

# SOCIAL DETERMINANTS OF HEALTH & EQUITY

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**&**

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# What determines our health?

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

Raphael et al. *Health Policy*, 2008

# 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

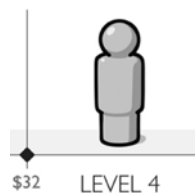
- The circumstances in which people are born, grow up, live and age, and
- The systems that are put in place to deal with health, illness and wellbeing

[http://www.who.int/social\\_determinants/en/](http://www.who.int/social_determinants/en/)

# Where we live has a HUGE impact on our health!



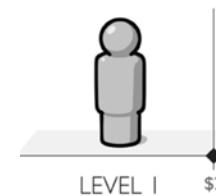
Born in **Montreal**  
Life expectancy: 82



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

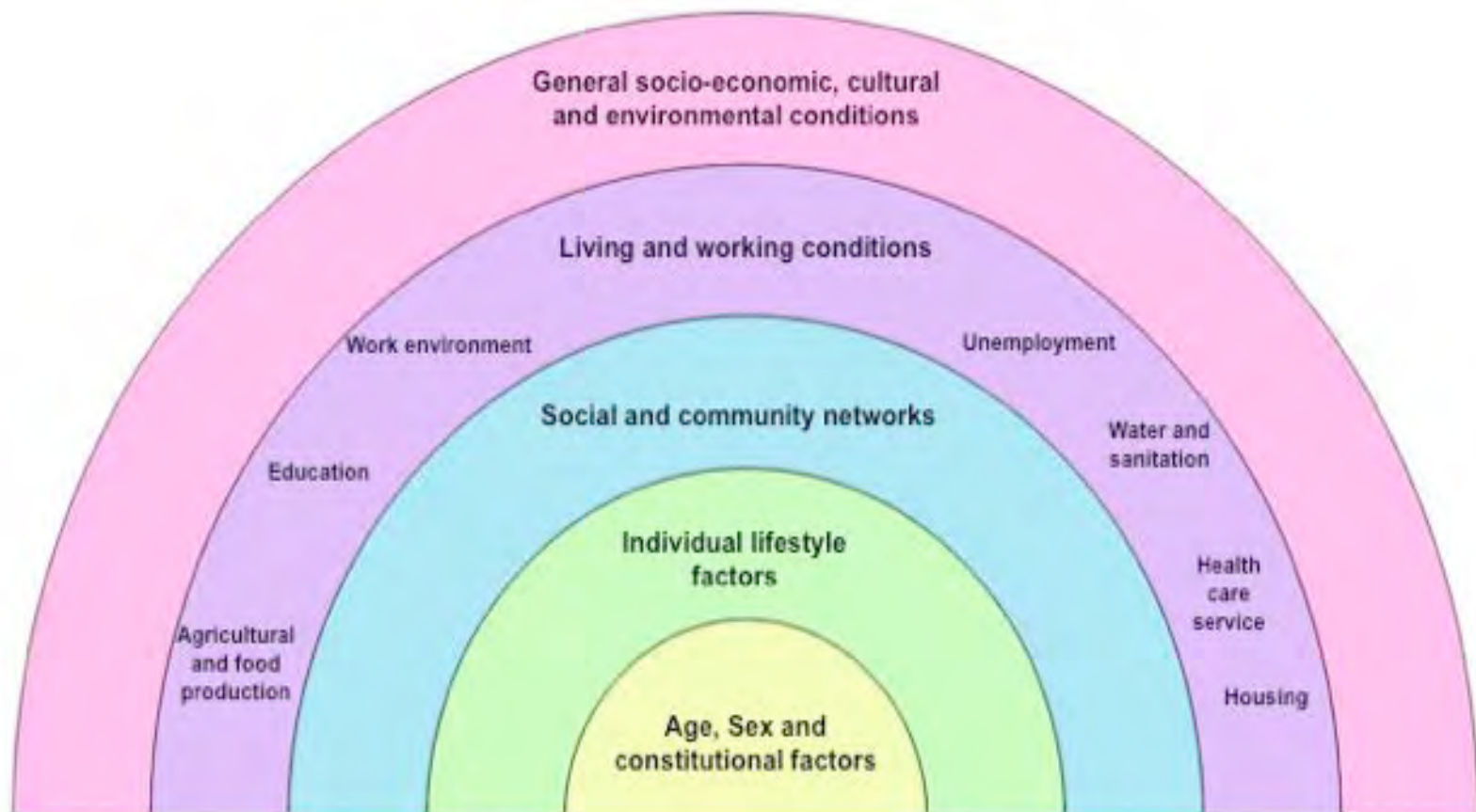
Social environment – social  
support, capital, networks

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**

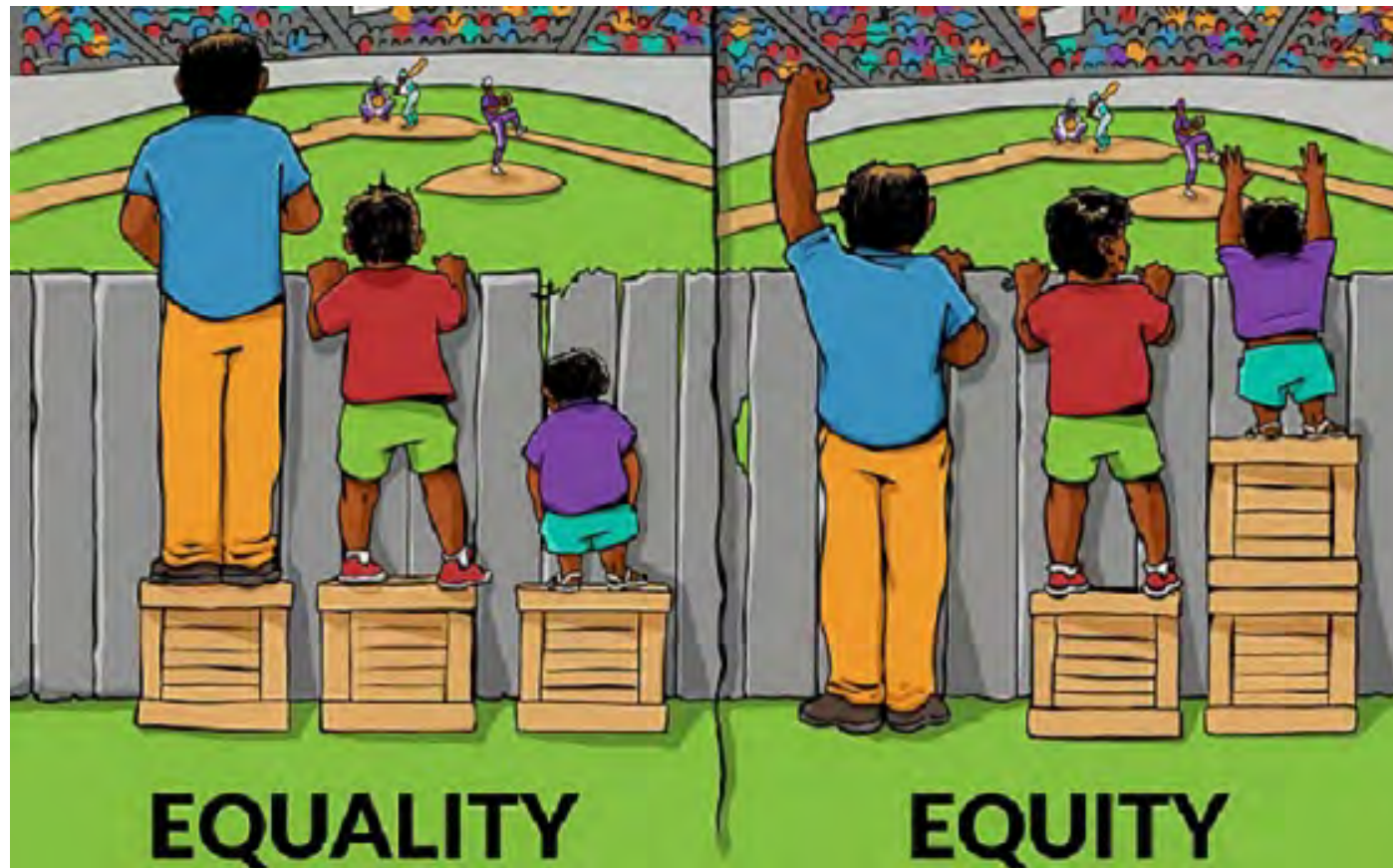
# Examples of social structures (socioeconomic, political and environmental changes) affecting health

