

Sharing Knowledge & Experience, Revealing Priorities & Directions REPORT



June 13, 2017

Wanuskewin Heritage Park, Saskatoon, SK

Disparities in Respiratory Health among
First Nations People:
Assess, Redress, Re-assess.



First Nations Lung Health Project 2012 - 2017
Phone: 306-467-4402 | 306-953-3432



First Nations Lung Health Project 2012 - 2017
Phone: 306-463-5995 | 306-953-3432



FIRST NATIONS LUNG HEALTH PROJECT



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FIRST NATIONS LUNG HEALTH PROJECT



Project Overview

The First Nations Lung Health Project

“Assess, Redress, Re-assess” Addressing Disparities in Respiratory Health Among First Nations People, a 5 year CIHR funded community-based participatory research initiative involving two First Nations communities in Saskatchewan, is a multi-stage intervention research project that was implemented in the following stages:

1. Problem Identification, Baseline Assessment and Community-level Interventions (Address)
2. Policy-Level Interventions (Redress) and
3. Re-assessment

The project’s rationale and conception are rooted in participatory action research to facilitate integrated knowledge transfer that not only builds community capacity, but also encourage sustainability.

Community consultations identified four areas of concern for lung health:

- Housing and mold – effects on asthma in children
- Smoking in the homes – health effects, including COPD
- Overcrowding and infections – bronchitis
- Body weight – sleep problems, including Obstructive Sleep Apnea

The project aims to understand how each of these contributes to the respiratory health of First Nations people living on reserves in rural Saskatchewan. From this knowledge, we can work together to explore ways towards better lung health.

The project has Four Phases:

Phase 1: Vision and Relationships (2011 – ongoing)

- Consultations with community leaders, elders, health workers, members
- Formal partnership agreements with each community

Phase 2: “Assess” – Data Collection & Analysis (2012-13)

- Adult questionnaires, lung tests, allergy tests (June 2012 – August 2013)
- Child questionnaires, lung tests, allergy tests (March 2013 – June 2013)
- Home environmental assessments (February 2014 – Fall 2014)

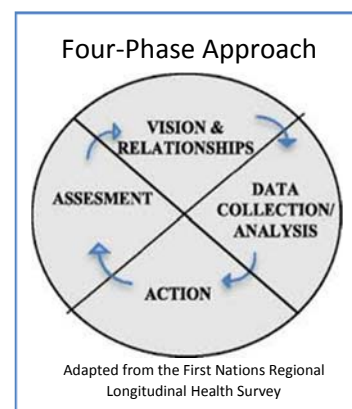
Phase 3: “Address/Redress” – Action (2013 – ongoing)

- “Address” through community initiatives:
 - GreenLight Program, GreenTree Program
 - Montreal Lake Cree Nation: Mold remediation program
 - Beardy’s and Okemasis Cree Nation: Pimācihowin Housing Project
- “Redress” through policy initiatives
 - Access to diagnosis and treatment for Sleep Apnea (NIHB vs Saskatchewan Health)

Phase 4: “Re-assess” – Assessment (2016-17)

- Adult questionnaires, lung tests, allergy tests (May 2016 – August 2016)
- Child questionnaires, lung tests, allergy tests (January 2017 – May 2017)
- Home environmental assessments (February 2017 – present)

The Four-phase approach cycles back to “Vision and Relationships”.





FIRST NATIONS LUNG HEALTH PROJECT

SYMPOSIUM OBJECTIVES & SUMMARY



Symposium Objectives

Hosted at Wanuskewin Heritage Park, the event centered on the sharing of knowledge and celebration of the strengths and accomplishments of the First Nation's Lung Health Project. We had two objectives:

1. Disseminating knowledge and experience our research team has gained over the past 5 years around addressing and redressing issues concerning the relationship between housing environments and respiratory health among First Nations adults and children dwelling in two rural First Nations communities; and
2. Revealing further questions of relevance to First Nations community partners and stakeholders that may be answered from the robust data this project has produced, and in future research or program & policy initiatives.

Symposium Activities and Outcomes

The symposium brought together community members, interdisciplinary researchers, federal and provincial policy makers (e.g. Health Canada-First Nations and Inuit Health, Indigenous and Northern Affairs Canada), and First Nation community and Indigenous organizational stakeholders (e.g. Federation of Sovereign Indigenous Nations).

The morning began with a traditional pipe ceremony lead by Elder Roy Gamble and Derek Cameron from Beardy's and Okemasis Cree Nation. Everyone gathered into the main hall and the Mina Pêyak Drummers from Beardy's and Okemasis Cree Nation performed an honor song, after which Elder Suzanne Seesequasis of Beardy's and Okemasis Cree Nation offered an opening prayer. Co-chairs Sylvia Abonyi and Kathleen McMullin invited opening remarks from Chief Edward Henderson from Montreal Lake, Jeremy Seesequasis from Beardy's and Okemasis Cree Nation, Vice Chief Heather Bear from the Federation of Sovereign Indian Nations and Dr. Marek Radomski. Two short presentations provided, 1) an overview of the project (James Dosman, Jeremy Seesequasis, Clarice Roberts, and Daisy Bird); and 2) and introductions to the data that has been collected and the data sets that have been created and can be applied to answering new questions (Punam Pahwa and Chandima Karunanayake). Following a short break, attendees reconvened at discussion tables for facilitated conversations in the following five areas:

1. Adult Health: Led by Punam Pahwa and Chandima Karunanayake. This section discussed the data collected from 876 individuals in the two communities, pertaining to Demographics (age, sex, weight, etc.), lung health, and housing environment from the questionnaires. They shared both the baseline data from 2012 and follow up data from 2016.
2. Child Health: Led by Donna Rennie. 351 children were surveyed in the two First Nations communities. Information was shared on asthma and allergy, bronchitis, ear infection, body size, sleep disturbances, and environment.



FIRST NATIONS LUNG HEALTH PROJECT

SYMPOSIUM OBJECTIVES & SUMMARY



3. Housing and Health: Led by Shelly Kirychuk and Clarice Roberts. This team outlined the household environmental data collected from the two communities. The surveys and data collected pertained to the household factors and how mold, musty smell, and wheeze affected the homes and individuals residing in them. This section also focused on what could be done to better the housing in the communities overall.
4. Green Light and Green Tree Programs: Led by Vivian Ramsden and Charlene Thompson. The Green Tree program was a school program to help children foster healthy respiratory systems by using a tree to connect lung health. The Green Light program is a community-chosen intervention that addresses non-traditional use of tobacco and increased the number of homes that were free from non-traditional tobacco usage.
5. Sleep Research and Policy Initiatives: Led by Mark Fenton and James Dosman. This section covered the Epworth Sleepiness scale and snoring. The main area of concern pertained to sleep apnea and its effects on certain individuals. Those covered by the Federal Non-Insured Health Benefits Program did not have equal access to diagnose/treat sleep apnea.

Facilitators moved between tables at 15 minute intervals, so that attendees could participate in conversations in all topic areas throughout the morning.

Following a lunch break, attendees were invited to participate in strategy discussions in three areas:

1. Healthy Homes: Building Solutions
2. Body, Mind and Spirit: Prevention and Wellness Promotion
3. Peoples' Health: Strengths and Strategies

Conversations focused on the identification of stakeholder questions that could be answered using project data or as new project priorities, and to revealing program and policy initiatives that could be advanced using project-generated knowledge and experience. Discussions focused on successes, gaps, future goals, including identifying actions to get there, people to be involved, and resources needed to make the ideas work. Ideas were captured on laminated poster sheets.

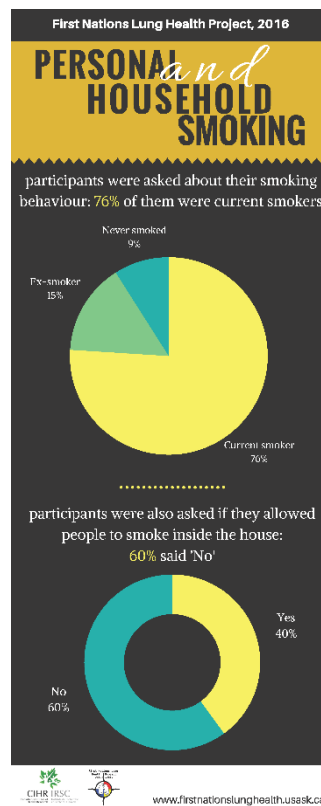
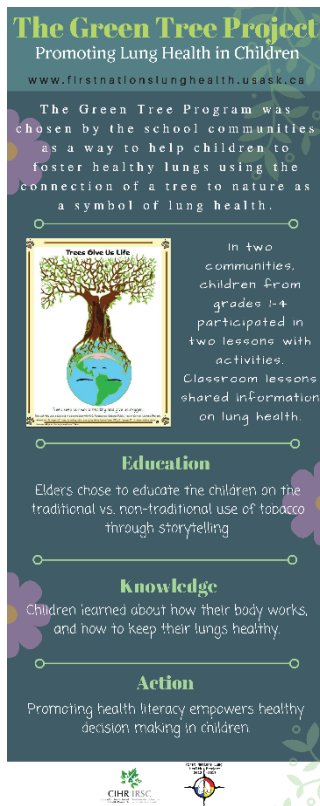
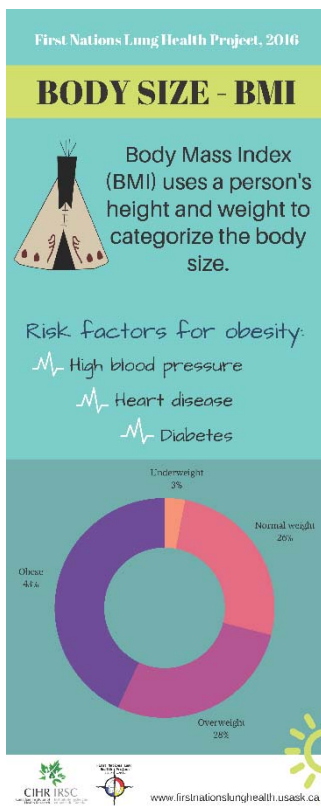
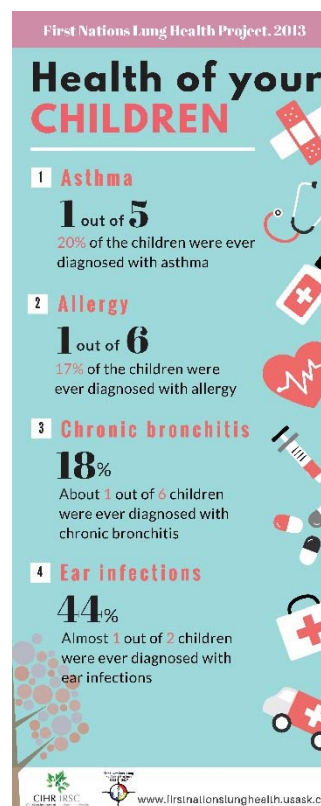
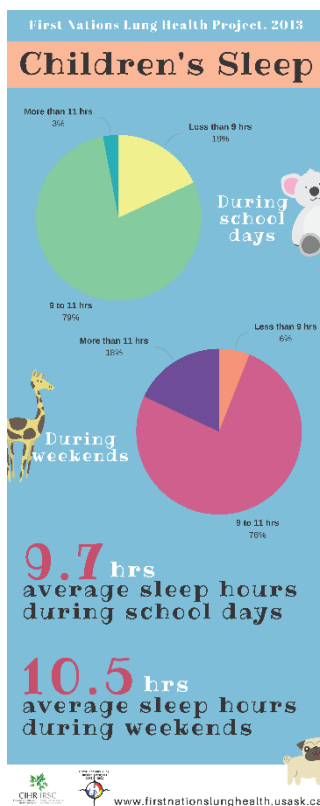
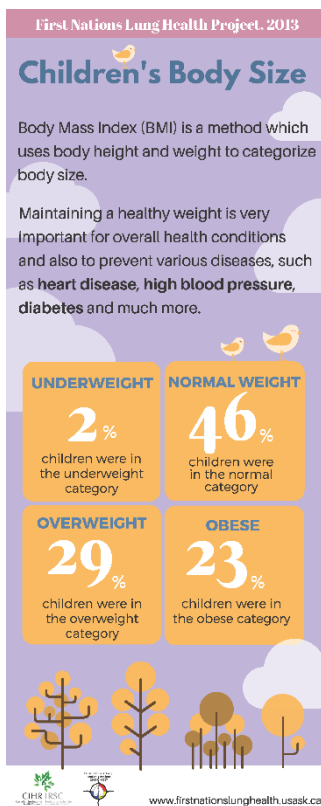
At the end of the day the Mina Pêyak Drummers from Beardy's and Okemasis Cree Nation accompanied the Montreal Lake Powwow Dancers and Hoop Dancer Burton Bird, who performed traditional dances in the outside amphitheater. Finally, a ceremony was held in memory of Dr. Jo-Ann Episkenew, whose contributions as a team leader were invaluable, and whose friendship is deeply missed. Dr. Episkenew's husband, Clayton, shared stories and an honour song in her memory. The day concluded with a final prayer and feast.



