

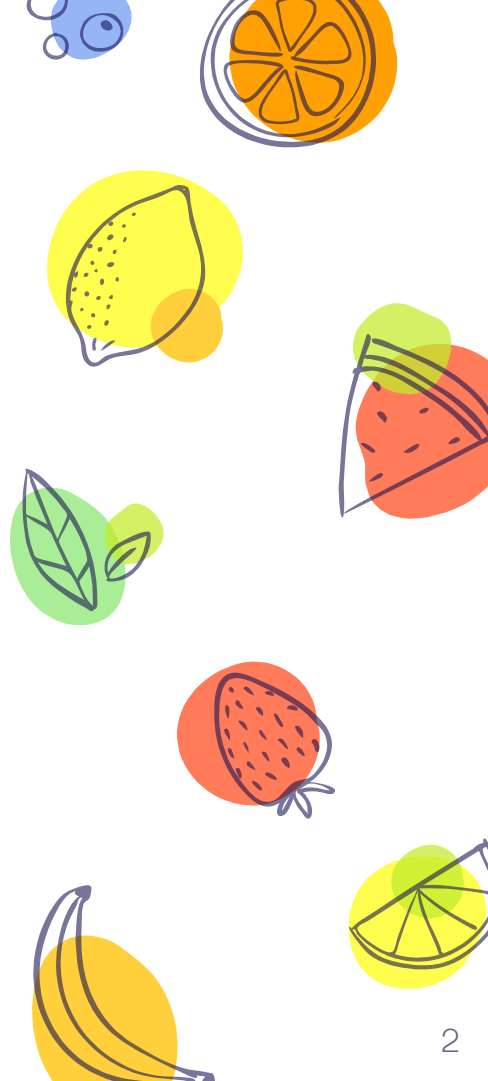


# Exploring community-based approaches to address type 2 diabetes in Indigenous communities in Canada: A case series

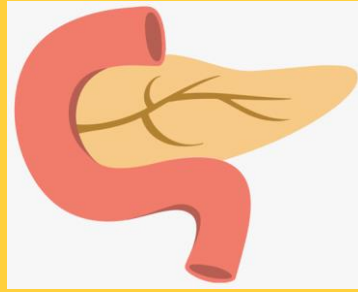
Danika Goveas & Joshua Tuazon  
November 26<sup>th</sup>, 2019

# Agenda

1. Introduction - What is diabetes?
  - Star Activity
2. Background - Food security
  - Wellness Tower
3. Research Questions
4. Methods
5. Results
  - Group activity
6. Discussion - Conceptual Framework
7. Conclusion



