged by poverty, homelessness, mental health issues, addictions, and social isolation.	Edmonton, the clinic is in the Boyle McCauley Health Centre, a community owned and operated health care centre January 2007 - March 2009 (data collection) Established in 2004 (programme)	SHINE Dentistry operates as a separate entity through the efforts of volunteer dental students and community dentist preceptors who supervise the students throughout the treatment of a patient. The SHINE Dentistry clinical operations are funded through corporate sponsorship, donations of equipment and fundraising activities. Recently, using funds generated from the SHINE Dentistry annual charity golf tournament, the Boyle McCauley Health Centre was able to renovate its dental facilities and added another operatory, radiograph units in 3 operatories, new dental	On a scale from 1 ("not valuable") to 5 ("very valuable"), almost all (95%) patients indicated either a 4 or 5. On a scale from 1 ("very dissatisfied") to 5 ("very satisfied"), 100% of patients ranked their satisfaction as 3 or more and 75% indicated the highest score of "very satisfied." In assessing how comfortable patients felt with being treated by student volunteers, 58 of 61 participants (95%) were confident with the treatment they received. The clinic's location and Saturday operations makes it accessible to inner-city

					chairs, a panoramic machine, hosing and a sterilization unit. The clinic provides such essential dental services as scaling and root planning, oral hygiene instruction, basic restorative procedures, extractions and consultations. Patients who need more complex work, such as treatments that require multiple appointments, are referred to other sources. SHINE Dentistry also has a mandate for public education and distributes materials about the oral manifestations of cocaine and methamphetamine use as well as information about oral piercings and smoking. The clinic operates on Saturdays and has expanded its facilities over the years.	residents. Patients appreciate the opportunity to receive care from supervised student volunteers. The initiative has grown significantly since its inception and aims to expand services to other age groups and incorporate the program into community service learning for all dental students.
Rabie, 2021 Peer-reviewed	Public Health Dental Clinics (PHDCs)	To provide basic dental treatment for individuals that otherwise depend on the primary and acute care system for relief of pain and infection. Treatments include dental fillings, scaling, tooth extractions, endodontic treatment for anterior teeth and preventive	Individuals must be low-income residents of Alberta without dental insurance. Low-income status at PHDCs is defined by Statistics Canada's Low Income Cut Offs (LICO)	Public health dental clinics in Alberta (but the clinics are both in Calgary) During the first wave of COVID-19 pandemic (March 17 to October 31, 2020) data collection NR year for programme	PHDCs offer basic dental care to individuals who would otherwise rely on primary and acute care systems for pain and infection relief. Patients come from various sources, including self-referrals, walk-ins, homeless shelters, community services, and other social agencies or programs. Additionally,	The implementation of tele dentistry at PHDCs was swift, following the government's declaration of a public health emergency. However, the life circumstances of the population served often limited their access to technology and/or the internet. The inability to share images or pictures of dental issues meant many patients could only

		services.			dental services are provided to patients referred from acute care settings (e.g., emergency departments) for dental emergencies. Treatments offered include fillings, scaling, tooth extractions, endodontic treatment for anterior teeth, and preventive services. Over the past decade, the demand for services at PHDCs has steadily increased, with dental emergencies being the most common type of care provided. PHDCs also use tele dentistry for patient triage and emergency care. In-person dental treatments were only provided to COVID-19 negative patients in urgent cases.	describe their symptoms verbally during tele dentistry consultations. These technological challenges resulted in inconsistent clinical information being provided to clinicians in terms of both quantity and quality. During periods of restricted access, there was also an increased reliance on pharmacotherapy, including antibiotics and painkillers.
Rowan, 2013 Peer-reviewed	Interdisciplinary, Teaching Medical and Dental Clinic for Inner City Street Youth	The clinic was created to address a need for: (1) more accessible health services for ‘‘street youth’’ and (2) family medical residents and dental hygiene students to have more hands-on training experiences in delivering primary care services to youth.	"Street youth" aged 12–20 years (some up to 22 years) who lack access to primary health care in downtown Ottawa, Ontario	Youth Services Bureau (YSB), Ottawa Downtown Services and Drop-In, Ottawa, Ontario November to December 2004 (data collection) Established in 2004 (programme)	The clinic is a demonstration project designed to deliver comprehensive medical and dental hygiene services in a youth-friendly environment. It is a collaborative effort involving medical and dental students under supervision. The program combines primary health care services with educational opportunities for trainees, aiming to improve health outcomes for vulnerable youth.	The clinic received positive feedback from youth and providers for its accessibility and friendly environment. Challenges included low interdisciplinary collaboration, technical issues with EMRs, and limited awareness among youth about the services offered. Youth expressed a desire for longer hours and greater awareness campaigns. Improvements were made based on feedback, such as better signage and enhanced training for providers. Despite

					The clinic is housed at the Youth Services Bureau (YSB), Ottawa Downtown Services and Drop-In. The clinic opened on August 31, 2004, and is a 400 square foot basement location with two examining rooms, waiting room, washroom and small storage area. It is decorated in a youth-friendly atmosphere with bright paint, health education posters, baskets of free condoms and sunscreen. The clinic is usually open four afternoons per week, with different providers each having a designated day for service provision. Services are delivered to street youth, generally between the ages 12–20 years, who are not currently receiving primary health care services from another provider. Services offered include plaque and gingival indices, assessment of gum disease, periodontal disease and decay. Students do debridement and clean and scale the teeth. They also provide information on how they can make things better and they give them a fluoride treatment if it's warranted or necessary and sometimes, they will do fissure seams.	some challenges, the clinic successfully served its target group, though it primarily reached higher-functioning street youth. Many youths were unaware of the different services available at the clinic and suggested advertising these. Youth also suggested that providers should make themselves better known by talking to them upstairs at the YSB. Many of the youth were unaware that they could access the clinic without having to register or ''sign in'' with the YSB. They also preferred to have direct access to the clinic without having to ask the YSB staff for a key to open a door leading to the clinic's entrance Several positive comments were made by the youth about the staff at the clinic, stating that they feel welcome, treated well and overall appreciate the staff. Some even stating that they never feel judged. The youth appreciated the atmosphere and the free things.
Wallace,	Not-for-profit	To provide dental care	Low-income	Low-income neighbourhood	Some clinics are volunteer-	The NFP-CDCs in B.C. offer

2013 Peer-reviewed	community dental clinics in the inner-city in Vancouver	to disadvantaged individuals in BC	communities in BC	2007-2008 (data collection) Unknown year for programme	charitable (VC) clinics providing part-time dental services to alleviate pain, while others are nonprofit (NFP) clinics offering basic dental care, typically within community health centres with full-time paid staff. All these clinics function as programs within non-governmental organizations (NGOs) located in the inner-city areas to serve low-income communities. - Clinic 1 operates within a downtown community health centre. It received an annual subsidy from the local health authority to provide dental services at a reduced fee to all patients. - Clinic 2 operates out of an inner-city storefront location. It too received an annual operating grant from the local health authority. - Clinic 3 is located within an elementary school. It is supported mostly by treatment fees paid from public dental insurance and by charitable donations. - Clinics 4 and 5 are located within community health centres supported completely by treatment fees paid directly by patients with or without private dental insurance and by charitable	comprehensive dental care beyond pain relief to low-income and homeless communities, integrating dental services with other health and social services, mostly within community health centers. Some clinics receive financial subsidies from regional health authorities, while others rely on publicly funded treatments. Around 75% of patients are either uninsured or have public dental insurance. Staff consensus highlighted that the clinics: ● Struggle to meet demand, ● Are attuned to the specific needs of their communities, ● Operate with financial responsibility and optimism, ● Show potential for expansion to other vulnerable groups, but ● Face challenges due to uncertain financial sustainability. Several participants emphasized that the sustainability of these clinics benefits the government, as they are more cost-effective.

