Can language and cultural continuity protect against diabetes in First Nations communities?

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Aloha
Tansi
Hej
Hello
Outline

• Health context and burden of diabetes in Canadian Indigenous peoples
• Model for the underlying causes of diabetes in Canadian Indigenous populations
• Our research on language, cultural continuity, health and diabetes
• Cree community-specific perspective on diabetes, language and culture
• Questions
Health context and burden of diabetes in Canadian Indigenous peoples
Canada’s Indigenous population

- Constitutionally recognized as First Nations, Inuit, and Métis
- 4.3% of total population in Canada (6% in Edmonton)
- The contemporary Indigenous population is young, growing and urbanizing

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>Alberta</th>
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</thead>
<tbody>
<tr>
<td>First Nations</td>
<td>851 560</td>
<td>116 670</td>
</tr>
<tr>
<td>Inuit</td>
<td>59 445</td>
<td>1 985</td>
</tr>
<tr>
<td>Métis</td>
<td>451 795</td>
<td>96 865</td>
</tr>
<tr>
<td>Total</td>
<td>1 400 685</td>
<td>220 695</td>
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</tbody>
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Adapted from Statistics Canada, 2011
Life expectancy

Alberta Health, Division of Surveillance, 2013
Infant mortality

Alberta Health, Division of Surveillance, 2013
Diabetes in First Nations

• Rapid emergence of type 2 diabetes

• Prevalence rates and complications 2-5 times higher

• Age of diagnosis decreasing
Diabetes in Alberta

Oster et al, CMAJ, 2011
Underlying causes of the diabetes epidemic: colonial domination
Why?

- Is diabetes a symptom?
  - Of poor lifestyle?
  - Of poor socio-economic status?
  - Of ‘colonization’?
T2D

BIOLOGICAL
Genetics, epigenetics, intrauterine programming

BEHAVIORS AND LIFESTYLE
Poor diet, physical inactivity, obesity

SOCIAL INEQUITIES
Education, unemployment, income, food insecurity, access to health services, incarceration, living conditions, social support, domestic violence, depression / mental illness, environments

COLONIZATION / CULTURAL DESTRUCTION
Intergenerational trauma, residential schools, racism, disempowerment, relocation / confinement to reserves, political marginalization, as well as loss of autonomy, traditional lifestyles, language, and land

Oster et al, Wisdom engaged, forthcoming
Health impacts of colonization

• Boarding school attendance (USA) increased the odds of alcohol dependence (OR=1.57; 95% CI, 1.03-2.40) (Koss et al, Am J Prev Med 2003)

• In a sample of Indigenous adults from Edmonton, more than 80% had experienced racial discrimination in the past year which was significantly associated with increased PTSD and substance misuse (Currie et al, Can J Public Health 2015)

• Racism significantly associated with a number of adverse oral health indicators in pregnant women (Lawerence et al, J Health Care Poor Underserved 2016)
Language, cultural continuity and health and diabetes
Culture and health

• Santé Quebec Cree health survey found that more time reported spent in the bush practicing traditional hunting/gathering activities was associated with decreased distress (Kirmayer et al, 2000)

• Teenage First Nations males at high risk for suicide reported increased cultural pride, positive cultural identity, as well as pro-social and cooperative behaviors as a result of organized traditional activities in a wilderness setting (Janelle et al, 2009)

• Cultural resilience compensated for the detrimental effect of racial discrimination on stress among adult First Nations in Ontario (Spence et al, 2016)

• Cultural connectedness positively associated with self-efficacy, sense of self, school connectedness, life satisfaction, and improved mental health above among First Nations youth (Snowshoe, 2015)
Chandler & Lalonde: youth suicide and cultural continuity

Figure 5: Total suicide rate by number of factors present

Chandler MJ & Lalonde CE. Horizons. 2003
Cultural continuity and diabetes

• We explored the association between cultural continuity and diabetes prevalence in First Nations in Alberta
  – Used a mixed method design which started with and emphasized a qualitative description, building to a second smaller quantitative piece
Qual results: cultural continuity and diabetes

- Culture and language are the foundation of healthy First Nations communities
- Communities are fighting to rehabilitate their culture and language, with improved health and well-being in mind

Cultural Continuity
“livelihood”
“being who we are”
“sacred”
“everything”
“respect”
“way of life”
“who we are is determined through our language”

Intergenerational trauma

Western Society

Government Policies

Healthy Nations
“Every Nation in this country has been gifted with that ability to (heal themselves)”
“Diabetes is a cultural thing”
“The success is how solid they are as a community in their culture”

Qual results: cultural continuity and diabetes

• How does cultural and language continuity protect against diabetes?
  – Works to stabilize nations in turbulent times
    • Blueprint for survival
    • Shared identity
    • Sense of belonging and community
    • Enhanced social support and healthy interpersonal relationships
    • Spiritual tranquility and decreased stress
    • Physical activity and better nutrition

Quant results: cultural continuity and diabetes

- Generalizing obscures differences in diabetes prevalence

*Oster et al, International Journal of Equity in Health, 2014*
Quant results: cultural continuity and diabetes

- Cultural and language continuity protect against diabetes

![Graph showing correlation between Indigenous language knowledge and diabetes prevalence.](image)

R-squared = 0.338
Adjusted R^2 = 0.218
F (4, 22) = 2.81
P-value = 0.005

Summary / implications

- Health is complex; many factors are at play when it comes to diabetes in Indigenous populations; we need think of health more broadly.

- Interventions aimed at reducing type 2 diabetes rates should work to support cultural continuity and revitalization.

- Traditional Indigenous languages require urgent protection and revival.

- We need to truly and sincerely listen to Indigenous peoples… Researchers, policy makers, healthcare providers, etc would do well to engage with and partner with individual Indigenous communities.

- Cultural continuity and language are health determinants.
**MASKWACIS KOKUMS & MOSOMS**

**Elder Mentoring and Support During Pregnancy**

*Elders are available to speak to in the waiting area or a private room*

*Free moss bag draws (please leave your name with the Elder)*

*Healthy snacks are provided*

For more information contact Dr Richard Oster (780.492.3859; roster@ualberta.ca) or the Wetaskiwin PCN (780.312.2500)

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**Kokums and Mosoms helping expectant parents**

Christina Martin/Wetaskiwin Times

Wednesday, February 15, 2017 11:37:59 MST AM

Maskwacis Elders, like Margaret Montour, help expectant parents, like Tenata Littlechild, deliver healthy babies through an elder support program put together by the University of Alberta, Maskwacis Health Services and the Wetaskiwin Primary Care Network.
Mr. Rick Lightning
QUESTIONS?