

Surveillance Advances

Advancing public health surveillance's role in tackling health inequalities

October 31, 2023

12:00 – 1:00pm (CT) / 1:00 – 2:00pm (ET)

Speaker

Dr. Arjumand Siddiqi

Professor and Division Head of Epidemiology
Dalla Lana School of Public Health, University of Toronto and Edwin S.H. Leong Centre for Healthy Children, Hospital for Sick Children



National Collaborating Centre
for Infectious Diseases

Centre de collaboration nationale
des maladies infectieuses



Public Health
Agency of Canada

Agence de la santé
publique du Canada

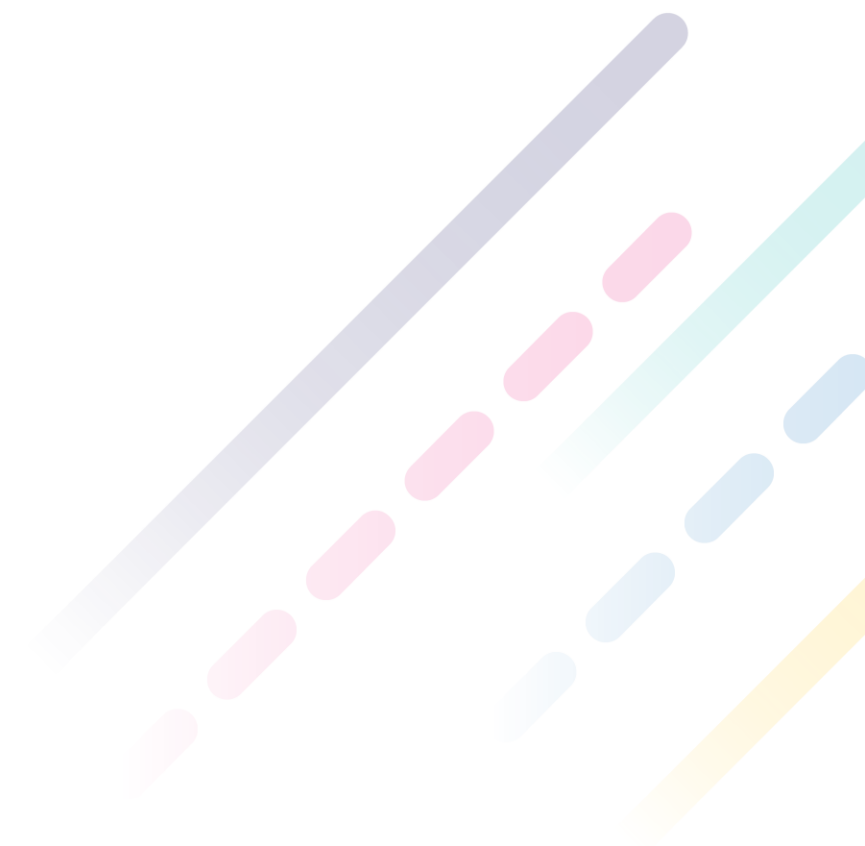


Land Acknowledgment: NCCID



The National Collaborating Centre for Infectious Diseases is hosted by the University of Manitoba, on the original lands of Anishinaabe, Cree, Oji-Cree, Dakota and Dene peoples, and on the homeland of the Métis Nation.

At NCCID, we strive to honor the lands and their original caretakers in our work. We acknowledge that we are on Treaty One land. We recognize that this and other treaties, have been implemented as part of the process of colonization intended to benefit some while harming others. We are committed to working with our partners towards reconciliation.



Housekeeping



- Seminar recording and presentation slides will be available shortly after the seminar at the NCCID website: <https://nccid.ca/>
- If you have technical problems with Zoom, please email us at nccid@umanitoba.ca
- The chat box for participants has been disabled for this session. We will use the chat box to share additional information.
- Please use the Q&A tab to submit your questions for our speakers
- You can “like” other people’s questions to push them up in priority



Accreditation



Surveillance Advances is a self-approved group learning activity (Section 1) as defined by the Maintenance of Certification Program of the **Royal College of Physicians and Surgeons of Canada**.

The seminar series is also approved by the Council of Professional Experience for professional development hours for members of the **Canadian Institute of Public Health Inspectors**.

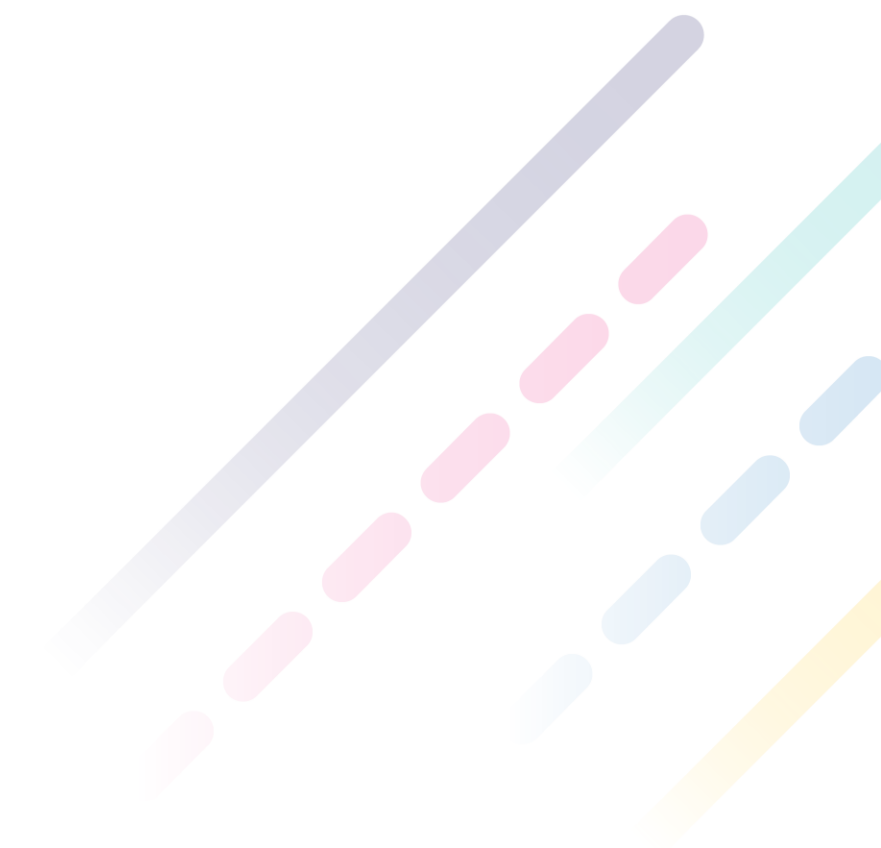
If you would like a letter of participation, please complete the survey which will be shared after the seminar.



Land Acknowledgment: PHAC



I would like to take this time to acknowledge the land where I live and work, located on Treaty 1 territory, the traditional lands of the Anishinaabee, Cree, Oji-Cree, Dakota, and Dene peoples, and on the homeland of the Metis Nation. We honor the Indigenous people who have lived on and cared for these lands for generations, and I am grateful for the opportunity to share and call this place home.



Today's speaker

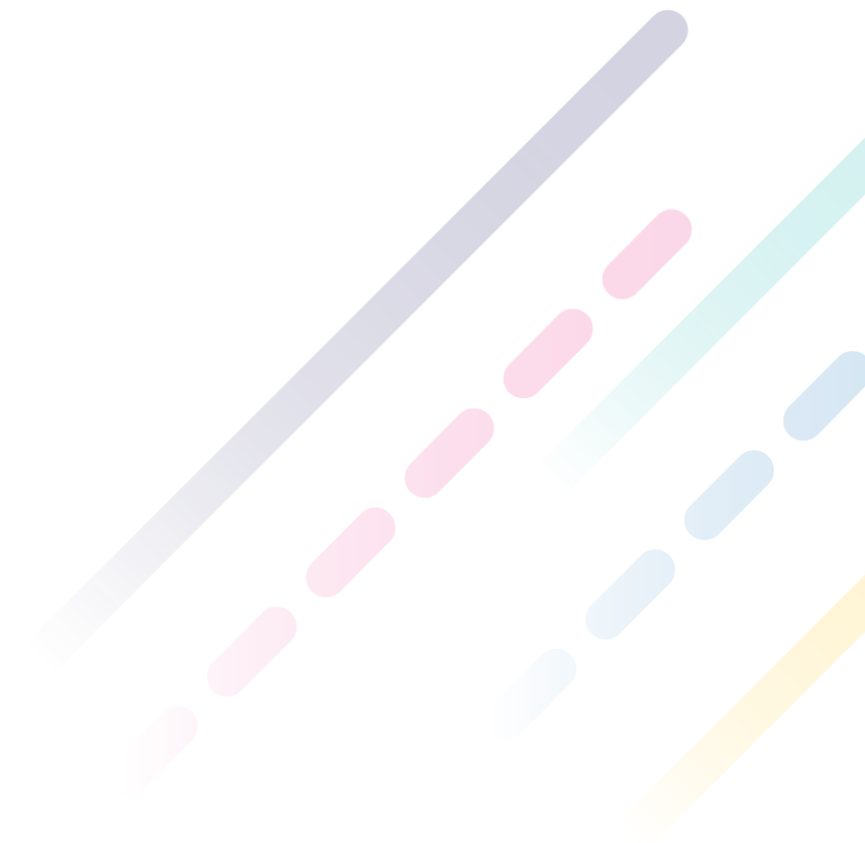


Dr. Arjumand Siddiqi Sc.D.