FIRST NATIONS LUNG HEALTH PROJECT



INFOGRAPHICS

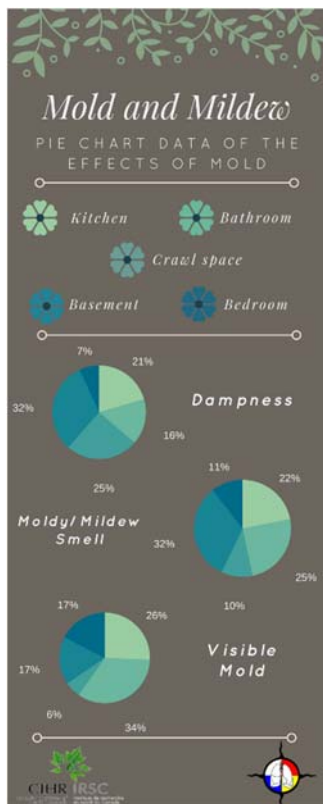
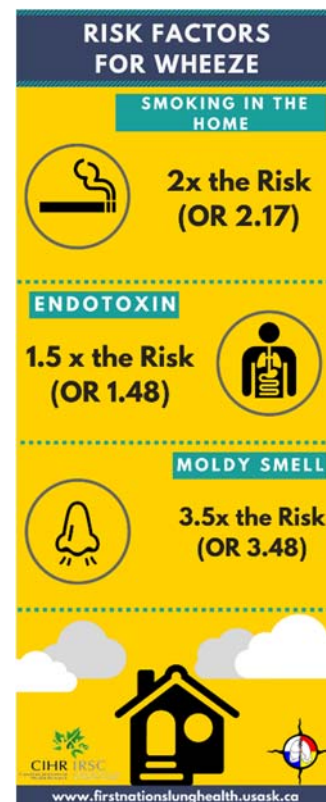
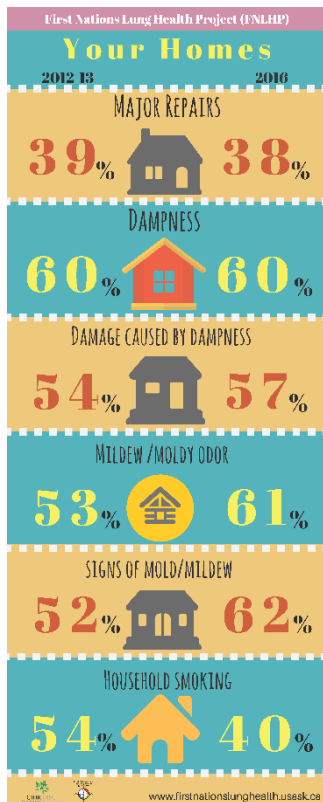


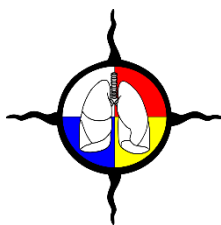


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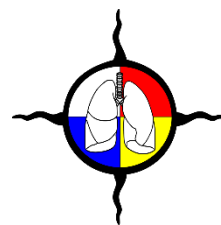


INFOGRAPHICS





FIRST NATIONS LUNG HEALTH PROJECT



Report on the Adult Component (2012/13 and 2016)

DATA: We collected data from 406 households and 874 individuals at **baseline (2012 and 2013)** and 352 household and 830 individuals at **follow-up (2016)**.

DEMOGRPAHICS:

	BASELINE (2012/13)	FOLLOW-UP (2016)
TOTAL PARTICIPANTS	874 individuals	830 individuals
SEX	431 Males, 443 Females	403 Males, 427 Females
AVERAGE AGE	34 years (males), 36 years (females)	37 years (males), 39 years (females)
BODY WEIGHT:		
Underweight	3% (males), 1% (females)	4% (males), 1% (females)
Normal weight	34% (males), 20% (females)	32% (males), 21% (females)
Overweight	29% (males), 25% (females)	31% (males), 25% (females)
Obese	34% (males), 54% (females)	33% (males), 53% (females)
SMOKING STATUS:		
Current smokers	79% (males), 77% (females)	79% (males), 72% (females)
Ex-smokers	11% (males), 13% (females)	12% (males), 18% (females)
Never smokers	10% (males), 10% (females)	9% (males), 10% (females)

LUNG HEALTH:

	BASELINE (2012/13)	FOLLOW-UP (2016)
COUGH	43% (males), 43% (females)	36% (males), 39% (females)
PHLEGM	49% (males), 49% (females)	45% (males), 41% (females)
WHEEZE	16% (males), 17% (females)	14% (males), 14% (females)
CHRONIC BRONCHITIS	6% (males), 9% (females)	7% (males), 12% (females)
ASTHMA	16% (males), 18% (females)	15% (males), 15% (females)
COPD	1% (males), 2% (females)	1% (males), 1% (females)

HOUSING ENVIRONMENT (Questionnaire):

	BASELINE (2012/13)	FOLLOW-UP (2016)
HOUSES NEED REPAIR	39% (major repairs), 30% (minor repairs)	30% (major repairs), 40% (minor repairs)
MILDEW/MOLDY ODOR	53% reported mildew/moldy odor	61% reported mildew/moldy odor
SIGNS OF MOLD/ MILDEW	52% reported signs of mold/mildew	62% reported signs of mold/mildew
HOUSEHOLD SMOKING	54% allowed smoking in the home	40% allowed smoking in the home



FIRST NATIONS LUNG HEALTH PROJECT



DISCUSSION NOTES

“Assess/Re-assess”: Adults

Respiratory Health:

- Questions arising from research:
 - What about a screening test for tuberculosis?
 - Participants were asked about diagnosis of tuberculosis in surveys, but there was no screening test.
 - What are the main reasons for low prevalence of COPD?
 - Why is there a high occurrence of cough, phlegm and chronic bronchitis in these communities?
 - What is the prevalence of lung cancer in these communities?
 - Lung cancer information will be accessed in Sask Health databases. Analysis of Sask Health databases is part of the study.
 - What is the level of radon in houses? Was it measured?
 - Suggestion: A study should be conducted on radon exposure and health.
 - 67% of houses need upgrades.

Smoking:

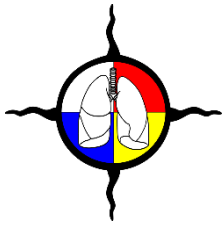
- Rates of smoking in these communities are nearly 4 times higher than general Canadian populations.
- Explore why smoking rates are high for children.
- To lower smoking rates, a focus group study could be conducted on smoking habits:
 - Never smokers: Why have they never tried smoking?
 - Current smokers: Why did they start smoking? Have they tried to quit? If yes, were they successful in quitting?
 - Former smokers: What did they do to quit smoking?
 - Ask about residential school experiences?
 - Did these experiences contribute to smoking?
- They recognize that smoking is becoming less socially acceptable and would like to quit smoking.

Housing:

- 62% of households reported signs of mold and mildew. Initially, 52% reported mold and mildew in baseline study.
- Why was there an increase?
 - Houses being built on reserves may not be meeting standards.
 - Housing is on marshy lands, chances of flooding in basements is common.
 - Ex) some houses in Beardy's are built in spots where lakes used to be.
- Inadequate funding is main reason for poor housing conditions.
- Crowding is another major issue contributing to poor housing conditions.
 - FSIN wants statistics related to crowding in homes.
- “Tenant training/Home-owner training” -- Education needed on year-to-year home maintenance.
 - Residents participating in the study are aware of housing conditions and presence of mildew/mold in houses.

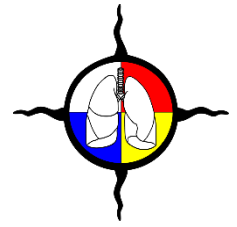
Obesity:

- Suggestions to reduce obesity in communities:
 - Develop and implement interventions to reduce obesity
 - Work with Saskatoon Health Region and College of Kinesiology
 - Health Region is connecting people with resources in Saskatoon.



