SOCIAL DETERMINANTS OF HEALTH & EQUITY

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What determines our health?

- Traditional health sciences or biomedical approach
- Social determinants of health approach

The traditional approach

Biomedical / epidemiological lens

Health is determined by:

- Genetic and biological factors
  - Sex, age, genetic make up, physiological interactions
- Individual behaviours
  - Alcohol use, smoking, unprotected sex, drug use, non-adherence to treatment and medical care
The traditional approach – limitations

• Reductionist
  • Focus on specific objective factors neglects the influence of wider social factors (*social constructs*)
  • Focus on objectivity (male/female; black/white) neglects their inherent social subjectivity (gender; race)
• Judgmental – what ‘should be’ vs. ‘what is’
• Health is considered an individual v social issue (neoliberalism)
Social determinants of health (SDoH) approach – WHO definition

• The circumstances in which people are born, grow up, live and age, and
• The systems that are put in place to deal with health, illness and wellbeing

http://www.who.int/social_determinants/en/
Where we live has a HUGE impact on our health!

Born in Montreal
Life expectancy: 82

Born in Iqaluit, Nunavut
Life expectancy: 73

Born in Uttar Pradesh, India
Life expectancy: 64
Social determinants of health (SDoH) approach – alternate definition

- Nonmedical factors influencing health
- Includes health related knowledge, attitudes, beliefs and behaviours (downstream determinants), that in turn are shaped by wider social structures (upstream determinants)

Braveman Annu Rev Public Health, 2011
Examples of SDoH

Age
Income
Education
Work and living conditions
Early life and development
Gender
Race and ethnicity
Culture
Access to health care services

Social environment – social support, capital, networks
Physical environment – housing, community, (urban/rural) infrastructure, air quality, climate changes
Politics and governing (social and health) policies
SDoH – multiple layers and influences

Dahlgren & Whitehead 1991
SDoH – complete definition

• Structural conditions and determinants of every day life, including:
  • Circumstances in which we are born, grow up, live and age, and
  • Systems that are put in place to deal with health, illness and wellbeing
• Shaped by wider, intersecting structural forces → economics, social policies, and politics (social structures)
• Result in health inequities
What are social structures?

- Systematic and organized pattern of relationships, institutions, categories (social constructs) and practices that define our society
- The context in which these practices occur and develop (e.g., politics, economics, social policies, cultural norms)
- Social structures can offer opportunities or establish constraints at the individual level → facilitate or limit individual behaviour (e.g., due to unequal distribution of money, power, resources)
- They are often established, ubiquitous and covert
Examples of social structures (socioeconomic, political and environmental changes) affecting health

• Civil rights
• Political stability / conflict / persistent impact of colonialism
• Environmental degradation
• Climate change
• Population growth (carrying capacity)
• Migration, displacement, urbanization
• Racism, patriarchy
• Governance (decision-making)
→ Closely linked to SDoH
What are health inequities?

- Systematic, unfair and avoidable inequalities or differences in health status between groups of people
- Arise between societies (local/national) and within societies (global)
Equality vs equity

https://www.publichealthnotes.com/equity-vs-equality/
Evidence of social inequalities in health
Basic examples

- Poor access to nutritious food $\Rightarrow$ more susceptible to disease, less likely to recover
- Poor living conditions (e.g., sanitation, overcrowding) $\Rightarrow$ more susceptible to infections
- Poor life circumstances $\Rightarrow$ more susceptible to low paying, high risk work
- Poor traffic laws $\Rightarrow$ road traffic injuries
The world by land area
The world by preventable death

www.worldmapper.org
Health and Social Problems are Worse in More Unequal Countries

Inequality.org, data from WB and OECD
SDoH Visualization Tool

http://www.healthdata.org/data-visualization/sdh-viz

To explore relationships between

- **SDoH** (antenatal care visits, skilled birth attendance, measles and DPT3 immunization coverage, lag distributed income, and educational attainment)

- **Health indicators** (life expectancy, disability-adjusted life years by cause, years lived with disability by cause, and causes of death)
Example – Indigenous health
**SOCIAL & ECONOMIC INEQUITY IN INUIT NUNANGAT**

Many Inuit face social and economic inequities that impact our health and wellbeing.

**INUIT NUNANGAT**

- $23,485 The median individual income for Inuit in Inuit Nunangat.
- 52% of Inuit in Nunangat live in crowded homes.
- 34% of Inuit aged 25 to 64 in Inuit Nunangat have earned a high school diploma.
- 70% of Inuit households in Nunavut do not have enough to eat.
- 30 The number of physicians per 100,000 population in Nunavut.
- 47.5% of Inuit in Inuit Nunangat are employed.
- 72.4 years The average life expectancy for residents in Inuit Nunangat.
- 12.3 The infant mortality rate per 1000 for Inuit infants in Canada.

