The Place of Geography in Global Health
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Territory Size to the Proportion of Area
Territory Size to the Proportion of Global Population
The Proportion Vaccine Preventable Deaths
Proportional Amount of Polio Cases.
Proportional Amount of Infant Mortality Deaths
Proportional Amount of Deaths from Preventable Causes.
Proportional Amount of Doctors to each Territory
Today’s Line Up

Health and Place.

The Social Determinants.

The “Social Turn” in Health Geography.

Moving Beyond Maps…chronicle of TB in Canada.

To the point: Geography is about understanding the connections between land and life. While not every sub-field of Geography is concerned with health, health is always impacted by Geography.
Geographic Illiteracy
“We cannot have prosperity if we’re not healthy… Nambia’s Health System is increasingly self sufficient”.
Huish, Robert (2017). Why Cuban Solidarity was Ebola’s Antidote
*Human Geography*. 10(3), 54 - 70.
Deaths per day
Guinea, Liberia, Nigeria and Sierra Leone combined

From Dec 2013 to: Aug 11th 2014 14
Oct 7th 2014 13

EBOLA fever 4
110

Tuberculosis

Diarrhoea 404

Malaria 552

HIV/AIDS 685

Sources: WHO; US Centres for Disease Control and Prevention; The Economist

*West Africa
Football vs. Ebola
(8 U.S. deaths – 1 U.S. death)
The war on Ebola
WHO asks Canada to justify Ebola visa ban
Cries for Help:

The WHO: “We need more experts on the ground, more funding and more support.”

MSF: “Volunteer support needed for Ebola Outbreak.”
What we gave:

UK: £230 million
  100 Hospital Beds,
  750 soldiers

US: $175 million
  3,000 soldiers
  A command centre
  An airlift of 50,000 “home health kits” from Denmark.

Canada: $35 million to the UN
  A Mobile Lab
  1,000 vials of vaccine that took two years to get to Africa and may not work.
  2 million gloves
Geography gives us...

• An understanding of place far beyond borders and the physical environment.

• It provides an understanding of place to include the social, cultural, economic, and environmental factors (upstream determinants).

• It also allows for the appreciation of local capacities and solutions to local health problems.
Definitions of Health

1. The overall condition of an organism at a given time.

2. Soundness, especially of body or mind; freedom from disease or abnormality.

3. The level of functional metabolic efficiency of a living being.

4. The state of being free from illness or injury.

5. A State of complete, mental and social well-being.
For Geographers…

The interaction of people in a particular place matters enormously to understanding how health determinants will be shaped.

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Prevalence of current smoking, men and women, by household income level, Canada 2007-2008
The ecology of malnutrition in western South America: Columbia, Ecuador, Peru, Bolivia and Chile (Studies in medical geography)

May, Jacques Mayer

Origins of Health Geography
Understanding Place
What constitutes an unhealthy place?
What constitutes an unhealthy place?
What constitutes an unhealthy place?
What constitutes an unhealthy place?
The Social Turn...
Dr. Robin Kearns

- Argued in 1993 that “Medical Geography” was overlooking important “social dynamics”.

- Met with resistance from Medical Geographers who worried that including “social science in the discipline would not be taken seriously by medical professionals”.

- Kearns argued the opposite, that social theory in geography would lead to better understandings of “health”, rather than just the “absence of disease”.

- This led to an increased focus on inequity, class, race and gender.

- But also the inclusion of issues such as “culture” “emotions” and “post-structural critiques” of biomedicine, and the rise of “healing landscapes”.

The Place of Richard Wilkinson

Chronicle: The Place of TB in Canada’s Arctic.
Tim Hortons is finally setting up shop in Iqaluit, one of the last places in Canada where the iconic coffee-and-donut shop chain doesn't have a foothold in the local market.

