

Tuberculosis in Nunavut, Canada

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TUBERCULOSIS IN NUNAVUT, CANADA

One Community's Initiative
To Promote Awareness Through
An Organized Community Health Fair

Where On This Planet Is Nunavut?

- The largest, northernmost, newest territory of Canada
- Its history dates back approximately 4,000 years
- Nearly one-fifth the size of Canada
- The least populous of the provinces and territories
- Population = 31,906
- 56% of population under the age of 25 years
- The Capital is Iqaluit, with a population of 6,699

Census 2011, Friesen, 2012



ALASKA
USA

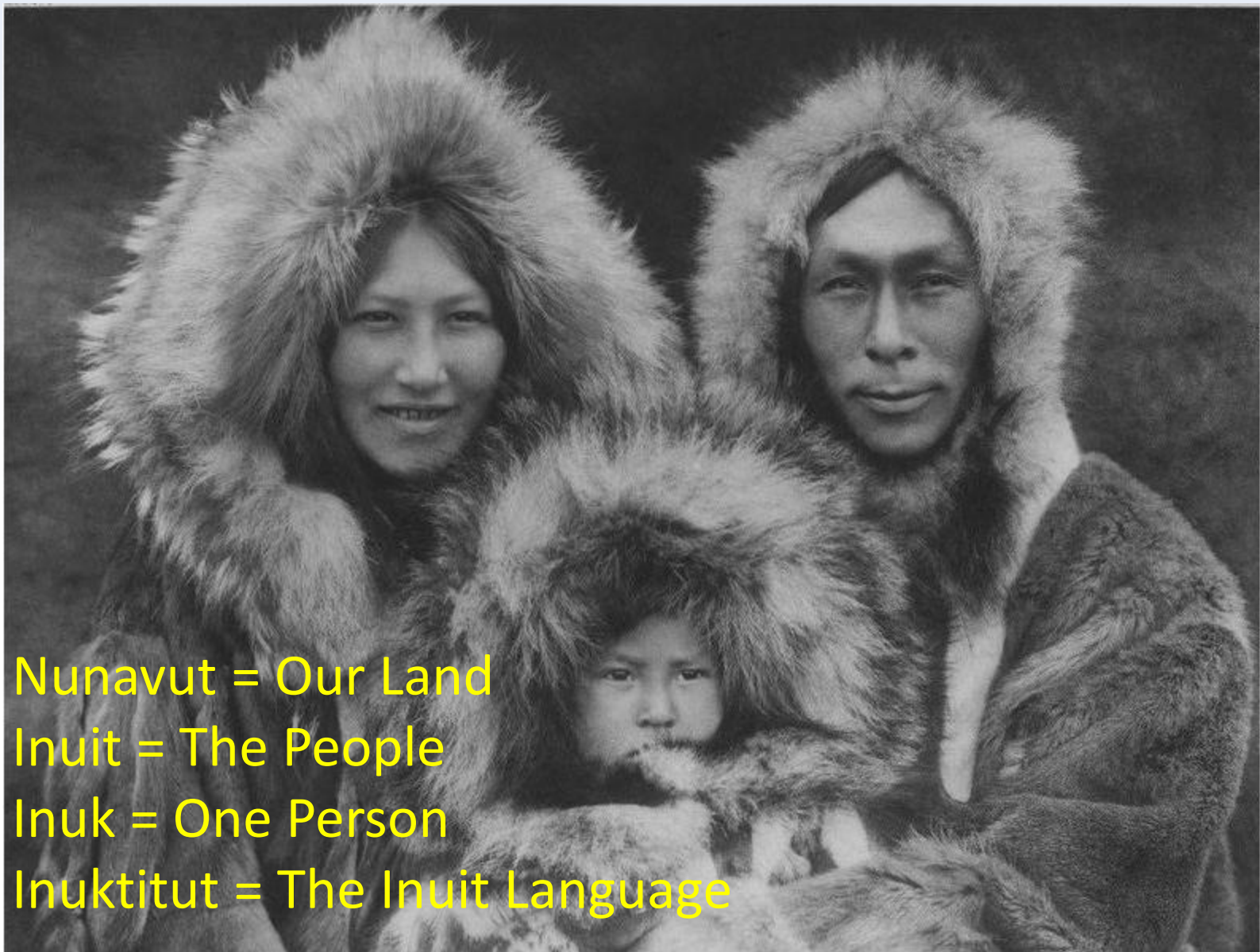
NUNAVUT

CANADA

USA

GREENLAND

ICELAND



Nunavut = Our Land
Inuit = The People
Inuk = One Person
Inuktitut = The Inuit Language

Noatak Family circa 1930s

Tuberculosis

- **Second leading global killer of adults**
- **One third of the world's population infected**
- **An airborne infectious disease**
- **Pulmonary TB is the Most Common (80%)**

Mycobacterium tuberculosis

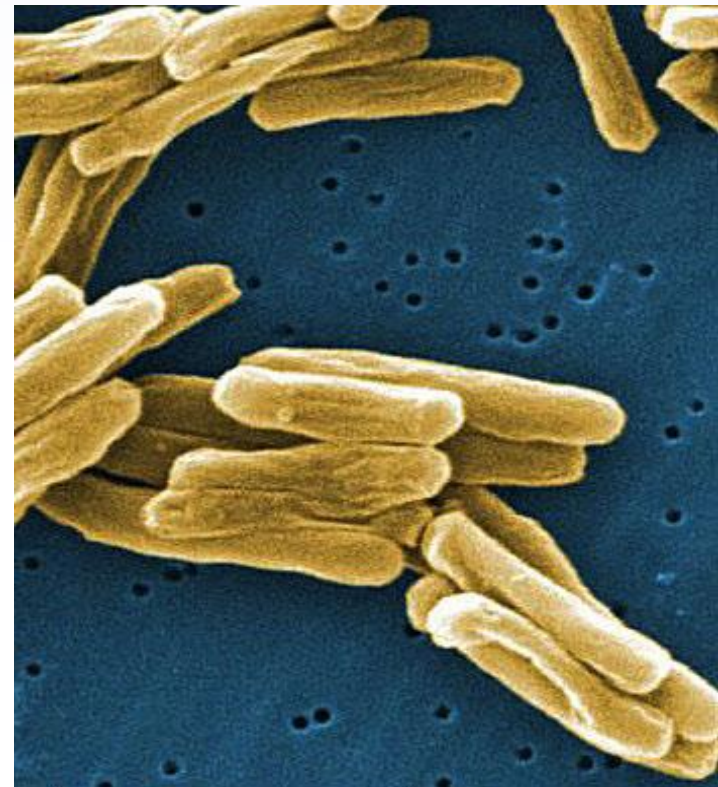
- The etiologic agent
- Humans = The only reservoir

1882 – First Breakthrough ...