					donations.	
Wallace, 2015 Peer-reviewed	Community dental clinics in British Columbia (volunteer-charitable clinics and not-for-profit clinics)	To provide basic dental care and reduce oral health inequities	Low-income individuals and marginalized populations in British Columbia, Canada	Community dental clinics operating in disadvantaged neighbourhoods and integrated with other health and social services 2008-2009 (study period) data collection NR year for programme	Volunteer-based charitable clinics generally rely on the generosity of volunteers, operate part-time, and primarily offer tooth extractions and pain relief services at no charge. In contrast, not-for-profit clinics function full-time with paid staff, often being integrated within community health centers, and provide basic dental services while needing some form of revenue to maintain operations. Community Dental Clinics (CDCs) strive to address unmet dental needs by collaborating with community health centres, NGOs, and schools.	CDCs have improved access for low-income populations but face scalability issues and limitations in scope, such as reliance on volunteers and focus on emergency care. Participants reported mixed outcomes, emphasizing the need for sustainable government funding and broader integration. A volunteer dentist described how charitable services benefited patients. Another volunteer dentist commented how the volunteers themselves benefited. CDCs also benefited dentists in private clinics and physicians in hospital emergency departments by offering an alternative emergency dental service. A clinic manager believed that dentists “were so happy to get that marginalised population out of their offices”. Overall, participants were keenly aware of how society at large benefited from the CDCs. We heard from several sources about the limited reach of the CDCs and how demand for special care exceeded the capacity to service the communities appropriately. Despite the use of emergency drop-in patient

						to fill missed appointments, a staff dentist equated the huge demand to 'shovelling water'.
School Based Interventions						
Huber, 2017 Peer-reviewed	Alberta Health Services (AHS) Oral Health Action Plan - Fluoride varnish intervention	To address inequities in oral health outcomes by targeting preventive fluoride varnish applications to low SES children using socio-economic indicators for eligibility criteria.	Low SES children The FV intervention uses a directed-population approach to target preschool and school-age populations identified by low socio-economic indicators that focus on income and education. A combination of direct and indirect measures for low SES establishes the eligibility criteria for the FV intervention. Proof of eligibility is not required for participation. Preschool children - child is between 12-35 months old - already enrolled in the Alberta Child Health Benefit **OR** the household takes home less than a specific amount based on household size **OR** at least 2 of these describe the family (someone in your family has had a cavity in the last 2 years; you get a subsidy for other	Community health centres, schools, libraries, daycares, and parent centres in Alberta. 2015–2016 (data collection) The programme was part of the Oral Health Action Plan initiated in 2010	The program offers up to four fluoride varnish applications over two years for preschool children and two applications per year for school-aged children. Eligibility is determined by socio-economic factors, and no proof of eligibility is required. The program operates on a cost-neutral basis with zone-specific capacity, supported by Alberta Health Services. Fluoride varnish applications for preschool children are provided at community health centres and other local venues such as libraries, daycares, and parent centres. For the preschool intervention, parents or legal guardians must give direct consent and be present to hold their child during the fluoride varnish application. Parents of children in kindergarten and grades 1 and 2 at target schools receive a notice about the fluoride varnish intervention and a consent form through the school. The consent form must be signed and returned for the child to receive the treatment.	The program has encountered challenges, including lower-than-expected participation among preschool children and an uneven distribution of resources across different zones. School-based interventions have seen higher participation rates, likely due to the congregate nature of the settings. Ongoing evaluations of satisfaction and the intervention process aim to improve outcomes. Collaborating with schools offers an opportunity to leverage congregate settings, which positively impact uptake and completion of the FV intervention, leading to better population outcomes for this age group. Established partnerships between schools and AHS public health services facilitate the development of oral health initiatives in schools. Deprivation mapping helps identify the most underserved areas and locate schools serving low-income populations. All students in kindergarten and grades 1 and 2 at these schools are eligible for the FV intervention. This

			government services; you're a single parent; you've been in Canada for less than three years; either you or your partner did not finish high school; your children are indigenous) School children in kindergarten and grades 1 and 2 attending schools identified as low SES are eligible. Schools are identified as the target population rather than individual students in the school.		School-based fluoride varnish applications take place during school hours, with minimal disruption to class time.	population-based approach is more efficient and avoids the need to identify eligible students individually, which could raise privacy concerns and lead to social stigmatization. The overall goal, supported by evidence of effectiveness, is for preschool children to receive all four FV applications. However, like the application rates, the target of full completion of all FV applications for each child has not been met. Achieving provincial population objectives has been hindered by staffing changes, the loss of oral health professional positions, and the increasing population size.
INSPQ, 2019 Infographics	No specific name - Des scellants dentaires dans les écoles	To offer free sealants in Quebec schools to students that are likely to develop tooth decay on their molars to reduce social inequalities linked to tooth decay	Students in 6th grade that are likely to develop decay on their molars	Quebec 2012-2013 (data collection) 2015-2025 (programme)	A service offered as part of the National Public Health Program 2015-2025. Some sealants are offered free of charge as part of public dental health activities in schools in Quebec to students at risk of developing cavities on their molars. However, the implementation of this preventive measure in the public sector varies by region.	Now more widely used in Quebec, dental sealants are an excellent preventive measure against cavities, helping to reduce social health inequalities. An interesting finding emerges from the 2012-2013 study: There is no indication that social inequalities related to cavities exist based on material and social deprivation among 6th-grade students in regions with average or high levels of dental sealant implementation in schools. On the other hand, such

						inequalities are present in regions with a low level of implementation. Meaning that this program seems to help reduce inequalities when it is well implemented.
Kostek, 2002 Peer-reviewed	Aim High Demonstration Project	To improve the health and education outcomes of school-aged children	McCauley Elementary⁄ Junior High School students in Edmonton, Alberta, Canada	Elementary/junior high school students at McCauley School, in Edmonton, Alberta (Families of students at McCauley Elementary/Junior High School in Edmonton, Alberta, Canada, generally live in poverty, with substandard housing. and they have limited education.) from 1997-1998 (programme) NR data collection year	The overall goal sought to improve the health and education outcomes of school-aged children. 1) Offering dental treatment to many McCauley students simultaneously and at a reduced cost is a priority. 2) Trained interpreters, familiar with McCauley School families, were hired to help overcome language barriers and meet with parents when they are available. 3) Transportation was required for McCauley students and their supervisors to and from the University of Alberta. 4) School involvement was critical to the success of the initiative. School staff played a key role in identifying the issue of poor oral health. 5) Dental health messages were included in the monthly school newsletters to reinforce healthy dental habits and remind parents of their role in supporting their children's oral health.	Over the past five years, the rate of untreated dental caries has significantly decreased, from 42% to approximately 22% among students in kindergarten through grade six, and from 28% to 7% among students in grades seven through nine. For most students, aged 5 to 14 years, visiting the University of Alberta dental clinics was their first experience with a dentist or dental hygienist, and many were unsure of what to expect. Unfortunately, most of these students required extensive dental treatments, including root canals, multiple fillings, extractions, spacers, scaling, and posts. On average, students needed four to five appointments to complete their treatments. However, some students who have participated over the past four years now only require preventive care.