**ALL CANADIANS**

- $92,011 The median individual income for non-Indigenous people Inuit Nunangat.
- 9% of non-Indigenous people in Inuit Nunangat live in crowded homes.
- 86% of all Canadians aged 25 to 64 have earned a high school diploma.
- 8% of all Canadian households do not have enough to eat.
- 119 The mean number of physicians per 100,000 population in Urban Health Authorities.
- 60.2% of all Canadians are employed.
- 82.9 years The average life expectancy for all Canadians.
- 4.4 The non-Indigenous infant mortality rate per 1000 for Canada.

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https://healthydebate.ca/2019/01/topic/tuberculosis-inuit-canada

Unequal suicide rates among Nunavut Inuit Vs. Canadians as a whole, 1982-2008

Courtesy of Hicks J, Romain S UTSC 2016
TB incidence rates in Canada

- Inuit: 170.1
- First Nations on-reserve: 34.1
- First Nations off-reserve: 14.5
- Métis: 2.1
- Canadian born Non-Indigenous: 0.6

The Enduring Plague: How Tuberculosis in Canadian Indigenous Communities is Emblematic of a Greater Failure in Healthcare Equality

Sarah Hick

Departments of Biology and International Development, McGill University, Montreal, Canada

ABSTRACT

Despite global strides made in prevention and treatment, tuberculosis (TB) remains an acute problem for Indigenous people in Canada. TB affects Indigenous communities at significantly higher rates than the general Canadian population, for whom it is a disease of the past. This paper suggests how colonialism and its history of violence have shaped the face of TB in Canada, and thus how TB is a telling point of analysis for considering the lack of equity and equality in healthcare delivery in Canada.

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OPINION

Ending TB among Canada’s Indigenous peoples: treat the fundamental causes, not just the disease

By DICK MENGLES AND MAURICE REBEK  APR. 29, 2019

To wipe out TB in Canada’s Indigenous populations, we need a big boost in their general health and social conditions.

A narrow, biomedical approach will simply not work

Historically, programs and research on Inuit health have focused on narrow indicators of health status without investigating a holistic view of social determinants of health as they relate to Inuit specifically. Therefore, future health initiatives must focus on issues such as food security, acculturation, and livelihoods as well as specific health outcomes. This change in focus would facilitate a more realistic perspective of Inuit health for Inuit organizations and governments.

Inuit-specific policies, Inuit-designed programs, and Inuit employment
Truth and Reconciliation Commission of Canada: Calls to Action

http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf
Health

18. We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties.

19. We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long-term trends. Such efforts would focus on indicators such as: infant mortality, maternal health, suicide, mental health, addictions, life expectancy, birth rates, infant and child health issues, chronic diseases, illness and injury incidence, and the availability of appropriate health services.
20. In order to address the jurisdictional disputes concerning Aboriginal people who do not reside on reserves, we call upon the federal government to recognize, respect, and address the distinct health needs of the Métis, Inuit, and off-reserve Aboriginal peoples.

21. We call upon the federal government to provide sustainable funding for existing and new Aboriginal healing centres to address the physical, mental, emotional, and spiritual harms caused by residential schools, and to ensure that the funding of healing centres in Nunavut and the Northwest Territories is a priority.

22. We call upon those who can effect change within the Canadian health-care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients.

23. We call upon all levels of government to:
   i. Increase the number of Aboriginal professionals working in the health-care field.
   ii. Ensure the retention of Aboriginal health-care providers in Aboriginal communities.
   iii. Provide cultural competency training for all health-care professionals.

24. We call upon medical and nursing schools in Canada to require all students to take a course dealing with Aboriginal health issues, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, and Indigenous teachings and practices. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.
Example – maternal deaths among African Americans
Serena Williams: I almost died after giving birth to my daughter

Grand slam champion says she was lucky to receive excellent care, but that others are not so fortunate after giving birth

Beyoncé, Serena Williams bring attention to risks of childbirth for black women

By Jacqueline Howard, CNN
Updated 4:52 PM ET, Mon August 6, 2018
**MORTALITY GAP FOR U.S. MOMS**

In the U.S., black women who are expecting or who are new mothers die at rates similar to those of the same women in lower-income countries, while the maternal mortality rate for white U.S. mothers more closely resembles rates in more affluent nations.

<table>
<thead>
<tr>
<th>NON-HISPANIC BLACK WOMEN</th>
<th>NON-HISPANIC WHITE WOMEN</th>
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<tbody>
<tr>
<td>Maternal deaths per 100,000</td>
<td>United States</td>
</tr>
<tr>
<td>40</td>
<td>12.4</td>
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<tr>
<td>Brazilian States</td>
<td>United States</td>
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<td>44</td>
<td>11</td>
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<tr>
<td>Malaysia</td>
<td>New Zealand</td>
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<td>8</td>
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<tr>
<td>Uzbekistan</td>
<td>Japan</td>
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<td>36</td>
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https://www.hsph.harvard.edu/magazine/magazine_article/america-is-failing-its-black-mothers/
WHICH AMERICAN WOMEN ARE DYING
Black women are 2.6 times as likely to die due to a pregnancy-related cause as white women. Older women also face greater risk.