FIRST NATIONS LUNG HEALTH PROJECT

Report on the Children's Component (2013)



There were 351 children who completed surveys in the baseline study.

ASTHMA & ALLERGY

- 20% of children (1 in 5) were found to have asthma
- 280 children underwent skin testing for allergy
- They were tested for allergies to molds, cats, grasses, and house dust mites
- 17% of children had at least one allergy. The most common allergy found was to house dust mites (48%) followed by cat (37%)
- For those with asthma, 21% were found to have an allergy
- Asthma and allergy was about the same in each community

BRONCHITIS

The rate of bronchitis in children was 18%.

The significant reasons for bronchitis were:

- being obese
- having respiratory allergies
- parental smoking
- signs of mold and mildew in the home

EAR INFECTION

A history of ear infections was reported for 44% of children.

- When we compared our findings with First Nations children to those from a rural group of non-First Nations children we found that maternal smoking rates during pregnancy were higher in for First Nations children (52% versus 20%)
- First Nations children also had more exposure to passive smoke (44% versus 13%) and higher rates of obesity (13% versus 6%).

BODY SIZE

- Of 308 children whose weight and height were measured during the clinical assessments, 90 (29%) were overweight and 140 (46%) were obese

SLEEP DISTURBANCES

- 29% of children were reported to snore during sleep
- 18% had fallen asleep during school
- Doctor diagnosed sleep apnea was low at 1%

ENVIRONMENT

- While 87% had at least one parent who smoked, smoking inside the home was 44%
- 42% of children lived in homes with damage caused by dampness and 44% lived in homes with signs of mold or mildew
- During the past 12 months, water or dampness in the home from broken pipes, leaks, heavy rain, or floods was 53%



FIRST NATIONS LUNG HEALTH PROJECT



DISCUSSION NOTES “Assess/Re-assess”: Children

The discussion centered on six major outcomes studied in detail in the 2013 baseline Children’s Study including asthma and allergies, bronchitis, ear infections, body size, sleep disturbances, and domestic environmental factors.

- Asthma found in First Nations children was similar to that found in other rural children.
- Main allergy found – house dust mite (found in damp environments), followed by cat dander.
- Air flow limitation was associated with asthma and/or respiratory conditions in children.
- Exposure to environmental tobacco smoke was a major risk factor for bronchitis and wheeze.
- Many children had one parent who smoked, more than 50% of children exposed to smoke during pregnancy
- 42% of children lived in homes damaged due to dampness or mildew.
- Households were potential sources of risk factors for respiratory disease in children including, smoking, ventilation, structural water damage, and visible mold.
- Representation of adolescents in study were low and may not reflect specific needs.

Accessibility:

- Montreal Lake is building a new health centre to provide more services to the community.
- Services available:
 - Montreal Lake – full time doctor and nurse practitioner
 - Beardy’s – Doctor available on Tuesdays and Thursdays
- Pediatricians are also needed in these communities.
 - Solutions found for other communities -- a Regina pediatrician travels to First Nations communities in the southern part of the province to assess children’s health needs.

Domestic environment:

- How does the use of sprays on mattresses to get rid of bed bugs in homes affect children?

Outdoor environment:

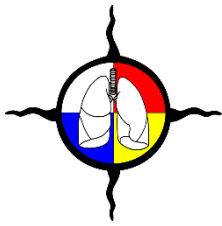
- What impact does spraying local roads to manage dust have on respiratory health?

Respiratory health:

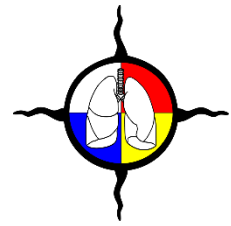
- What is the role of compliance with treatment in childhood respiratory disease in First Nations communities?
- What are the characteristics of crowding related to the snoring and respiratory disease observed in children?
- Restrictive patterns of lung function in children should be assessed.
- Should funding for health prevention activities be a priority?

Body size:

- Descriptions of obesity and overweightness in children may be overestimated as children appear to be very active in communities.
- The categorization for body size may not be accurate as the study was based on international groups and First Nations children were not included.
- Patterns of obesity need to be observed, use other measures to assess body size.



FIRST NATIONS LUNG HEALTH PROJECT



REPORT ON HOUSING AND HEALTH

In winter 2014 household environmental surveys were conducted in homes on the Beardy's and Okemasis First Nation and Montreal Lake Cree Nation communities for individuals who indicated in the lung health survey that "they would like to have a home environmental assessment" completed.

Individuals and houses that were sampled at baseline are being reassessed in 2017.

144 homes with 318 individuals were assessed in 2014.

HOUSING FACTORS:

	% / Mean ± SD
MOLDY/MILDEW SMELL	58%
ALWAYS have a moldy smell	34%
SIGNS OF MOLD/MILDEW IN THE HOME	56%
CROWDED HOME	37%
6 or more people in the home	35%
BETA GLUCAN (µg, GM ± GSD)	177.8 ± 5.9
ENDOTOXIN LEVEL (EU/mg, GM ± GSD)	21379.6 ± 10.3

HOUSEHOLD FACTORS:

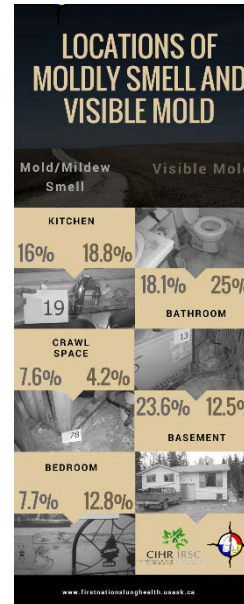
AGE of participants (years)	37 (± 15)
SEX	
Male	46%
Female	54%
BODY MASS INDEX (BMI)	29 (± 10)
Overweight/Obese (by BMI)	68%
CURRENT SMOKER	76%
SMOKER(S) IN THE HOME	52%
RESPIRATORY SYMPTOMS	
Cough	44% (141)
Phlegm	50% (160)
Current wheeze	15% (49)

ADDRESS:

In one community the housing division was part of the housing assessments. Houses in need of remediation were noted. A report, plan and budget were presented to Band Council. 46 houses in this community had some form of mold remediation completed. In the other community the results of the housing and lung health survey were developed into a report and recommendations. Discussions are ongoing.

It is difficult to say which comes first the exposure or the wheeze. It is possible that if you have other factors associated with wheeze, that exposures such as endotoxin, mold, and in-home smoking may make the wheeze worse.

CLEAN IT! KEEP THE AIR CLEAN!



- #### RISK FACTORS FOR CURRENT WHEEZE:
- High endotoxin levels (1.5 times the risk)
 - Smoking in the home (2 times the risk)
 - Moldy/mildew smell (3.5 times the risk)



If you smell it Find, stop, and fix the source of the moisture problem.

If you see it Remove all wet or damaged materials.

Clean it! Clean up the mold, and restore or renovate the cleaned up area.

Prevention Steps

- Dilute Water
- Reduce Moisture
- Circulate Air
- Seal and Insulate

RISK FACTORS FOR WHEEZE

SMOKING IN THE HOME

2x the Risk (OR 2.17)

ENDOTOXIN

1.5 x the Risk (OR 1.48)

MOLDY SMELL

3.5x the Risk (OR 3.48)



FIRST NATIONS LUNG HEALTH PROJECT



DISCUSSION NOTES

“Assess/Re-assess”: Housing & Health

Housing factors are associated with WHEEZE

- **Always having a moldy/mildew smell** in the home was associated with ever wheezing.
- **High endotoxin levels** were associated with wheeze.
- **Smoking in the home** was associated with wheeze.

Factors impacting household measures:

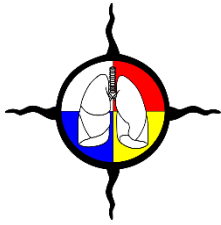
- Increasing the number of people in the home increases endotoxin levels
- Increasing cleaning reduces endotoxin levels
- Flooding an issues at baseline
- In some homes you could “Feel it as soon as you walk in the door – in homes that had mold “It hits you at the door”
- No one knew anything about maintaining the HRVS in the homes. All HRV were assessed – a lot weren’t plugged in, didn’t have clean filters
- Boarded windows were a significant contributor to household mold issues.

ADDRESS

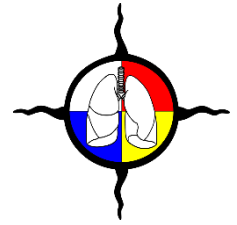
- Focus remediation on the homes where there was always a moldy/mildew smell
- In terms of housing – time to get things moving for remediation
- Environmental assessments by government are only done outdoors. Indoor house assessments only done if tenant calls about bed bugs.

Housing based initiatives:

- Serviced and replaced HRVs. Broken fans above stove can increase humidity in homes. Educate on how to maintain the HRV and their homes.
 - Need to work on training in communities. Training so that tenants can learn how to undertake their own maintenance – take pride of home.
 - Windows are being replaced as they are reported broken.
 - Local contractor made renovations affordable
 - Way with wording to get funding from CMHC
 - Educating the tenants on maintenance of homes and the inspections of the homes
- In one of the communities, the housing division assisted in the housing assessments. The Lung Health Study allowed the housing division to undertake these indoor assessments. As the assessments for the research project were being undertaken, a list was being created for houses in need of remediation. Budgets were allocated and funding applied for to undertake the remediation. Forty-two homes had some level of mold remediation. From drywall replacement to full home front replacement.
- CMHC – lack of dollars for project
 - CMHC cuts of funding for mature houses (no longer on mortgage)
 - Community members were trained how to clean homes from mold and undertake construction in Montreal Lake



FIRST NATIONS LUNG HEALTH PROJECT



Report on the Green Tree and Green Light Programs

The **Green Tree Program** was chosen by the school communities as a way to help children foster healthy respiratory systems using the connection of a tree to nature as a symbol of lung health. The **Green Light Program** is a community-chosen intervention which addresses non-traditional use of tobacco.

What did we learn?

- Greater awareness and more dialogue about the respiratory system was observed among the children.
- Elders were concerned about non-traditional tobacco use in children and chose to implement an education component in the classroom on traditional versus non-traditional tobacco.
- A smoke-free home was one step towards becoming free from non-traditional use of tobacco.
- This project raised the level of awareness about harm reduction and cessation, by creating and celebrating a sense of individual success every time an individual stepped outside to smoke.
- This project built confidence in people trying to become free from non-traditional use of tobacco

What changed over the 4 years?