					6) The dental hygienist conducted annual screenings for visible dental caries. 7) A proposal was presented to school staff to implement a daily Trident gum chewing program for the entire school population. 8) The community health nurse and dental hygienist provide dental health education and build relationships with students and their families.	
Locker, 2004 Peer-reviewed	Ontario Targeted School-based Dental Screening* Program *The program seems to provide more than screening, but the article focuses on the screening aspect of it	1) to identify children who are eligible for clinical preventive dental services, such as sealants and/or topical fluoride treatments provided free of charge; 2) to identify children with urgent dental care needs who are eligible for treatment under the province's Children in Need of Treatment program	Children aged 5 to 13 years old from 37 municipalities in Ontario (in the current study, they included all children in junior and senior kindergarten and grades 2, 4, 6, and 8 who attended schools in four Ontario communities, the York region, the city of Hamilton, the Durham region, and Thunder Bay.)	Children aged 5 to 13 years old from 37 municipalities in Ontario 1997 and onward (unclear if still ongoing) programme NR data collection year	In Ontario, Canada, dental public health programs are managed by the dental divisions of 37 municipally based public health departments. These programs serve children aged 5 to 13 years and include services such as screening, referrals, prevention, and, in some areas, clinical care. For each child screened, data were entered onto a screening report form. Children were considered to have a dental care need if they received a "yes" for one or more of the parameters on the form and children with a "yes" response to: need for sealants, need for topical fluoride, and urgent treatment needs were	One implication of this targeted approach is that high-risk individuals attending low-risk schools are likely to be overlooked, which means they may not receive the preventive and treatment services they need. The data show that nearly three-fifths of all children with dental care needs and two-fifths of children with urgent needs would be missed by the program in its current form. However, the targeted program was more effective at identifying children with needs from economically disadvantaged backgrounds. The results of this study suggest that most children from low-income households with dental care needs are successfully identified by the current targeted screening

					identified as needing mandatory programs. The specific objectives of the dental screening program are: - To identify children who qualify for clinical preventive dental services, such as sealants and/or topical fluoride treatments, which are provided free of charge through a program jointly funded by the Public Health Department and the provincial Ministry of Health. - To identify children with urgent dental care needs who are eligible for treatment under the province's Children in Need of Treatment program. The screening process serves as a gateway to other services offered by both public and private dental care sectors in Ontario, as well as public funding for dental care. The screening, conducted by experienced dental hygienists, involved a visual inspection using only a mirror and tongue depressor.	program. Given the referral and follow-up processes in place, these children are likely to be the primary beneficiaries of the program.
	Children in Need of Treatment program	To cover the costs of dental care for children whose parents are not covered by private or	Children whose parents are not covered by private or public dental insurance schemes	Children living in Ontario Children whose parents are not covered by private or public dental insurance	This program covers the costs of dental care for children whose parents are not covered by private or	NR

		public dental insurance schemes who declare that the provision of such care would result in financial hardship.	who declare that the provision of such care would result in financial hardship.	schemes who declare that the provision of such care would result in financial hardship NR year	public dental insurance schemes who declare that the provision of such care would result in financial hardship.	
Other interventions						
Lévesque, 2015 Peer-reviewed	"Listening to Each Other" Program	To enhance dental care providers' knowledge and competence in interacting effectively with socioeconomically disadvantaged populations, thereby addressing barriers to access dental care	Individuals living on welfare in Quebec, Canada	Underprivileged neighbourhoods in Montreal, Quebec The programme was launched in 2006	This collaborative knowledge translation initiative brought together public health researchers, oral health professionals, anti-poverty coalition representatives, and individuals on welfare. Using participatory research methods, the initiative produced an 82-minute educational DVD featuring testimonies from people on welfare, sharing their oral health experiences and the barriers they face. Key themes included empathy, communication, and structural challenges affecting dental care. They offer practical suggestions for how oral health professionals can better consider patients' social contexts within a patient-centred approach. These educational materials have been incorporated into a credited, interactive continuing education (CE) course for all dental team members. The course aims to promote	The program received positive feedback from dental professionals who indicated willingness to change their patient interaction approaches. Pre-tests showed the video was compelling, and efforts are ongoing to develop accompanying materials for broader dissemination and effectiveness. Challenges included maintaining collaboration among partners and ensuring inclusivity in the video's content. In response to the continuing education, many participants describe new understandings and increased sensitivity as to the causes of poverty and welfare, aspects of life on welfare, or the impact of poverty on certain patient health behaviours. The course and research process also succeeded in uncovering firmly held perspectives that interact among themselves and structure participants' beliefs, expectations, and feelings about their work with patients living on welfare. These

					"perspective transformation" based on Mezirow's theory of adult transformative learning. This teaching approach encourages learners to critically reflect on their "meaning perspectives" — their frames of reference, including ideologies, stereotypes, and social and moral norms. By questioning the validity of the premises underlying these belief systems, learners can revise their perspectives and take new actions. Through individual or small group coaching and tailored practice strategy development, the training also responds to emerging needs and objectives identified by the learners.	perspectives emerged at times during group discussions, or within interviews, as objections to certain propositional statements made in course material (e.g., in the video capsules). They thus constitute constraints to desirable changes in behaviour and action and are presented under the following headings: 1) "Dentistry is a business"; 2) "Equal treatment", a source of clinic pride; 3) A predominantly biomedical orientation to care; and 4) "Deserving" vs. "non-deserving", dichotomized thinking about people living on welfare.
Lévesque, 2009 Peer-reviewed	"Listening to Each Other" program	The purpose of this group was to develop a DVD to provide a means for people living on welfare—given their vulnerability to societal prejudices and very low socioeconomic position—to voice their opinions, perceptions, and experiences related to poverty and oral health and by the same way create a tool for educating dental professionals and students.	Dental professionals and students	People living on welfare November 2006 - October 2007 (data collection) NR year for programme	The result of the collaborative workshops was an eighty-two-minute DVD featuring six white Montreal francophone (French-speaking) individuals filmed entirely in head shot format. Interview segments range on average between thirty and sixty seconds and are organized according to the themes that emerged from a qualitative analysis of the videotaped data. The interview segments are presented under the five main headings of the DVD:	All five practicing dental hygienists and three out of four dentists who viewed an early version of the DVD reported that its content inspired them to make changes in at least one aspect of how they interact with patients living on welfare. The perspectives shared by this population regarding their relationships with professionals and the barriers they face in accessing services offer valuable insight into the factors that directly influence

					1) The Importance of Teeth and Oral Health, 2) Relationships with Oral Health Professionals, 3) Barriers to Accessing Dental Services, 4) Everyday Life on Welfare, and 5) Poverty Pathways. In this text, video excerpts have been translated from French to English.	and challenge their interactions with the dental care system. In addition to their daily life experiences, these factors help explain health behaviours that are often most frustrating to dental professionals, such as appointment cancellations or no-shows and irregular consultation patterns.
Wiseman, 2016 Peer-reviewed	The Alpha Omega–Henry Schein Cares Holocaust Survivors Oral Care Project	To provide dental care to low-income, high-need Holocaust survivors in nine U.S. and two Canadian cities.	Holocaust survivors living in poverty	Low-income, high-need Holocaust survivors in Canada and the US 2015 and onward (programme) NR data collection year	Alpha Omega provides funding, recruits volunteer dentists, and covers dental materials and laboratory costs to offer free oral healthcare to Holocaust survivors. Henry Schein Cares contributes dental supplies, laboratory costs, publicizes the program, and helps recruit additional contributors, such as dental laboratories for prostheses fabrication. The program operates in nine U.S. cities (including New York/New Jersey, Chicago, Los Angeles, Washington, D.C., Seattle, Boston, and Detroit) and two Canadian cities (Montreal and Toronto). Patients are identified by social services based on acute care needs (pain and functionality) and eligibility. Volunteer dentists treat patients at no out-of-pocket cost, as Henry	In its first year, the programme provided $500,000 worth of oral healthcare services to 500 Holocaust survivors in the United States and Canada. The program has since expanded to additional cities, including Calgary, Columbus, and Atlanta. Numerous foundations and businesses from both countries continue to join, contributing to the growth of a successful public-private partnership.