- 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/>



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# Evidence of social inequalities in health

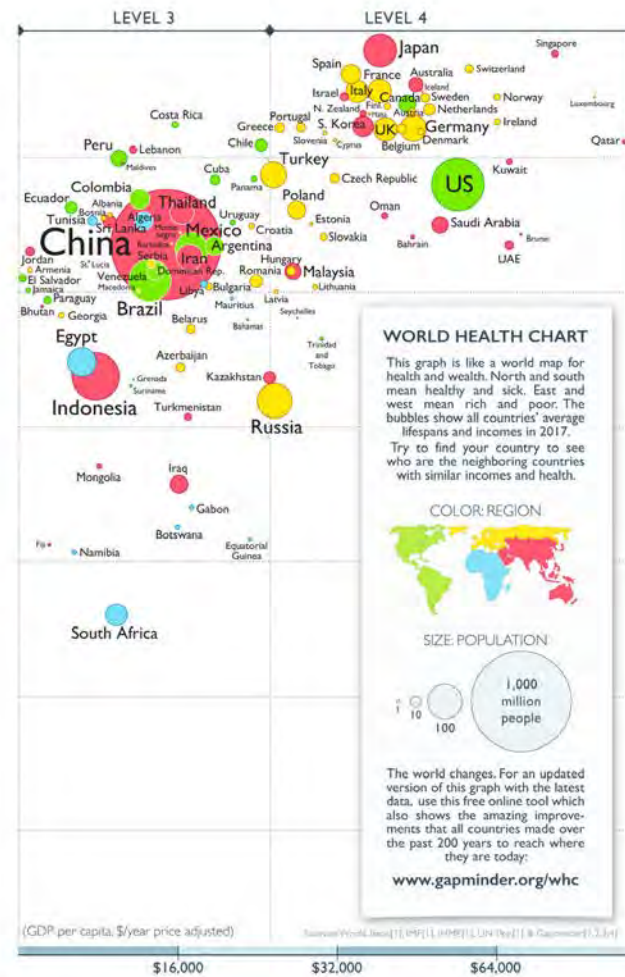
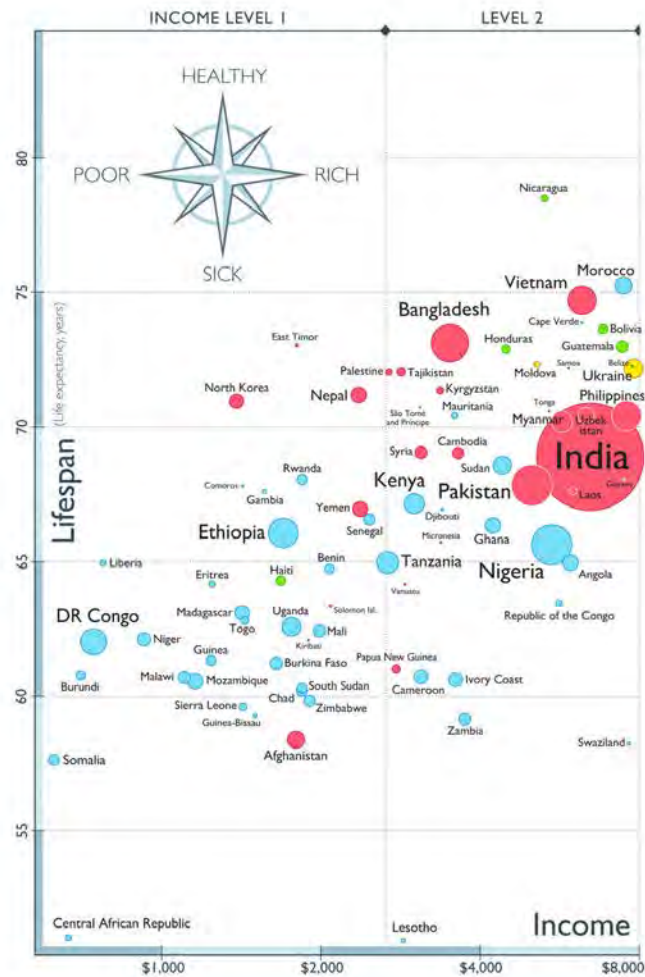
# Basic examples

- Poor access to nutritious food → more susceptible to disease, less likely to recover
- Poor living conditions (e.g., sanitation, overcrowding) → more susceptible to infections
- Poor life circumstances → more susceptible to low paying, high risk work
- Poor traffic laws → road traffic injuries





"This is the best investment made I've ever seen... an information guide to making choices about the world." — Bill Gates  
**FACTFULNESS**  
 Ten Reasons We're Wrong About the World—and Why Things Are Better Than You Think  
 Hans Rosling with Ole Rosling and Anna Rosling Rendall