Robert Koch discovered the TB

Bacterium

CDC 2012



Tuberculosis in Canada: The Sanatorium Era

Between 1600s and 1800s - TB came to Canada with European Settlers ... TB Exposure among Inuit by the Whalers and Explorers

... ***Demmer, 2011***



The Anti-Tuberculosis Hospital of the Royal Ottawa Sanatorium
[date unknown]

1897 – Opening of the First Sanatorium for:

- Rest
- Fresh Air
- Good Diet/Nutrition
- Isolation
- Education
- Rehabilitation

First 25 Years of Sanatorium Era – 45% of TB Patients died CMAJ 1999

In the Late 19th Century and 20th Century TB Exposure Among the Inuit

1920s and 1930s - Extremely High Levels of TB Among the Inuit of the Arctic ... *Demmer, 2011*

1950s - *The Era of Ship-Board Medical Clinics during the Summer along the Arctic Coastlines*

- *No road access into or out of any of the communities*



People Waiting in Line for Medical Examination on Board the Ship



An Outbreak of TB in Nunavut

- Immunization and return to shore if patient was asymptomatic
- Patient evacuated to a Sanatorium if diagnosis was positive

Tuberculosis in Nunavut: 1950s ... aka ...
Consumption The White Plague Phthisis

- A gradual decline in the incidence of TB
- Shorter Stays in Sanatoria
 - Average Stay = 2.5 Years
- ***Development of Antibiotic Therapy***

1956

- One-seventh of the entire Inuit population was being treated in Southern Canada



A Child and an Elder
Woman in Bed on Board
the Ship

Inuit Memories of the Sanatorium Era

- Patients not allowed to leave the ship once on board
- No Goodbyes said
- Parents separated from children or infants
- Alone - in a completely foreign environment
- Language Barriers
- No way to contact family
- Endless waiting for news on family
- No idea when – or if – loved ones would ever come home

Living with TB: Misconceptions, Stigmatization Discrimination and Fear among the Inuit ...

- Institutional and community norms
- Interpersonal attitudes
- A social determinant of health
- Community Belief ...
 - The affected individual must have done something to deserve to be infected
 - Infection seen as divine punishment for a moral or personal failure
 - Loss of Status in the community

Factors Enhancing the Misconceptions, Fear, Stigmatization and Discrimination

- Fear of Infection
- Lack of knowledge and risk of transmission
- Perception of contagiousness
- TB as a co-infection with HIV

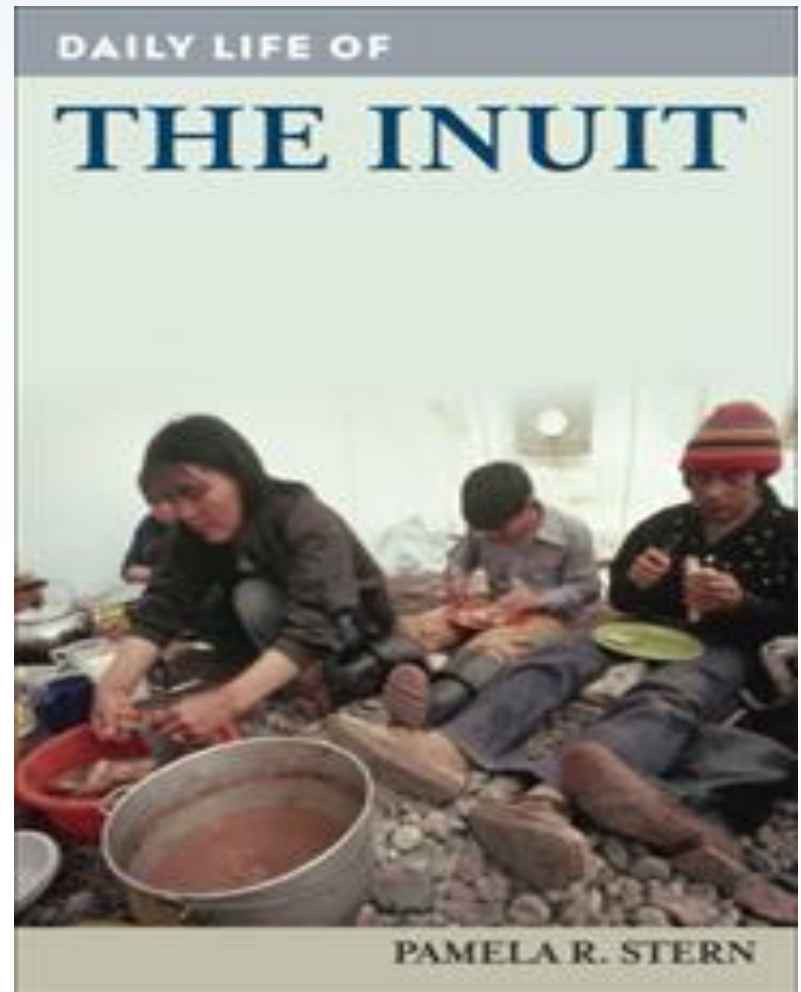
- TB associated with
 - Malnutrition
 - Poverty
 - Being Foreign-Born