					Schein and Alpha Omega cover all materials and lab fees. Dentists commit to treating at least one or two patients annually. Patients sign indemnification forms to absolve volunteers, Alpha Omega, and social services from liability. The program includes basic restorative, preventive procedures, and, on a case-by-case basis, endodontics, periodontics, oral surgery, crowns, and removable dentures.	

AAHB: Alberta Adult Health Benefit; **ACHB**: Alberta Child Health Benefit; **AHS**: Alberta Health Services; **BC**: British Columbia; **BFNH**: Bruye're Family Health Network; **CDB**: Canada Dental Benefit; **CDC**: Community Dental Clinic; **CDCP**: Canadian Dental Care Plan; **COHI**: Children's Oral Health Initiative; **CRA**: Canada Revenue Agency; **DMFT**: number of Decayed, Missing due to caries, and Filled Teeth in the permanent teeth; **ED**: Emergency Department; **FTE**: Full-time equivalent; **FV**: Fluoride Varnish; **HSO**: Healthy Smiles Ontario; **IFHP**: Interim Federal Health Program; **JLDC**: Jim Lund Dental Clinic; **LICO**: Low Income Cut Offs; **NFP**: Not-for-profit; **NGO**: Non-governmental organizations; **NR**: Not Reported; **PHDC**: Public Health Dental Clinics; **SES**: Socioeconomic status; **SHINE**: Student Health Initiative for the Needs of Edmonton; **VC**: Volunteer-charitable; **YSB**: Youth Services Bureau

Providers' perspective

A total of 17 data units were collected from the provider's perspective, all data points were qualitative (e.g., quotes from an interview). An analysis of the total themes and sub-themes revealed that 38% (3 themes and no sub-themes) of themes and subthemes identified were barriers, 38% (3 themes and no sub-themes) were mixed, and 25% (1 theme and 1 sub-theme) were enablers (Table 6). No influences were observed within the TDF domains of ‘knowledge’, ‘skills,’ ‘beliefs about capabilities’, ‘optimism’, ‘reinforcement’, ‘intentions’, ‘goals’, ‘memory, attention and decision process’, ‘social influences’, ‘emotion’, or ‘behavioural regulation’.

Table 6. Frequency and elaboration within each of the TDF domains, presented in rank order from most important to least important

TDF domain (rank order)	Frequency of influences			Number of studies identified	Level of elaboration	
	Barriers only	Enablers only	Mixed		Number of themes	Number of sub-themes
1. Environmental context and resources	5	0	9	3	5	1
2. Social/professional role and identity	2	0	0	2	1	0
3. Beliefs about consequences	0	1	0	1	1	0

TDF: Theoretical domains framework

Table 7 lists all themes generated within each TDF domain, alongside supporting examples of extracted data. Below, we have presented a narrative description of the themes within domains that were identified as high in importance. Overall, providers mentioned limitations regarding the capacity of dental care clinics to serve individuals and families living in a situation of socio-economic disadvantage .[28,30,37] These limitations were often due to staffing shortages (particularly in community dental clinics) or the fact that government programs frequently do not cover the full cost of treatment, especially for prosthetics such as dentures. Clinics have employed various strategies to work around financial issues, such as avoiding treatments that are covered by insurance but yield little to no profit[37]or reducing overall expenses by cutting staff and negotiating material costs.[37] The latter was more common in clinics serving underprivileged neighbourhoods. Other providers had limited their offering of non-covered treatments and avoided discussions about treatments they knew were not covered.[37] Some encouraged patients to pay out of pocket, offering the option to pay in installments, while others occasionally provided services for free or at a reduced price in special cases.[37]

For many clinics, limited staff or volunteers meant having to prioritise individuals in greatest need, often leaving the "working poor" – adults who aren’t students, live independently and work but earn an after-

tax family income below the low-income threshold[38] – without care and putting practitioners in a difficult position.[28,30] The attitudes of dentists seemed to vary depending on the location of their clinic. Dentists in underprivileged areas tended to show more empathy and understanding, while those in other areas were more likely to view patients as lazy or neglectful, with some even citing "cultural incompatibilities".[30,37]

Clinics used various strategies to deal with missed appointments which was highlighted as a common issue.[30,37] While dentists noted that these strategies could be applied to individuals who did not receive last-resort financial aid, they pointed out that these strategies were most used with those who did receive such aid.[37] Although no clinics that were interviewed explicitly had policies to exclude individuals receiving last-resort financial aid, they acknowledged that this practice existed, and many clinics that were interviewed used more subtle methods to exclude these individuals.[37] Practitioners also mentioned that many patients at community dental clinics required more complex care, as many struggled with addiction or had endured difficult living conditions and trauma.[28,30] This increased the staffing challenges faced by community dental clinics, as the expertise required often wasn't part of dental school curricula. In addition, complex cases were often more time consuming, making the issue of the availability of free or affordable care even more present.

Table 7. Key themes from the providers' perspective, corresponding data excerpt(s), and quotes of barriers and enablers coded to each of the domains of the Theoretical Domains Framework

Theme	Barrier/ Enabler/ Mixed influence	Exemplar data excerpt(s)
Environmental context and resources		
Organising Access to Dental Care and Delivery of Services	Mixed	*Author interpretation*: Overall, participants described several ways that access to care is enhanced by the community dental clinics (CDC). First, they are located within disadvantaged communities and usually integrated with other health and social services; and second, the disruption of missed appointments in the daily schedules is overcome by the availability of many drop-in patients seeking emergency care. [Wallace 2015] Even though all dentists reported encountering difficulties with people on social assistance, none mentioned having adopted a policy that purposefully and systematically excluded them; they acknowledged, though, that this approach existed in the dental community. [Bedos 2014] *Quotes:* "So, we set six-monthly appointments. For someone on social assistance, we decided we wouldn't do that. That will cost us a stamp, that will cost us a time slot, that will cost us a missed appointment, a phone call. No, no. We stopped that." [Bedos 2014] "We don't offer them the best spots – the evening appointments, Saturdays, when we work Saturdays. We try to reserve those times for people who pay for themselves." [Bedos 2014]

Financial constraints	Barrier	*Author interpretation*: Managing the clinics was described as a balance between reducing costs to patients, providing quality care, paying competitive salaries to the staff, and managing overhead costs. We were told that the number of dental professionals interested in working in CDCs was small and that recruitment is an ongoing challenge, although retaining core staff was generally not a problem. [Wallace 2013] *Quotes:* "'it' hard to find somebody who's really competent because they can't just be competent in dentistry; they have to be competent in so many other things" [Wallace 2013] "The rates that are currently paid don't allow us to make partials for those on social assistance. I can't do it. My lab charges me more than the [government] gives me for making a partial." [Bedos 2014] "We adjust to it. As I said, I have less staff, I cut the staff, and that's pretty much it. [...] I don't cut back on the quality of materials. But I negotiate with those who sell the materials to give me the best price possible. [...] In the end, all spending is justified. We don't spend on luxuries. No, there are no luxury items. All spending is carefully monitored." [Bedos 2014]
Required adaptations for improving access for the target population	Mixed	*Author interpretation*: The importance of locating the clinic where it was accessible to patients in the community was emphasized by the dentists and administrators. Clinics that accommodated children, for example, were located within a school. Emphasis was placed on the need for a safe location and on the availability of staff who speak the languages of the community. [Wallace 2013] Dentists employed by full-service clinics described the complexity of the care they offer, and how their patients are A very vulnerable group of people that ... really get lost in the shuffle. [Wallace 2015] *Quotes:* "A very vulnerable group of people that ... really get lost in the shuffle ... we really intersect with the drug user population ... I think we see more of the drug user population than probably anyone else does ... they are a very complex people, medically ... because they're dealing with withdrawal and pain and drug use ... so you have to coordinate your treatment with theirs." [Wallace 2015]
Limited capacities of the dental care system	Barrier	*Author interpretation*: The scope of the volunteer service was limited by the availability of volunteers, the hours of operation and the operational expenses. We heard from several sources about the limited reach of the CDCs and how demand for special care exceeded the capacity to service the communities appropriately. [Wallace 2015] *Quotes:* "Every morning when I come to work there's a half a dozen people who do not have appointments waiting ... At the moment we have a 4-month waiting list." [Wallace 2015] "Other dentists, especially in charitable-volunteer clinics, believed that their responsibilities included the 'just reasonably poor ... and we can't do that ... they need it as much as the poor, and that's a terrible dilemma." [Wallace 2015]