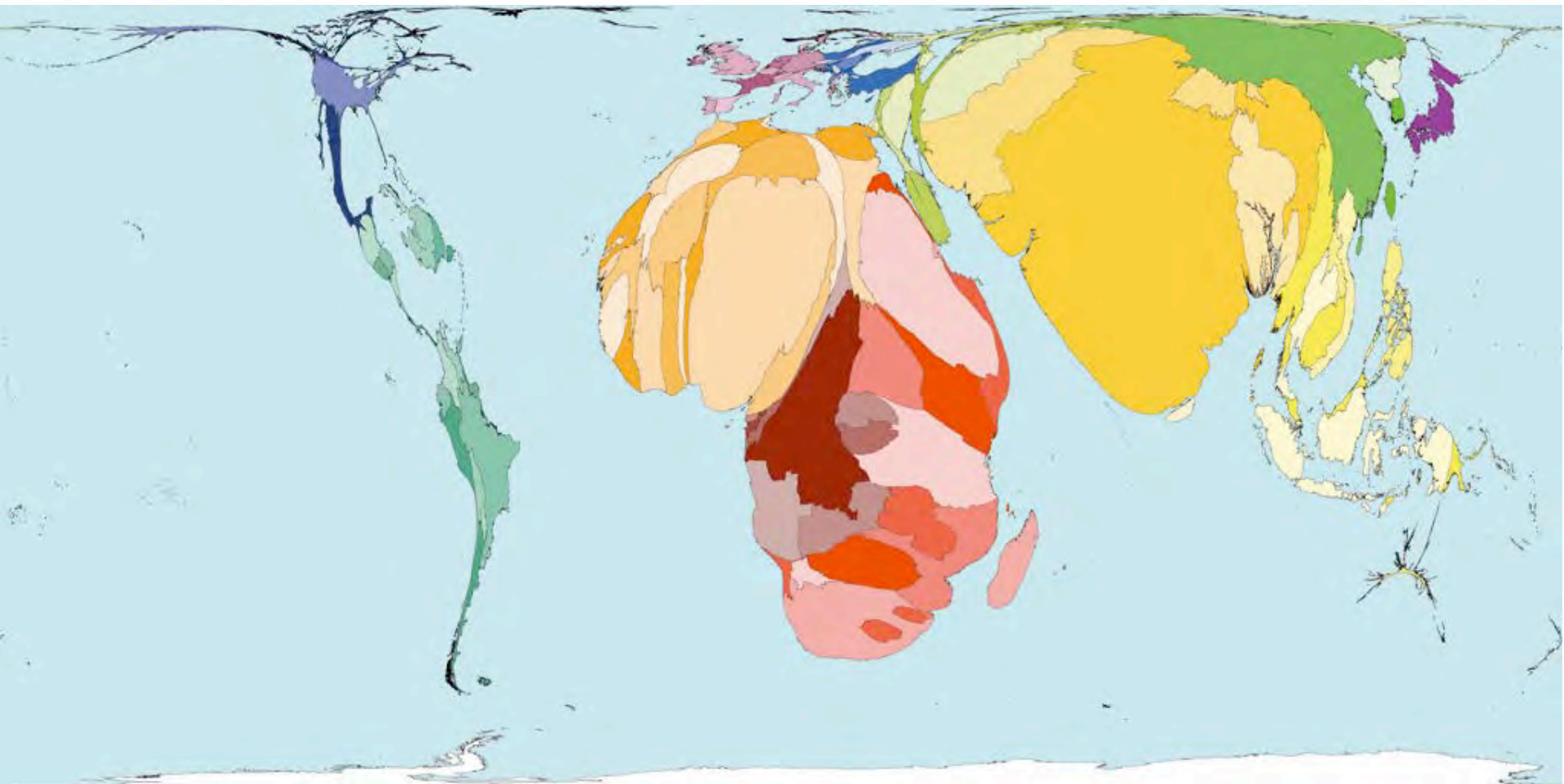
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# The world by land area

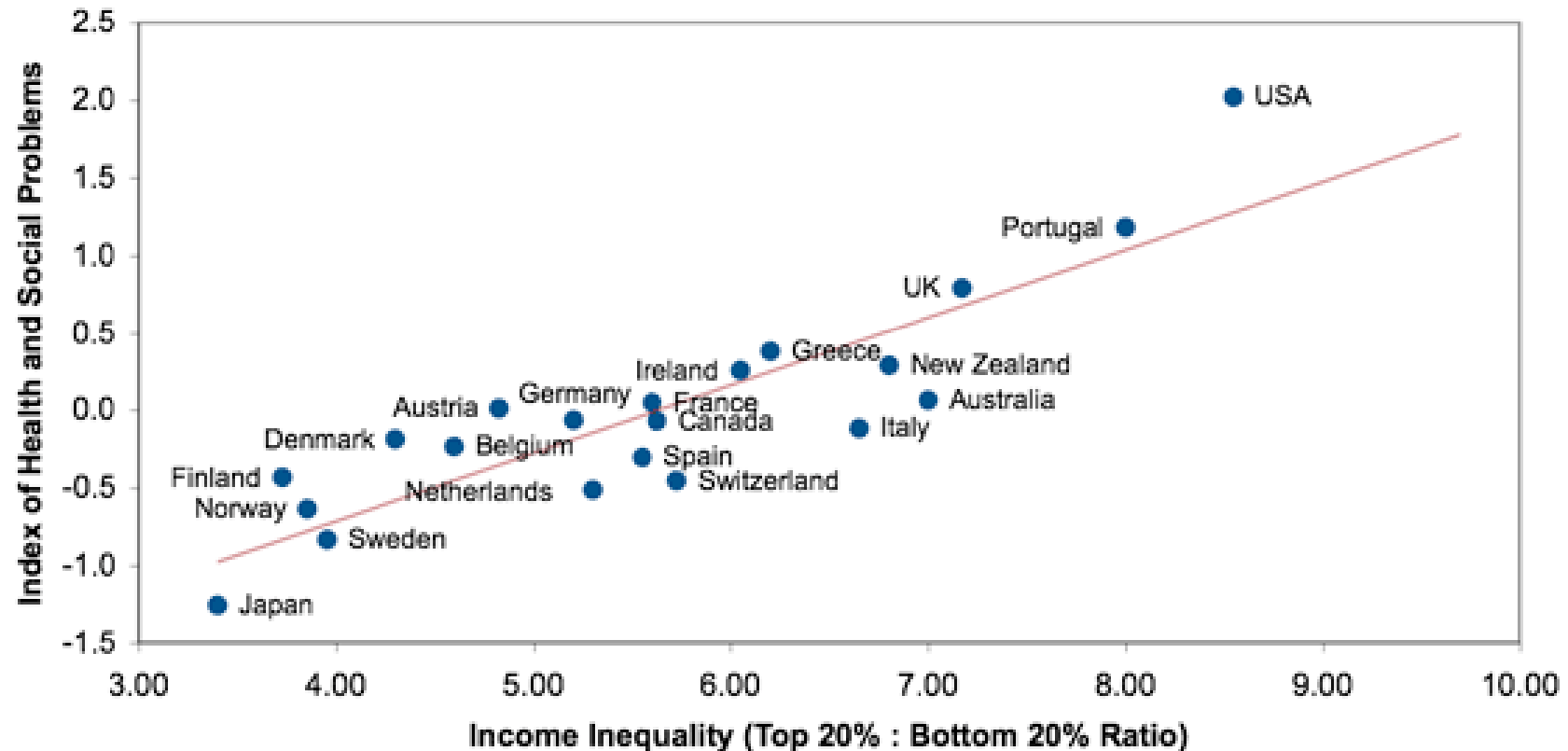
[www.worldmapper.org](http://www.worldmapper.org)