U.S. deaths per 100,000 live births, 2011-2015

<table>
<thead>
<tr>
<th>RACE/ETHNICITY</th>
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<tbody>
<tr>
<td>Black</td>
<td>47.2</td>
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<tr>
<td>Native Am.</td>
<td>38.8</td>
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<tr>
<td>White</td>
<td>18.1</td>
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<tr>
<td>Hispanic</td>
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<td>Asian</td>
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<th>AGE</th>
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<td>35-44</td>
<td>38.5</td>
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<td>25-34</td>
<td>14.0</td>
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<tr>
<td>15-24</td>
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HOW THEY’RE DYING
Heart-related problems are a leading cause of maternal death; heart attack risk increases with obesity and age.

2011-2014

- Cardiovascular disease: 15.2%
- Endocrine, blood, other disorders: 14.7%
- Infection: 12.8%
- Hemorrhage: 11.5%
- Heart-muscle disease: 10.3%
- Pulmonary embolism: 9.1%
- Stroke: 7.4%
- Hypertension: 6.8%
- Unknown: 6.5%
- Other: 5.8%

WHEN THEY’RE DYING
Risk doesn’t end when pregnancy ends. Potentially fatal post-pregnancy complications include blood clots and hemorrhages.

- 38% While pregnant
- 45% End of pregnancy to six weeks after
- 18% Six weeks to one year after

ACCESS TO PRENATAL CARE
Women with no prenatal care at all are up to four times more likely to suffer a pregnancy-related death.

Women with no care or only third-trimester care

- Native Am.: 12%
- Black: 9%
- Hispanic: 8%
- Asian: 6%
- White: 4%

Percentage of the US population in poverty or unemployed

https://blogs.lse.ac.uk/usappblog/2019/03/08/the-curse-of-slavery-has-left-an-intergenerational-legacy-of-trauma-and-poor-health-for-african-americans/
“For black women in America, an inescapable atmosphere of societal and systemic racism can create a kind of toxic physiological stress, resulting in conditions — including hypertension and pre-eclampsia — that lead directly to higher rates of infant and maternal death. And that societal racism is further expressed in a pervasive, longstanding racial bias in health care — including the dismissal of legitimate concerns and symptoms — that can help explain poor birth outcomes even in the case of black women with the most advantages.”

One hundred and fifty years after the freed people of the South first petitioned the government for basic medical care, the United States remains the only high-income country in the world where such care is not guaranteed to every citizen. In the United States, racial health disparities have proved as foundational as democracy itself. “There has never been any period in American history where the health of blacks was equal to that of whites,” Evelynn Hammonds, a historian of science at Harvard University, says. “Disparity is built into the system.” Medicare, Medicaid and the Affordable Care Act have helped shrink those disparities. But no federal health policy yet has eradicated them.

Developing a global agenda to tackle the SDoH
McKeown Thesis
Declines in TB: social > medical progress

Annual TB deaths per million population

- Tubercle bacillus discovered
- Chemotherapy developed
- BCG vaccination
Early efforts

- Marmot (1987) found rates of mortality from cardiovascular disease in British civil servants working in the 1960s-70s were 3X greater in those employed in lower employment grades (cleaners) vs. higher employment grades (managers), regardless of age and smoking.
- He argued that health is a function of social inequality not just biomedical markers.
WHO Commission on the SDoH

- Report of the WHO Commission on SDoH
- Led by Michael Marmot (Whitehall study)

Marmot et al. 2008
http://whqlibdoc.who.int/publications/2008/9783703_eng.pdf?ua=1
Contributions of the WHO report on SDoH

- Legitimized the SDoH
- Call to measure and monitor indicators of health (in)equity
- Highlighted the global dimensions of health inequality
- Identified *health care systems* as a determinant of health
Key recommendations

1. Improve the conditions of daily life
2. Mitigate inequitable distribution of power, money and resources
3. Understand the problem, evaluate action
4. Engage stakeholders

Easier said than done!
Can we close the gap?
Progress can be achieved in short periods

In 7 years

- **Life Expectancy**: 56 yrs
  - Sri Lanka: 1946 - 1953

- **Access to Potable Water**: 15m
  - South Africa: 1994 - 2001

In 9 years

- **Poverty**: 33%
  - China: 1990 - 1999

In 15 years

- **Primary School Enrollment**: 89%
SDGs: equity is key
Addressing equity requires some farsightedness

- The quick fix
  - Low hanging fruit
  - Necessary but insufficient

- The slow squeeze
  - Difficult to achieve
  - Necessary for sustainability
We need to fight against “socialization for scarcity”

This is something I’ve been struggling with since I was a student: socialization for scarcity. But scarcity for ourselves? No. Scarcity for our mom? No. For our own kids? No. We’re socialized for scarcity for other people, and they’re usually black or brown or poor. So then we start cutting corners. Like saying we can treat drug-susceptible tuberculosis but not drug-resistant tuberculosis. We can give vaccines in Liberia but not chemotherapy. We must focus on prevention of trauma, or AIDS, in such settings, but not treatment. It might sound OK in a classroom, but such logic is lethal on the ground.

- Paul Farmer, Harvard Gazette 21 May 2018
THANK YOU

QUESTIONS?