Two Men Carving Soapstone
in Bed as Part of their Occupation
Health

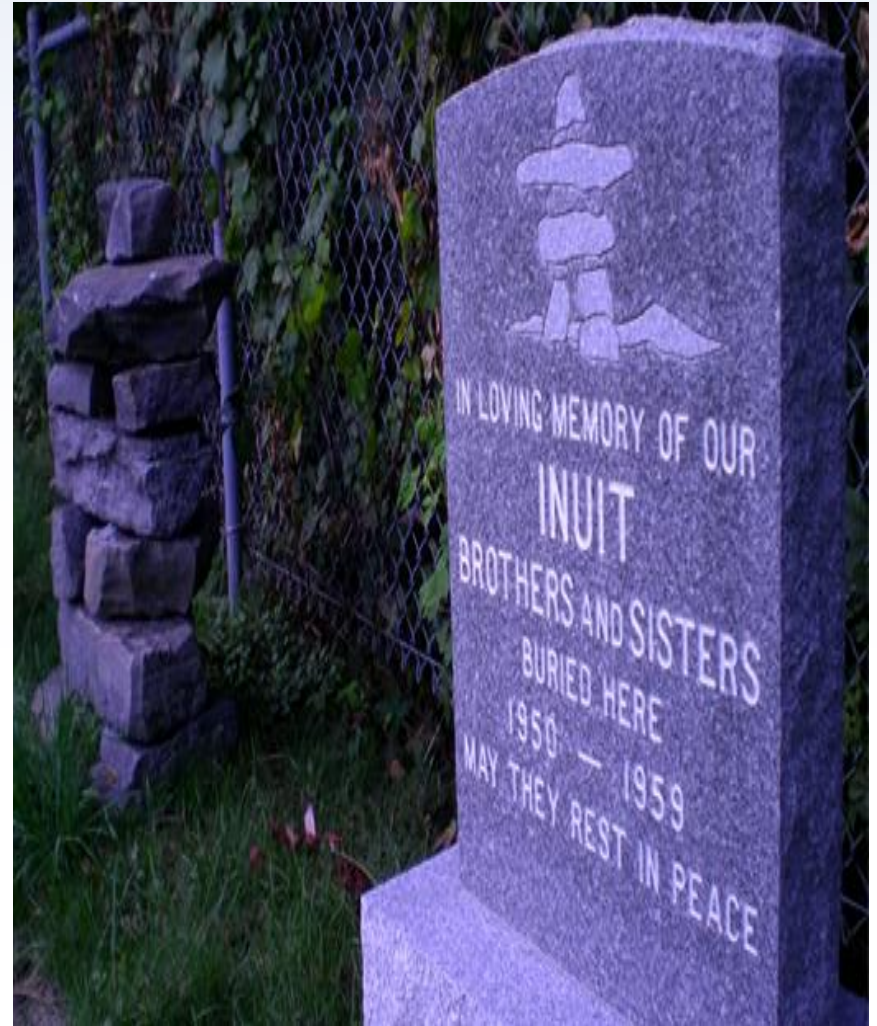
Impact of Misconceptions, Stigma, Discrimination ...

- Shame
- Disgust
- Guilt
- Hiding the stigmatized trait
- Withdrawal from inter-personal relationships
- Increasing risky behavior
- Isolation



In Memoriam ...

- Notification of Deaths
- No idea where loved ones had been taken or buried
- Spouses would re-marry and then original husband or wife would show up one day



Courtesy of David
Teiawennitathe Delaronde

Outcome of the Sanatorium Era ...

- TB Treatment Program considered ...
 - Successful
 - Many lives saved
- Reduction in death rates

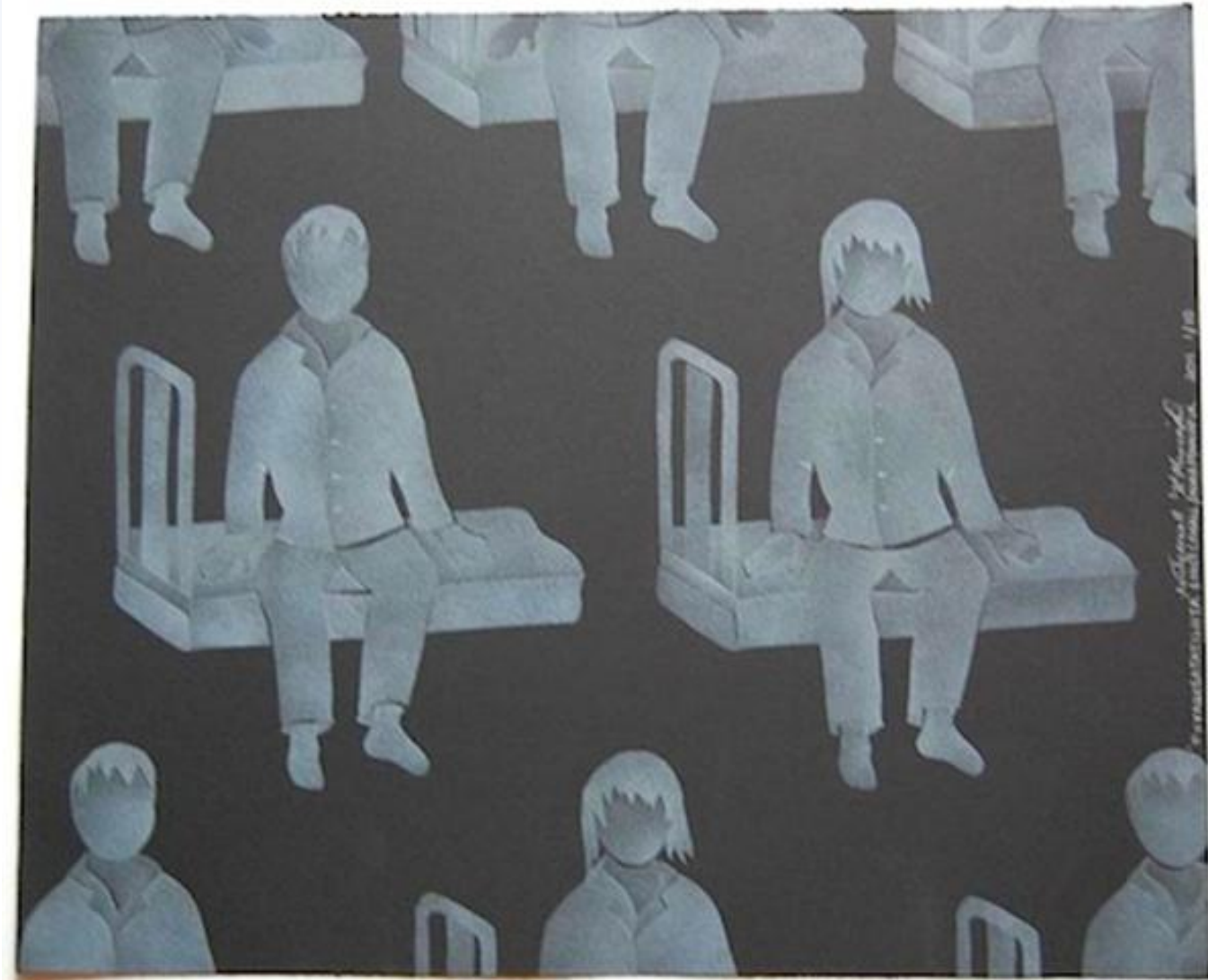
Aftermath ...