# The world by preventable death

[www.worldmapper.org](http://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<sup>1</sup>

**52%** of Inuit in Nunangat live in crowded homes<sup>\*1</sup>

**34%** of Inuit aged 25 to 64 in Inuit Nunangat have earned a high school diploma<sup>1</sup>

**70%** of Inuit households in Nunavut do not have enough to eat<sup>2</sup>

**30** The number of physicians per 100,000 population in Nunavut<sup>4</sup>

**47.5%** of Inuit in Inuit Nunangat are employed<sup>1</sup>

**72.4 years** The average life expectancy for residents in Inuit Nunangat<sup>15</sup>

**12.3** The infant mortality rate per 1000 for Inuit infants in Canada.<sup>6</sup>



### ALL CANADIANS

**\$92,011** The median individual income for non-Indigenous people in Inuit Nunangat<sup>1</sup>

**9%** of non-Indigenous people in Inuit Nunangat live in crowded homes<sup>\*1</sup>

**86%** of all Canadians aged 25 to 64 have earned a high-school diploma<sup>1</sup>

**8%** of all Canadian households do not have enough to eat<sup>3</sup>

**119** The mean number of physicians per 100,000 population in Urban Health Authorities<sup>4</sup>

**60.2%** of all Canadians are employed<sup>1</sup>

**82.9 years** The average life expectancy for all Canadians<sup>5</sup>

**4.4** The non-Indigenous infant mortality rate per 1000 for Canada.<sup>6</sup>

<sup>1</sup> Should not be compared with crowding data for previous years. Based on the suitability definition (whether the dwelling has enough bedrooms for the size and composition of the household). The previous figure was based on the number of persons per room criterion.

<sup>2</sup> Should not be compared with previous life expectancy data. The figure is a national 2017 projection of life expectancy for Inuit. Previous figures were for 2004-2006 for all residents of Inuit Nunangat, including non-Inuit.

<sup>3</sup> Statistics Canada, 2016 Census, crowded homes: 98-400-X2016163; high school diploma: 98-400-X2016265; income: unpublished custom table provided to ITC; employment: 98-400-X20162900.

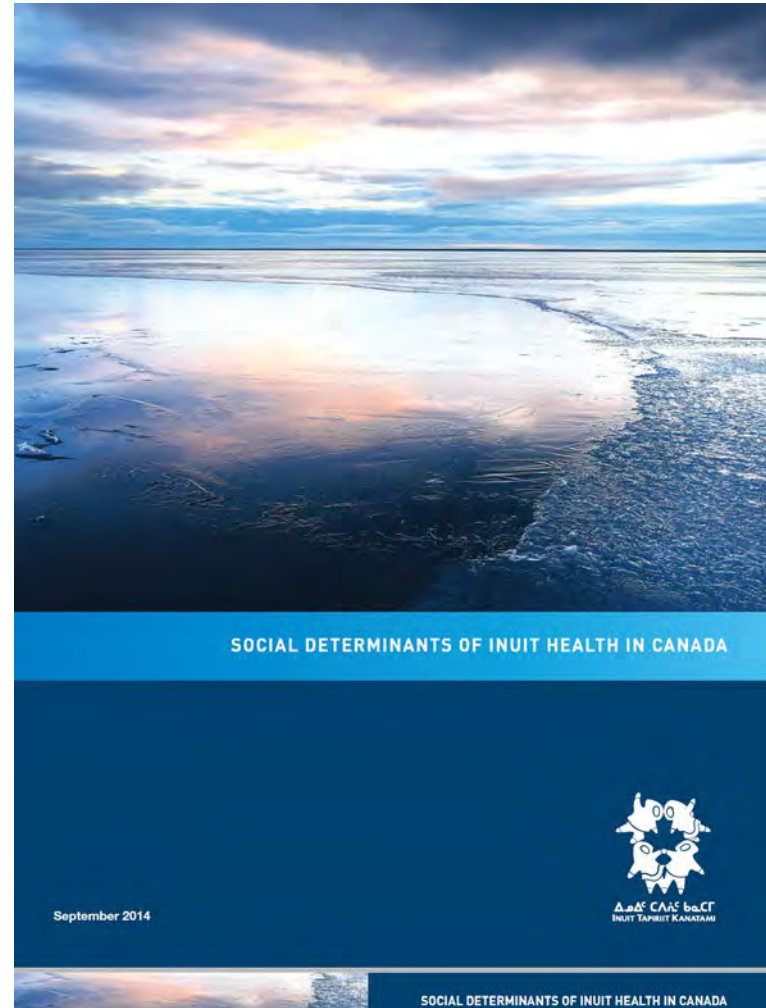
<sup>4</sup> Grace M. England, Inuit Health Survey 2007-2008, Nunavut (St-Armande-Bellefleur, QC: Centre for Indigenous Peoples, Nutrition and Environment, May 2010), 12.

<sup>5</sup> Shrim Roshanathar and Emma Hawke, Health at a Glance: Food Insecurity in Canada (Ottawa, ON: Statistics Canada, March 25, 2015).

<sup>6</sup> Canadian Institute for Health Information, Supply, Distribution and Migration of Physicians in Canada, 2014 (Ottawa, ON: Canadian Institute for Health Information, September 2015).

<sup>7</sup> Custom table based on Statistics Canada's Projections of the Aboriginal Population and Households in Canada, 2011 to 2039.