Impact of public and community-based programs	Mixed	*Author interpretation*: Dentists developed various approaches to deal with treatments not covered by public dental insurance: limiting the therapeutic options to services that are covered, encouraging people on social assistance to pay for non-covered treatments, or performing non-covered treatments for free or at a reduced cost. [Bedos 2014] *Quotes:* "Came in to help one day, to serve one of our meals ... and he got to meet these people and realized that they needed their teeth fixed and found out they were just ordinary people. So, he went and approached the dental association and gathered up a whole bunch of equipment ... and began himself to come in once every 3 or 4 weeks to provide the emergency clinic." [Wallace 2015]
Social/professional role and identity		
Perceptions of Poverty and Social Bias in Dental Care	Barrier	*Author interpretation*: Even though all dentists reported encountering difficulties with people on social assistance, none mentioned having adopted a policy that purposefully and systematically excluded them; they acknowledged, though, that this approach existed in the dental community. Many explained that it was their professional duty to treat everyone in the society, some even expressing compassionate thoughts about people living in poverty. [Bedos 2014] *Quotes:* "Yes, patients like that, I'm happy to be rid of them, I make no effort to keep them. None. It's their choice. If you don't respect me, go elsewhere. It's as simple as that." [Bedos 2014] "So smelly and dirty and unlovable. I think, for a lot of dentists, it worries their sensitivities and sensibilities ... it's too much for them, they just can't hack it and that's fair enough. When you see some of the fancy dental offices, we have around here ... it's understandable." [Wallace 2015]
Beliefs about consequences		
Managing Patient Attendance Based on Perceived Reliability	Enabler	*Author interpretation*: Dentists could also apply these strategies (strategies to deal with attendance issues) to people not on social assistance. However, they made a distinction between people on social assistance and "regular people" who consulted for the first time: whereas they would give the benefit of the doubt to "regular people", they would often suspect people on social assistance of being lazy, and therefore adopt one or several of these strategies. [Bedos 2014] *Quotes*: "So, we set six-monthly appointments. For someone on social assistance, we decided we wouldn't do that. That will cost us a stamp, that will cost us a time slot, that will cost us a missed appointment, a phone call. No, no. We stopped that." [Bedos 2014] " 'Listen, you have to sign a contract. If you miss an appointment, it's $35.' There are people on social assistance who refuse to pay that." [Bedos 2014]

Domain frequency: The data units were coded most frequently into the following domains: 1) 'environmental context and resources' (n=3 studies, [100%]); 2) 'social/professional role and identity' (n=2, [67%]); and 3) 'beliefs about consequences' (n=1, [33%]) (Table 6). *Level of elaboration:* Approximately 75% of themes/sub-themes relating to barriers, and all themes/sub-themes relating to enablers, and mixed themes/sub-themes were captured in the 'Environmental context and resources' theoretical domain (Table 6).

The rank order of domain importance: The 14 theoretical domains are presented in rank order (Table 6). In general, there was good convergence between frequency (the number of studies in which the domain was evident) and elaboration (the number of themes and sub-themes based on the inductive analysis).

Discussion

This scoping review aimed to identify barriers and facilitators influencing access to dental care among individuals and families living in a situation of socio-economic disadvantage in Canada. The TDF was used to systematically map these influences. In addition, the review also aimed to identify various approaches used across Canada to mitigate the barriers to access to dental care.

The review identified 11 themes categorised as barriers, including financial hardship, accessibility, travelling issues (having difficulties finding a dentist, the cost of transportation to the dentist and the logistics of organising transport to and from the dentist), and negative emotions associated with dental care. In addition, two themes were identified as enablers, including financial facilitators such as the ability to pay with cash or with a credit card, and patients being involved in their care.
The review also identified eight themes that served as both barriers and enablers, depending on the context, including the practicality and coverage of dental insurance policies, culture and language, the behaviour of the dentist/care team, dentist's skill in managing pain, the importance of physical attractiveness of teeth on social interactions, the relationship between the patient and the care team, the perceived need for dental care, and having knowledge about existing programs. Five main types of approaches to improve access to dental care were also identified, including local initiatives such as free clinics, federal programs, school interventions, provincial programs, programs to improve access to government programs, and approaches that could not be categorised (e.g., sensitising dental care providers using a DVD).

The review also identified 3 themes categorised as barriers from the point of view of dental care providers, including financial constraints, the limited capacities of the dental care system, and the perception of poverty and social bias in dental care. In addition, the management of patients' attendance based on perceived reliability was the only theme that was identified as an enabler. Three other themes were identified as having a mixed influence depending on the context such as organising access to dental care and delivery of services, required adaptations for improving access for the target population, and the impact of public and community-based programs.

Overall, this scoping review has allowed us to identify the TDF domain 'environmental context and resources' as the most influential factor in the literature when it comes to access to dental care for individuals and families living in situations of socioeconomic disadvantage in Canada. Many studies highlighted that cost was a major barrier for individuals with limited financial resources.[13,17,19,39–51] In addition, while the coverage offered by insurance and public initiatives were usually seen as strictly positive things, we found that, while they do improve access to dental care,[22,52] their complexity and the incomplete coverage they often offer[5,45] can be a significant source of frustration and lead to poorer oral health.[49] Various studies have also identified that individuals often had issues finding a dentist in both rural and urban settings[19] or had trouble financing or organising transportation to and from the dentist.[15] The Ahmad 2014 study [53] also found a correlation between the income of a neighbourhood and the

dentist supply, highlighting a systemic barrier to access to dental care, where individuals with fewer financial resources have limited access to a resource that is already less accessible to them due to cost.

The second most influential TDF domain was 'emotion', many studies highlighted that going to the dentist was a source of anxiety and fear for many individuals,[5,17,19] with some being ready to endure a significant amount of pain to avoid going to the dentist[20] even though the possibility of experiencing pain was the reason for being scared of the dentist.[48] Embarrassment was also mentioned by some as a reason not to go to the dentist.[13,48] On a similar note, the behaviour of the dental care team was also mentioned as a reason to visit[13,16] or not to visit the dentist.[13,15,16] For some, it was due to past negative experiences or due to the apprehension of judgment. This highlighted the need for a welcoming, judgment-free environment where individuals are empowered to seek the care that they need.

Consistent with the point above, 'social influences' were also found to be a key domain, again highlighting the need for a positive patient-dentist relationship, with many individuals expressing the importance of communication[15,16] and trust[13,16,20] when it came to dental care. This highlighted once again the need for a respectful and compassionate environment for individuals living in a situation of socioeconomic disadvantage, where it is comfortable to share their worries regarding their oral health and where they feel listened to and cared for. Individuals also shared the impact of having attractive or unattractive teeth when it came to social interactions,[21] highlighting the wish to access more 'aesthetic' based treatments which are often not covered by public programs and the more complex influence that a good-looking smile has in our society.