- Permanent emotional scars across generations from the experience of separation and displacement

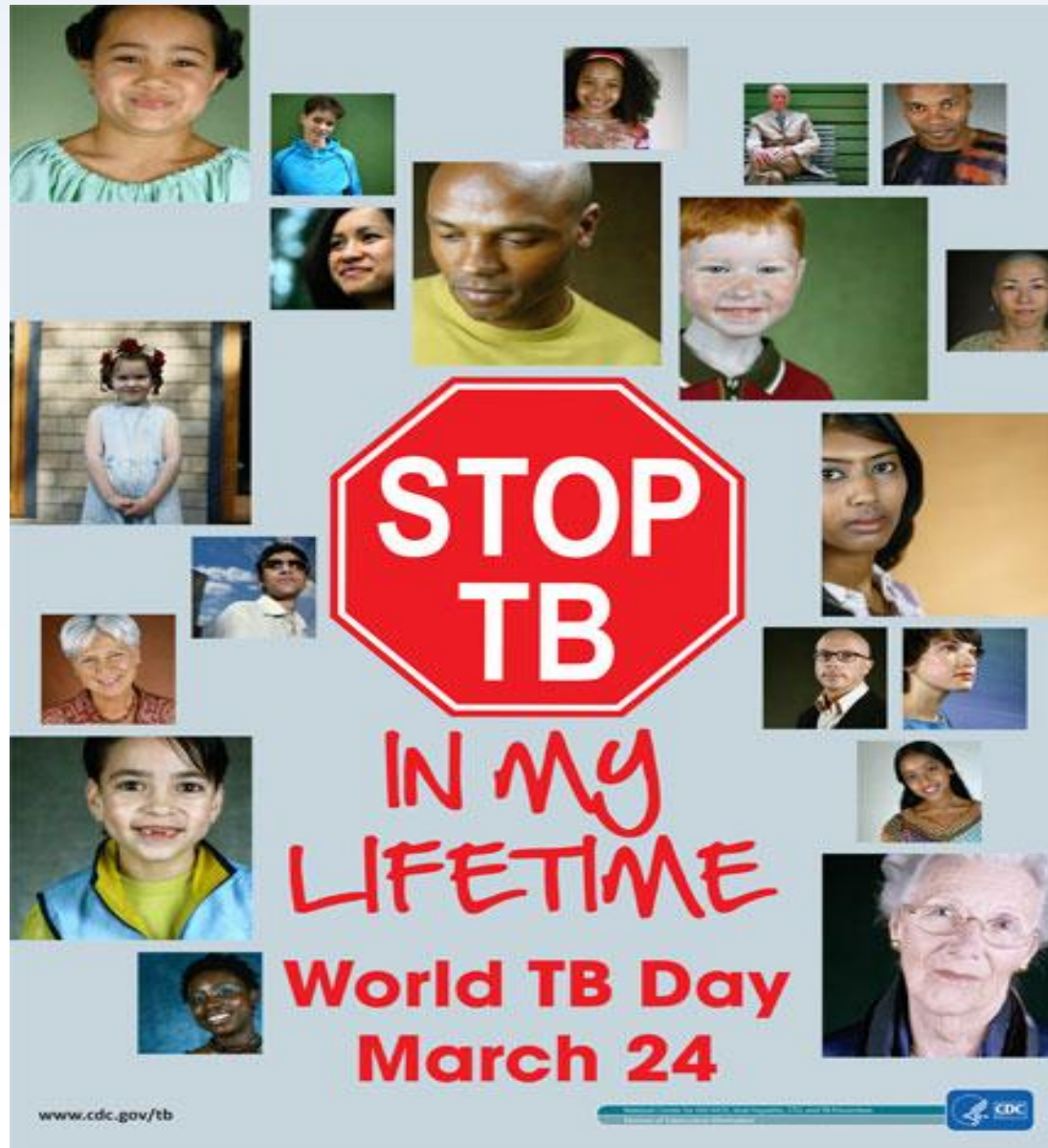


Finding Hope and Healing in
Memories of Our Past

“As a kid I had TB, I did this print depicting all those
who lost their fight to TB”
... Noah Maniapik



The Fight Against Tuberculosis: The Ongoing Battle




**STOP
TB**

**IN MY
LIFETIME**

**World TB Day
March 24**

www.cdc.gov/tb



WORLD TB DAY

March 24, 2012

You may not know
you have TB.

Get tested.

Get treated
before you
get sick.



For more information
please see your local
health care provider.