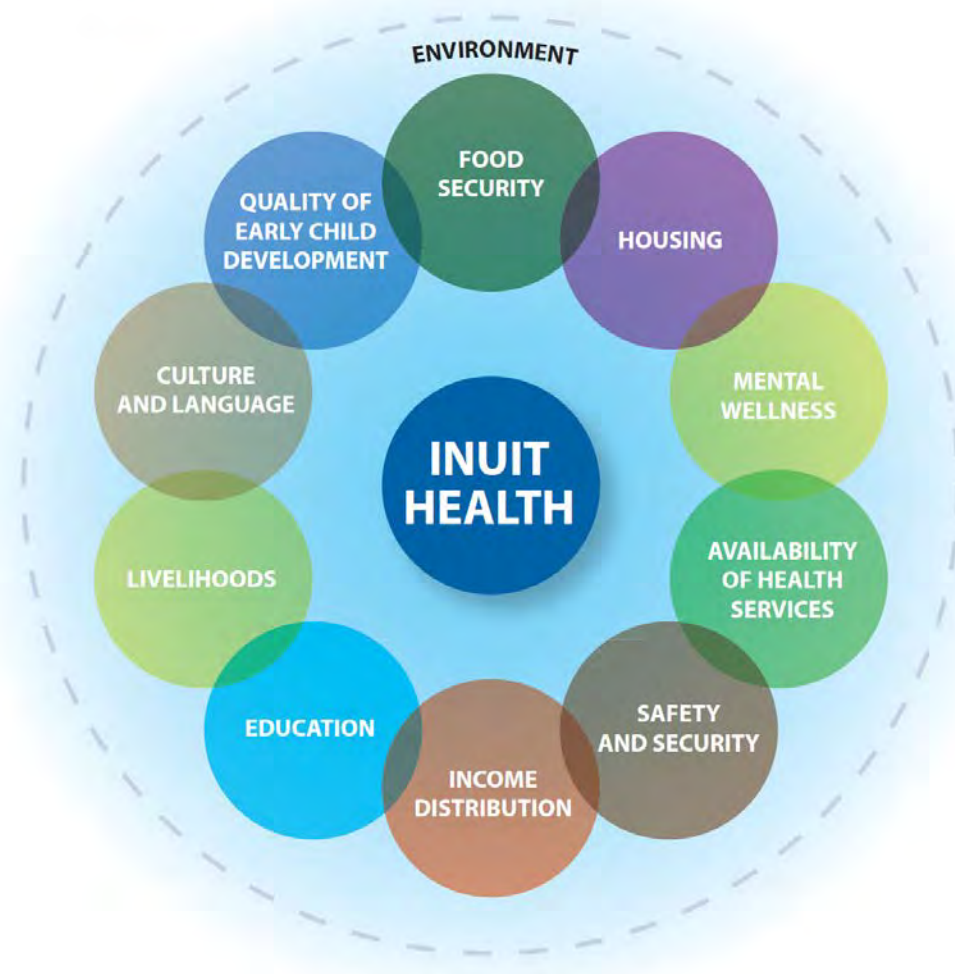
<sup>8</sup> Sheppard et al 2017, "Birth outcomes among First Nations, Inuit and Métis populations," Health Reports Vol. 28, No. 11.



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

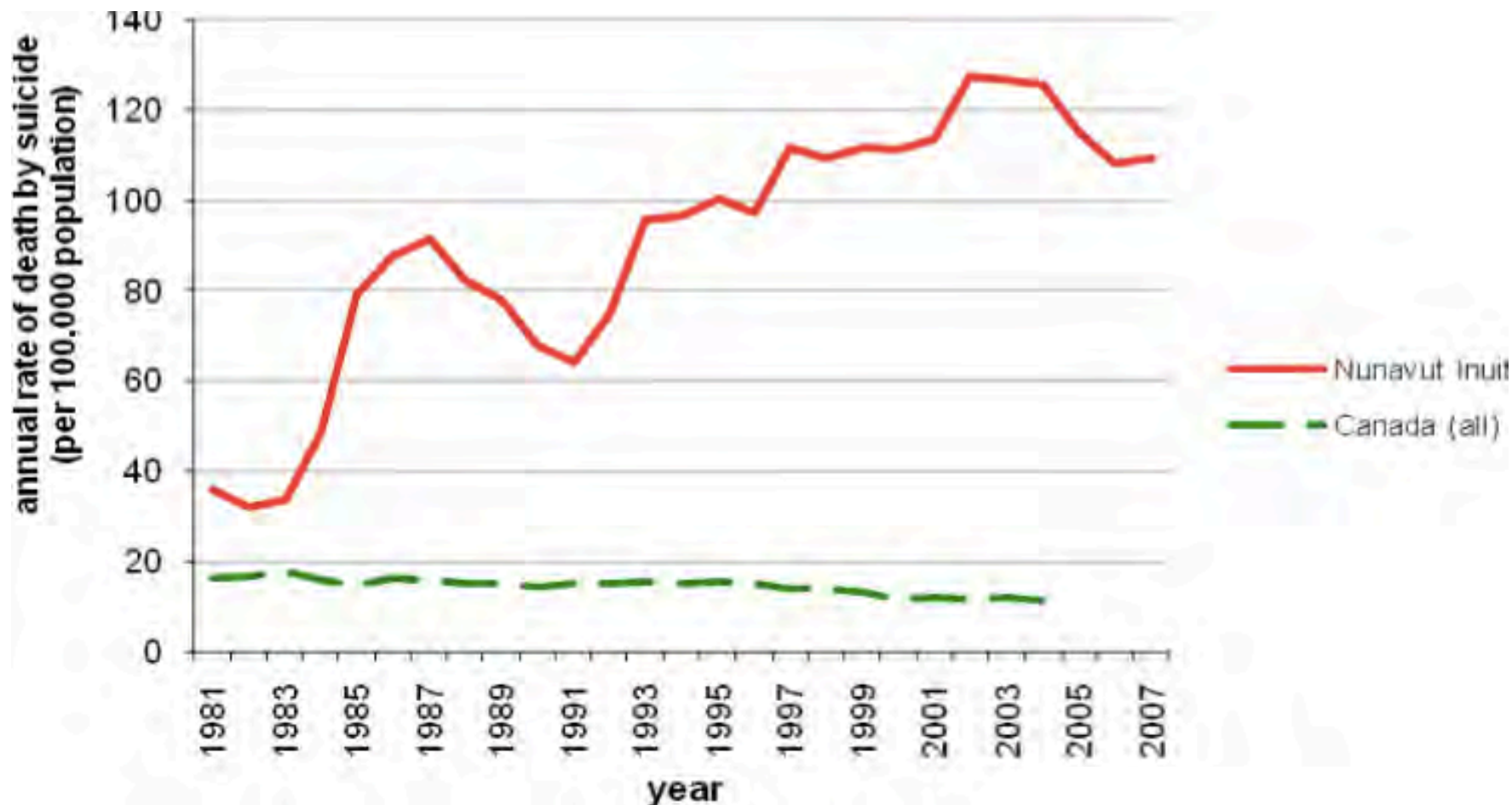
[https://www.itk.ca/wp-content/uploads/2016/07/ITK\\_Social\\_Determinants\\_Report.pdf](https://www.itk.ca/wp-content/uploads/2016/07/ITK_Social_Determinants_Report.pdf)