- Children were quite knowledgeable about the anatomy of the respiratory system.
- The children demonstrated more knowledge of respiratory topics such as how to keep lungs healthy after the education sessions.
- The number of individuals becoming free from non-traditional use of tobacco increased.
- The number of homes that were free from non-traditional use of tobacco increased.
- The number of homes participating in the Green Light Program increased

What does it mean?

- It is about focusing on the maintenance of healthy lungs at an early age and empowerment for personal decision-making regarding lung health.
- It is about focusing on what can be done rather than what was not being done.
- It is about focusing on wellness and building on daily/small successes.

Adapted from "The legend of Tahnee, the wolf my asthma journey," by Alberta Asthma Centre, 2012, p.8. Copyright 2012 by Alberta Asthma Centre. Reprinted with permission as per email from D. Befus



Non-Traditional Use of Tobacco in the Home



■ 1st Survey ■ 2nd Survey



FIRST NATIONS LUNG HEALTH PROJECT



DISCUSSION NOTES Green Tree and Green Light Programs

The **Green Tree Program** was chosen by the school communities as a way to help children foster healthy respiratory systems using the connection of a tree to nature as a symbol of lung health.

The **Green Light Program** is a community-chosen intervention which addresses non-traditional use of tobacco.

Green Tree Program

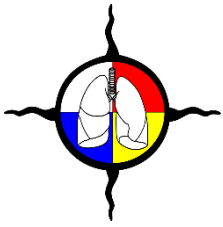
- Trees are natural filters (posters show respiratory system in the roots).
- Elders were concerned about non-traditional tobacco use in children and chose to implement an education component in the classroom on traditional versus non-traditional tobacco.
- Age Groups for the Green Tree Program – Grades 1-4
- Health promotion - greater awareness and more dialogue about the respiratory system was observed among the children.
- Open ended questions, pictures from the children, with input from teachers
- Traditional use of tobacco is focused on the creator and spirituality; however, poverty, oppression = increased non-traditional use of tobacco.
- Materials left at the school were: kits; posters; messaging re: normalizing traditional use of tobacco.

Green Light Program

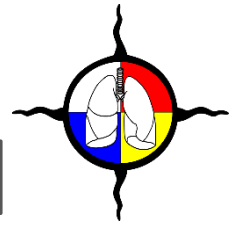
- Traditional tobacco use: celebrates the Creator and spirituality through ceremony, praying and teachings.
- A smoke-free home was one step towards becoming free from non-traditional use of tobacco (50% of homes in each of the communities are smoke-free).
- This project raised the level of awareness about harm reduction and cessation, by creating and celebrating a sense of individual success every time an individual stepped outside to smoke.
- This project built confidence in people trying to become free from non-traditional use of tobacco.
- The number of women becoming free from non-traditional use of tobacco has increased.

➤ Requests:

1. Wood burning appliances – cross tabulations with the Green Light Program.
2. Nicotine Replacement Therapy for longer than three months.



FIRST NATIONS LUNG HEALTH PROJECT



Report on Sleep Research and Policy Initiatives

SLEEPINESS

The Epworth Sleepiness Scale is used to measure sleepiness, which may indicate sleep problems.

- 829 people completed the Epworth Sleepiness Scale on the questionnaire
- 91 (11%) had excessive daytime sleepiness (12% of women and 10% of men)

Excessive daytime sleepiness was related to:

- Respiratory troubles (Tuberculosis, shortness of breath, and “Chronic Lung Disease” including chronic cough, chronic phlegm, chronic bronchitis, emphysema and chronic obstructive pulmonary disease)
- Environmental exposures
- Loud snoring

SNORING

- 47% of participants reported snoring in the past year
- Snoring was present in 48.9% men and 51.1% women

Risk factors for snoring:

- Overweight, obese
- Sinus trouble
- Being a current or former smoker
- Exposure to home dampness and mold might be related to snoring

SLEEP APNEA

- 7% of participants reported that a doctor has said they have Sleep Apnea

SLEEP APNEA POLICY:

Status Indians who are covered by the Federal Non-Insured Health Benefits Program do not have equal access to diagnosis and treatment for sleep apnea, which may have important effects on their health.

- Status Indians must have an in-hospital overnight Level 1 Sleep Study (polysomnogram) in order to be diagnosed with Sleep Apnea. Wait times for these tests are up to one year (SK).
- Non-Status people (covered by Provincial medicare plans) can be diagnosed through a home-based overnight Level 3 Sleep Study. Public/private organizations covered by the provincial plan can provide testing within weeks. Most cases can be diagnosed with a Level 3 study.
- Status Indians must rent a Continuous Positive Airway Pressure (CPAP) machine through NIHB, and must demonstrate that they are using it regularly in order to have the machine covered by NIHB. The mask, headgear, tubing and humidifier can also be covered by NIHB if approved.
- Non-Status people can get a CPAP machine by free loan, typically very shortly after diagnosis of any type. Mask, headgear, tubing and humidifier are generally not covered by the province (although some private health plans may cover this cost – about \$700)
- Two research papers have been written by the university researchers on this topic to raise awareness about these issues. A Policy briefing is being prepared for the provincial government to bring their attention to this matter.



FIRST NATIONS LUNG HEALTH PROJECT



DISCUSSION NOTES

“Assess/Redress” through Sleep Research & Policy Initiatives

Discussion on sleep research and policy initiatives took place across five tables. Participants also discussed the findings from the Epworth Sleepiness Scale questionnaire that was administered in the communities.

Sleep Apnea:

- Snoring is not often medically identified.
 - There may be other lung health concerns that take priority.
 - Overcrowding, anxiety over housing can affect sleep quality, causing snoring.
- Questions arising from research:
 - What percentage of the population in these communities has sleep apnea?
 - How do you provide sleep apnea treatment for patients without dependable electricity?
 - Is the Epworth Sleepiness Scale appropriate to use in these communities? Are the questions relevant and appropriate?
 - What other health conditions might have an impact on sleep? (Ex: diabetes)
 - Research indicates that physical activity also improves sleep patterns
- Severe sleep apnea may contribute to unintentional injuries

Sleep Studies:

- What is the economic impact of conducting sleep studies in these communities?
 - Sleep apnea is easy to diagnose, easy to treat.
- There are additional barriers to aspects of health care in Saskatchewan.
 - Too long of a wait for clients to get into sleep labs.
 - Need to have access to care in communities.
- There is a push for these items on the policy front, how many in the study had sleep apnea?
 - 7% of respondents had been diagnosed with sleep apnea.
 - Likely that the percentage of the population with sleep apnea is much higher, based on results from Epworth Sleepiness Scale.
 - Are there more people in the community who are at risk of incidents because of lack of sleep?
- In-community testing may be accepted with education about the test.

Moving forward:

- What are the complications due to being overtired?
 - Cost of not being treated is higher than cost of treatment.
 - Education is key for diagnosing.
- More evidence is needed to develop policy – policy makers should be ready to make changes.
 - Non-First Nations people in rural and remote communities do not have to travel to get sleep apnea equipment or testing.
- Epworth Sleepiness Scale can be used with First Nations respondents, but it could also be modified, or another one could be developed.
- Publications based on findings in this study are key in changing current policy.

As a result of policy work from this project and discussions with Health Canada representatives at the June symposium, status Indians covered under the Non-Insured Health Benefits (NIHB) of Health Canada can now undergo Level 3 testing for diagnosis of sleep apnea, a major shift in policy.



FIRST NATIONS LUNG HEALTH PROJECT



Afternoon Roundtable Working Groups

After lunch, attendees were invited to participate in strategy discussions in the following three areas:

1. Healthy Homes: Building Solutions
2. Body, Mind and Spirit: Prevention and Wellness Promotion
3. Peoples' Health: Strengths and Strategies

Conversations focused on:

- the successes and gaps
 - identifying the steps to get there
 - the people to be involved
 - The resources needed to make the ideas work.

Attendees had the opportunity to express their opinions and work with the discussion facilitators to come up with ideas to be put into place and how to address the current challenges and opportunities at hand.

Topic: _____

Priority/ Rank	Gaps and/or Successes to Support	Goals • What we want • How we know we're there	How we get there....	Who....	will do...	what & what resources are needed?
○			Questions to answer from current project → Questions for a new project → Program Interventions → Policy Interventions through work & education →			
○			Questions to answer from current project → Questions for a new project → Program Interventions → Policy Interventions through work & education →			
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FIRST NATIONS LUNG HEALTH PROJECT



Healthy Homes: Building Solutions

Gaps/Successes to Support

- CMHC codes for the buildings are very specific
- Location of the new houses being built
- Housing ventilations (i.e training)
- Building on a budget

Goals:

- Training for community members from the industry/contractors on how to maintain their homes, with focus on the performance of the homes – both interior and exterior.
- Better communication from government agencies on what is covered for the funding in terms of renovations to the homes.
- Locations, how the current research can benefit this and help with new homes being built in the community
- Use a solution based strategy
- Have new homes built correctly and up to standard.

Interventions

- Specified CMHC codes for buildings and the building new homes.
- Homeowner guides for community members
- Global Housing and Health Symposium
 - provide an action-oriented training on maintenance of the home
 - how the performance of the home can affect overall health of the individuals living there
- Education and Training provided to the communities
- Home visits and regular assessments of the homes from council members
- Communication between the home owner and council about issues in the homes.
- Homeowner guides for maintaining the home and new building guides for future homes in the community

Who will do it?

This will be a community driven initiative including Chief & Council, co-facilitated with researchers and industry partners.

What steps are next and what resources are needed?

- Propose a “minimum standard” for building new homes
 - When build correctly and up to standard there are fewer issues in the home and costs less money for the community to maintain.
- Provide education/training to Community members and Chief & Council on maintaining their homes to provide a sense of ownership.

Get Creative: Bypass the government and Partner with companies/contractors and Sask Polytechnic programs to apprentice in house building. Teach trades’ people in both communities on the standards of homes being built using a solution based strategy.

How can the current research be used to benefit the communities?

- Provide solutions for inspections of the homes to prevent future housing problems
- Provide future building inspector programs



FIRST NATIONS LUNG HEALTH PROJECT

Body, Mind & Spirit: Prevention and Wellness Promotion



Goals: What we want? How do we know we're there?

- Authentic Engagement
 - Opportunities to engage and communicate with all members of the communities.
 - Core parts of any program/project should be both bottom up and top down.
 - Build on strengths rather than deficits/negatives.
 - Essential part of reconciliation – self-determination.
 - Meaningful work/employment in the community with the community.
- Green Tree/Green Light Programs
 - Build capacity by supporting/engaging/employing community members = meaningful work.
 - Role-modeling as traditional use of tobacco celebrates the Creator and spirituality through ceremony, praying and teachings/story-telling.
 - Focus on the health and wellness of children and older adults.
- Evidence
 - Community-driven/facilitated research.
 - Developing methods/research processes in and with the community.
 - The results of research should be used at the local level to make visible changes.
 - Community-to-community knowledge exchange/sharing.