# Introduction



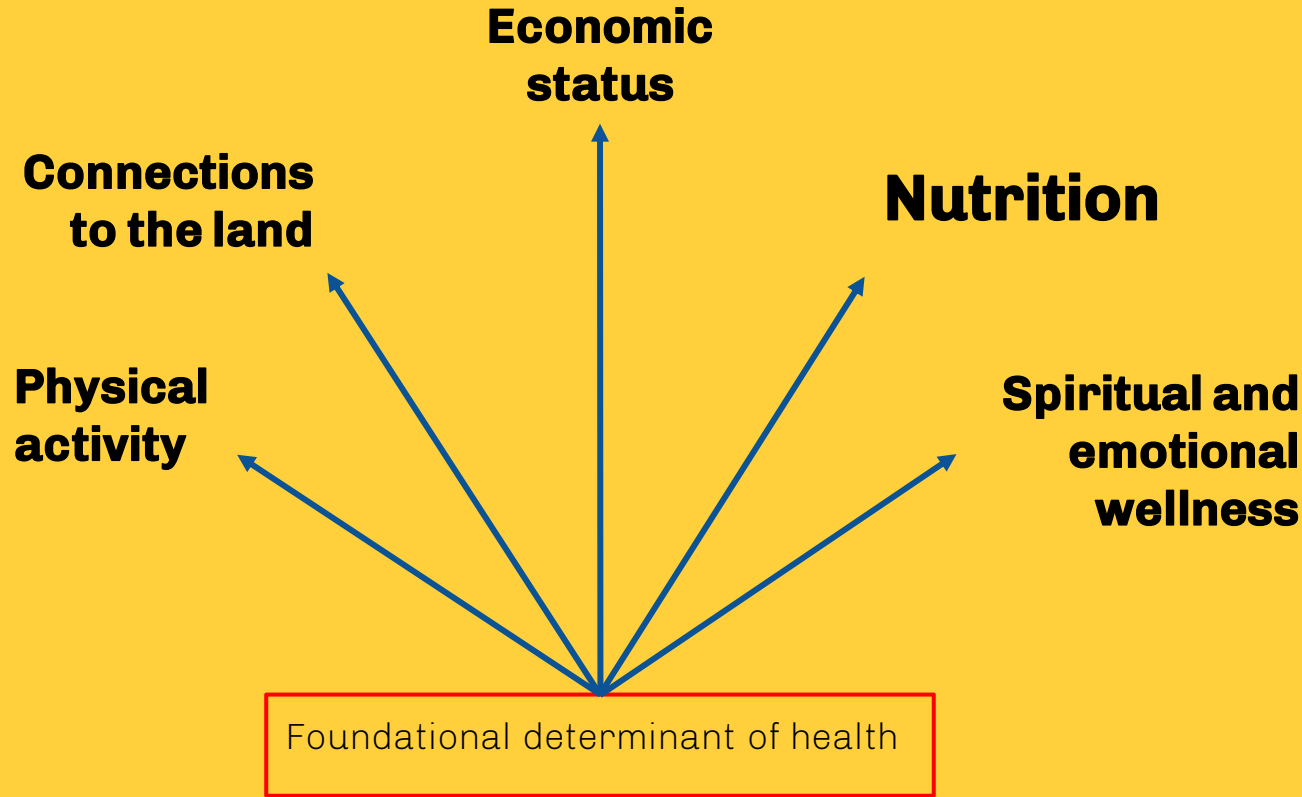
# What is diabetes?

**Definition by Western  
healthcare practitioners**

**Perceptions of diabetes by  
Indigenous peoples**



# Introduction



# Biographical disruption of diabetes



# Background

- **Food systems**
- **Traditional foods**

Food insecurity

Our focus ...

Colonialism



# Background

**Availability**

**Access**

**Utilization**

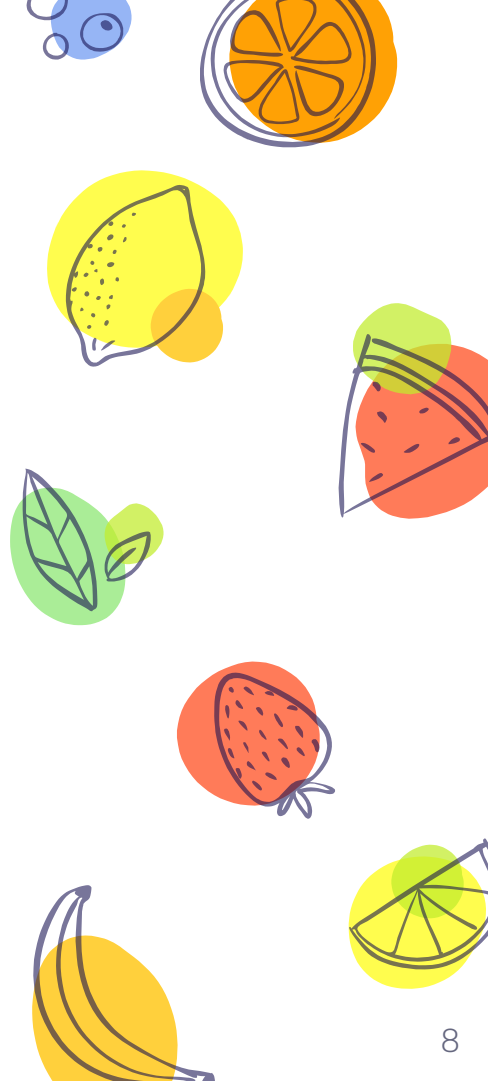
**Stability**



# Research Questions

1. What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes since 1990?
1. Based on these cases, what **common themes** have made community-based approaches effective in addressing diabetes?

Focus is on approaches that address food insecurity and systems





# GOALS

1. Identify **community-based approaches** that were successful in addressing diabetes in remote Indigenous communities since 1990
1. Present a **preliminary conceptual framework** that summarizes underlying themes behind these approaches to diabetes management

RQ = What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?