### Social Determinants of Inuit Health





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

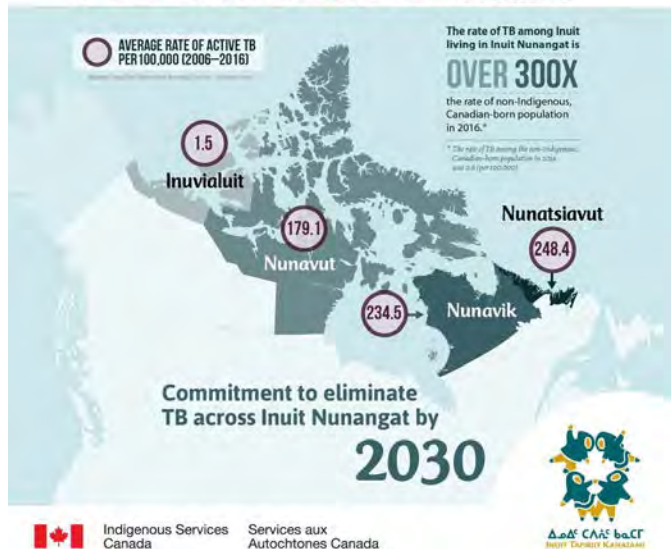


Courtesy of Hicks J, Romain S UTSC 2016

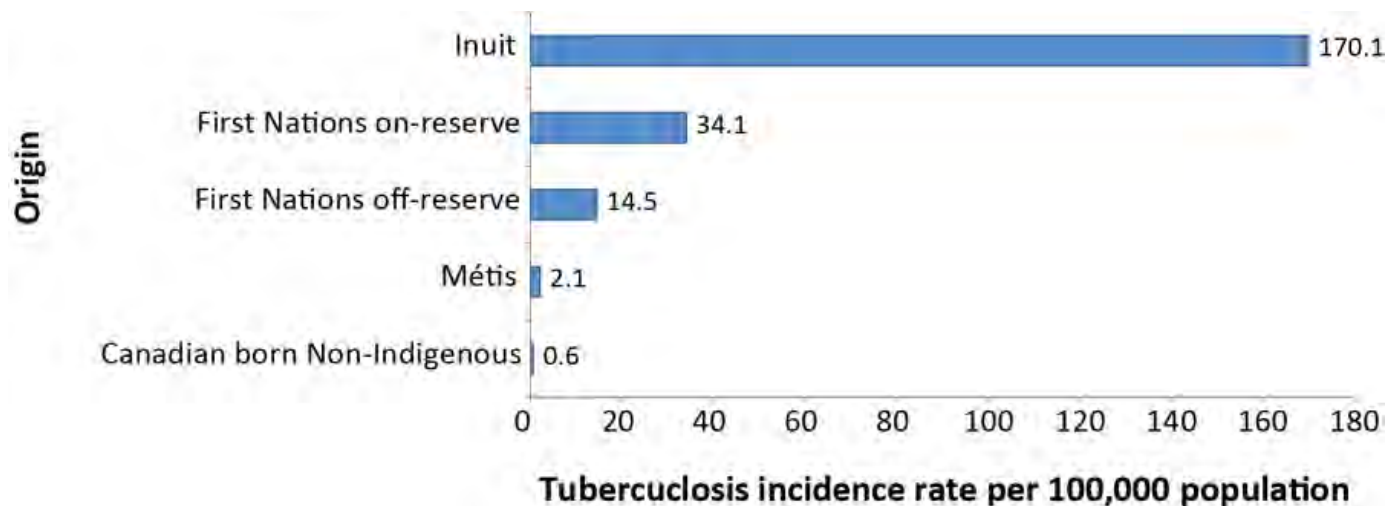


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# TUBERCULOSIS IN INUIT NUNANGAT



## TB incidence rates in Canada





Journal of Epidemiology and Global Health  
**In Press, Corrected Proof**  
 DOI: <https://doi.org/10.2991/jegh.k.190314.002>; ISSN 2210-6006  
<https://www.atlantis-press.com/journals/jegh>



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

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## ARTICLE INFO

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 tuberculosis

## 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 MENZIES AND MARCEL BEHR APR 29, 2019

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



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<https://www.hilltimes.com/2019/04/29/ending-tb-among-canadas-indigenous-peoples-treat-the-fundamental-causes-not-just-the-disease/197630>



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# 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

## **Truth and Reconciliation Commission of Canada: Calls to Action**



[http://trc.ca/assets/pdf/Calls\\_to\\_Action\\_English2.pdf](http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf)



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## 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 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

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**Serena Williams**

## 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

**Guardian sport**  
Tue 20 Feb 2018 20:15 GMT

f t e 151



**CNN health** Food Fitness Wellness Parenting Vital Signs LIVE TV Edition ▾

## 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



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- Kevin Hart suffers major back injuries in car crash