The 'belief about consequences' domain highlighted the fact that some individuals believed that visiting the dentist was not necessary and therefore didn't,[5,17,22,48] while for others it was a fundamental component of overall health.[18] Some also believed that certain treatments were ineffective and did not trust the dentist to make the decision that would be most beneficial to their health, but rather the decision that would give the dentist the most money.[13] This highlights the need for better public education regarding dental care and dental treatments as well as the importance of developing a good relationship between the care team and the patient.

This scoping review also allowed us to identify barriers and enablers to access to dental care from the point of view of dental care providers. From this point of view, the TDF domain 'environmental context and resources' was also the most influential. Highlighting the fact that providers felt they were limited in their capacity to provide care, either because the coverage offered by the existing programs did not cover the actual costs of the treatment[37] or because they had difficulties finding staff and volunteers willing to and able to work at the community dental clinics, knowing that the cases encountered can be very complex, with poverty intersecting with addictions, trauma, and mental health challenges.[28,30]

Some strategies used to minimise the effect of the lack of coverage were to not discuss treatments that weren't covered, encouraging people to pay in multiple payments, or even offering the treatment for

free.[37] The first strategy reflects one of the barriers identified from patients' perspective where patients felt like they were not being involved in their own care or not offered the treatments that they wanted whereas from the provider's perspective, this tactic was viewed as a kindness.

Providers highlighted the importance of locating the clinics where they were most needed and providing services that fulfill the needs of the population they served.[28] This patient's perspective barriers of having a clinic where they could speak the language they preferred, that felt culturally safe, and that was accessible, enabled the access and utilisation of dental care services. Many providers used tactics to try and diminish the effect of missed appointments, which were highlighted as a recurring issue and identified as a barrier from the patient's perspective. While some providers used tactics such as giving appointments later in the day or at times where it would reduce disruptions, sending reminders, booking shorter appointment, and booking appointments less in advance, others preferred threats (such as having people sign a contract where they must pay if they miss the appointment) or double-booking people.[37] While the use of these tactics is understandable from a business point of view, it is also evident that it could cause some frustrations from the patient's perspective.

While many providers did feel like it was their duty to care for the most vulnerable and the underserved, some used subtle methods to try and exclude individuals receiving last resort financial aid such as stopping reminders, offering appointments further into the future, even in the case of emergencies or offering "high quality" and "high tech" care that wasn't accessible to individuals with a low income.[37] This reflected the experience of patients identified in this scoping review, where some felt judged, excluded or improperly cared for.

Five main types of approaches to improve access to dental care were also identified, including local initiatives such as free clinics, federal programs, school interventions, provincial programs, programs to improve access to government programs and approaches that could not be categorised (e.g., sensitising dental care providers using a DVD). Recipients of these initiatives appreciated them for the most part and thought that they did improve access to dental care. However, many highlighted the fact that not all treatments are covered, that the programs can be complicated to access, and sometimes do not provide sufficient funds to fully cover the treatment.[24] All these barriers were highlighted by both the patients' and dental care providers' perspectives. Most approaches focused on providing funds or reducing the costs of treatment, only targeting one of the barriers to care highlighted in our review. Many also highlighted the importance of location when it came to community dental clinics, with patients of these clinics enjoying the fact that the clinic was in a convenient spot.[25,26,28–30] School-based interventions were also appreciated as they did not require students or parents to take time off for preventative measures such as fluoride varnishes.[31–34] These also seemed to reduce the dental care gap between low income and higher income kids.[33] The "Listening to Each Other" program also offered a novel approach to improving access to dental care.[15,36] This approach targeted dental care providers through a continuous education program, individuals who participated reported feeling inspired to change at least one aspect of how they interact with patients receiving last resort financial aid. While most approaches did target the cost barriers, some did offer solutions to other barriers that were

identified in this scoping review such as transportation, childcare, patient/care team relationship and the complexity of the coverage offered.

Implication for Practice

The findings suggest several actionable strategies to improve equitable access to dental care in Canada. Cost reduction-related measures, such as sliding scale fees or the expansion of public dental coverage, could help alleviate financial barriers that prevent individuals from seeking necessary treatment.[16,19,22,25,27,28,30] For example, with the Alberta Child Health Benefit (ACHB) and the Alberta Adult Health Benefit (AAHB), 93.1% of ACHB clients who responded agreed that the program helped them or their children get dental services that they would not otherwise have been able to receive.[22] Additionally, training facilitators to assist individuals with the application process for government dental funding could further enhance accessibility by addressing challenges such as language barriers and distrust of bureaucratic systems.[54,55] For example, children in communities with high levels of support from community health workers had better access to preventive dental services (defined as: (i) the number of enrolments; (ii) the number of enrolled children with multiple fluoride varnishes delivered; (iii) the number of enrolled children with sealants placed; and (iv) the number of enrolled children with ART restorations placed) than children from communities with lower levels of support from community health workers.[55] Furthermore, cultural competency training for dental professionals could strengthen communication and build trust with diverse populations, ultimately improving patient engagement and adherence to treatment plans.[15,29,55] Addressing transportation challenges through mobile dental clinics or transportation vouchers could further improve accessibility, particularly for individuals in remote or underserved areas.[7,15,17,19] Moreover, enhancing health literacy through targeted educational programs could empower individuals to better understand the importance of oral health and navigate available dental care services effectively.[36] By integrating these strategies, dental care accessibility could be significantly improved, leading to better overall health outcomes.

Recommendation for Future Research

Future research should leverage the information obtained from the barriers and facilitate evaluation to adapt current approaches and develop new interventions using appropriate models and frameworks, e.g., the ORBIT model. These then need to be rigorously evaluated in real-world settings, targeting dental care access for individuals and families living in a situation of socio-economic disadvantage in Canada. While existing initiatives such as community dental clinics, school-based interventions, and targeted financial assistance programs have shown promise,[5,15,17,19,49] further research is needed to assess their long-term impact on the breadth of access, oral health outcomes, potential for scalability, and cost-effectiveness. Additionally, comparative studies across provinces can help determine which models of care delivery are most effective in different contexts. Ultimately, the most effective interventions in the various contexts need to be translated into provincial and federal policies.

As an example of how promising interventions might be extended, mobile dental clinics and tele-dentistry services have emerged as viable options for addressing geographic and financial barriers, yet

their implementation and sustainability require further study.[56] Similarly, examining innovative financing models, such as sliding scale fees or targeted subsidies for preventive care, could provide insights into reducing financial stressors for underserved populations.[57] Research should also investigate how targeted education and awareness campaigns can enhance health literacy and empower individuals to navigate existing dental care resources effectively. [58]

This review did not do a policy analysis. Doing such an analysis would add to these results by providing information on the broader structural factors influencing access to dental care, including the potential effectiveness of recent governmental initiatives like the Canadian Dental Care Plan. Future research should evaluate whether these policies adequately address gaps in coverage and identify potential areas for improvement. Qualitative studies capturing the perspectives of patients and providers can offer valuable insights into barriers that persist despite policy interventions. By systematically assessing and refining these strategies, future research can contribute to evidence-informed solutions that enhance equitable access to dental care for individuals and families living in a situation of socio-economic disadvantage in Canada.

This study benefits from several key strengths, including the use of a comprehensive search strategy and the application of the TDF, which ensured that the findings were systematically mapped and could be reproduced. By including both qualitative and quantitative studies, we were able to capture a wide range of relevant research, enhancing the robustness of the analysis. Additionally, the search of relevant websites helped to further minimise the risk of publication bias, ensuring a more thorough and diverse collection of studies.