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INUIT TAPIRIIT KANATAMI

www.itk.ca



Inuvialuit Regional Corporation



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NUNAVUT REGIONAL BOARD OF HEALTH AND SOCIAL SERVICES
RÉGIE RÉGIONALE DE LA SANTÉ ET DES SERVICES SOCIAUX NUNAVIK



March 24, 1982 – First World TB Day

Sponsors

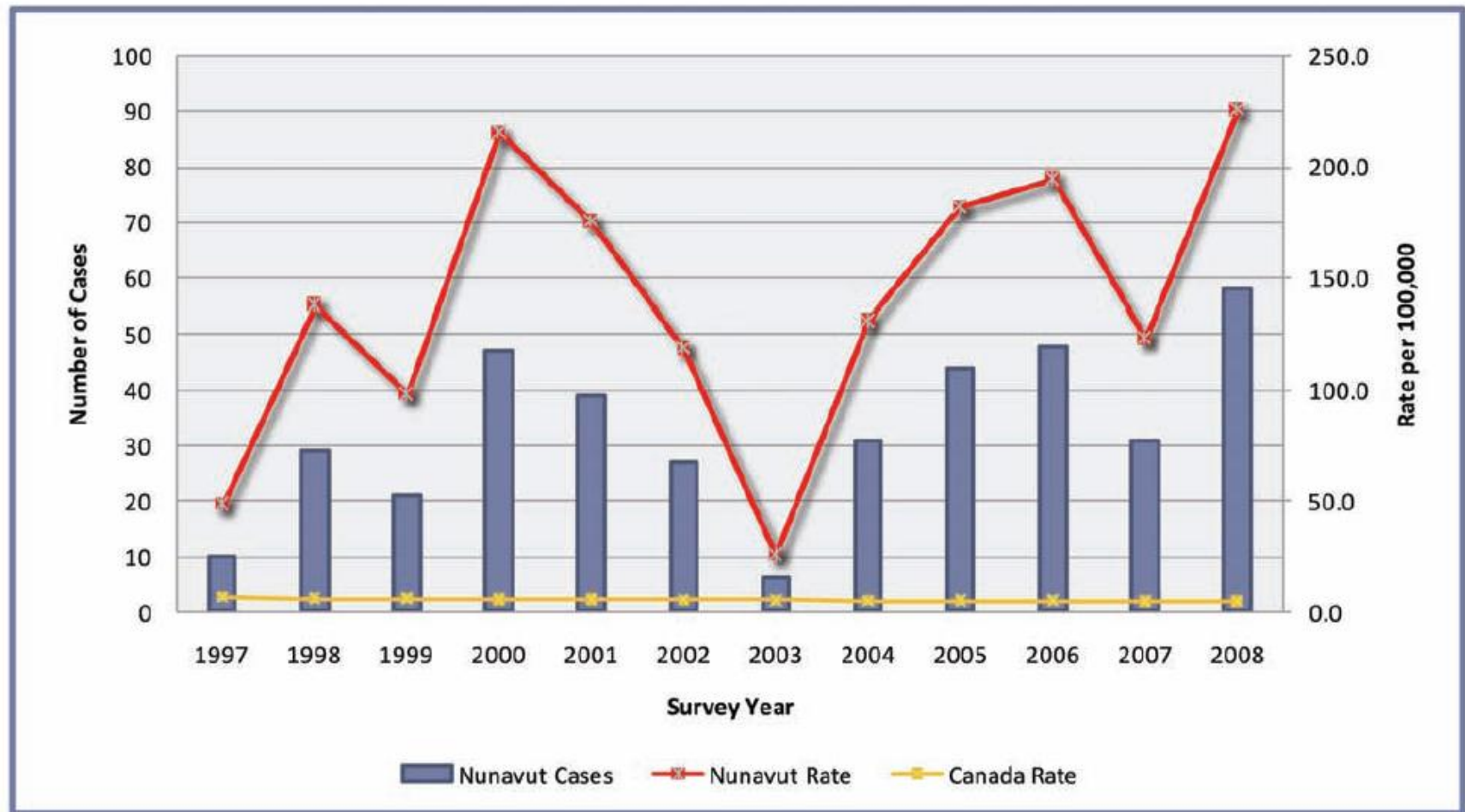
- World Health Organization (WHO)
- International Union Against Tuberculosis and Lung Disease (IUATLD)

Purpose

To *educate* the public about

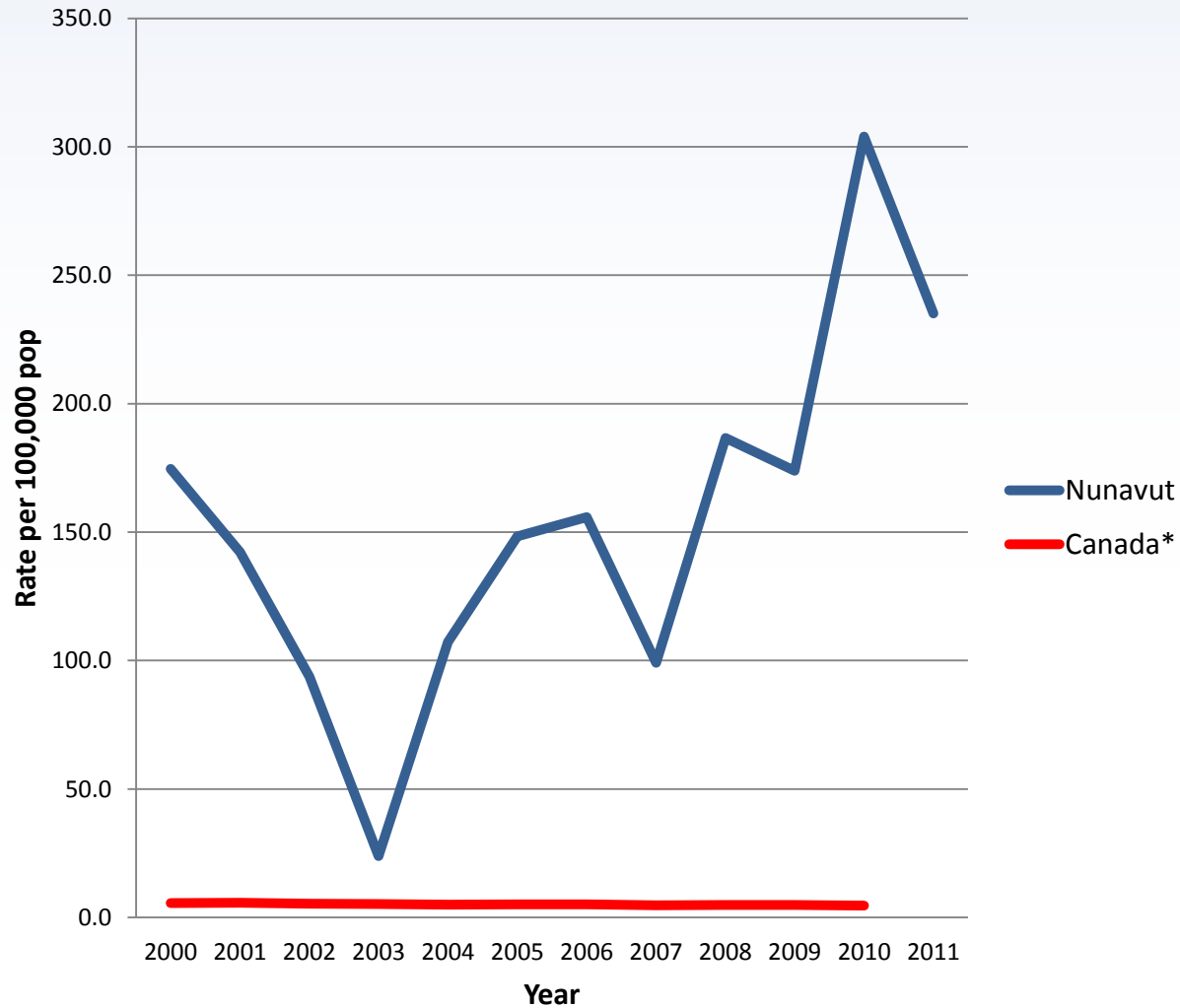
- TB's devastating health and economic consequences
- Continued tragic impact of TB on global health