Policy Interventions

- Nicotine Replacement Therapy (NRT) for more than three months per year.

Who will do it?

- Community members
- Health Care Providers in the Communities
- Academic Researchers

What steps are next and what resources are needed?

- Education/Training for CHRs and other Community Members to engage in Health & Wellness Promotion Programming.
- Program Evaluations and Pilot Studies to build evidence and support transformation.
- Funding.



FIRST NATIONS LUNG HEALTH PROJECT

Peoples' Health: Strengths and Strategies



Concerns raised:

- Poor lung function in adults and children.
- High rates of sleep problems.
- High rates of smoking in adults and children.
 - Children are starting smoking at younger ages.
- Common risk factors associated with poor respiratory health:
 - Obesity
 - Overcrowding
 - Poor housing conditions
 - Indoor smoking

Gaps identified (in research findings?):

- Why did children start smoking?
 - Do children seek smoking as stress relief? Why?
 - What was the reason for smoking first cigarette?
- Lack of research as to why First Nations children's lungs are in poor health.
 - What are the reasons for poor respiratory health in children?
 - Genetic, overcrowding environment, or gene-environment interaction?
 - Obesity, increased prevalence of asthma, and chronic bronchitis?

Successes:

The Green Light Program is a major ongoing successful intervention in Beardy's and Montreal Lake. The program is driven by the community as it identifies and celebrates smoke-free homes.

Moving forward:

Improving respiratory health:

- Reducing smoking rates.
 - Conducting focus groups involving elders and women.
- Improving housing conditions, removing mold and mildew.
- Reducing indoor smoking, via the ongoing Green Light Program.
- Reducing overcrowding.
 - Policy level intervention – providing more funding for larger houses.

Reducing obesity:

- Education about physical activity.
 - Educate children about reducing screen time.
 - Knowledge about good nutrition.
- Develop interventions to improve:
 - Hygiene
 - Indoor environments
 - Crowding to reduce risk of respiratory illnesses, ex) bronchitis
- Address obesity pandemic and redress access to health care services, specific to the diagnosis and management of obstructive sleep apnea (OSA).

Summary: There is an urgent need to develop intervention programs to reduce smoking rates in adults and children, improved housing conditions, better and larger housing, reduction in obesity rates that would also reduce sleep problems, respiratory diseases, and other heart health issues.



FIRST NATIONS LUNG HEALTH PROJECT



Word Clouds

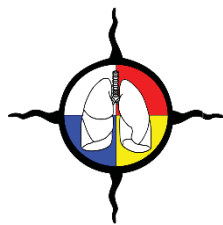
A cue card with two questions was provided to the attendees of the symposium to fill out. These questions were used to develop a word cloud, a form of qualitative research, which identifies the predominant and supporting themes for each question. Word clouds provide a visual representation of keywords. The importance of each keyword is shown with a larger font size or colour.

Attendees were able to identify as community member, research team member, government/Academia/Health Region or other by checking off the appropriate box on the cue card.

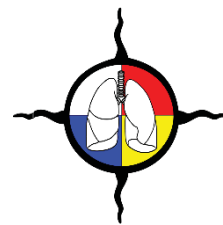
The information is relevant in identifying areas of importance in relation to the home, as well as important areas of consideration in terms of housing.

What does your home mean to you?





FIRST NATIONS LUNG HEALTH PROJECT



APPENDIX

Appendix A: Symposium Agenda

Symposium 2017 Disparities in Respiratory Health Among First Nations People: Assess, Redress, Re-assess. Sharing Knowledge & Experience, Revealing Priorities & Directions Tuesday, June 13, 2017 Wanuskewin Heritage Park	
Registration (9:00- 9:30)	
9:30	Opening Prayer - Elder Susanne Seeseequasis, Beardy's and Okemasis First Nation
9:45	Tansi (Welcome) from the Communities and the University of Saskatchewan
10:00	Brief History of the First Nations Lung Health Project (J. Dosman, J. Seeseequasis, C. Roberts & D. Bird)
10:15	Overview of the Day (S. Abonyi & K. McMullin)
10:30	Overview of Project Data and Data Sets Available for Research, Program, and Policy Initiatives (P. Pawha & C. Karunanayake)
Break (10:45 - 11:00)	
11:00	Dialogue Sessions: Outcomes from the First Nations Lung Health Study (15 minute rotating round tables with information sharing and discussion)
<i>Topic 1</i>	"Assess/Re-assess": Adults (P. Pahwa)
<i>Topic 2</i>	"Assess/Re-assess": Children (D. Rennie)
<i>Topic 3</i>	"Assess/Re-assess": Housing Environment Assessments (S. Kirychuk & C. Roberts)
<i>Topic 4</i>	"Address" through Community-chosen Initiatives - Greenlight and GreenTree Programs (V. Ramsden & C. Thompson)
<i>Topic 5</i>	"Assess/Redress" through Sleep Research and Policy Initiatives (J. Dosman & M. Fenton)
LUNCH (12:15 - 1:15)	
1:15	Introduction of Goals and Processes for Afternoon (S. Abonyi and K. McMullin)
1:30	Roundtable Working Groups (Participants will have opportunities to work with different groups)
<i>Table 1</i>	Healthy Homes: Building Solutions (S. Kirychuk, C. Roberts)
<i>Table 2</i>	Body, Mind & Spirit: Prevention and Wellness Promotion (V. Ramsden, C. Thompson)
<i>Table 3</i>	Peoples' Health: Strengths and Strategies (P. Pahwa, D. Rennie, C. Karunanayake)
3:15	Wuskiwiy-tan: Let's Move!
3:45	Closing Comments, Transition to Celebration (S. Abonyi & K. McMullin)
Project Celebration and Feast (4:00 - 6:00)	
4:00	Cultural Presentations - Emcee: K. McMullin. Featuring Mina Pêyak Drummers (Beardy's and Okemasis First Nation) and Montreal Lake Dancers (Montreal Lake Cree Nation)
4:45	Project Celebration and JoAnn Episkenew Memorial Feast





FIRST NATIONS LUNG HEALTH PROJECT



APPENDIX B ATTENDEE LIST

NAME	AFFILIATION
Akeelah Brown	Montreal Lake Cree Nation
Armand Greyeyes	Saskatoon, SK
Bob Badger	University of Saskatchewan
Bobby Cameron	Federation of Sovereign Indigenous Nations
Bonnie Janzen	University of Saskatchewan
Brittany Morin	Montreal Lake Cree Nation
Brooke Russell	University of Saskatchewan
Brooke Thompson	University of Saskatchewan
Burton Bird	Montreal Lake Cree Nation
Cassandra Wajuntah	Indigenous Peoples' Health Research Centre
Cassie Ross	Montreal Lake Cree Nation
Chandima Karunanayake	University of Saskatchewan
Charlene Thompson	University of Saskatchewan
Christina Conrad	Canadian Mortgage and Housing Corporation
Christine Holfeld	University of Saskatchewan
Clarice Roberts	Montreal Lake Cree Nation
Clayton Episkenew	Honored Guest
Daisy Gamble	Montreal Lake Cree Nation
Dean Henderson	Montreal Lake Cree Nation
Debbie Kasheep	Montreal Lake Cree Nation
Derek Cameron	Beardy's and Okemasis Cree Nation
Diana Fedosoff	University of Saskatchewan
Dinesh Khadka	Beardy's and Okemasis Cree Nation
Donna Rennie	University of Saskatchewan
Dylan Chipperfield	Saskatoon Health Region, Chronic Diseases Manager
Edward Henderson (Chief)	Montreal Lake Cree Nation
Eldon Henderson	Montreal Lake Cree Nation
Errol Sutherland	Beardy's and Okemasis Cree Nation
Eva Ross	Montreal Lake Cree Nation
Gerald Ballantyne	Montreal Lake Cree Nation
Glenda Henderson	Montreal Lake Cree Nation
Heather Bear	Federation of Sovereign Indigenous Nations
Helen Ward	National Collaborating Centre on Environmental Health
Holly McKenzie	Indigenous Peoples' Health Research Centre
Ibrahim Khan	Health Canada, First Nations and Inuit Health Branch
Ina VanderSpuy	University of Saskatchewan
James Dosman	University of Saskatchewan



FIRST NATIONS LUNG HEALTH PROJECT



APPENDIX B ATTENDEE LIST

Janet Roberts	Montreal Lake Cree Nation
Jasmine Morin	Montreal Lake Cree Nation
Jeremy Seeseequasis	Beardy's and Okemasis Cree Nation
Joshua Lawson	University of Saskatchewan
Kathleen McMullin	University of Saskatchewan
Keli Just	Pinter & Associates
Kent Mohn	Sun Ridge Residential Inc.
Kirk Gamble	Beardy's and Okemasis Cree Nation
Kirstin Isbister	Indigenous Peoples' Health Research Centre
Krista Daniels	Montreal Lake Cree Nation
Kristen McEwen	University of Saskatchewan SPHERU
Leon Baldhead	Beardy's and Okemasis Cree Nation
Lois Crossman	Saskatoon Health Region
Lynda Gamble	Beardy's and Okemasis Cree Nation
Lynette Epp	University of Saskatchewan
Malcolm King	Simon Fraser University
Marcus Bighead	Montreal Lake Cree Nation
Marek Radomski	University of Saskatchewan
Mark Fenton	University of Saskatchewan
Maureen Sebastian	Health Canada, NIHB
Mia Chartrand	JoAnn's Family
Nadia Smith	University of Saskatchewan
Neal Kewistep	Saskatoon Health Region
Nnamdi Ndubuka	Northern Inter-Tribal Health Authority
Pat Camp	University of British Columbia
Patti McDougall	University of Saskatchewan
Punam Pahwa	University of Saskatchewan
Randell Chartrand	JoAnn's Family
Rayne Jamerson-McNeil	JoAnn's Family
Robert Lavallee	Montreal Lake Cree Nation
Roger Grona	Firebird Consulting
Ruth Bouvier	Saskatoon Health Region
Saydi Harlton	University of Saskatchewan
Serene Kerpan	University of Saskatchewan
Shelley Kirychuk	University of Saskatchewan
Stanley Bird	Montreal Lake Cree Nation
Sue Dosman	University of Saskatchewan
Suzanne Seesequasis (Elder)	Beardy's and Okemasis Cree Nation



