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CITY OF CALGARY  
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**CPS2019-0965**  
Response to Water Fluoridation in The City of Calgary

October 29, 2019 | CPS2019-0965 Presentation 1

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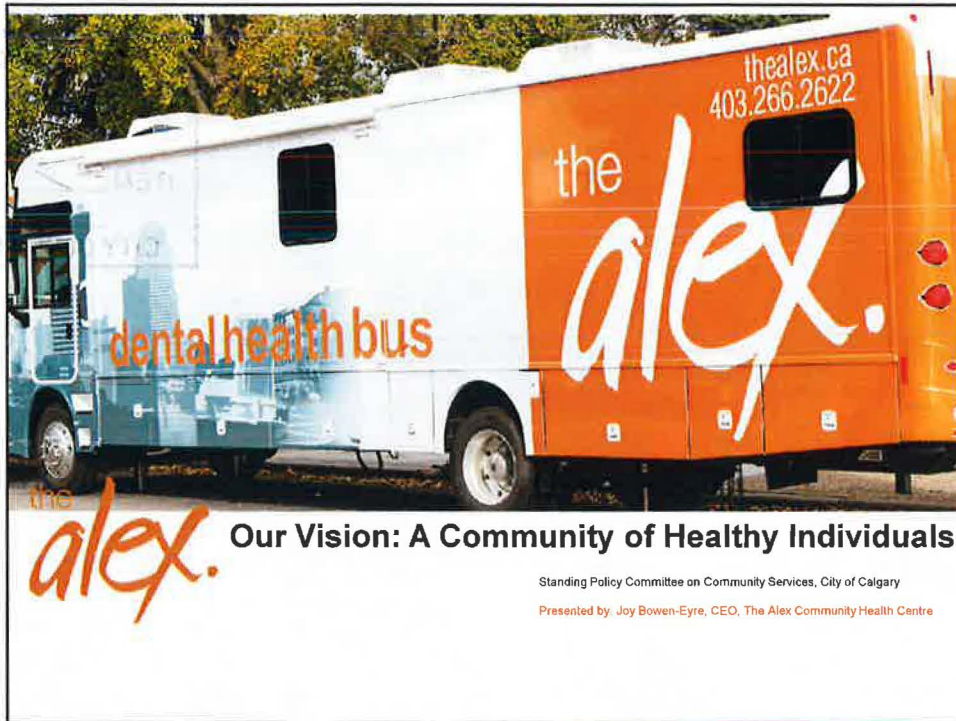
**Panelists**

**Dr. Bill Ghali**  
Scientific Director, O'Brien Institute for Public Health  
University of Calgary

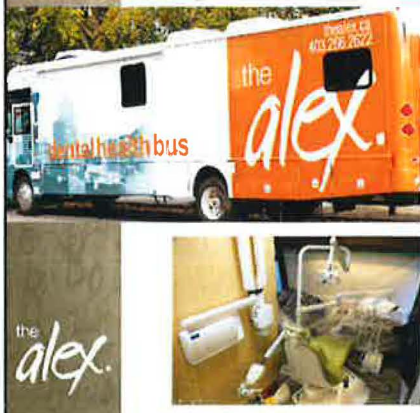
**Joy Bowen-Eyre**  
Chief Executive Officer  
The Alex Community Health Centre

**Dr. David Strong**  
Medical Officer of Health, Calgary Zone Lead  
Alberta Health Services

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## About The Alex Dental Health Bus




- Since 2013 the bus has served more than 26,000 Calgarians, providing:
  - Oral hygiene education
  - Full hygiene treatments (scalings, polish) and upstream preventative services (sealants, fluoride varnish)
  - Access to urgently needed restorative treatment (fillings, extractions)
- Partnerships with Calgary Board of Education, Calgary Catholic School District and Alberta Health Services

## What We See



**50%**  
Have active, untreated decay



**1/3**  
Are urgent cases with pain and infections

**200**  
Children on our wait list for further treatment

*"What we saw at our first clinic brought tears to the eyes of my team...we simply can't let kids live with this kind of risk and pain."  
—Dr. Matt Karavos*



## What We Do





- Visited **37 schools last year** to screen, educate and provide sealants and fluoride treatments.
- **Partner with local dentists** donate their time and resources to help with urgent treatments.
- **\$1.5 M in no-cost treatments** have been provided since 2013 through volunteer dentistry
- The Dental Health Bus is **not sustainably funded**
  - Fundraises annually for operation costs
  - Endowment interest from City of Calgary covers 3% of annual operating costs.

## A Challenging & Complex Issue



Poor oral health is a multi-faceted and complex issue.

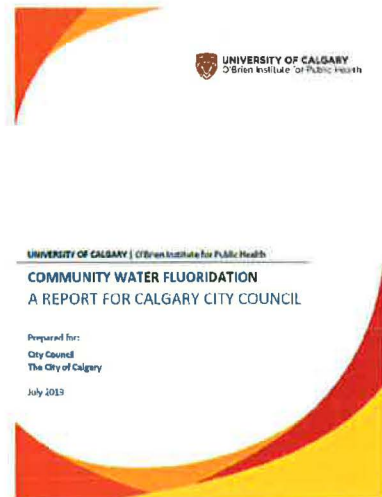
- Fluoride is **safe, equitable** and **cost effective**, but is just one of many important strategies
- In 2017, over **27,000** Alberta emergency room visits for non-traumatic dental issues **cost over \$5 million** in taxpayer dollars<sup>1</sup>.
- **Fluoridation** remains the **broadest, most cost-effective means** of reaching those in need.

1. Figueiredo, Rafael and Jordan Rattai, Kerri Fournier, Liran Levin. "Emergency department visits for dental problems associated with trauma in Alberta: A report between the years 2011 and 2017," *Dental Traumatology*, 2018, 1-8.

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## The O'Brien Report



PRESENTED BY DR. BILL GHALI

## Benefits of water fluoridation - children



**44%** relative reduction in baby teeth affected by dental decay and cavities.



**37%** relative reduction in children's permanent teeth affected by cavities.



**50%** lower rates of hospital admissions for surgical treatment of tooth decay.

## Benefits of water fluoridation - adults



**35%** relative reduction in the number of teeth affected by decay and cavities.



Projected reduction of an average of just over **1** cavity per person, over a **40** year time span.



The benefit of community water fluoridation for tooth decay and cavities is not confined to children.

## Community water fluoridation cessation

### Juneau, Alaska

A recent study reveals an increase in dental cavities after discontinuation of community water fluoridation in 2007.

### Calgary, Alberta

The Calgary-Edmonton comparison study shows an increase in dental cavities in Calgary after fluoride was removed from the water in 2012.



### Windsor, Ontario

Report reveals an increase in dental cavities and deteriorating oral health since cessation of community water fluoridation in 2013.

## Harms of water fluoridation



Consistent evidence that fluoride causes fluorosis.



Active research still needed on effect of fluoride on cognition.



Consistent evidence shows no adverse effects on bones.



Possible minor effects on thyroid function.



## Recommendation

That SPC on Community and Protective Services:

1. Receive the presentation with respect to Report CPS2019-0965 for the Corporate Record; and
2. That Council receive this Report for information