Professor and Division Head of Epidemiology
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Dalla Lana School of Public Health, University of Toronto

Edwin S.H. Leong Chair in Child Policy Research
Hospital for Sick Children, Toronto, Canada

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Learning Objectives



By the end of this seminar, you will be able to:

- Describe the relationships between public health surveillance, health inequalities, and population health
- Understand Canadian and international examples that demonstrate how the monitoring and assessment of health inequalities informs public health action
- Understand contemporary trends in health inequalities, their likely causes, and how they drive the future of public health surveillance



Health inequality surveillance: Some key insights



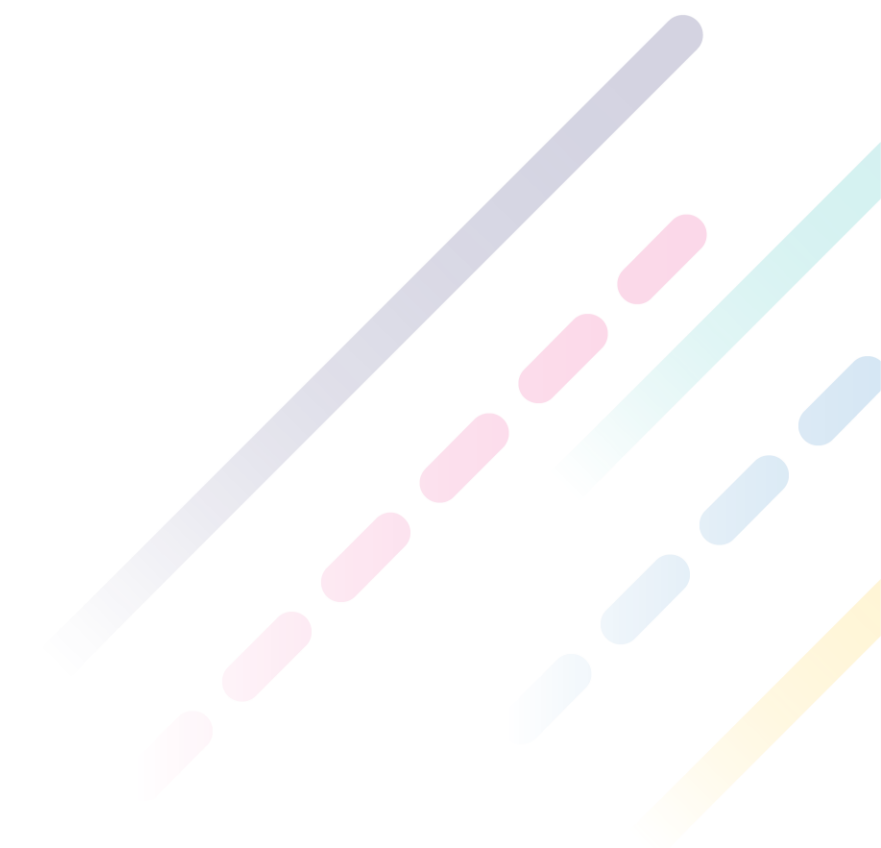
Dr. Arjumand Siddiqi Sc.D.

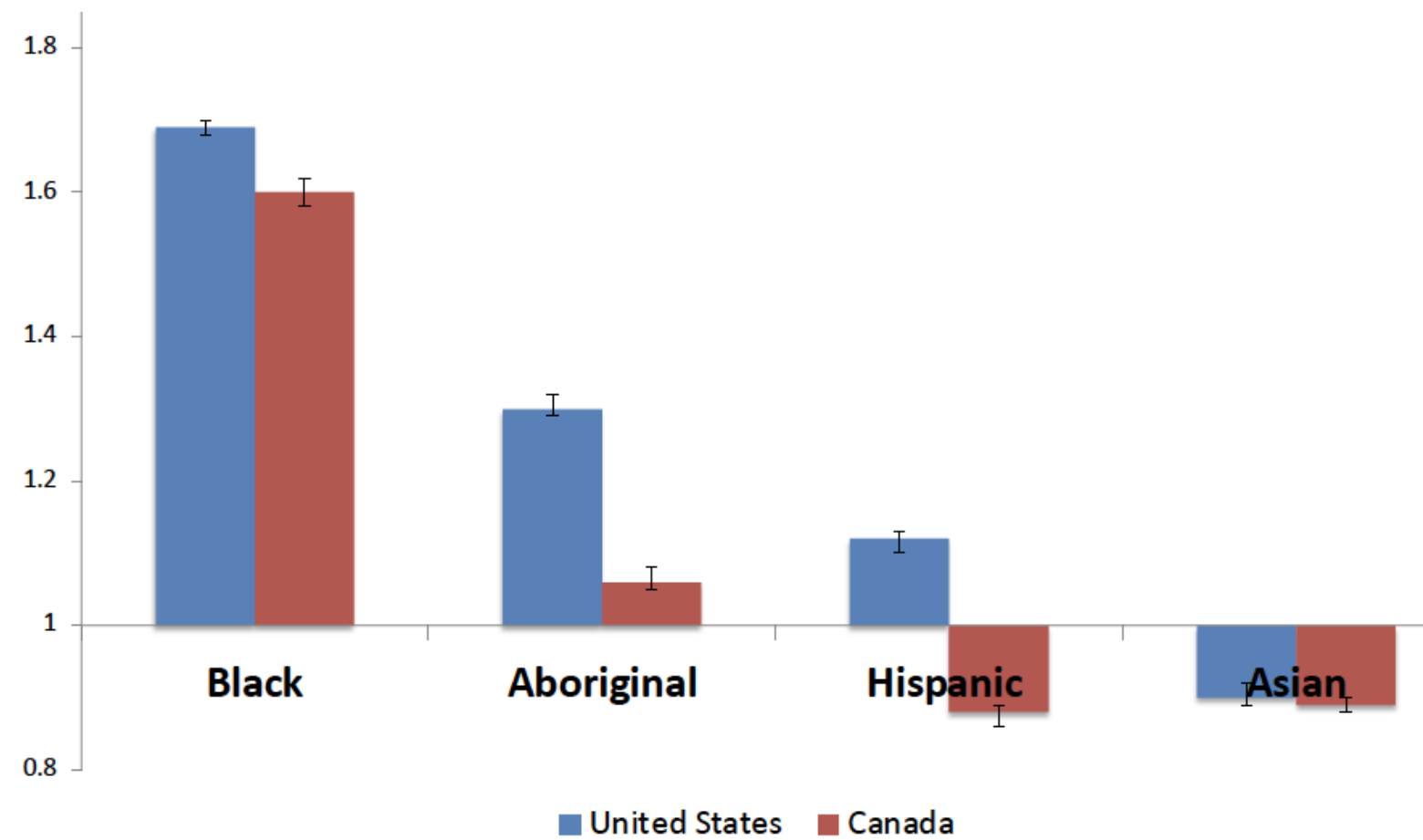
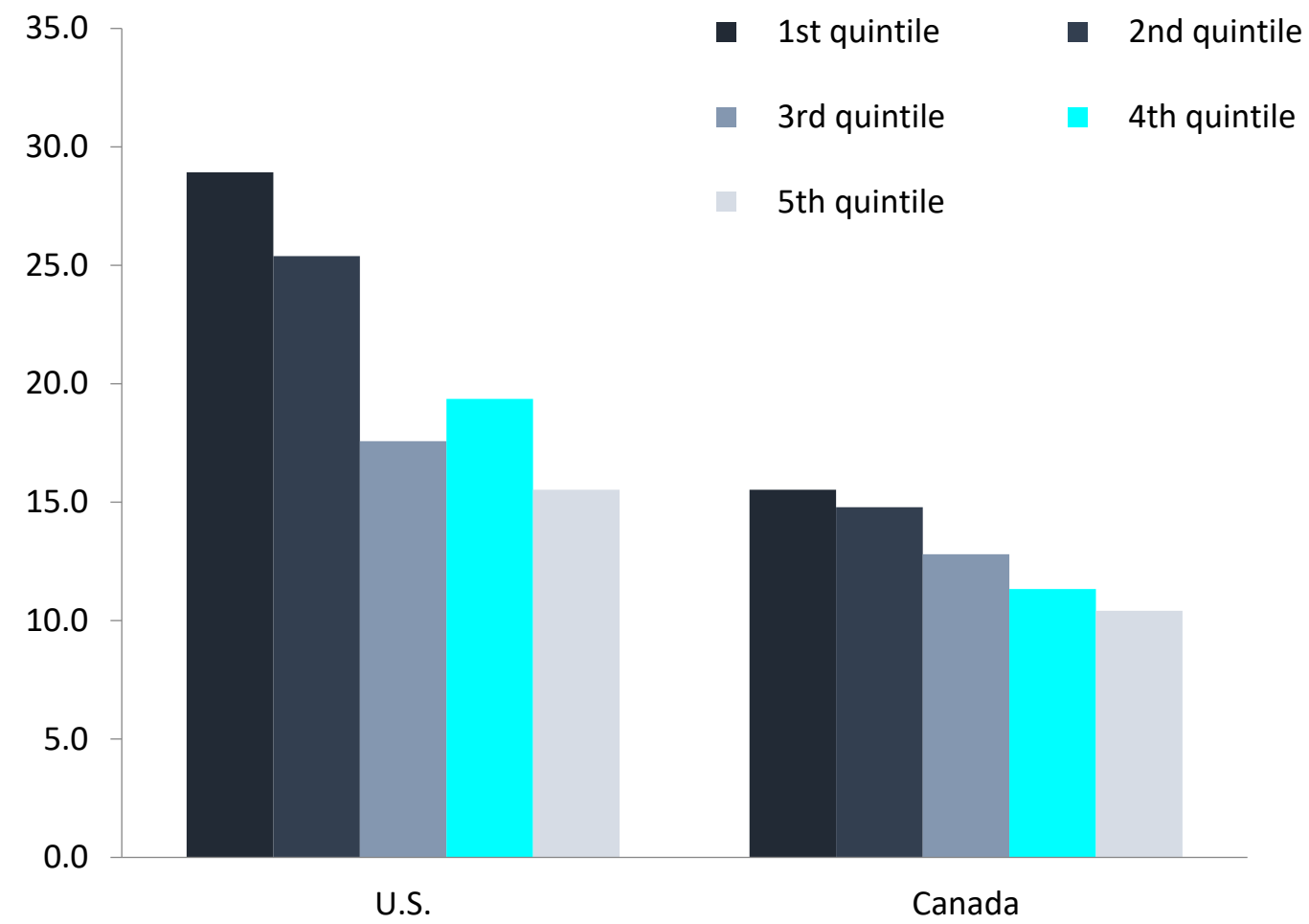
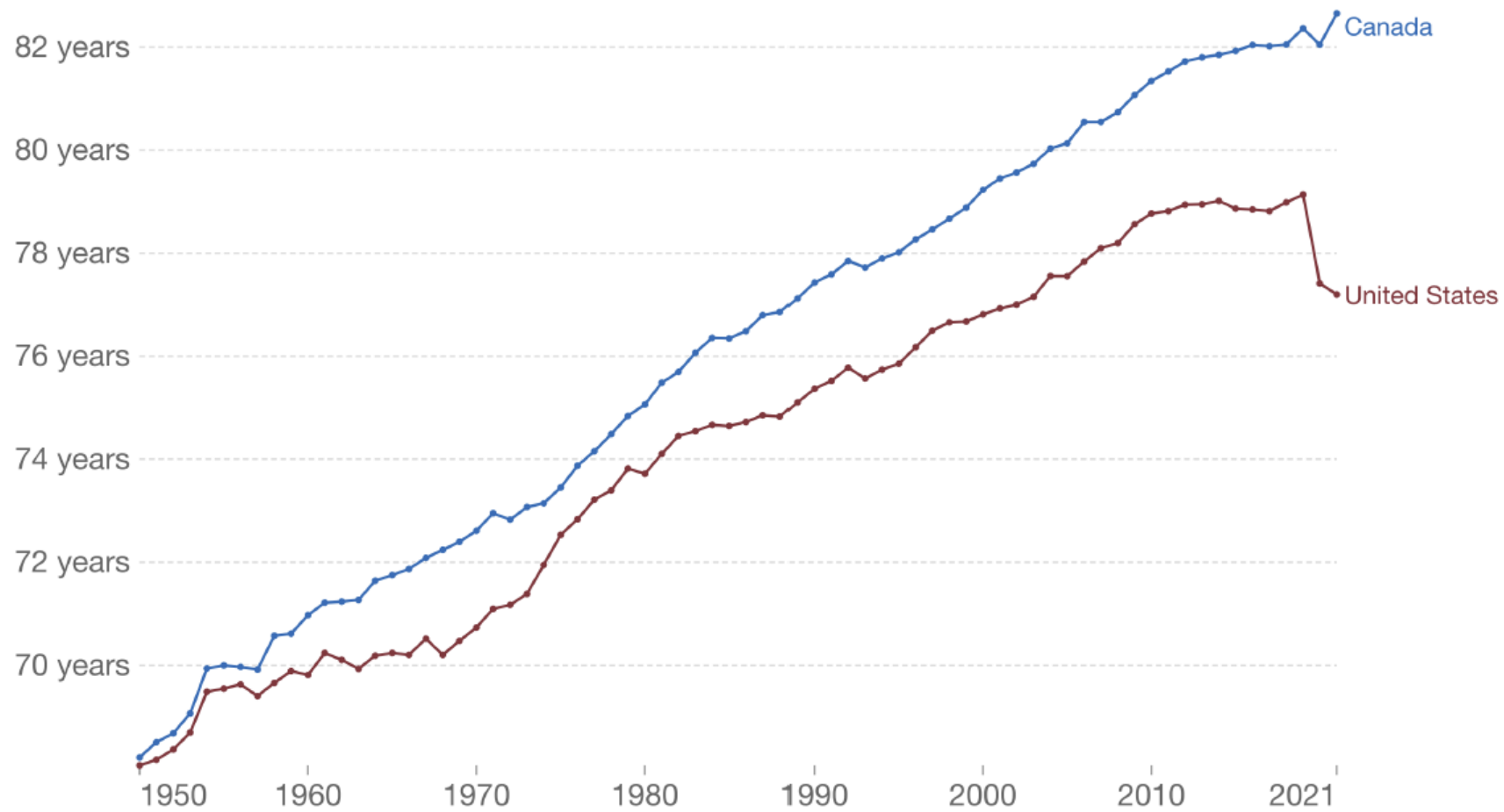
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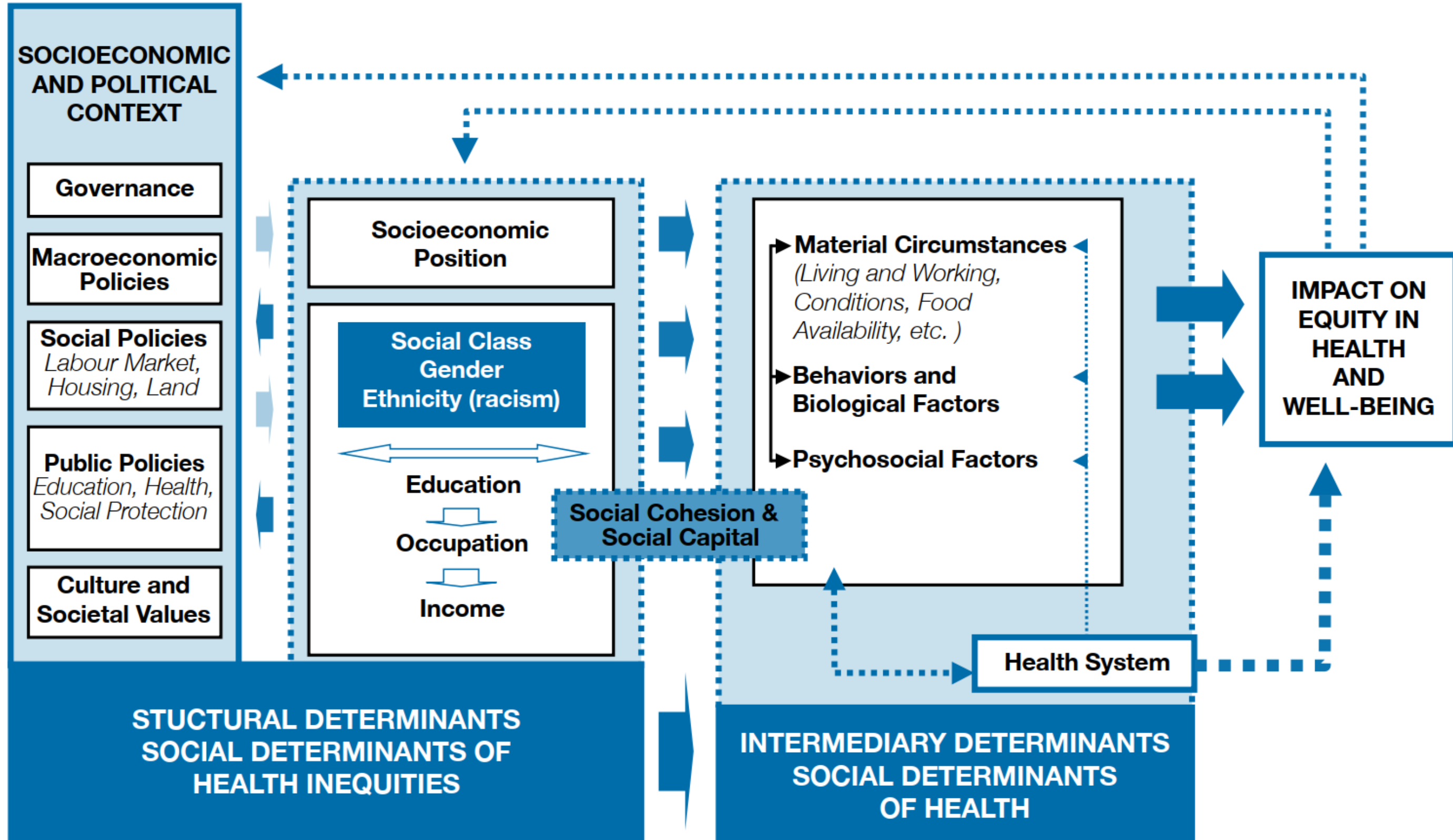