Why focus on  
community-based  
approaches?



# Wellness Towers

**Each coloured paper represents a different common resource used to address diabetes:**

- **Red** = Educational programs
- **Orange** = School gardens
- **Navy blue** = Community gardens
- **Purple** = Access to traditional foods
- **Light blue** = Consultations with healthcare professionals
- **Green** = Youth programming
- **White** = Promotional materials on nutrition

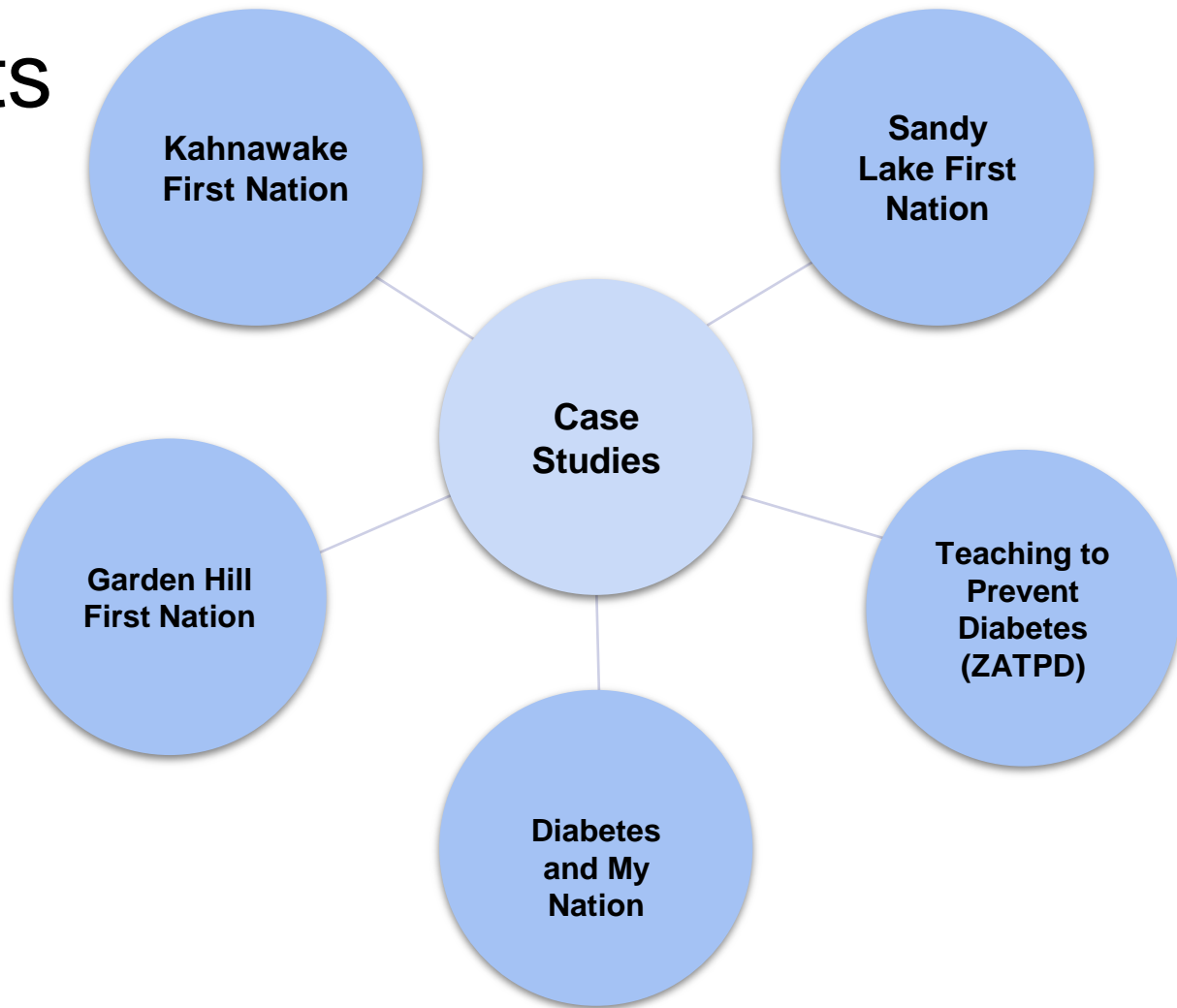
**Objective: Build the tallest paper tower possible**

# Methods

- ★ Databases: PubMed, SCOPUS and Indigenous Peoples North America
- ★ Study Designs: Case-studies, cohort studies, systematic reviews and meta-analyses
- ★ Other sources include websites by Indigenous communities, Facebook groups, community posters on social media

RQ = What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?