Total TB Cases and Incidence Rates Nunavut and Canada: 1997-2008



TB Rates

Nunavut versus National Rates: 2000-2011



Reported Active TB Cases in Nunavut: 2009-2012

Year	Reported Active TB Cases	Remarks
		<u>*Nunavut TB rate = About 75 times the national average ... CMA; CBC, Jan, 2013</u>
2009	56	<ul style="list-style-type: none"> • 174.0 per 100,000 Population
2010	101	<ul style="list-style-type: none"> • 307.6 per 100,000 Population • Highest number in the Territory's history • Represents an <u>infection rate 62 times</u> the Canadian Average, 50% recorded in Iqaluit • 1.5 million TB-related deaths world-wide
2011	75	<ul style="list-style-type: none"> • 222.1 per 100,000 Population • Nearly 9 million people worldwide became sick with TB disease CDC 2012
2012	79	

Nunavut TB Cases by Sex

Year	Male	Female	Total
2000	24	24	48
2001	25	15	40
2001	15	12	27
2003	5	2	7
2004	19	13	32
2005	28	17	45
2006	28	20	48
2007	16	15	31
2008	40	19	59
2009	29	27	56
2010	70	31	101
2011	49	26	75

Risk Factors Influencing the Persistently High Incidence of TB

- Overcrowded housing
- Poor Nutrition
- Smoking
- Substance Abuse



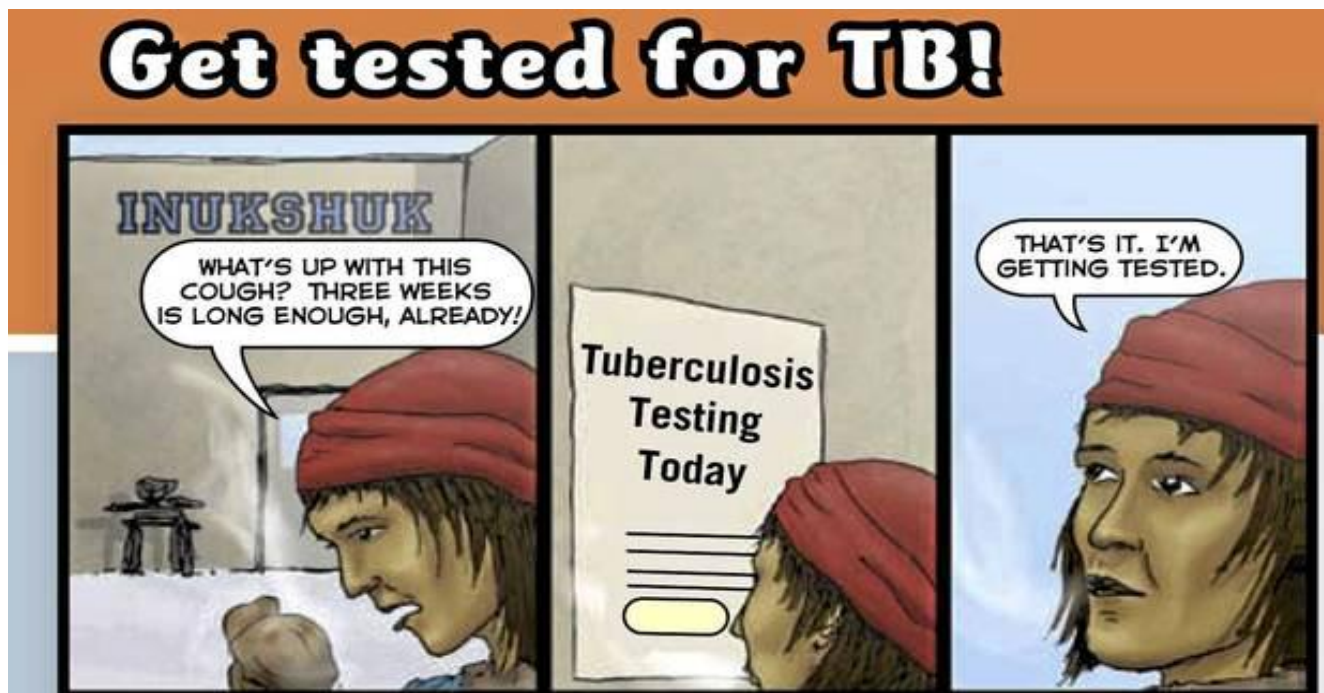
HIV Diabetes



A TB Patient who is Co-Infected with HIV

Cancer Chronic Renal Failure
Immuno-Suppressive Therapy
Level and Availability of Medical
Care Infants Elderly
Physical and Mental Stress

Without early Identification and adequate treatment, TB bacteria continue to multiply, infect other people, damage the body and can even be fatal