**Population health and
health inequalities are one
in the same**

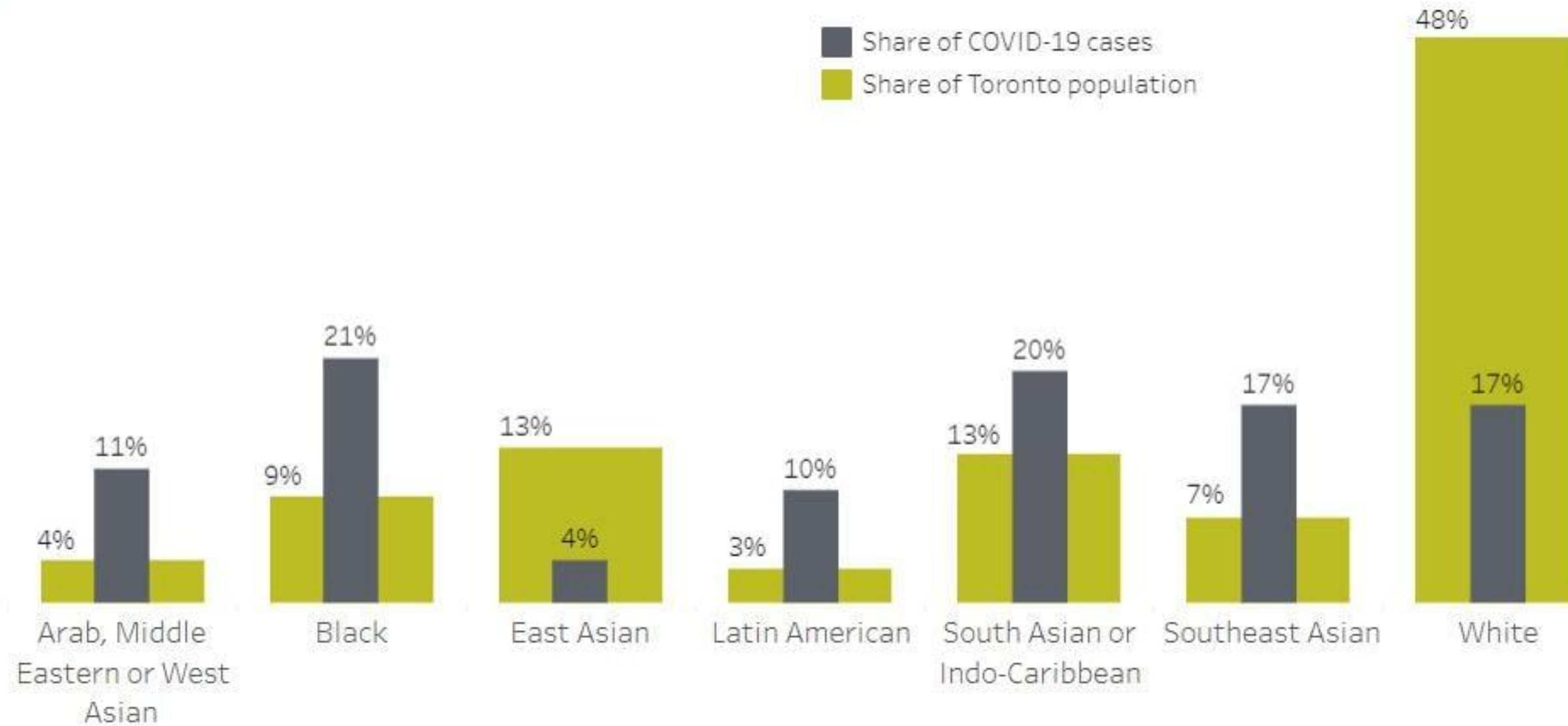




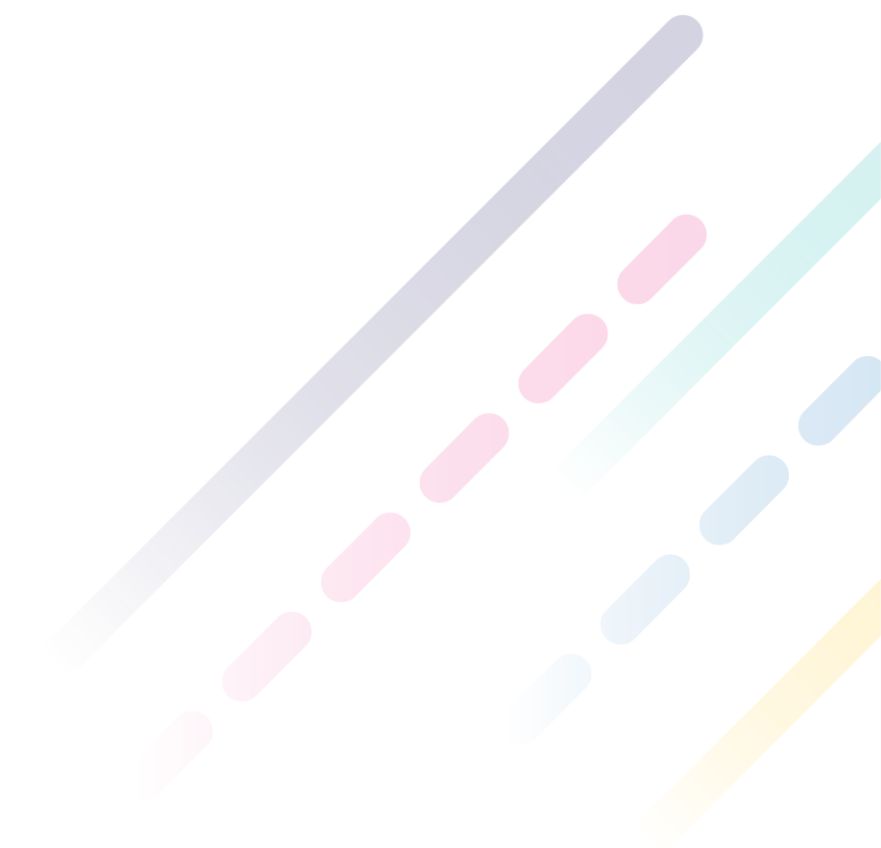
Above: Siddiqi et al., 2013
 Top-right: Siddiqi et al., 2015
 Bottom-right: Ramraj et al., 2016

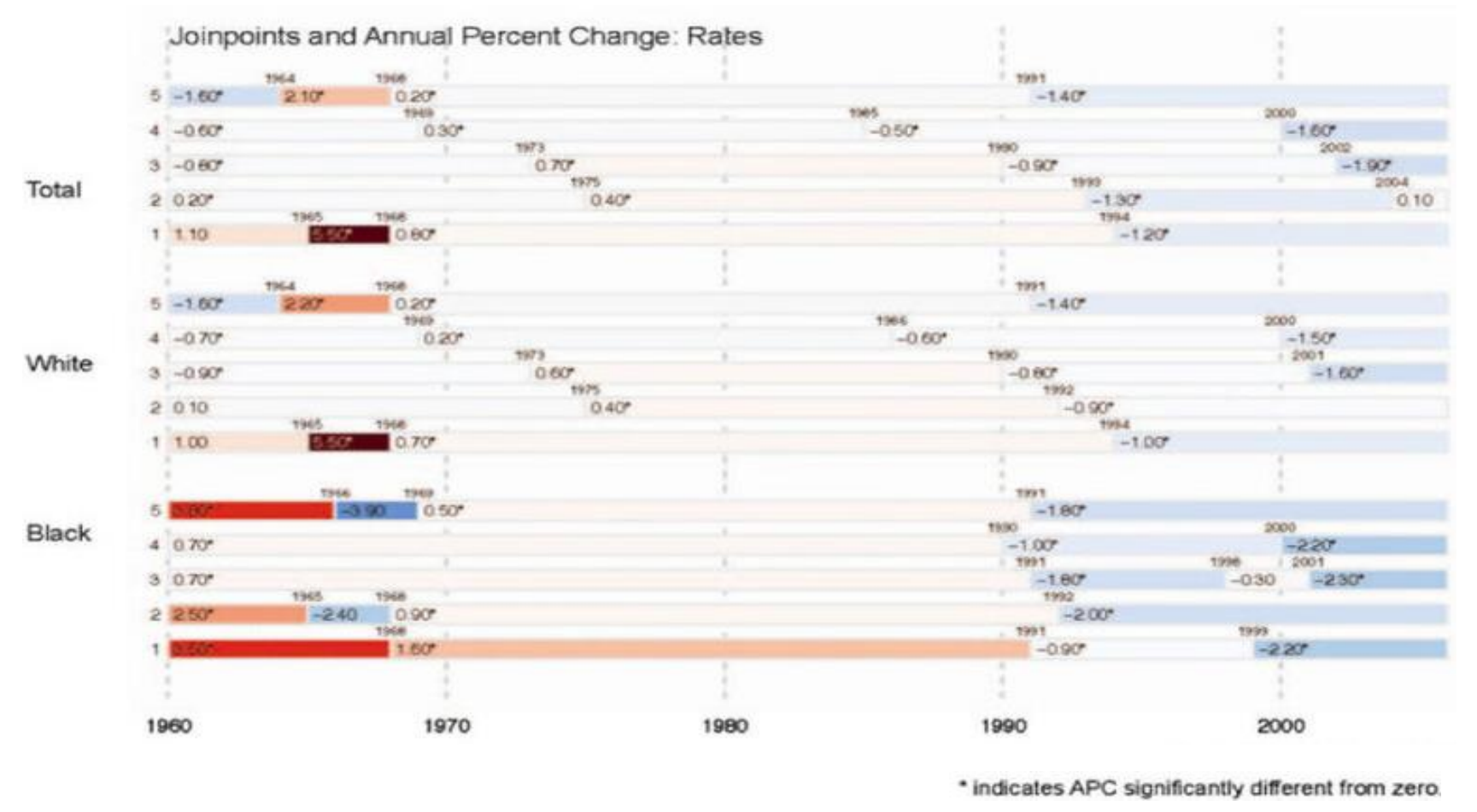
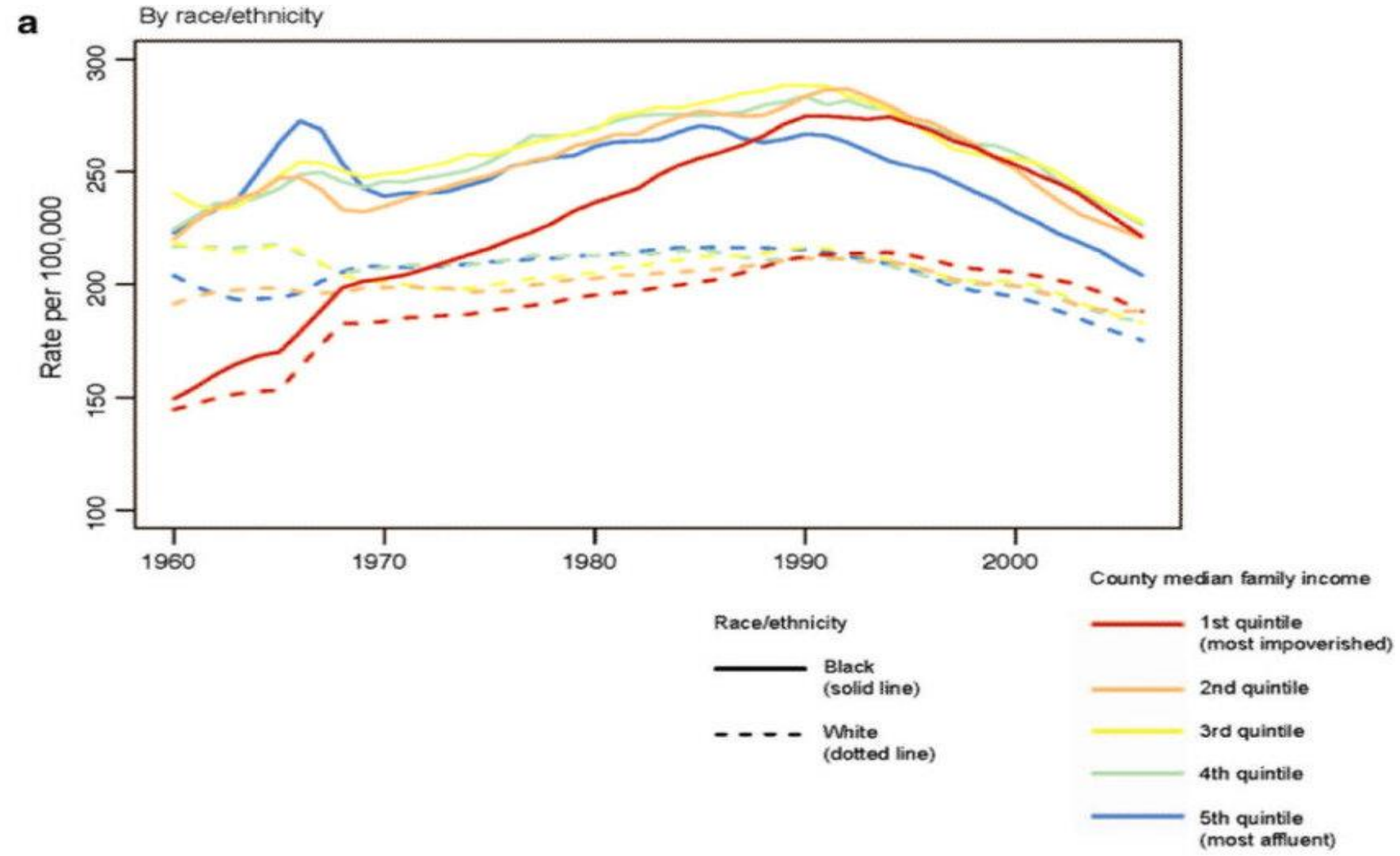