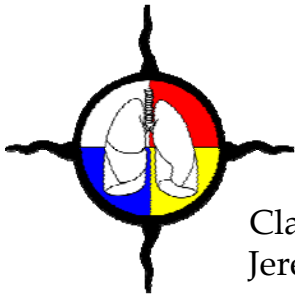
FIRST NATIONS LUNG HEALTH PROJECT



APPENDIX B ATTENDEE LIST

Sylvia Abonyi	University of Saskatchewan
Terrina Bellegarde	Federation of Sovereign Indigenous Nations
Tom Smith-Windsor	University of Saskatchewan, Physician
Troy Naytowhow	Montreal Lake Cree Nation
Tyler Mathies	Innovative Residential
Verna Ballantyne	Montreal Lake Cree Nation
Vivian Ramsden	University of Saskatchewan

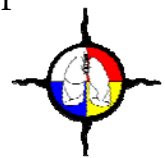
First Nations Lung Health Project: A Brief History



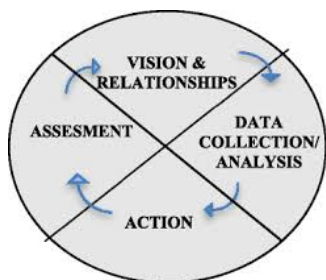
Clarice Roberts & Daisy Bird (Montreal Lake Cree Nation)
Jeremy Seesequasis (Beardy's and Okemasis First Nation)
James Dosman (University of Saskatchewan)

How it all started

- Many children from the communities coming to Saskatoon for treatment for breathing trouble.
- Dr. Smith-Windsor seeing adults and children with breathing trouble. Dr. Smith-Windsor did clinic at Montreal Lake for over 20 years.
- Armand Greyeyes and Jim Dosman visiting the communities. Mr. Greyeyes went to residential school at Duck Lake, his mother worked at the school and his father had lived at Beardy's and Okemasis.



Four-Phase Approach



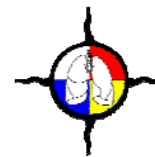
Phase 1: Vision and Relationships (2011-ongoing)

Phase 2: "Assess" – Data Collection & Analysis (2012-13)

Phase 3: "Address/Redress" – Action (2013-ongoing)

Phase 4: "Reassess" – Assessment (2016-17)

Adapted from the First Nations Regional Longitudinal Health Survey



Phase 1: Vision & Relationships

- Two years of dialogue with participating communities
- Ten consultation sessions: community leaders, health workers, community members
- Decision Makers Council: Band Councilors, elders, youth
- Formal partnership agreements with each community
 - Co-ownership of data
 - Respecting privacy and confidentiality



Project Focus

- Consultations identified four areas of concern for lung health:
 - Housing and mold – effects on asthma in children
 - Smoking in homes – health effects, including COPD
 - Overcrowding and infections – bronchitis
 - Body weight – sleep problems, including Obstructive Sleep Apnea
- Funding obtained through a Canadian Institutes for Health Research project grant



Phase 2: Data Collection

- **“Assess”**
- Adult questionnaires, lung tests, allergy tests (June 2012 – August 2013)
- Child questionnaires, lung tests, allergy tests (March 2013 – June 2013)
- Environmental Assessments (February 2014 – Fall 2014)
 - air sampling, vacuuming, questionnaire, visual observations



Phase 3: Action

- **“Address”** through community initiatives
 - GreenLight Program (celebrating smoke-free homes)
 - GreenTree Program (teaching children about lung health)
 - Montreal Lake: Mould remediation in homes (C. Roberts & D. Bird)
 - Beardy’s and Okemasis: Health and Housing initiatives (J. Seeseequasis)
- **“Redress”** through policy initiatives
 - Access to diagnosis and treatment for Sleep Apnea (NIHB vs. provincial)



“Address” – Beardy’s and Okemasis

- Jeremy Seeseequasis on behalf of the community



“Address” – Montreal Lake

- Clarice Roberts and Daisy Bird on behalf of the community



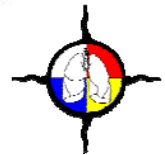
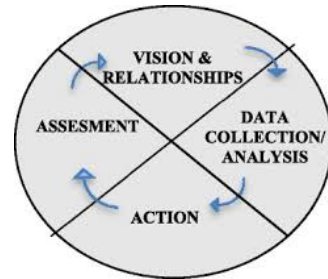
Phase 4: Assessment (Data collection #2)

- **“Re-assess”**
- Adult questionnaires, lung tests, allergy tests (May 2016 – Aug 2016)
- Child questionnaires, lung tests, allergy tests (Jan 2017 – May 2017)
- Environmental Assessments (February 2017 – present)
 - air sampling, vacuuming, questionnaire, visual observations



Next steps

- Four-phase approach cycles back to “Vision and Relationships”
- Today’s Symposium is part of that process:
 - Look at what we have learned from the project
 - Discuss what needs to happen next
 - Identify steps to move forward together



Our Team



FNLHP Team – Symposium 2014



Our Partners



**First Nations Lung
Health Project
2012 -2017**



**University
of Regina**

**INDIGENOUS PEOPLES'
HEALTH RESEARCH CENTRE**

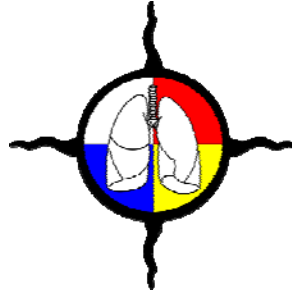


IPHRC

**FIRST NATIONS
UNIVERSITY
OF CANADA**



Assess, Redress, Re-assess: Addressing Disparities in Respiratory Health Among First Nations People

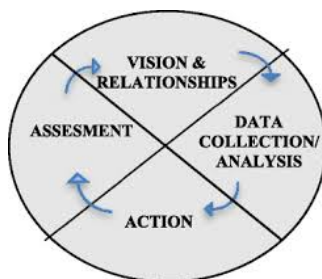


OVERVIEW OF PROJECT DATA

- ADULT SURVEYS - HOUSEHOLD LEVEL
- INDIVIDUAL LEVEL
- CHILDREN SURVEYS
- HOME ASSESSMENTS

DATA SETS AVAILABLE FOR RESEARCH, PROGRAM, AND POLICY INITIATIVES

Four-Phase Approach



Adapted from the First Nations Regional Longitudinal Health Survey

- Phase 1:** Vision and Relationships (2011-ongoing)
- Phase 2:** “Assess” – Data Collection & Analysis (2012-13)
- Phase 3:** “Address/Redress” – Action (2013-ongoing)
- Phase 4:** “Reassess” – Assessment (2016-17)

Questionnaire Data, Clinical Assessments and Environmental Assessments

Phase 2:

Adult database 2012-2013
Children database 2013
Environmental assessments 2014

Phase 4:

Adult database 2016
Children database 2017
Environmental assessments 2017

Overview of Adult Data-Household Level

- **The People**
How many people live and how long
- **The House**
Number of rooms, number of bedrooms, Band owned housing, running water, source of drinking water
Housing conditions
house in need of repairs, dampness, damage caused by dampness, mildew odor or musty smell, signs of mold or mildew
filter in heating system, air conditioning, use of humidifier, use of dehumidifier, air exchanger, pets lining in house
- **Household Smoking**
Smoke in the house, green porch light, Greenlight program
- **Household Income**
Annual household income, money left at the end of month
- **Access to Health Care**

Overview of Adult Data-Individual Level

- **Your general information**
Age, sex, height, weight, abdominal circumference, education, marital status, language (speak, write, read)
- **Your lung health**
Respiratory symptoms: cough, phlegm, wheeze, shortness of breath

Respiratory diseases: Asthma, Chronic Obstructive Pulmonary disease (COPD), Sleep Apnea, attack of bronchitis, pneumonia, sinus trouble, chronic bronchitis, emphysema, tuberculosis
- **Rest and sleep**
Sleep hours, trouble going to sleep, daytime sleepiness, snoring
- **Your health history**
Allergy
General health
Mental health

Chronic conditions : Stress, diabetes, heart problems, stroke, depression, kidney problems, leg ulcers, severe eyesight problems, cancer

Stomach acidity or reflux, ear infection, injury

Overview of Adult Data- Individual Level

- **Lifestyle and Work**
Occupational history, social assistance

physical activity, smoking, pack years, alcohol consumption
- **Access to Health Care**
Barriers to receiving health care
- **Social support**
- **Experienced discrimination**
- **Residential school attendance**
- **Clinical assessments**
lung function, allergy test, blood pressure

Overview of Children Data

- **Child's past and present health**
Respiratory symptoms: cough, phlegm, wheeze, shortness of breath etc.

Respiratory diseases: Asthma, Allergies, Tonsillitis, Bronchitis, Pneumonia, Eczema, Croup, Ear infection, Sleep Apnea, Diabetes, Heart conditions, Sinus trouble, emotional or psychological difficulties, stress
- **Child's lifestyle and surroundings**
physical activity, parental smoking, friends smoke, smoke inside house, type of housing, household conditions, pets
- **Child's personal and family history**
age, sex, weight, height, birth weight, birth information, breast feeding, maternal smoking, family history of asthma and allergies, gestational diabetes, parents education level, community support
- **Clinical assessments**
lung function, allergy test, blood pressure

Overview of Home Assessments

- **Household information**
type of dwelling, number of people, number of bed rooms, age of home, smoke in home, pets, heating source etc.
- **Household conditions**
house in need of repair, ventilator, water or dampness, damage caused by dampness, mildew/moldy odour or musty smell, signs of mold or mildew etc.
- **Air Sample data**
- **Dust levels**
- **Endotoxin Levels**

FIRST NATIONS LUNG HEALTH SURVEY-ADULTS

N=1570



Phase 2- Baseline 2012-2013	Phase 4 2016
874 (56%)	830 (53%)

N=580



Phase 2- Baseline 2012-2013	Phase 4 2016
406 (70%)	352 (61%)

SURVEY RESPONSE RATES-ADULTS

Beardy's and Okemasis First Nation



Phase 2- Baseline 2012-2013	Phase 4 2016
431(53%)	424 (52%)



Phase 2- Baseline 2012-2013	Phase 4 2016
173 (54%)	173 (54%)

Montreal Lake Cree Nation



Phase 2- Baseline 2012-2013	Phase 4 2016
443(58%)	406 (53%)



Phase 2- Baseline 2012-2013	Phase 4 2016
233 (90%)	179 (69%)

FOLLOW-UP RATES- ADULTS

Follow-up rate= 393/874=45%

Overall response rate= 830/1570=53% (Reference to 2011 Census)