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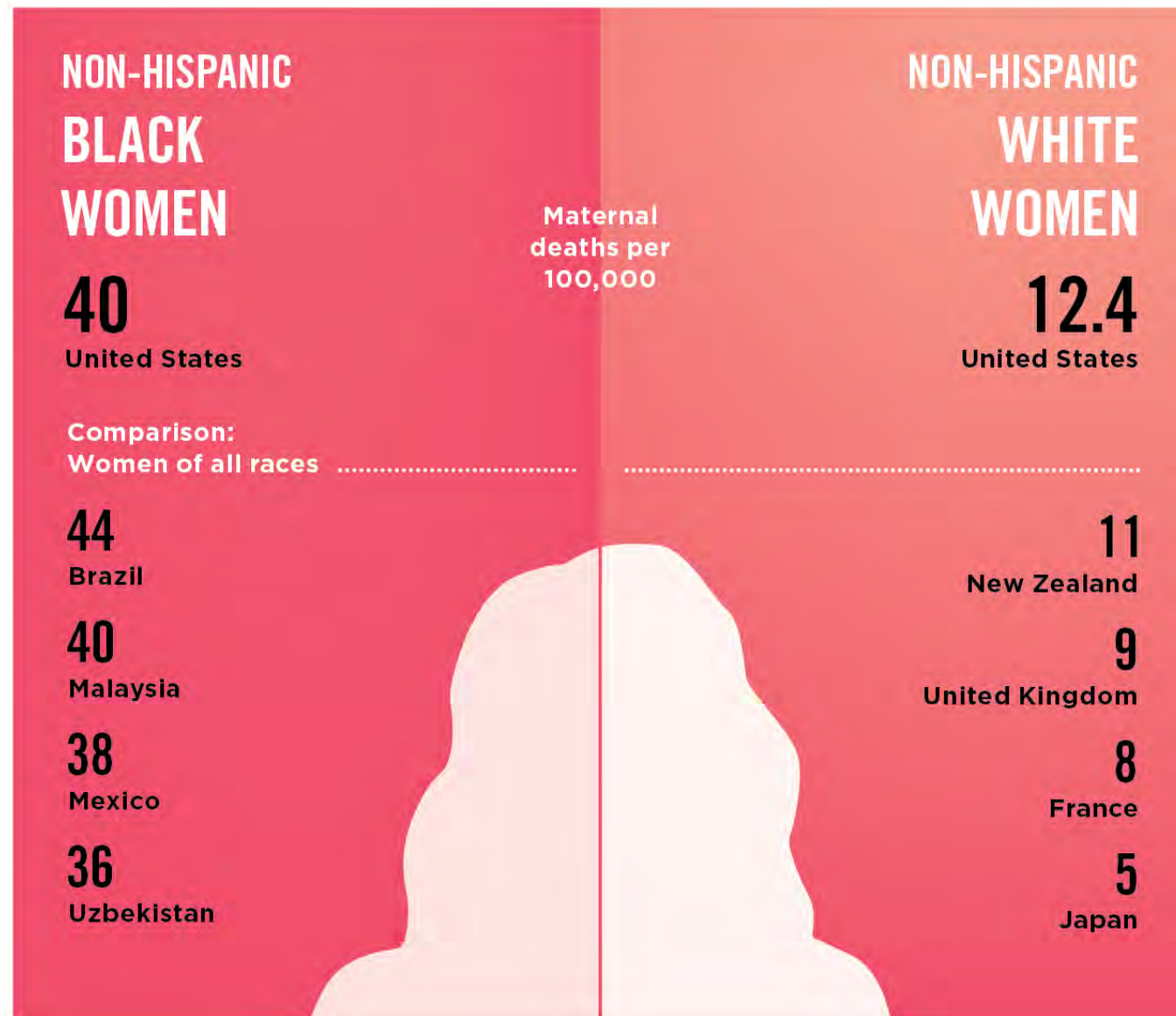
PHOTO: CORBIS OUTLINE

Photos: American Vogue reveals September cover starring Beyoncé  
September's Vogue cover was shot by photographer Tyler Mitchell.



# 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.



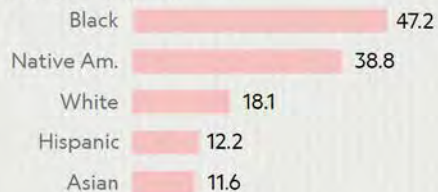
Sources: U.S. ratios (2011-2013): CDC Pregnancy Mortality Surveillance System; Global ratios (2015): UNICEF

### WHICH AMERICAN WOMEN ARE DYING

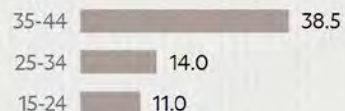
Black women are 2.6 times as likely to die due to a pregnancy-related cause as white women. Older women also face greater risk.

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

#### RACE/ETHNICITY



#### AGE



### 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



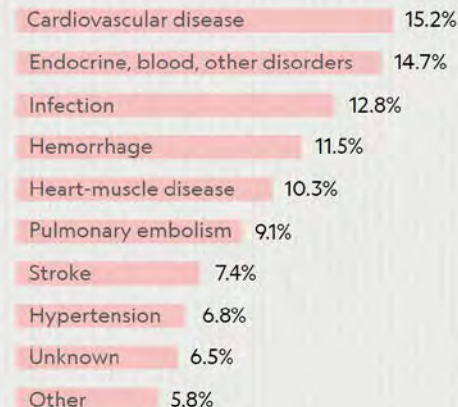
**18%**

Six weeks to one year after

### HOW THEY'RE DYING

Heart-related problems are a leading cause of maternal death; heart attack risk increases with obesity and age.

2011-2014



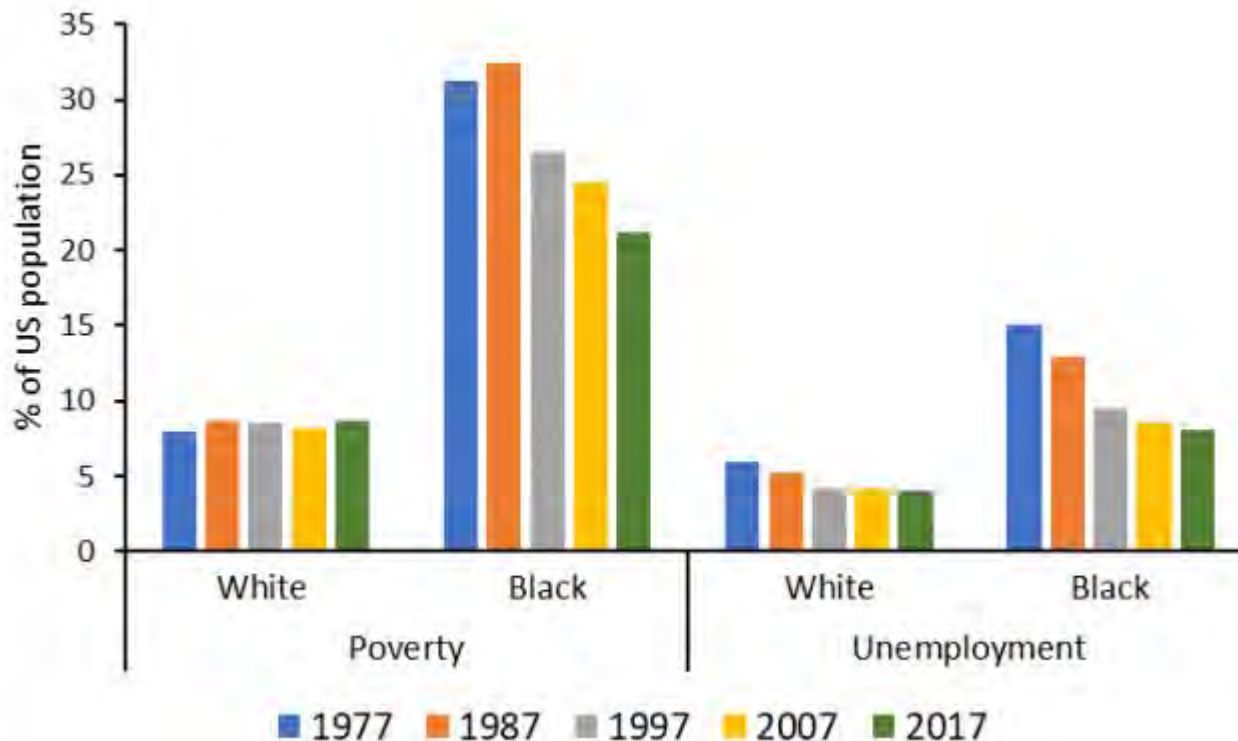
### ACCESS TO PRENATAL CARE

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



# Percentage of the US population in poverty or unemployed







“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.”