Despite these strengths, several limitations should be considered. One of the main challenges was the potential for publication bias, which remained a risk even with the inclusion of alternative publication sources. For example, the exclusion of studies published in languages other than English and French, which may have impacted the comprehensiveness of the findings. However, given that the focus of the project was on Canada, where English and French are the official languages, the effect of this limitation was expected to be minimal. Additionally, the reliance on self-reported data in many of the included studies may have introduced inaccuracies, though the large sample size, encompassing approximately three million individuals, helps to mitigate this concern.

Conclusion

To the best of our knowledge, this scoping review is the first to use the TDF to systematically map and identify barriers and facilitators to dental care access among individuals and families living in a situation of socio-economic disadvantage in Canada. These barriers and facilitators were influenced by a set of individual-level, socio-cultural, and environmental factors. To improve access to dental care, clinicians and decision makers could target the factors (barriers and enablers), such as implementing reductions in treatment costs, providing transportation solutions, improving cultural competency and providing educational programs to improve health literacy. Future research should evaluate the effectiveness of

governmental initiatives and qualitatively assess patient and provider perspectives on persisting barriers despite policy interventions. Providing empirical evidence for improvements in governmental initiatives can aid in enhancing access to dental care for Canadian individuals and families living in a situation of socio-economic disadvantage.

References

1. Sacks E, Schleiff M, Were M, Chowdhury AM, Perry HB. Communities, universal health coverage and primary health care. *Bull World Health Organ*. 2020;98(11):773-780. doi:10.2471/BLT.20.252445

2. Canada S. Canadian Dental Care Plan. December 8, 2023. Accessed March 28, 2025. https://www.canada.ca/en/services/benefits/dental/dental-care-plan.html

3. Canada S. Canadian Dental Care Plan - What is covered. December 8, 2023. Accessed March 28, 2025. https://www.canada.ca/en/services/benefits/dental/dental-care-plan/coverage.html

4. Canada S. Canadian Dental Care Plan - Dental Benefits Guide. January 23, 2024. Accessed March 28, 2025. https://www.canada.ca/en/services/benefits/dental/dental-care-plan/guide.html

5. Amin MS, Perez A, Nyachhyon P. Barriers to utilization of dental services for children among low-income families in alberta. *J Can Dent Assoc*. 2014;80:e51-e51.

6. Watt RG, Venturelli R, Daly B. Understanding and tackling oral health inequalities in vulnerable adult populations: from the margins to the mainstream. *Br Dent J*. 2019;227(1):49-54. doi:10.1038/s41415-019-0472-7

7. Ghanbari-Jahromi M, Bastani P, Jalali F sadat, Delavari S. Factors affecting oral and dental services` utilization among Elderly: a scoping review. *BMC Oral Health*. 2023;23(1):597. doi:10.1186/s12903-023-03285-4

8. Atkins L, Francis J, Islam R, et al. A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implement Sci*. 2017;12(1):77. doi:10.1186/s13012-017-0605-9

9. Davis R, Campbell ,Rona, Hildon ,Zoe, Hobbs ,Lorna, and Michie S. Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review. *Health Psychol Rev*. 2015;9(3):323-344. doi:10.1080/17437199.2014.941722

10. Peters MDJ, Marnie C, Tricco AC, et al. Updated methodological guidance for the conduct of scoping reviews. *JBI Evid Synth*. 2020;18(10):2119. doi:10.11124/JBIES-20-00167

11. Graham-Rowe E, Lorencatto F, Lawrenson JG, et al. Barriers to and enablers of diabetic retinopathy screening attendance: a systematic review of published and grey literature. *Diabet Med*. 2018;35(10):1308-1319. doi:10.1111/dme.13686

12. Prothero L, Lawrenson JG, Cartwright M, et al. Barriers and enablers to diabetic eye screening attendance: An interview study with young adults with type 1 diabetes. *Diabet Med*. 2022;39(3):e14751. doi:10.1111/dme.14751

13. Bedos C, Brodeur J, Boucheron L, et al. The dental care pathway of welfare recipients in Quebec. *Soc Sci Med*. 2003;57(11):2089-2099. doi:10.1016/s0277-9536(03)00066-2

14. Muirhead VE, Quiñonez C, Figueiredo R, Locker D. Predictors of dental care utilization among working poor Canadians. *Community Dent Oral Epidemiol*. 2009;37(3):199-208. doi:10.1111/j.1600-0528.2009.00471.x

15. Lévesque MC, Dupéré S, Loignon C, et al. Bridging the poverty gap in dental education: how can people living in poverty help us? *J Dent Educ*. 2009;73(9):1043-1054. doi:10.1002/j.0022-0337.2009.73.9.tb04791.x

16. Noushi N, Bedos C. Developing Person-Centred Dental Care: The Perspectives of People Living in Poverty. *Dent J*. 2020;8(3). doi:10.3390/dj8030082

17. Wallace BB, et al. Access to dental care for low-income adults: Perceptions of affordability, availability and acceptability. *J Community Health Publ Health Promot Dis Prev*. 2012;37(1):32-39. doi:10.1007/s10900-011-9412-4

18. Nurelhuda N, Keboa M, Lawrence H, Nicolau B, Macdonald M. Advancing Our Understanding of Dental Care Pathways of Refugees and Asylum Seekers in Canada: A Qualitative Study. *Int J Environ Res Public Health*. 2021;18(16). doi:10.3390/ijerph18168874

19. Menon A., de Jesus V.C., Virtanen J.I., Schroth R.J. Parent's Views on Access to Dental Care and the Interim Canadian Dental Benefit. Published online 2024. doi:10.1101/2024.05.10.24307141

20. Bedos C, Brodeur J, Levine A, Richard L, Boucheron L, Mereus W. Perception of dental illness among persons receiving public assistance in Montreal. *Am J Public Health*. 2005;95(8):1340-1344. doi:10.2105/AJPH.2004.045955

21. Bedos C, Levine A, Brodeur JM. How people on social assistance perceive, experience, and improve oral health. *J Dent Res*. 2009;88(7):653-657. doi:10.1177/0022034509339300

22. Amin MS. Utilization of dental services by children in low-income families in alberta. *J Can Dent Assoc*. 2011;77:b57-b57.

23. Schroth RJ, Cruz de Jesus V, Menon A, et al. An investigation of data from the first year of the interim Canada Dental Benefit for children <12 years of age. *Front Oral Health*. 2023;4(9918227262706676):1328491. doi:10.3389/froh.2023.1328491

24. Durbin A., Root A., Lawrence H.P., Werb S., Abrams S., Durbin J. Building effective public dental care programs: The critical role of implementation evaluation. *J Public Health Dent*. 2023;83(2):222-226. doi:10.1111/jphd.12569

25. Kallal MG, Compton SM, Brodie AR, Moran BL, Minn N. Yoon. Exploring access in a volunteer free-service dental clinic. *Can J Dent Hyg*. 2021;55(2):120-123.

26. Patterson S, Varughese R, Wang M, Wu X, Kline L. The SHINE clinic: providing dental services for inner-city youth. *J Can Dent Assoc*. 2011;77:b111-b111.