Beardy's and Okemasis First Nation



184/431=43%



107/173=62%

Montreal Lake Cree Nation



209/443=47%



161/233=69%

LUNG FUNCTION ASSESSMENT- ADULTS



	2012 – 2013 n=874	2016 n=830
Location	completed	completed
Beardy's and Okemasis	324	324
Montreal Lake	348	358
Total	672	682
Percent (%)	77%	82%

ALLERGY TEST ASSESSMENT- ADULTS



	2012 – 2013 n=874	2016 n=830
Location	completed	completed
Beardy's and Okemasis	324	223
Montreal Lake	346	154
Total	670	377
Percent (%)	77%	45%

SCHOOL SURVEYS RESPONSE RATES

PHASE 2 - CHILDREN COMPONENT (2013)

- ❖ There were 603 children from 4 schools
- ❖ 351 (58%) children participated in the questionnaire survey
- ❖ 310 completed lung tests
- ❖ 304 completed allergy testing

PHASE 4 - CHILDREN COMPONENT (2017)

- ❖ There were 826 children from 4 schools
- ❖ 244 (30%) children participated in the questionnaire survey
- ❖ 217 completed lung tests

ENVIRONMENTAL ASSESSMENTS

PHASE 2 – HOME ASSESSMENTS (2014)



Total of 144 homes were assessed for house condition, air and dust samples

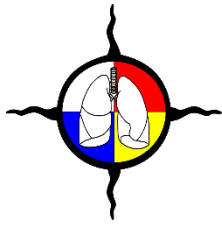
- ✓ 59 homes from Beardy's and Okemasis First Nation
- ✓ 85 homes from Montreal Lake Cree Nation

PHASE 4 – HOME ASSESSMENTS (2017)

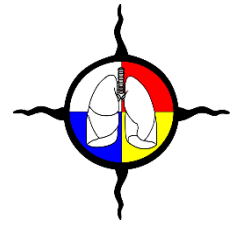


Total of 144 homes were assessed for house condition, air and dust samples

- ✓ 59 homes from Beardy's and Okemasis First Nation
- ✓ 85 homes from Montreal Lake Cree Nation



FIRST NATIONS LUNG HEALTH PROJECT



PARTNERS



FIRST NATIONS
UNIVERSITY
OF CANADA



INDIGENOUS PEOPLES'
HEALTH RESEARCH CENTRE

University
of Regina



UNIVERSITY OF
SASKATCHEWAN



IPHRC

With Support From:



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada



Saskatchewan
Health Research
FOUNDATION

Beardy's & Okemasis First Nation Community Development Initiative - Survey Results

As part of the Community Development Initiative project undertaken by Beardy's & Okemasis First Nation, two community surveys were distributed, one to on-reserve members and one to off-reserve members. The survey was available online and in hard copy. A total of 705 responses were recorded, 339 of which were from on-reserve members and 366 from off-reserve members. The following pages summarize responses gathered from both on and off reserve surveys.

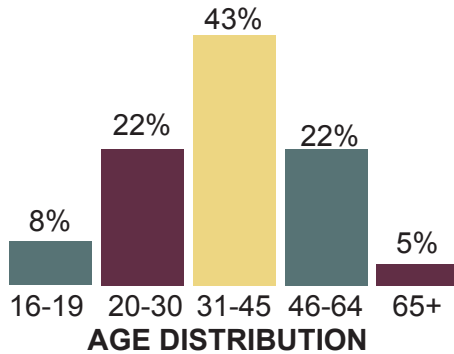
Respondent Demographics



64% FEMALE



36% MALE



32% of respondents can speak their traditional language

OFF-RESERVE RESPONDENTS WERE FROM...

- Saskatoon
- Prince Albert
- Duck Lake
- Rosthern
- Regina
- North Battleford
- Warman
- Yorkton
- Martensville
- Other rural Saskatchewan areas
- Alberta
- British Columbia

OFF-RESERVE RESPONDENTS MOVED AWAY FROM BEARDY'S TO...

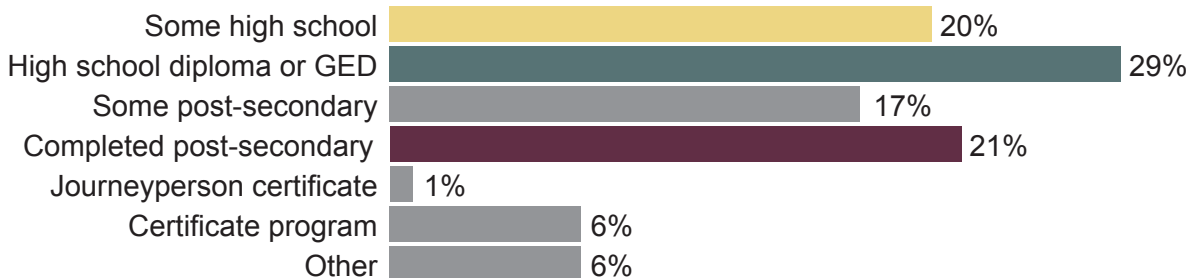
- To be with family or friends
- To find higher quality housing
- To pursue career aspirations
- To find employment
- To further their education
- For health reasons

A few respondents had never lived on-reserve.

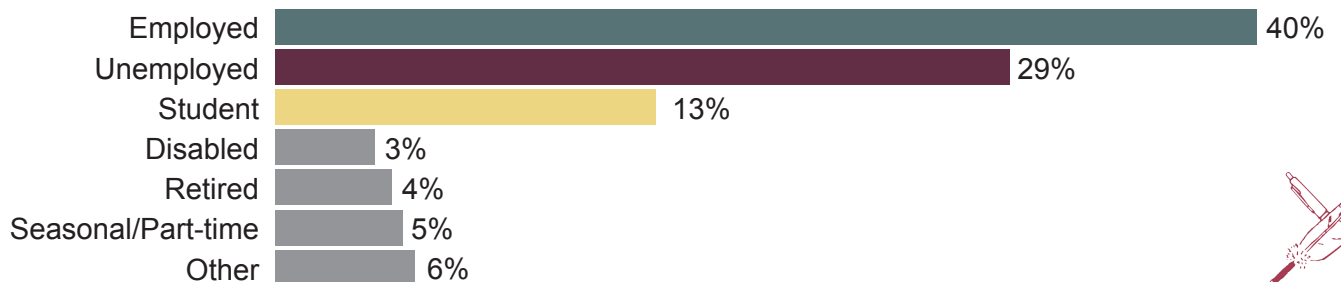
96% of off-reserve respondents are able to return to Beardy's to visit.

71% of off-reserve respondents indicated that if an opportunity arose, they would be interested in moving back to Beardy's.

HIGHEST LEVEL OF EDUCATION ACHIEVED:



CURRENT EMPLOYMENT STATUS:



Community Priorities

WHAT DO YOU LIKE MOST ABOUT YOUR COMMUNITY?

- Family
- Community oriented
- Closeness
- The people
- Support for each other
- Friendly homelike feeling
- People come together in times of need
- Close to cities yet still in the country
- Cultural traditions are alive
- Activities/programming
- Sports & recreation
- Safety

WHAT WOULD YOU LIKE TO SEE CHANGED IN YOUR COMMUNITY?

- More youth/family programs
- Activities for youth aged 6-18 years
- More adequate housing/properly maintained housing
- Improved road conditions
- Address issues with drugs/alcohol
- Cleaner homes/yards
- More dry dances
- Curfew bylaw
- Night security
- Job opportunities
- Training for members
- Clean up trash
- Make youth and elders the priority
- Better water treatment
- Mental health services

TOP THREE COMMUNITY PRIORITIES

Education
Health & Safety
Housing

Language & Culture

58% of respondents are involved in community cultural events.

RESPONDENTS ARE INVOLVED IN...

- Round dances
- Pow wows
- Funerals
- Sun dances
- Smudging
- Feasts
- Sweats
- Church
- Sewing & beading
- Dance classes
- Drumming
- Cree classes
- Treaty Day

RESPONDENTS WOULD LIKE TO SEE INCREASED CULTURAL EVENTS/PROGRAMS/SERVICES INCLUDING...

- Cree language/prayers/programs
- Cultural camping
- Sweat ceremonies
- Old art forms
- Youth programs/activities
- Traditional song & dance
- Cooking classes
- Elder teachings

68% of off-reserve respondents indicated that since moving away they have returned to Beardy's for cultural events.



Health & Safety

ON-RESERVE RESPONDENTS CURRENTLY UTILIZE...

- Dental program
- Medical program
- Health Clinic
- Medical taxi
- Baby Clinics
- Optometrist
- Maternal health programs
- Diabetes workshops
- Autism programs
- Nutritionist
- Good Food Box
- Meals on Wheels
- Pre and post natal services
- Immunizations

95% of off-reserve respondents are able to access health services where they live.

46% of off-reserve respondents utilize health services offered by Beardsy's.

HOW TO IMPROVE ON-RESERVE HEALTH SERVICES...

- Home care check-ins
- Having a doctor available 2 - 3 times a week
- More programs about pregnancy and STD's for teens
- More programs on healthy diets
- Prevention programs for drug users
- Continued support for intake of medications
- Removal of drugs and alcohol
- Youth programs and activities to keep our children physically active
- Get rid of mold issues in homes and have older homes inspected for all health related programs
- Provide rides for health programs
- Mental health awareness

22% of respondents do not feel safe while on reserve due to...

- Prevalence of drugs and alcohol
- Lack of security
- Traffic
- Break-ins at home
- Violence

IMPROVE SAFETY BY...

- Providing night security
- Increasing RCMP presence
- Providing drug and alcohol support programs
- Detaining stray dogs
- Providing programs and activities for youth
- Implementing a youth curfew

Fire Services - **31%** somewhat effective

Ambulance Services - **32%** somewhat effective

Police Services - **23%** somewhat effective

EMERGENCY SERVICE CONCERNS...

- Slow response times
- Sometimes no response at all
- Lacking police presence
- Not knowing what to do in a state of emergency
- Poor road conditions preventing emergency services from responding
- Improved communication between community members and leadership on how to handle emergencies is needed



Recreation

RESPONDENTS ARE INVOLVED IN...

