The Oral Health Status of Children with Fetal Alcohol Spectrum Disorder

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Disclosure

None

Background

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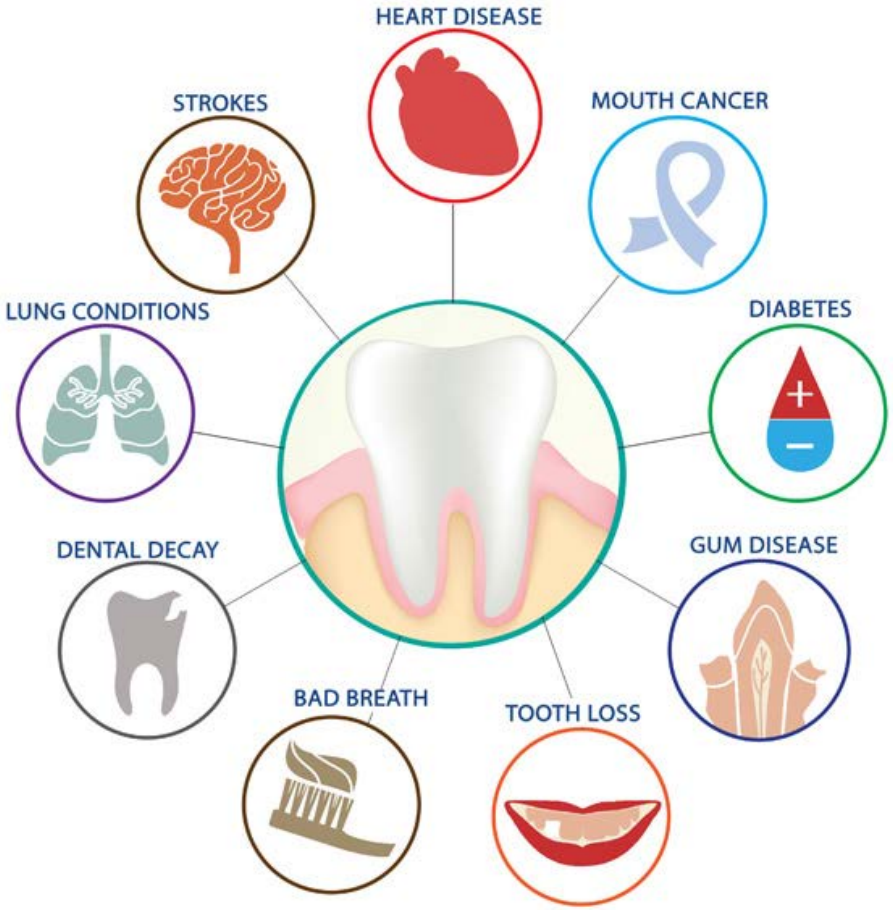
Oral health is an integral component of overall health



Background

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- 85% of Canadians report that they have good oral health

- 75% have visited the dentist within the last year

Summary Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey, 2007-2009

Background

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- Seniors
- Low-income populations
- Children
- Individuals with special needs
- Indigenous populations

Summary Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey, 2007-2009.

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Background

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- Tooth decay is the most common chronic disease of childhood
  - 5x more common then asthma
  - 7x more common then seasonal allergies
- Pain/Infection
- Malnutrition
- Missed school days, poor performance
- Loss of sleep

Cassamassimo et al. JADA 2009

Background

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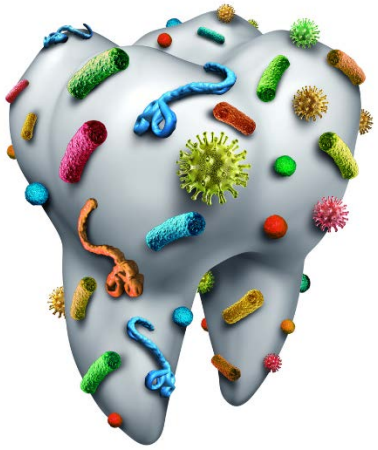
- 2/3rds of all Canadian children ages 6 to 11 experience tooth decay
- 1 out of every 3 kids entering grade 1 have evidence of tooth decay (Saskatchewan)
- Leading cause of day surgery for children in Canada