Tim Hortons officials announced this week that it's teaming up with the North West Company to open the coffee chain's most northerly franchise in Nunavut's capital. (Chris Young/Canadian Press)
Cases of TB per 100,000 in 2017

- South Africa: 834
- Botswana: 385
- Canada: 5
- India: 167
Change in TB Cases per 100,000 among Inuit.
Update for 2017

Population of Iqaluit: 6616

Active TB: 83
8.7 Million Cases of TB Worldwide.
What you need to know:

Testing:
- Mantoux Skin Test (available and immediate)
- Sputum Testing (machine is available, testing in Edmonton)
- X-rays and scans (handled in quarantine in Ottawa)

Monitoring:
- Contact mapping is thorough, but there are delays.
- Latent cases are hard to detect, and can become active before treatment begins.

Treatment:
- Excellent physician and nursing response using D.O.T.S. It is very unlikely to see MDR-TB in Canada.
From Officials about Nunavut:

Public Health Agency of Canada:
“TB can’t be eradicated, it is part of Nunavut.”

Territorial Ministry of Health:
“The problem is poverty, we need to clean up the water.”

Health Canada:
“We will increase funding for treatment, monitoring and research.”

Our Health Minister Leona Aglukkaq:
“As northerners, we are very familiar with tuberculosis”
Nunavut has recorded the largest tuberculosis outbreak in the territory’s 10-year history. Worse still, the outbreak involves adolescents and young adults, a pattern consistent with active community transmission.

Proper public health measures are in place in Nunavut, but they are under-resourced.

The eradication of TB will require long term economic investments to combat poverty.
36 percent of Nunavummiut live in overcrowded housing to the point of ‘hot-bunking’.

Even with additional public housing, overcrowding is not expected to ease up.

Up to 13 people could be living in a dwelling like this.

Others take to fishing huts.

Poor ventilation, poor heat, damp insulation.
Pepsi or 7-Up
Plus other selected varieties,
24 x 355 mL

$31.69

*Plus tax and environmental handling where applicable.
Pillsbury Pizza Pops
Frozen, deluxe or pepperoni & bacon, 28s, 2.8 kg

$32.79
Source Point 2: Jail

The facility is designed to hold 44 inmates.

Currently at 87.

Many are in for pre-trial.

Up to 30 inmates sleep in bunks on the floor of the gym.

All the guards and staff have tested positive for TB.

Treatment is available once ill.

But for the healthy, a trip to BCC comes with exposure to TB.
The shelter is not ‘overcrowded.’

But the ventilation system has not worked in years.

Dorms are between 7 and 8 per room.

With no air circulation and tight conditions, TB spreads

Even to the fellow working double shift at Tim Horton’s
Current Policies

Public Education through literature available in hospitals and nursing stations.
The Literature helps identify and de-stigmatize.

Does not push towards prevention.

Does not identify the health geography challenges of this place.
What Strategies can be put in place for overcrowded housing?
What about the prison population?
And the homeless shelter?
Housing is the root of the problem. We need to find ways to build capacity for affordable and healthy housing.

Costs, inter-government cooperation, and fatigue to the issue are working against us on this.
$800,000 announced in January 2011.

To support medicines for TB patients.
  (this is already part of Ottawa’s budget to the territory)

To hire additional nurses to monitor door-to-door.
  (already 18 nursing vacancies in Iqaluit – none filled)

To create a Facebook page and public awareness.
Fact #54: If your Tuberculin Skin Test (TST) is positive, this means that you have been exposed to TB germs but it will not tell us if you have active TB disease. More testing with a CXR and sputum samples will tell us this information.

Like - Comment - Share - October 20 at 2:26pm

Fact #53: A Tuberculin Skin Test (TST) is when a small amount of solution is injected under the skin on your forearm. You need to return to the health centre in 2-3 days and a nurse will look at your arm. If there is a reddened, raised area, the nurse will measure it with a ruler.

Like - Comment - Share - September 27 at 12:35pm

Fact #52: You can be screened for TB at your community health centre or Public Health clinic. If you have never had Active TB disease or sleeping TB you may be eligible for screening.

Like - Marie Hélène likes this.
Approaching Global Health without Geography leads nowhere