- Baseball
- Hockey program
- Winter games/Summer games
- Volleyball
- Public skating
- Treaty Day
- Golf
- Pow wows
- Round dance
- Soccer
- Weight room/gym
- Fundraisers
- Community family events

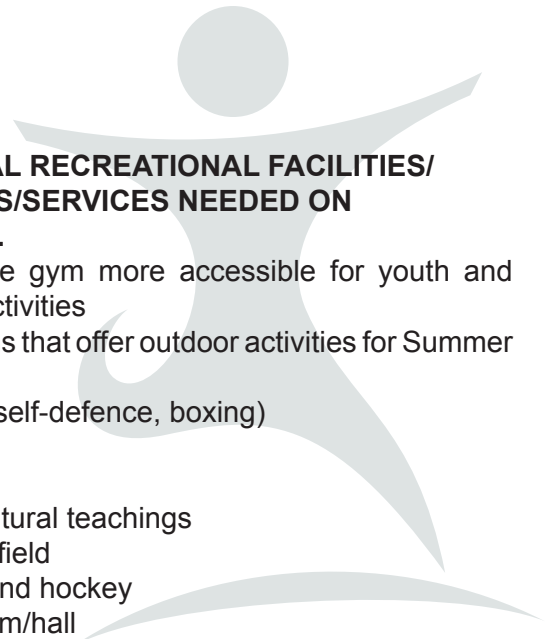
57% of off-reserve respondents are involved in recreational activities where they live.

49% of off-reserve respondents are interested in volunteering in recreational activities where they live.

56% of off-reserve respondents felt that current recreation facilities and activities meet the needs of the community.

ADDITIONAL RECREATIONAL FACILITIES/ PROGRAMS/SERVICES NEEDED ON RESERVE...

- Make the gym more accessible for youth and family activities
- Programs that offer outdoor activities for Summer months
- Karate (self-defence, boxing)
- Soccer
- Baseball
- More cultural teachings
- Track & field
- Year round hockey
- Pool room/hall
- Swimming/aquatics
- Exercise programs
- Arts & crafts
- Youth club
- Horse racing
- Boys & Girls group
- More sports days
- Badminton club
- Tiny tot gymnastics
- Dancing
- Yoga classes
- Sports days



Education

ON-RESERVE RESPONDENTS CURRENTLY UTILIZE...

- Post-secondary funding
- School
- Beading
- Fun night
- ITEP
- Fundraisers
- Safety courses
- Cree classes
- Computers
- Training programs
- Literacy night

HOW TO IMPROVE ON-RESERVE EDUCATION SERVICES...

- More trade courses
- First Nation staff
- Computer training
- Programs for families
- Cultural teachings
- Mental health support
- Adult education programs
- Hire qualified teacher aides
- Evening access to school for student support
- Tutoring programs
- More post-secondary funding
- Clear guidelines for post-secondary funding applications and selection process

44% of on-reserve respondents are able to achieve their career goals now.

52% of off-reserve respondents indicated that if educational services/programs they are interested in were offered on reserve they would move back.

57% of off-reserve respondents indicated that if a job opportunity arose on-reserve, they would be interested in moving back.

RESPONDENTS IDEAL CAREERS...

- Elder
- Business owner
- Working in band administration
- Drivers education teacher
- Working with youth
- Security/night watch
- Fire fighting
- Heavy equipment operator
- Bus driver
- Hockey director
- Working in an old age home
- RCMP officer
- Taxi driver
- Carpenter
- Unity coordinator
- Nurse
- Councillor
- Librarian
- Leadership coach
- Plumber
- Special needs coordinator
- Teacher
- Cultural leader
- Teaching traditional ways

BARRIERS TO ACHIEVING CAREER GOALS...

- Taking care of family member
- Need child care support
- No funding
- No phone
- No transportation or drivers license
- No experience
- Health issues
- Criminal record
- Cost of tuition
- High cost of living in the city

WHAT WOULD HELP COMMUNITY MEMBERS GET JOBS?

- Drivers license
- Trades training
- Goal setting/vision building
- Leadership training
- Resume writing skills
- Transportation to and from work/school
- Grade 12 upgrading
- Child care



Economic Development

THE COMMUNITY SHOULD INVEST IN...

- Natural resources that are environmentally friendly
- Businesses (i.e. grocery store, restaurant, gas bar, coffee shop, clothing store, etc.)
- Land in the city to build businesses
- Home renovations
- Sport teams
- Old age home
- Self-sustainable energy/renewable energy
- Food source (i.e. food bank, community garden)
- New homes
- Our youth
- Jobs
- RTM homes
- Youth van
- Livestock
- Recreation opportunities (i.e. pool hall, swimming pool, parks/playgrounds)
- Animal farms
- Training opportunities

72% of respondents are in favour of both community and privately owned businesses in the community.

63% of respondents indicated that they are comfortable with resource exploration and extraction on community owned lands.

THE COMMUNITY SHOULD FORM PARTNERSHIPS WITH...

- Funding providers
- Tourism
- Resource companies
- Franchises such as Tim Horton's
- Alternative energy suppliers
- Community development corporations

Community Infrastructure

79% of on-reserve respondents are satisfied with current community facilities.

FACILITY IMPROVEMENTS NEEDED...

- All facilities need to be cleaned/renovated
- Use the hall for more activities not just for Bingo
- A quiet space to study is needed
- Artificial ice for the rink
- New day care
- Housing needs to be maintained
- Water treatment plant needs improvements
- Fix playgrounds

87% of on-reserve respondents are not satisfied with community road conditions.

TO IMPROVE ROAD CONDITIONS...

- Regular maintenance
- Pave roads
- Address pot hole issues
- Utilize equipment
- Hire trained operator
- Lower speed limits
- Grading after storms
- Regular and prompt snow removal

ON-RESERVE HOUSING INFRASTRUCTURE...

Water System - **68%** satisfied

Sewage Treatment - **77%** satisfied

Garbage collection - **73%** satisfied

INFRASTRUCTURE ISSUES...

- Cistern problems
- Poor water quality
- Low water supply levels
- Sewer back ups
- Plugged sewer lines
- Long waits to have septic tanks emptied
- Irregular garbage pick up times
- Need a recycling systems
- Dogs getting into trash
- Need a way to dispose of large trash items
- Poor landfill management



Housing

39% of on-reserve respondents current housing meets their needs.

ISSUES WITH CURRENT HOUSING...

- Renovations needed
- Mold
- Over crowding

88% of on-reserve respondents said their home needs renovations.

ON-RESERVE HOUSING...

38% of on-reserve respondents have **7 or more people** living in their home.

42% of on-reserve respondents have **3 bedrooms** in their home.

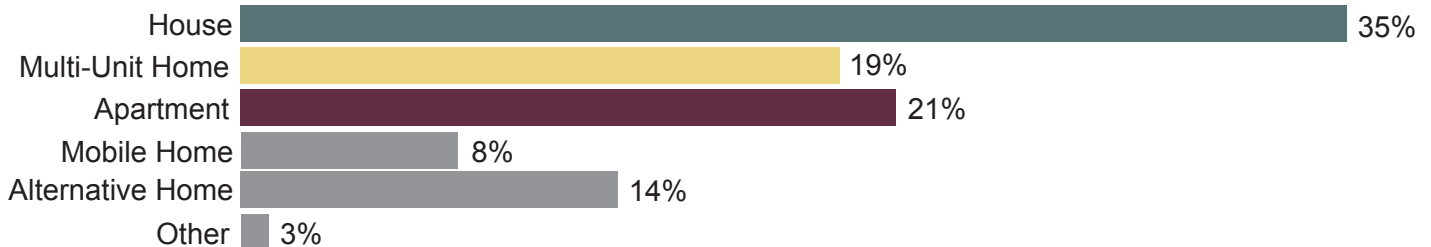
97% of on-reserve respondents have **1 bathroom** in their home.

74% of on-reserve respondents are interested in having the opportunity to own their own home in the community.

87% of off-reserve respondents had lived on-reserve at some point in their lives, either residing in a house (86%) or a duplex/fourplex (14%).

55% of off-reserve respondents would move back to the reserve if there was housing available for them.

OTHER HOUSING TYPES TO CONSIDER FOR FUTURE DEVELOPMENT...



Governance

IN THE NEAR TERM, LEADERSHIP SHOULD FOCUS ON...

- Noise bylaw
- Youth curfew
- Keep drugs/alcohol off reserve
- Animal control bylaw
- Reserve security
- Clean up yards
- Update Election Act to ensure elected officials are educated or have experience
- Regular band meetings
- Lower on-reserve speed limits

HOW TO IMPROVE COMMUNICATION BETWEEN LEADERSHIP AND COMMUNITY MEMBERS...

- Regular band meetings
- Advertise meetings and events
- Chief and staff being available in office
- Hold meetings with on and off reserve members
- More newsletters
- Don't rely solely on Facebook to relay messages
- Visit reserve homes
- Working together

56% of off-reserve respondents are interested in volunteering for advisory committees if given the opportunity.



Land & Resources

41% of respondents are aware of environmental concerns in the community.

COMMUNITY ENVIRONMENTAL CONCERNS...

- Environmental pollution
- Trash/litter
- Poorly managed land fill
- Poor quality drinking water
- Lack of recycling
- Sewage dumping into the lake
- Herbicides and pesticides being used on farm lands

53% of respondents are aware of traditional or cultural sites that need to be protected in the community.

COMMUNITY CULTURAL SITES TO PROTECT...

- Monument
- Rebellion site
- Carlton Trail
- Fort Carlton
- Chief Beardy's burial site
- Old grave sites
- Pow wow grounds
- Sun dance grounds
- Traditional medicine areas
- Graveyard
- The forest
- Cultural/traditional lands

26% of respondents have concerns pertaining to land use in the community.

COMMUNITY LAND USE CONCERNS...

- Livestock too close to village
- Mismatched pasture land
- Exploration and mining of natural resources
- Mismatched landfill
- How land lease revenues are being utilized
- Cleanliness
- Lacking recreation areas
- Protecting traditional hunting grounds

72% of respondents agree that the community should pursue land development opportunities in the future.

PURSUE LAND DEVELOPMENT OPPORTUNITIES INCLUDING...

- Community garden
- Grocery store
- Apartment complexes
- Housing for elders
- Farming
- New gas station and store
- Sports Centre/recreation areas
- Care home
- Ranching/livestock lands

Conclusion

GENERAL SURVEY COMMENTS:

- Address issues with drug dealers
- More opportunities to learn the Cree language
- Better communication with urban members needed
- Improvements to recreation facilities and parks needed
- Home renovations needed
- Easier access to good food through a community garden or local grocery store is needed
- Road improvements needed
- Regular garbage pick up needed
- Litter and untidy yards to be cleaned up
- Noise issues to be addressed
- Reliable health transportation service needed

83% of on-reserve respondents are interested in volunteering in the community.

76% of off-reserve respondents are interested in volunteering on community based committees and boards.