27. Rabie H., Figueiredo R. Provision of dental care by public health dental clinics during the COVID-19 pandemic in Alberta, Canada. *Prim Dent J*. 2021;10(3):47-54. doi:10.1177/20501684211029423

28. Wallace B.B., MacEntee M.I., Harrison R., Hole R., Mitton C. Community dental clinics: Providers' perspectives. *Community Dent Oral Epidemiol*. 2013;41(3):193-203. doi:10.1111/cdoe.12012

29. Rowan M, Mason M, Robitaille A, Labrecque L, Tocchi C. An innovative medical and dental hygiene clinic for street youth: Results of a process evaluation. *Eval Program Plann*. 2013;40:10-16. doi:10.1016/j.evalprogplan.2013.04.005

30. Wallace BB, MacEntee MI, Pauly B. Community dental clinics in British Columbia, Canada: examining the potential as health equity interventions. *Health Soc Care Community*. 2015;23(4):371-379. doi:10.1111/hsc.12151

31. Huber C, Baran S, de Graaff C, Howell M, Patterson S, Figueiredo R. Redirecting public oral health fluoride varnish intervention to low socio-economic status children in Alberta. *Can J Public Health*. 2017;108(3):e273-e278. doi:10.17269/CJPH.108.6037

32. Kostek J, Martinello C. Health service application. A comprehensive approach to improve the oral health of students in Edmonton, Alberta, Canada. *J Sch Health*. 2002;72(9):387-389. doi:10.1111/j.1746-1561.2002.tb03566.x

33. INSPQ. Pour réduire les inégalités sociales liées à la carie: Des scellants dentaires dans les écoles - Publications du ministère de la Santé et des Services sociaux. 2019. Accessed March 28, 2025. https://publications.msss.gouv.qc.ca/msss/document-002348/

34. Locker D, Frosina C, Murray H, Wiebe D, Wiebe P. Identifying children with dental care needs: Evaluation of a targeted school-based dental screening program. *J PUBLIC Health Dent*. 2004;64(2):63-70. doi:10.1111/j.1752-7325.2004.tb02729.x

35. Wiseman M. Alpha Omega-Henry Schein Cares Holocaust Program Meets Dental Needs of Survivors. *Gener-J Am Soc AGING*. 2016;40(3):108-110.

36. Lévesque MC, Levine A, Bedos C. Ideological roadblocks to humanizing dentistry, an evaluative case study of a continuing education course on social determinants of health. *Int J Equity Health*. 2015;14(1):1-14. doi:10.1186/s12939-015-0170-2

37. Bedos C, Loignon C, Landry A, Richard L, Allison P. Providing care to people on social assistance: how dentists in Montreal, Canada, respond to organisational, biomedical, and financial challenges. *BMC Health Serv Res*. 2014;14. doi:10.1186/1472-6963-14-472

38. Canada PHA of. Infographic: Inequalities in working poor Canadians. April 24, 2019. Accessed April 22, 2025. https://www.canada.ca/en/public-health/services/publications/science-research-data/inequalities-working-poor-canadians-infographic.html

39. Abdelrehim M., Ravaghi V., Quinonez C., Singhal S. Trends in self-reported cost barriers to dental care in Ontario. *PLoS ONE*. 2023;18(7 July):e0280370. doi:10.1371/journal.pone.0280370

40. Abdelrehim M, Singhal S. Is private insurance enough to address barriers to accessing dental care? Findings from a Canadian population-based study. *BMC Oral Health*. 2024;24(1):1-10. doi:10.1186/s12903-024-04271-0

41. Abouseta N, Gomaa N, Dixon SJ, Pani SC. Neighborhood-Level Inequalities in Dental Care of Adolescents and Young Adults in Southwestern Ontario. *Children*. 2022;9(2):183. doi:10.3390/children9020183

42. Amegbor P, Rosenberg M. The use of dental care services in Alberta, Manitoba, and Newfoundland and Labrador: A comparative analysis. *Can Geogr-Geogr Can*. 2018;62(3):414-426. doi:10.1111/cag.12435

43. Calvasina P., Muntaner C., Quinonez C. Factors associated with unmet dental care needs in Canadian immigrants: an analysis of the longitudinal survey of immigrants to Canada. *BMC Oral Health*. 2014;14((Calvasina, Muntaner, Quinonez) Faculty of Dentistry&Global Health Division, Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada.):145. doi:10.1186/1472-6831-14-145

44. Dong M, Levine A, Loignon C, Bedos C. Chinese immigrants' dental care pathways in montreal, Canada. *J Can Dent Assoc*. 2011;77:b131-b131.

45. Hau KPH, Currie BL, Ng SPY, Le N, Poh CFY. Oral health status and possible explanatory factors of an inner-city low-income community. *J Dent Sci*. 2017;12(1):49-55. doi:10.1016/j.jds.2016.06.008

46. Laleh Sadeghi, Heather Manson, Carlos R. Quiñonez.
Report on Access to Dental Care and Oral Health Inequalities in Ontario. Public Health Ontario the Population Health Improvement Research Network of the Applied Health Research Network Init iative, Government of Ontario, and the Canadian Institutes of Health Research.; 2012:26. https://www.vaughanchc.com/wp-content/uploads/2021/03/dental-oral-inequalities.pdf

47. Locker D, Maggirias J, Quiñonez C. Income, dental insurance coverage, and financial barriers to dental care among Canadian adults. *J Public Health Dent*. 2011;71(4):327-334. doi:10.1111/j.1752-7325.2011.00277.x

48. Millar W.J., Locker D. Dental insurance and use of dental services. *Health Rep Stat Can Can Cent Health Inf Rapp Sur Sante Stat Can Cent Can Inf Sur Sante*. 1999;11(1):55-67.

49. Quiñonez C, Figueiredo R, Quiñonez C, Figueiredo R. Sorry doctor, I can't afford the root canal, I have a job: Canadian dental care policy and the working poor. *Can J Public Health*. 2010;101(6):481-485.

50. Thompson B. *Cost Barriers to Dental Care in Canada*. Master of Science in Dental Public Health, Faculty of Dentistry. University of Toronto; 2012. https://central.bac-lac.gc.ca/.item?id=TC-OTU-33565&op=pdf&app=Library

51. Thompson B, Cooney P, Lawrence H, Ravaghi V, Quiñonez C. The potential oral health impact of cost barriers to dental care: findings from a Canadian population-based study. *BMC Oral Health*. 2014;14(1):1-19. doi:10.1186/1472-6831-14-78

52. Murphy K., Gondro J.V., Moharrami M. Factors associated with the use of oral health care services among Canadian children and youth. *Health Rep*. 2024;35(4):15-26. doi:10.25318/82-003-x202400400002-eng

53. Ahmad A, Quiñonez C. Disparities in the Availability of Dental Care in Metropolitan Toronto. *J Can Dent Assoc*. 2014;80.

54. Harrison R.L., Li J., Pearce K., Wyman T. The Community Dental Facilitator Project: reducing barriers to dental care. *J Public Health Dent*. 2003;63(2):126-128.

55. Mathu-Muju KR, Kong X, Brancato C, McLeod J, Bush HM. Utilization of community health workers in Canada's Children's Oral Health Initiative for indigenous communities. *Community Dent Oral Epidemiol*. 2018;46(2):185-193. doi:10.1111/cdoe.12352

56. Estai M, Kanagasingam Y, Tennant M, Bunt S. A systematic review of the research evidence for the benefits of teledentistry. *J Telemed Telecare*. 2018;24(3):147-156. doi:10.1177/1357633X16689433

57. Singhal S, Quiñonez C, Manson H. Visits for Nontraumatic Dental Conditions in Ontario's Health Care System. *JDR Clin Transl Res*. 2019;4(1):86-95. doi:10.1177/2380084418801273

58. Lee JY, Divaris K, Baker AD, Rozier RG, Vann WF. The Relationship of Oral Health Literacy and Self-Efficacy With Oral Health Status and Dental Neglect. *Am J Public Health*. 2012;102(5):923-929. doi:10.2105/AJPH.2011.300291