Share of COVID-19 cases among ethno-racial groups compared to the share of people living in Toronto, with valid data up to July 16, 2020 (N=3,861)



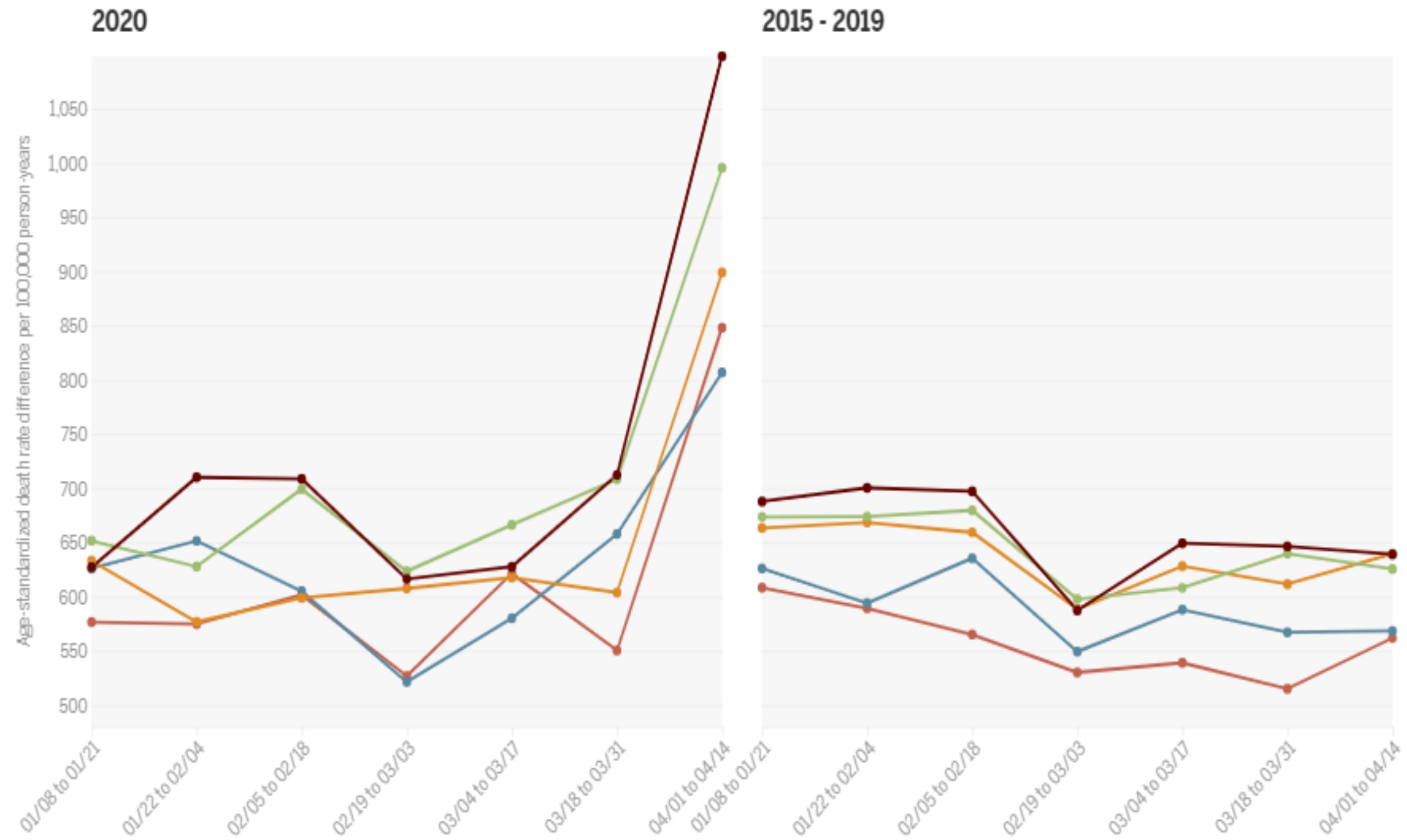
Routine monitoring not only describes health inequalities, but helps to identify what changes health inequalities: Data driven inquiry





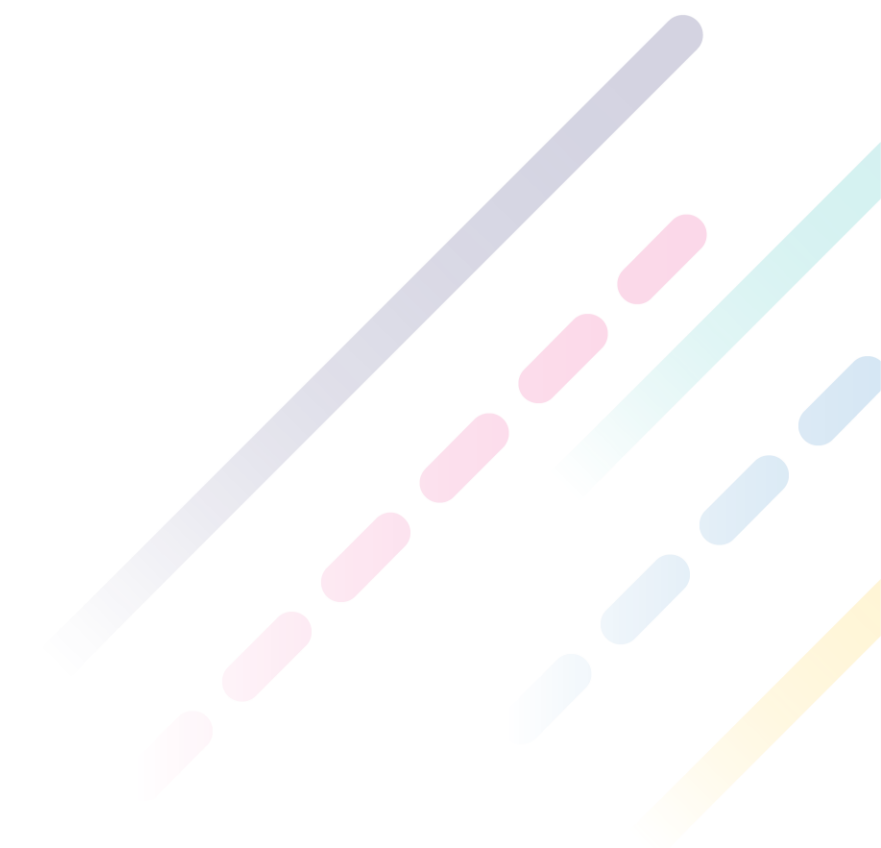
Massachusetts city/town death rate differences by crowded housing

■ < 0.7
 ■ 0.7 - 1.2
 ■ 1.2 - 1.9
 ■ 1.9 - 3.5
 ■ 3.5 - 10 percent of population in crowded housing