# Results



# Results - Kahnawake First Nation



KSDPP

**Context:** Mohawk Community in Québec

**Program:** Kahnawake Schools Diabetes Prevention Project (KSDPP)

**Objectives:** Offer school-based programming to reduce diabetes incidence by improving dietary intake and sedentary behaviors in children

## **Key Findings:**

- Program increased overall awareness of diabetes in the community
- Participants had a more holistic view of health
- Encouraged the building of local assets and sharing of resources within the community

**RQ = What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?**

# Results - Sandy Lake First Nation

**Context:** Objibwe-Cree Community in Northwestern Ontario

**Program:** Sandy Lake Health and Diabetes Project (SLHDP)

**Objectives:** Community-based intervention targeting mental, physical, emotional and spiritual health through a school-based curriculum, diabetes radio show and Northern Store program

## Key Findings:

- School-based curriculum: Activities such as taste testing and intergenerational learning increased dietary self-efficacy
- Diabetes radio show: Q&A sessions significantly increased community diabetes knowledge
- Northern Store program: The use of printed labels and taste tests increased selection of low-fat and sugar-free foods in the grocery store



**RQ** = What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?

# Results - Zhiiwapenewin Akino'maagewin

**Context:** Seven First Nations communities in Northwestern Ontario

**Program:** Teaching to Prevent Diabetes

**Objectives:** Increase physical activity and improve the diets of community members through a school, store and community approach.



## Key Findings:

- School: Adapted teachings from SLHDP study
- Store: Promoted healthier alternatives through artwork, flyers and cooking demonstrations
- Community: Mass promotion of health services through posters, local cable, and education workshops to learn about healthier behaviors
- Overall: Improvements in diet-related behaviors and T2DM management

**RQ** = What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?



# Results - Diabetes and My Nation

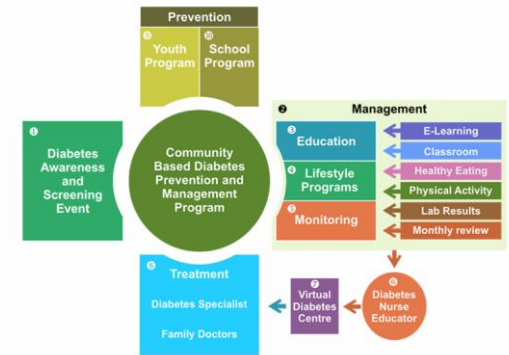
**Context:** First Nations communities in British Columbia

**Program:** Creation of community-based E-health platform to access health information regarding diabetes

**Objectives:** Offer culturally appropriate diabetes prevention and management programming and access to a Mobile and Virtual Diabetes Clinics

## Key Findings:

- Adults: Viewed educational videos created by traditional healers and attended circle sessions for group discussion surrounding diabetes
- Youth and school-age children: Learned about diabetes through cultural activities
- Overall: Improved diabetes management as evidenced by lowered blood sugar and blood pressure levels among community members