## Why doesn't the United States have universal health care? The answer has everything to do with race.

By Jeneen Interlandi

AUG. 14, 2019

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,” Evelyn 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.

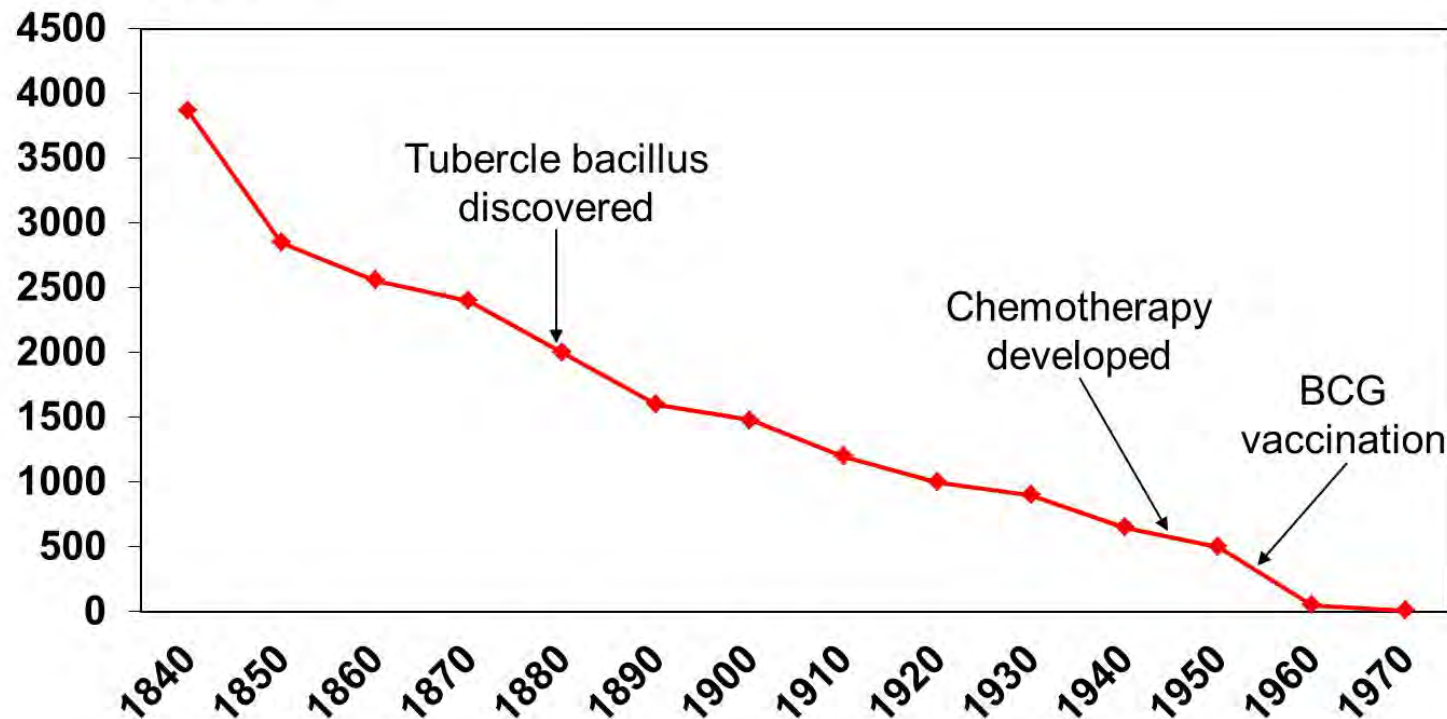
Developing a global agenda to  
tackle the SDoH



# McKeown Thesis

## Declines in TB: social > medical progress

Annual TB deaths  
per million population



# 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.

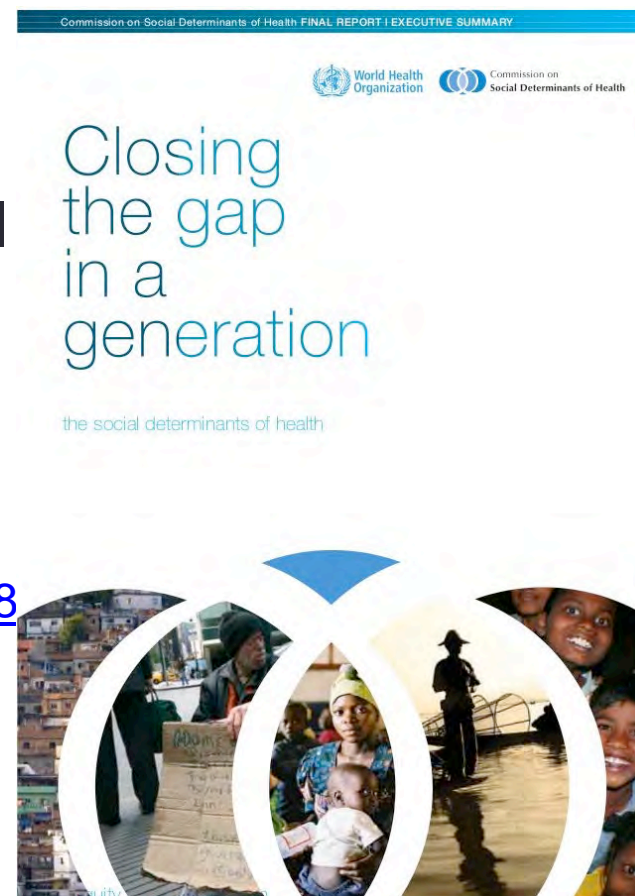


# WHO Commission on the SDoH

- 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](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!

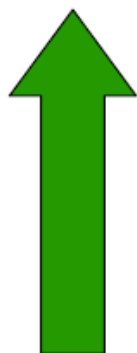
Can we close the gap?

# Progress can be achieved in short periods

## In 7 years

LIFE  
EXPECTANCY

56 yrs

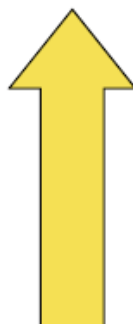


48 yrs

Sri Lanka  
1946 - 1953

ACCESS TO  
POTABLE  
WATER

15m



7m

South Africa  
1994 - 2001

## In 9 years

POVERTY

33%



18%

China  
1990 - 1999

## In 15 years

PRIMARY SCHOOL  
ENROLMENT

89%



46%

Botswana  
1970 - 1985

# 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?