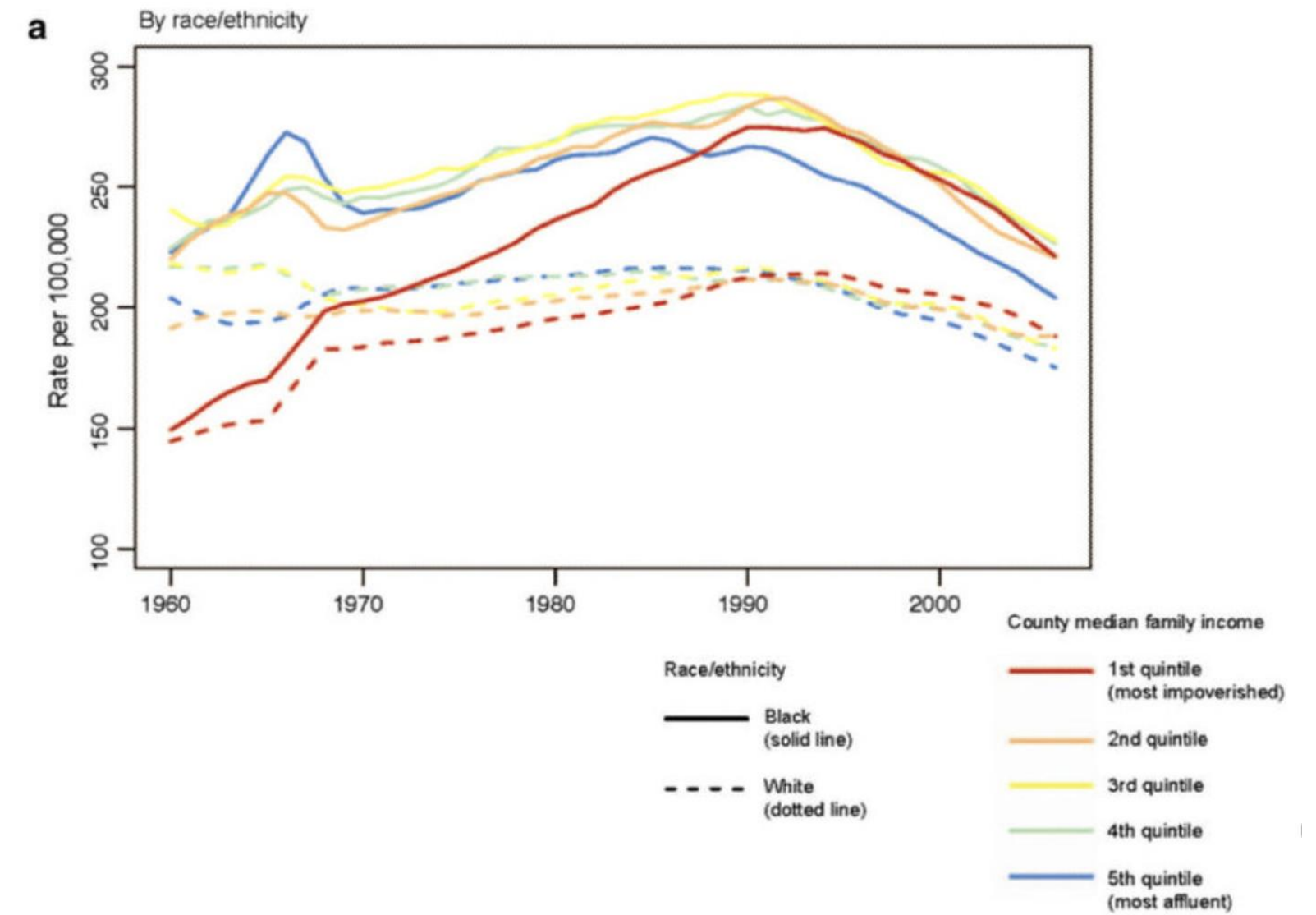
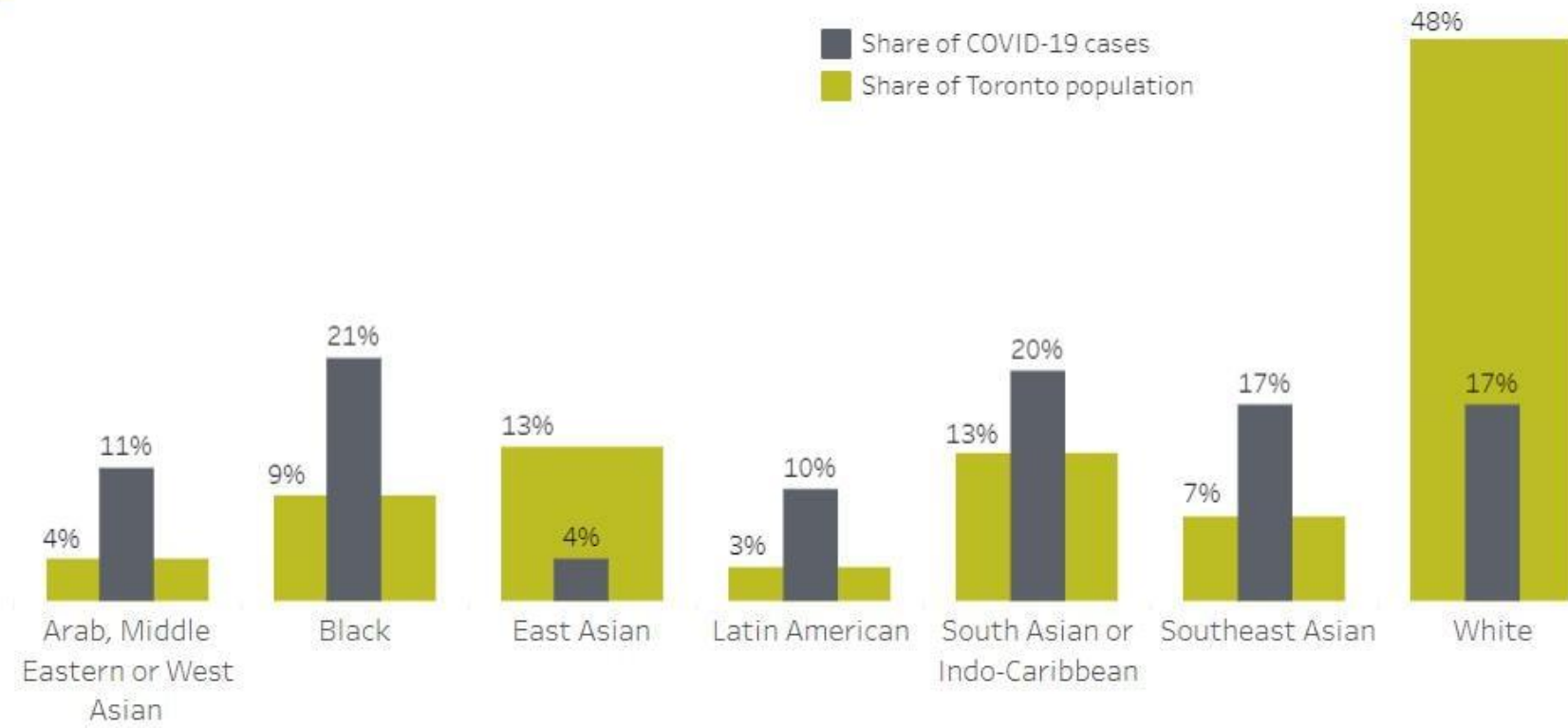


Source: Analysis of Massachusetts Department of Public Health and US Census data by a team from Harvard T.H. Chan School of Public Health • Note: US Census defines crowding as the proportion of households with more than one person per room excluding bathrooms.