Schroth, R, et al. JCDA 2016



Frequency of eating
Amount of sugar
Type of sugar

Diet

Caries

Saliva

Flow rate

Buffering capacity

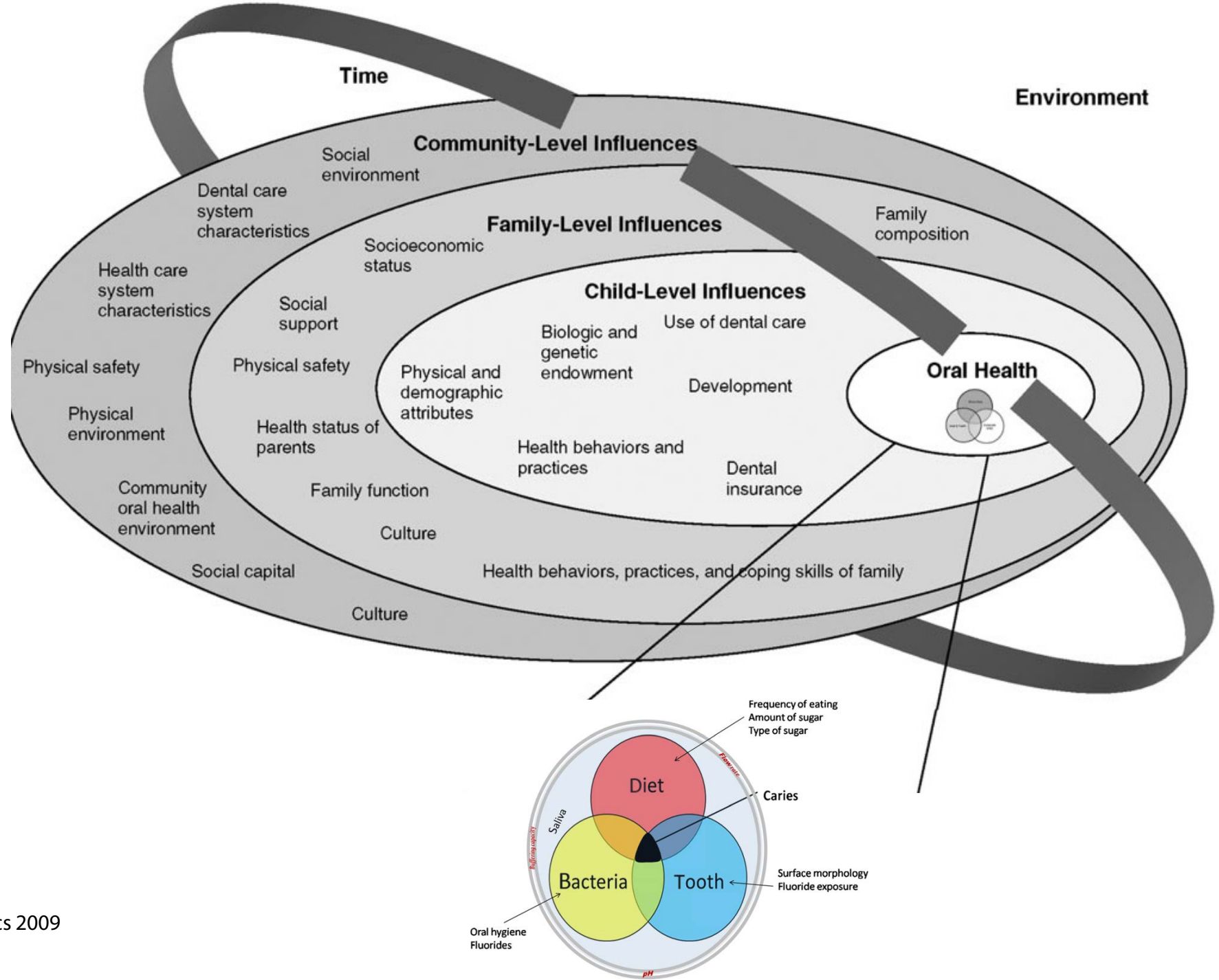
Bacteria

Tooth

pH

Surface morphology

Oral hygiene



Fisher-Owens et al, Pediatrics 2009

Children with Disabilities

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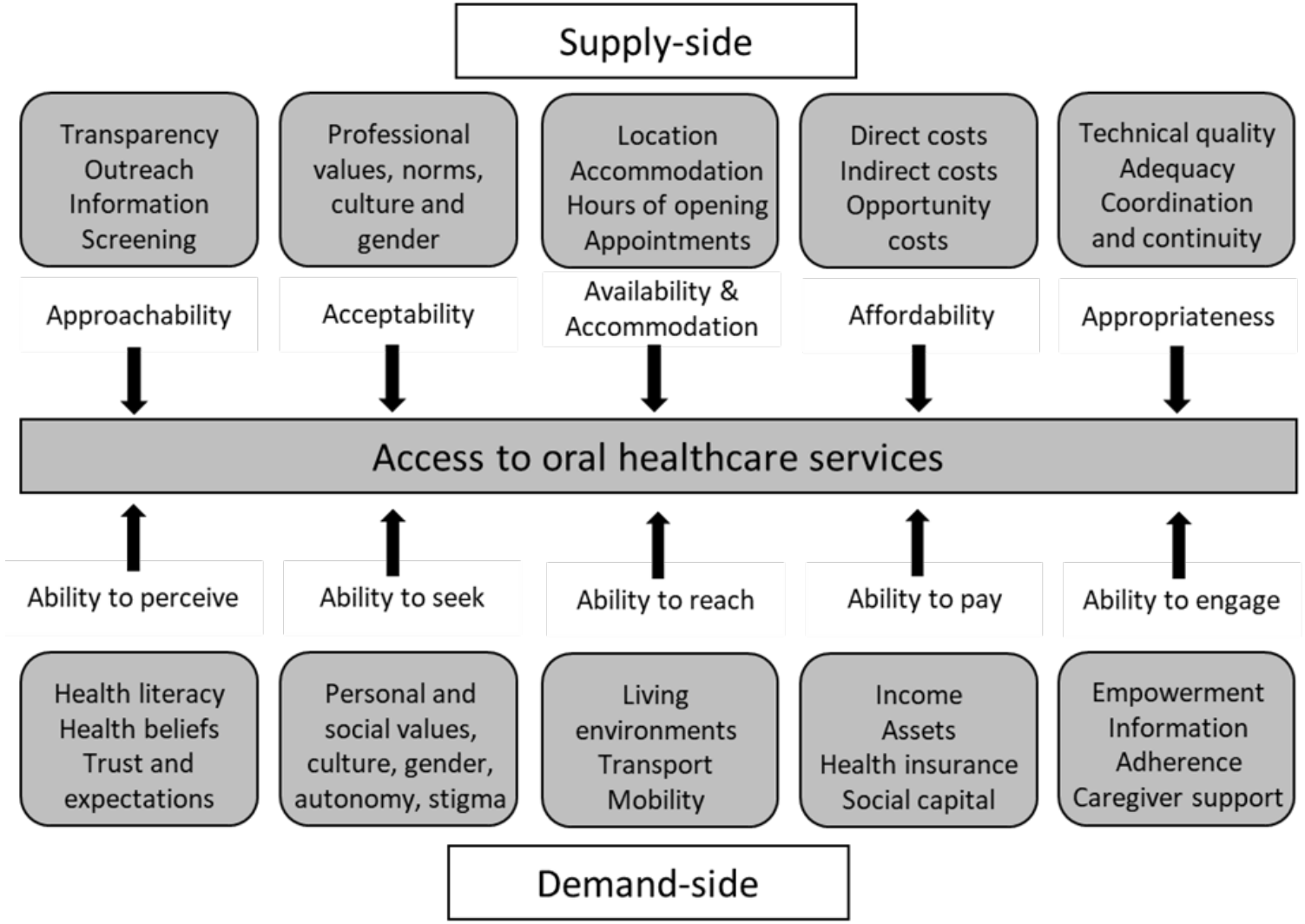
- The oral health and overall health needs of individuals with disabilities are complex
- Greater oral health needs
  - Oral hygiene
  - Tooth decay

De Fonseca, et al. Pediatric Dentistry 2007

Access to Care



Levesque et al. International Journal for Equity in Health 2013

Access to Care

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- Cost
- Location
- Provider knowledge
- Facilities
- Child behaviour

Anders et al. Special Care in Dentistry 2010

Children with FASD

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- May have unique mix of challenges associated with access
- Overall oral health status is unknown
- Behaviour management may exacerbate the risk for extensive dental treatment under general anesthesia

Objective

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This exploratory study seeks to understand the oral health status and treatment outcomes of children with FASD

Methods

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- Retrospective chart review (2014-2018)
- 4 dental clinics operated by College of Dentistry
- Children under the age of 12
- Demographic and clinical data collected
- Descriptive statistics and logistic regression analysis

Results

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Characteristic	Total n= 317 (100)	Control n = 254 (80.1)	FASD n = 38 (12.0)	Other Disabilities n = 25 (7.9)
Gender				
Male	159 (50.1)	129 (50.8)	21 (55.3)	9 (36.0)
Female	158 (49.8)	125 (49.2)	17 (44.7)	16 (64.0)
Public insurance	170 (53.6)	123 (48.4)	32 (84.2)	15 (60.0)