**RQ =** What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?

# Results - Garden Hill First Nation

**Context:** Ojibwe-Cree community located in Northeast Manitoba

**Program:** Peer-mentoring for diabetes prevention

**Objectives:** Offer an after-school peer-mentoring program to build strengths of youth in the community

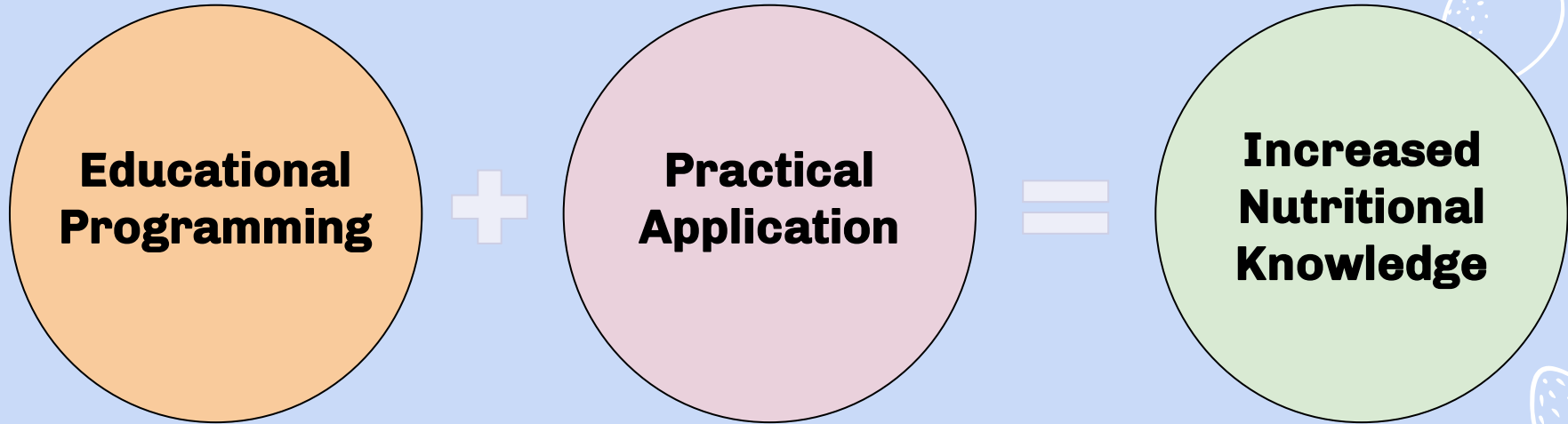
## Key Findings:

- Reports of self-efficacy regarding healthy eating knowledge increased after peer-led sessions
- Decrease overall in children's waist circumference following the implementation of the initiative



**RQ =** What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?

# Connection to Food Security



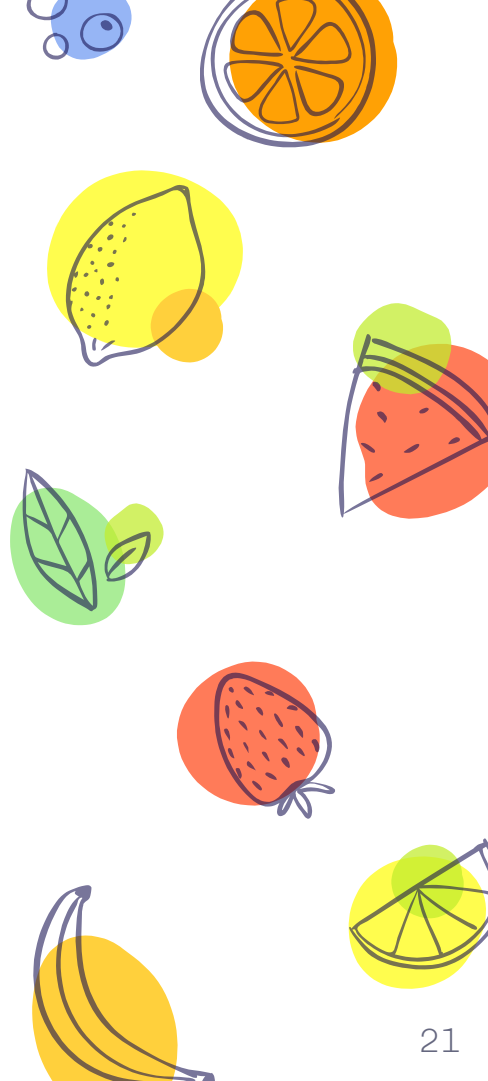
RQ = What **community-based approaches** have Indigenous peoples in remote Canadian settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?

What roles do  
community  
stakeholders play?



# Revisiting the research questions

1. What **community-based approaches** have Canadian Indigenous peoples in remote settings implemented to effectively address the increasing incidence of diabetes in their setting since 1990?
1. Based on these cases, what **common themes** have made community-based approaches effective in addressing diabetes?



# Discussion