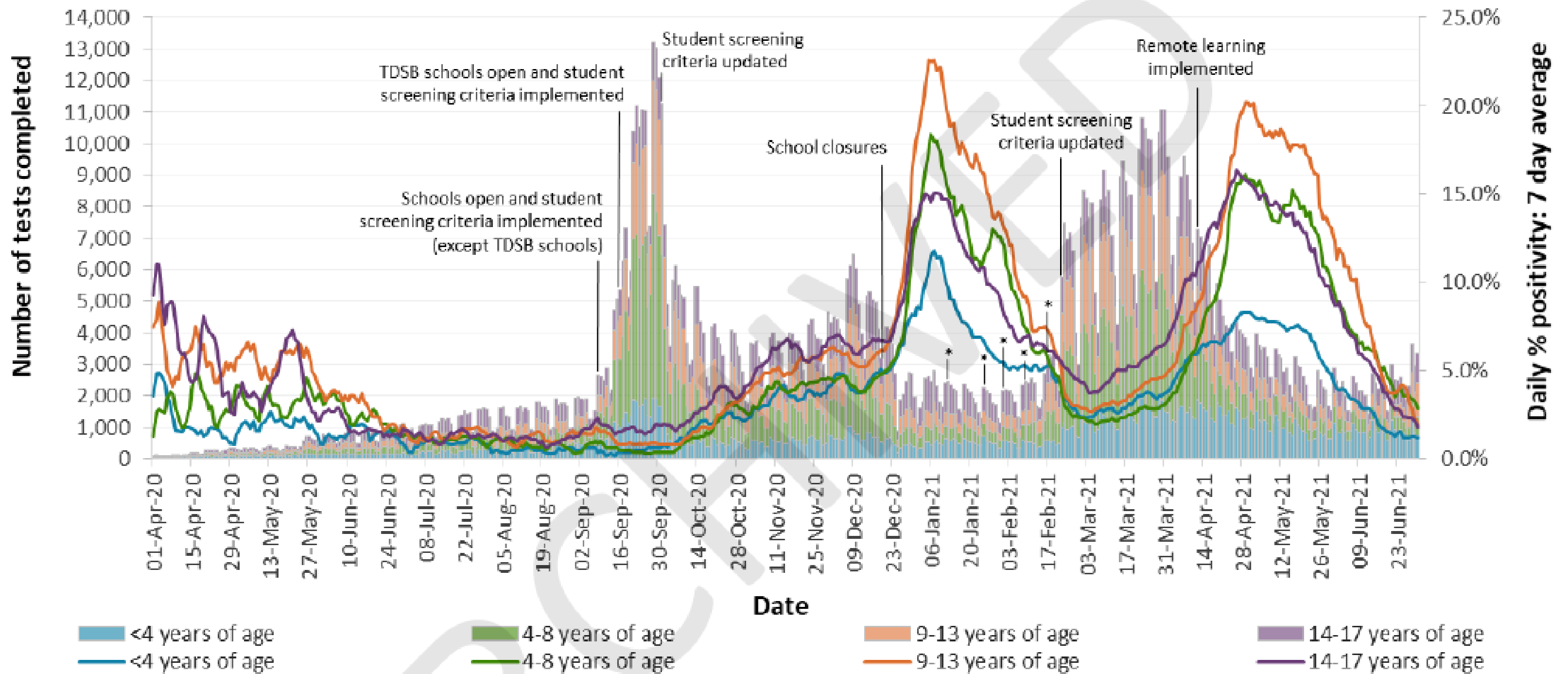
What we could have learned



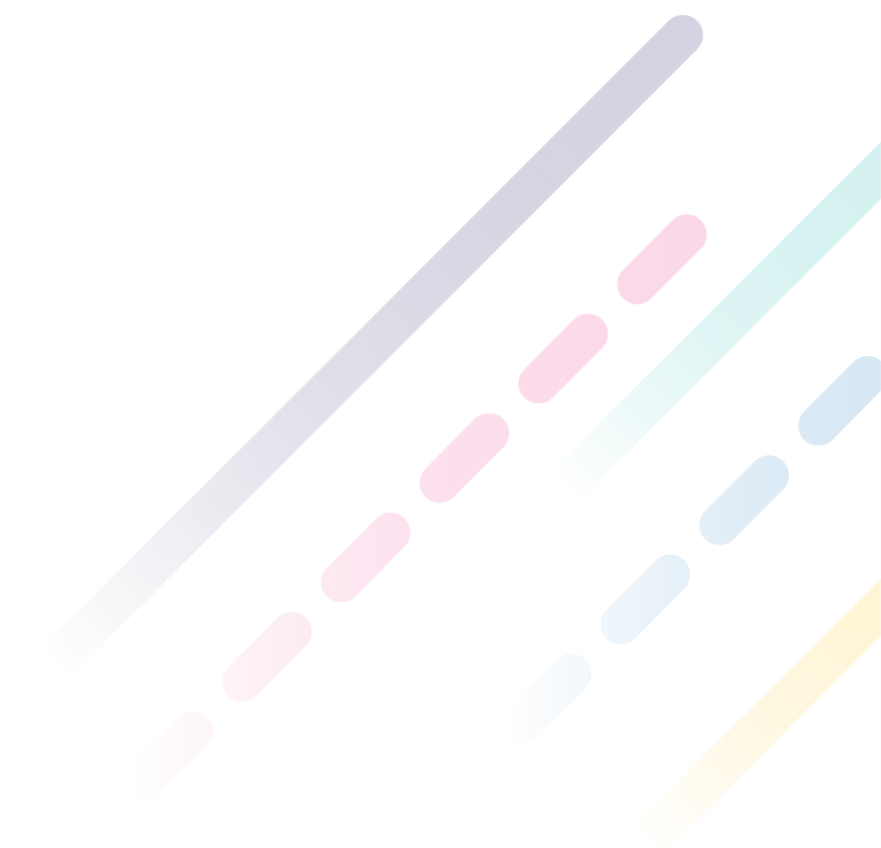
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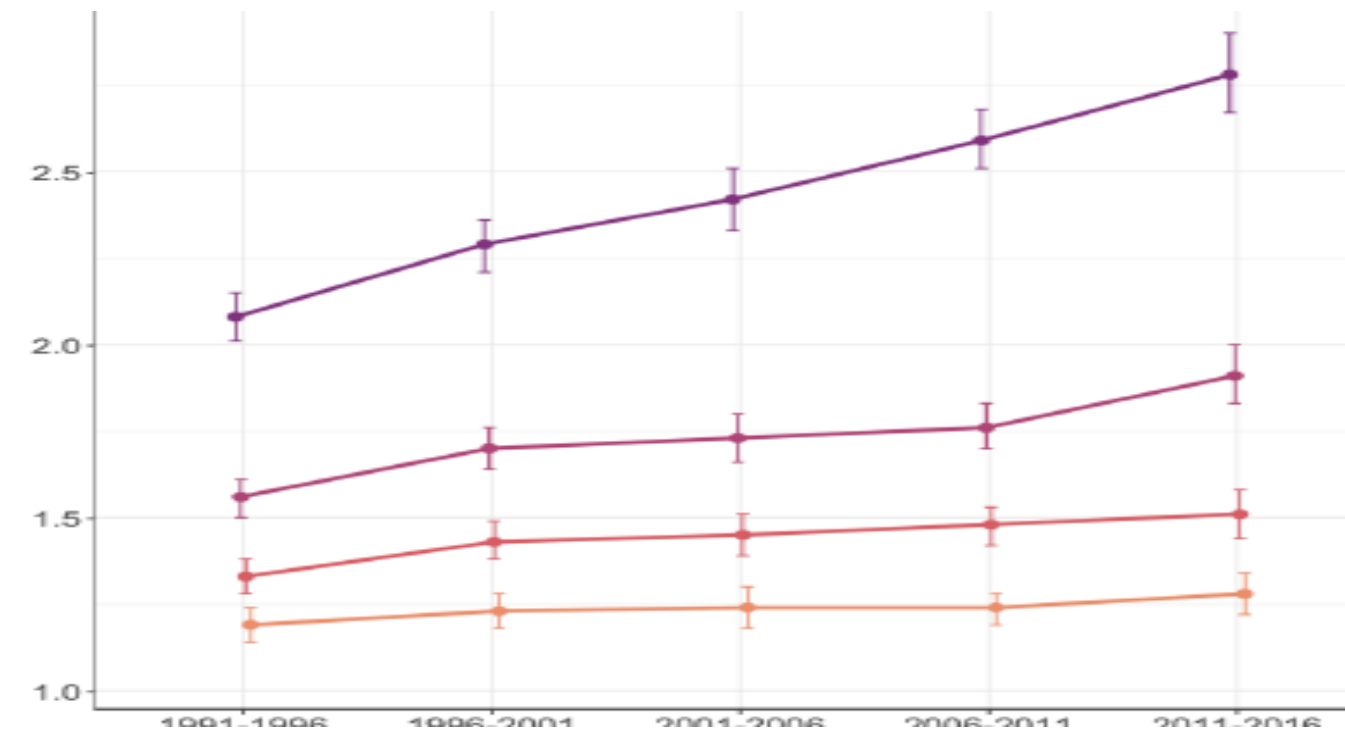