Nunavut Standard of TB Prevention, Control and Screening Programs

- Routine BCG – Bacille-Calmette-Guerin vaccination of all new-born babies
- Pre-School Screening
- School Screening
 - Grades 6 and 9
- Early Diagnosis
- Skin Testing
 - Mantoux/Tuberculin
- Contact Tracing
- Directly Observed Therapy
- Educational Programs



BCG Administration to a New-Born Baby

Administration of Tuberculin Skin Test



1908

Charles Mantoux used research done by Robert Koch years earlier to develop the Mantoux Tuberculin Skin Test for diagnosing latent TB infection in a person

A Positive
Reaction to TST
with an Induration

 ADAM

A Positive
Reaction to TST
with an Induration

Following a Positive TST

- Chest X-ray
- Sputum sampling - to rule out active TB disease
- Blood Work – if the Individual is likely to go on medication for Latent (Sleeping) or Active TB Treatment

The Two Types of Tuberculosis

Active or Primary Tuberculosis



Latent Tuberculosis Infection or Sleeping TB



Active or Primary Tuberculosis

- Contagious ... Airborne Precautions
- The Individual has:
 - Symptoms
 - A significant Positive reaction to the Tuberculin Skin Test (TST) or Mantoux Skin Test
 - In rare cases a client may have a negative TST
 - Abnormal Chest X-ray
 - Positive Sputum Test (Acid-Fast Bacilli)
- Treatment is required for 6 to 12 months

Signs and Symptoms of Active TB

- Persistent cough lasting more than 3 weeks
- Coughing up blood or sputum
- Weakness, fatigue, or tiredness
- Fever and Chills
- Weight Loss
- Loss of Appetite
- Night Sweats
- Chest Pain – In some cases
- Some People may not have Obvious Symptoms

Latent Tuberculosis Infection (LTBI)

- The person has the TB bacteria in his or her body (usually the lungs), but has yet to develop obvious symptoms
- Tuberculosis may last for a lifetime as an infection, never developing into the TB disease
- Not Contagious
- Positive TB Skin Test indicating infection or exposure
- Normal Chest X-ray
- Negative Sputum
- Treatment is recommended for 9 months to prevent active disease

Problem Identification ... During Regular TB Program in One Community

- TB Stigma still prevalent
- Some Students being sent home by teachers when they tested positive from TB screening
- Reluctance of some clients to come in for the Directly Observed Therapy (DOT)
- Reluctance or Failure of Clients to complete their DOT
- Reluctance of some parents and/or guardians to bring their children or family members to the Health Center for Pre-school or school screening, and/or for DOT
- Differing knowledge, attitudes and practices of health care providers in relation to the TB program

Measures to Combat TB Stigmatization and Promote Community Awareness

- Meetings with School Principal(s), Teachers and Students ... To share information on TB
- Meetings and presentations on TB with small community and youth groups
- Presentations on local Radio, on TB and its related health issues
- A collaborative drive to conduct a World TB Day activity

World TB Day 2012 – The Community Health Fair

March 17, 2012

- Conception of the Idea for a Community Health Fair

Goal

- To promote and improve health and wellness aimed at behavior and/or attitudinal change

Purpose

- Increase awareness of health issues
- Provide information on various health and community services
- Opportunity for participants to speak to a range of health professionals, community leaders, elders, youth

- **Date - Friday, April 13, 2012**
- **Location -The Community's High School Gymnasium**
- **Time - 1300 Hours – 1700 Hours**



Conceptual Framework for Community Health Fair

- ***A holistic approach to primary health care*** within the theoretical framework of 2012 World TB Day, Nutrition, Dental, School Health, Mental Health, Social Services, and World Health Day.
- ***Programs and Activities*** - to encompass:
 - Comprehensive, integrated, and continuous health care services ***Across the Lifespan.***

The Facilitators



Susie Maniapik, Clerk-Interpreter, Dora Maria Carbonu, Public Health Nurse/TB, and Raygelee Mike, TB Assistant/Clerk-Interpreter – Members of the Organizing Team

The Collaborators

- The Tuberculosis Program Team
- Community Health Services Team
- Community Health Representatives
- Government of Nunavut Health and Social Services Team
- Multi-sector health care agencies, groups, and organizations
- Community Organizations - Religious, Traditional, Cultural and other Interest Groups

Target Audience Partners Participants

Community Groups

- Leaders and Elders
- Youth Groups
- Religious Groups

Social and Recreational

- Hunters and Trappers
- Yoga
- *Hip-Hop
- Snow-Sailing
- Commercial Outlets
- Educational Outlets
- The Media
- The Airlines

Regional, Public- and Private Sectors

Community Health Services

- Maternal and Child Health
- Nutrition
- School Health
- Dental Health
- Mental Health
- Social Services
- Home Care
- Health and Wellness
- Pharmaceutical Companies
- Others