Mean age	8.33	8.34	8.37	8.20
Mean deft (decayed, extracted, filled teeth)	3.61	2.93	7.18	5.16
Treatment with GA	89 (28.1)	43 (16.9)	31 (81.2)	15 (60.0)

Risk Factors Associated with GA

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Parameter	Odds Ratio	SE	95% CI
Age	0.70 *	0.13	0.49 – 1.00
Public insurance	3.65 **	1.54	1.59 – 8.35
deft index (decayed, extracted, filled teeth)	1.97 ***	0.19	1.63 – 2.38
FASD	4.71 **	2.62	1.58 – 14.03
Other disabilities	5.19 **	3.05	1.64 – 16.43
Constant	0.02	0.02	0.01 – 0.08

*** P < 0.001; ** P < 0.001; * P <0.05

Number of Observations	317
LF chi2(5)	204.04
Prob > chi2	0.00
Pseudo R1	0.5421
Log likelihood	-86.17

Discussion

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- Children with FASD have a higher likelihood of requiring publicly funded dental programs
- Children with FASD and those with other developmental disabilities have a higher level of tooth decay
- Children with FASD are 4.71 times more likely to require costly treatment under GA

Discussion

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- What are the physical, behavioral, economic, and/or social barriers that limit access to care?

- Does the knowledge, attitudes and practice behaviors of oral health care providers towards impact the delivery of and access to oral health care?

Relevance

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- What can be done to improve the resources available to oral health care providers and parents/caregivers related to the oral health of children with FASD?

Summary

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- Early detection and prevention must be a focus for programs geared towards children with FASD

- Publicly funded dental programs need to improve in regards to preventive dental services offered

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Thank You!

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