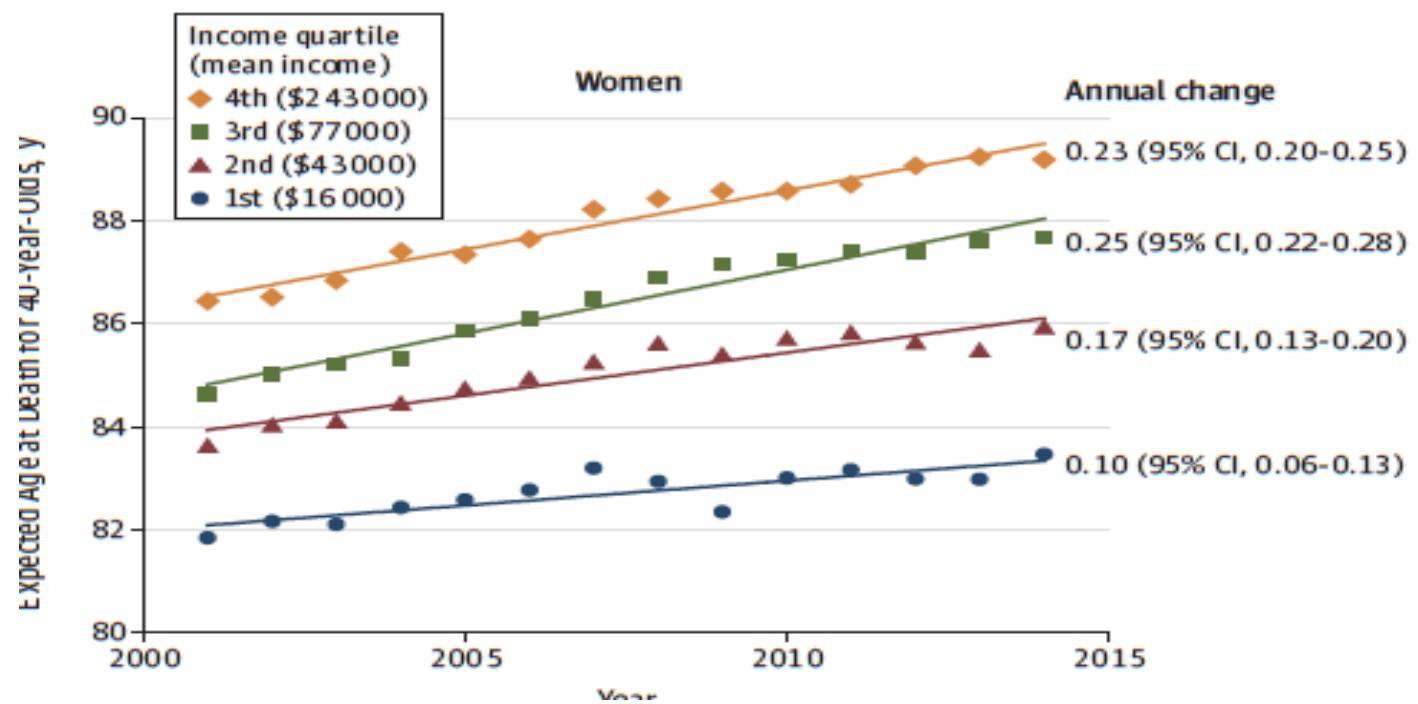


Left: Toronto Public Health, 2010
 Right: Krieger et al., 2010

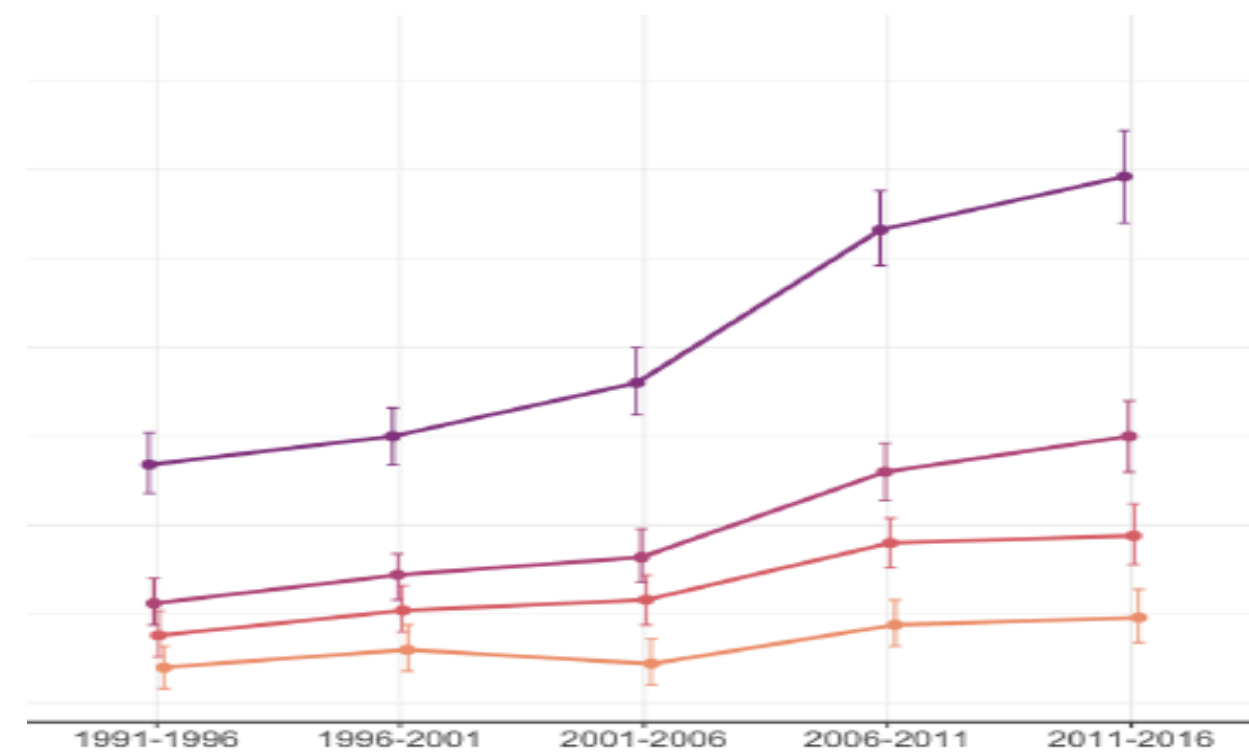
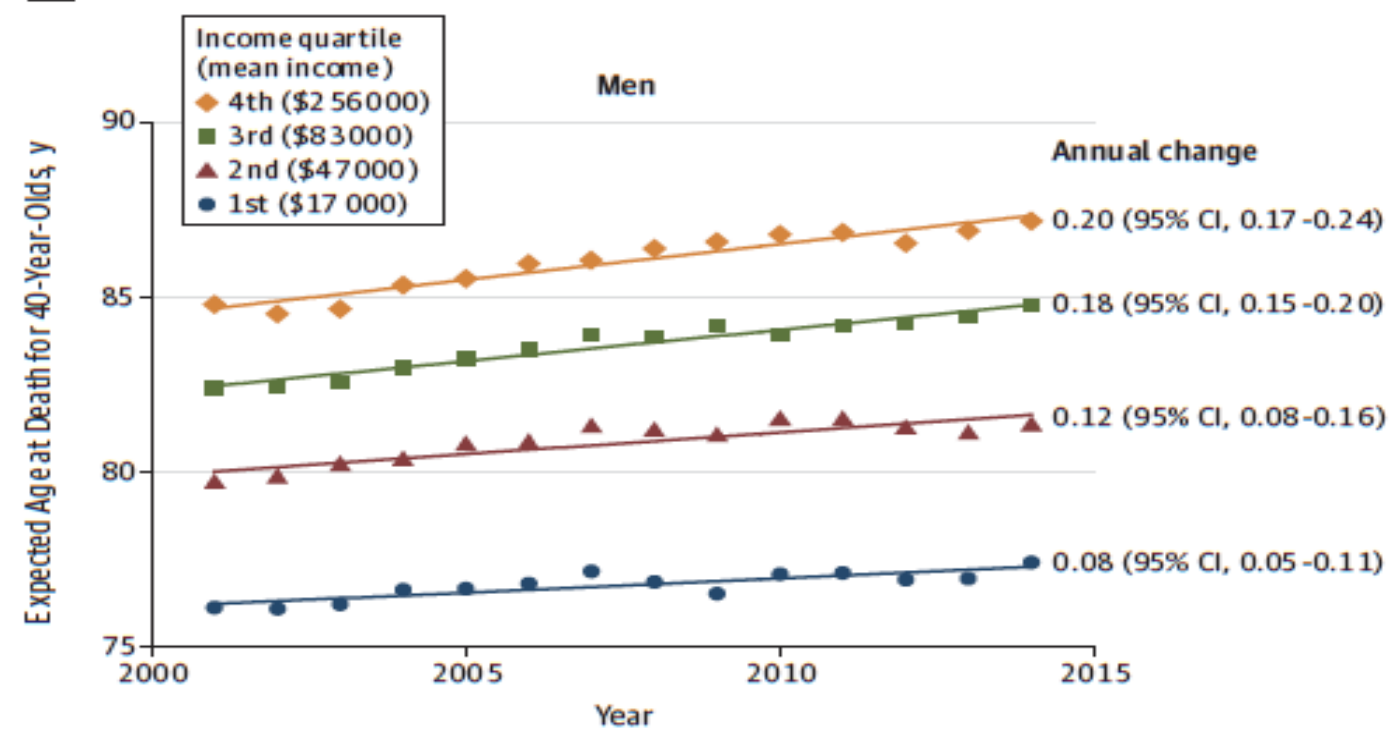