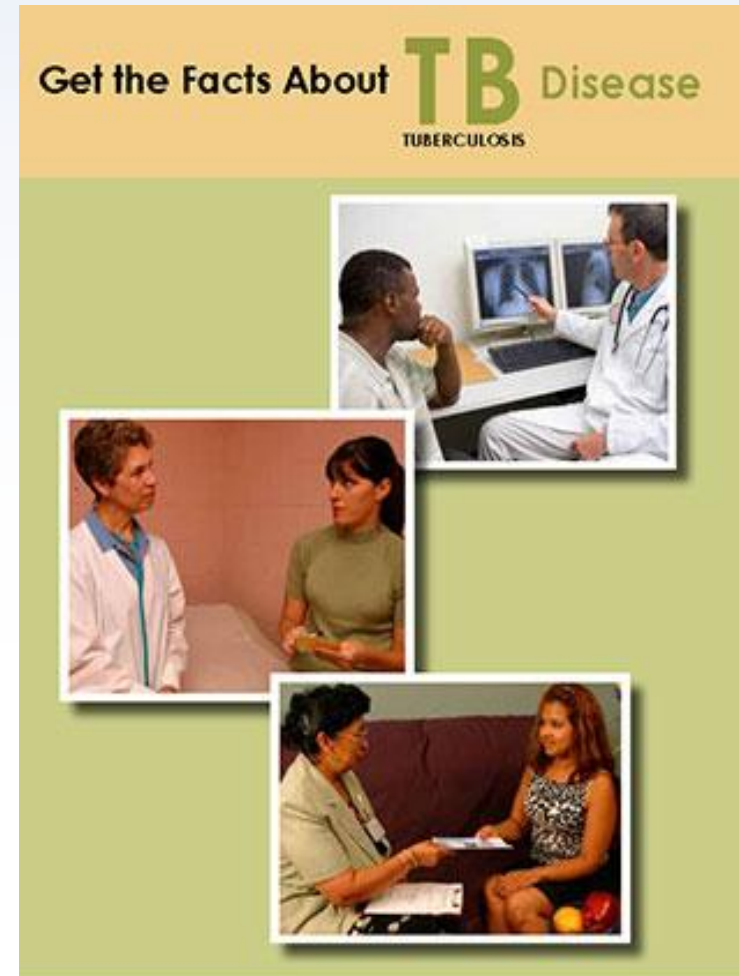
Programs and Activities

- Assessment and Screening
 - Blood Pressure
 - Weight
 - Height
- Counseling
- Demonstrations
 - Yoga
 - Snow Sailing
- Presentations
 - Ongoing Videos
 - PowerPoint
- Handouts
- Games and Prizes
- Free Snacks
- A Return Flight Ticket from the Community to Ottawa – Donated by one of the two main Airlines

At the TB Stall

TB is BACK

- Discussion Points
- A Running PowerPoint Presentation
- Historical Perspectives
- Questions and Answers
- Effects of TB on a person's holistic health and well-being
 - Physical
 - Emotional
 - Mental
 - Cultural/Traditional
 - Spiritual



Centers for Disease
Control and Prevention
National Center for HIV/AIDS,
Viral Hepatitis, STD, and
TB Prevention

At the TB Stall ... TB is BACK



- Living with TB and the associated Fears and Stigma
- Correcting misconceptions about TB
- Social inequities that lead to the spread of TB
- Actions individuals and communities can take to protect themselves from TB
- Hand-outs



Centers for Disease
Control and Prevention
National Center for HIV/AIDS,
Viral Hepatitis, STD, and
TB Prevention



Mental Health Services Stall manned by Mysti Lutz, Registered Psychiatric Nurse and on the left, Rosemary Akulujuk, Child and Youth Outreach Worker.

Outcome of Community Health Fair

Evidential Observations ...

- About 500 Participants and Community Leaders, Elders, Members in Attendance
 - *Population of this particular Community = 1425*
- Rejuvenated Community motivation and morale about all aspects of health-care, especially among:
 - School-aged adolescents
 - The Youth
 - Young Adults
 - Elders
 - Health Care Providers

Outcome of Community Health Fair

- Voluntary participation in TB and other health-and-wellness programs
- Parental commitment to Well-Baby Immunization-and Pre-School Screening programs
- Improvement in the Directly Observed Therapy (DOT) program
- Improvement in School-, Voluntary Youth- and Adult TB-Screening Programs
- Enhanced Staff Awareness and Positive Attitudes toward the TB Program

Implications

This Community Health Fair Project supports three main themes for territorial and national goals:

- Preventing, diagnosing and managing TB
- Targeting populations at greatest risk for TB
- Developing and maintaining TB programs that involve and work with communities to:
 - Increase awareness
 - Decrease stigma and discrimination against clients with TB and their families
 - Positively influence perspectives and attitudes toward TB and, at times, the health care system.
 - Ensure programming that is culturally sensitive and appropriate.

Summary and Conclusion

The outcome of this community-driven health-care-promotional initiative was a rekindled spirit of motivation and morale, and the strive to:

- Overcome stigmatization about TB and other health-related issues - with the **GOAL** to ...
- Improve the quality of health and life of the people of this particular community, and all the people of Nunavut.

ACKNOWLEDGEMENTS

Department of
Health, Nunavut



Nunavut Arctic
College

THINK TB

STOP TB

All Collaborators, Benefactors, Partners,
Participants, and the Community at
Large

REFERENCES

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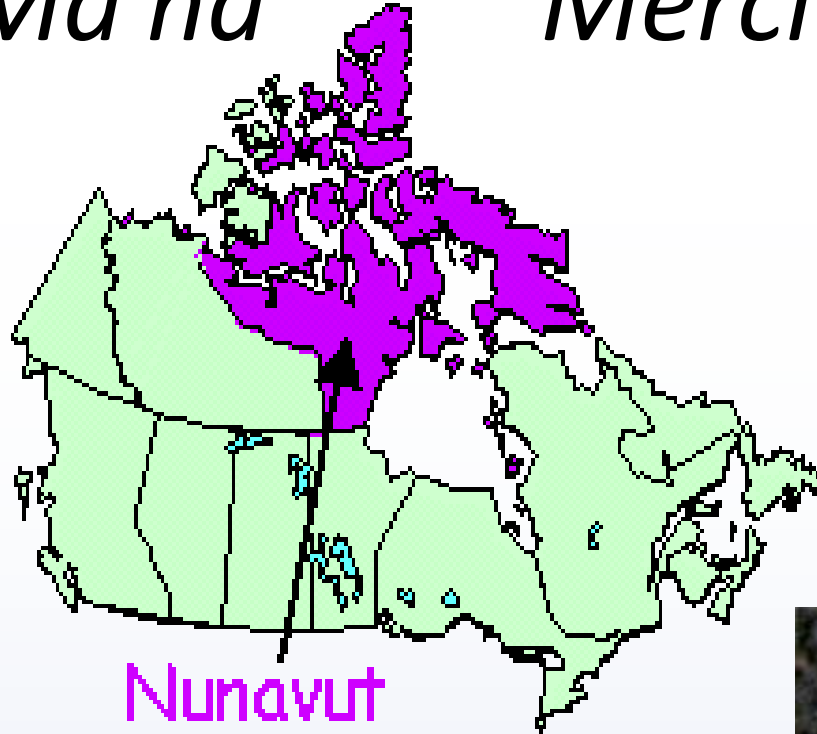


Quana



Ma'na

Merci



Nakurmiik

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Nunavut



Thank You