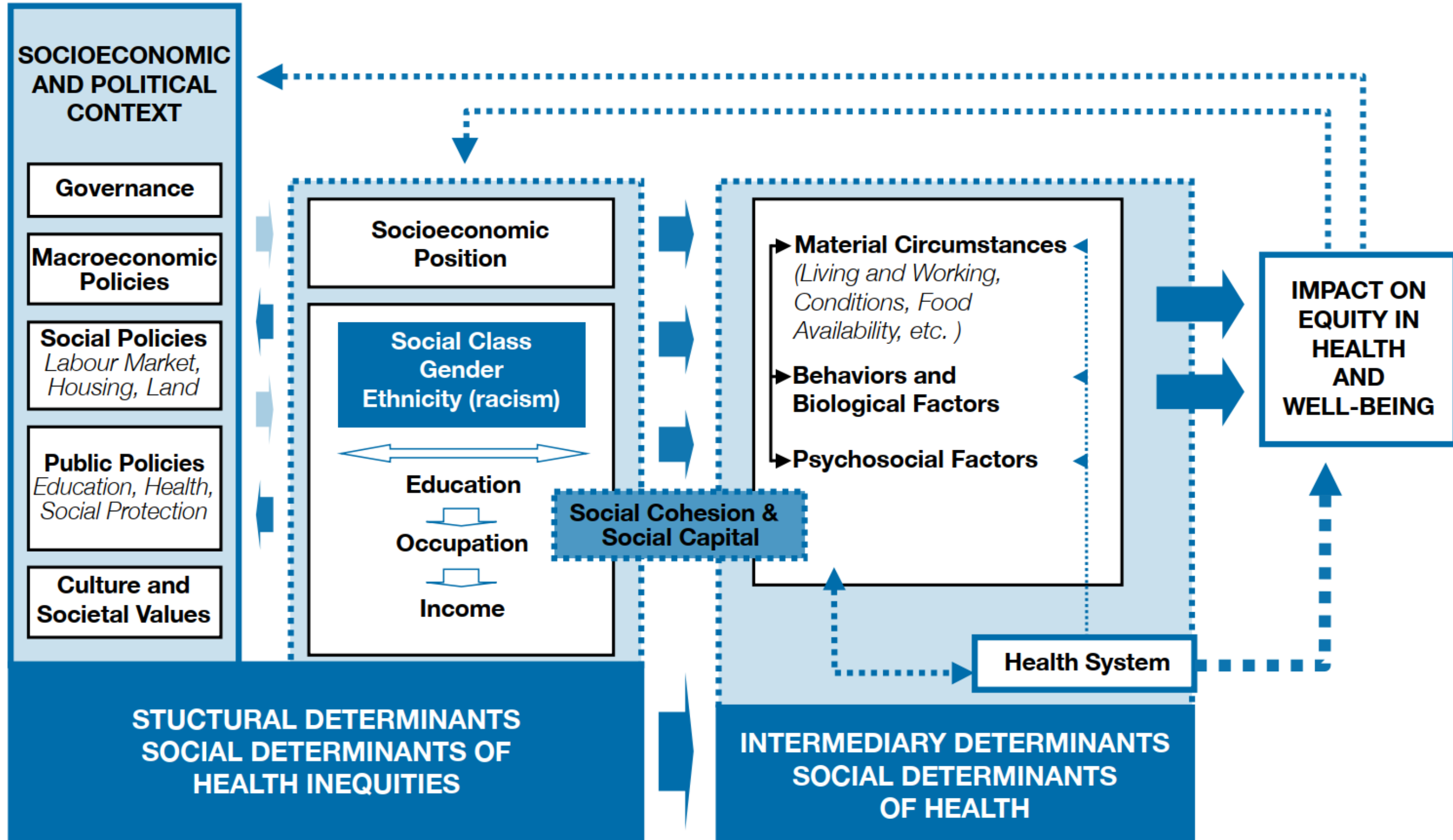
What we are learning





A Life expectancy by income quartile by year





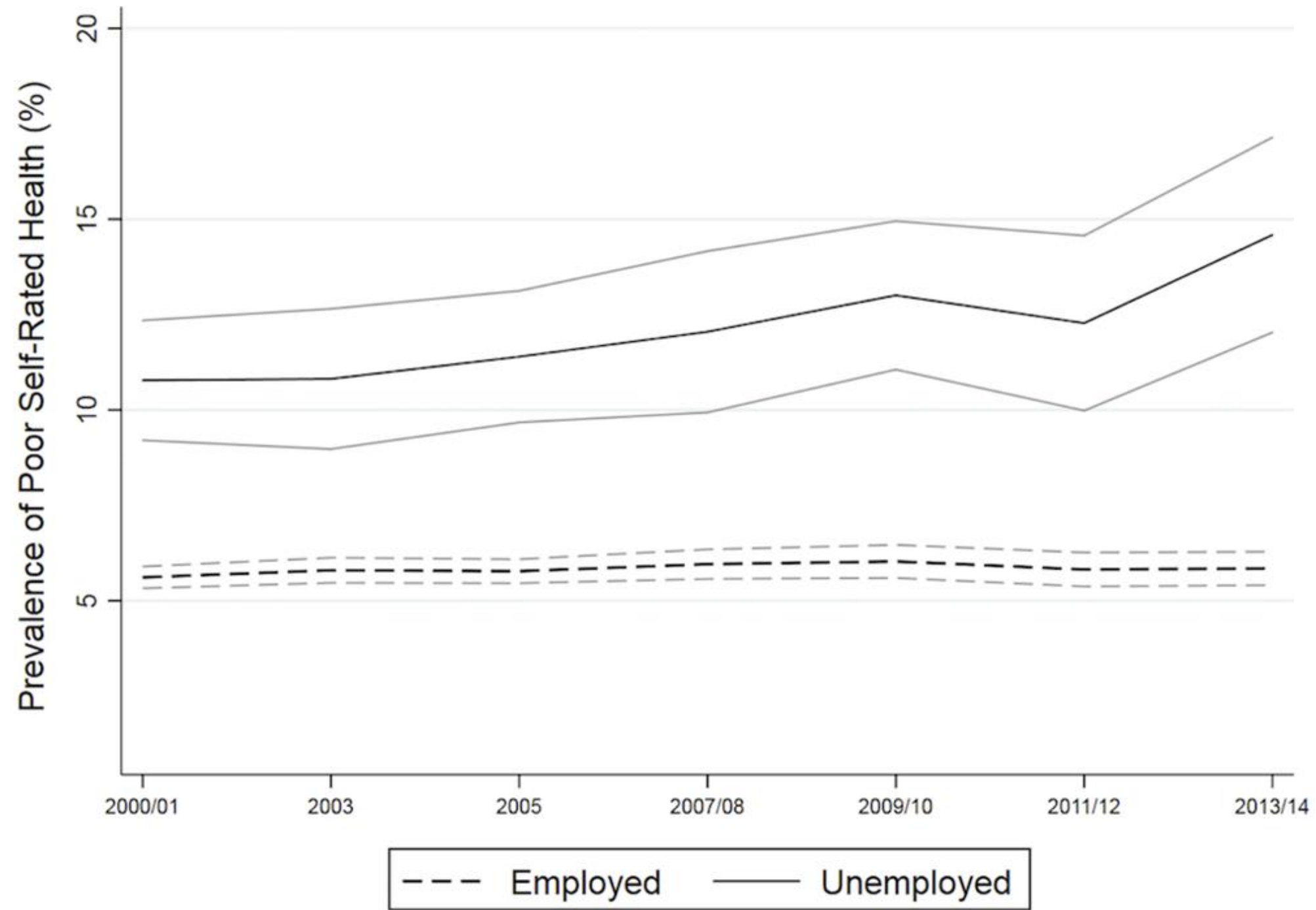
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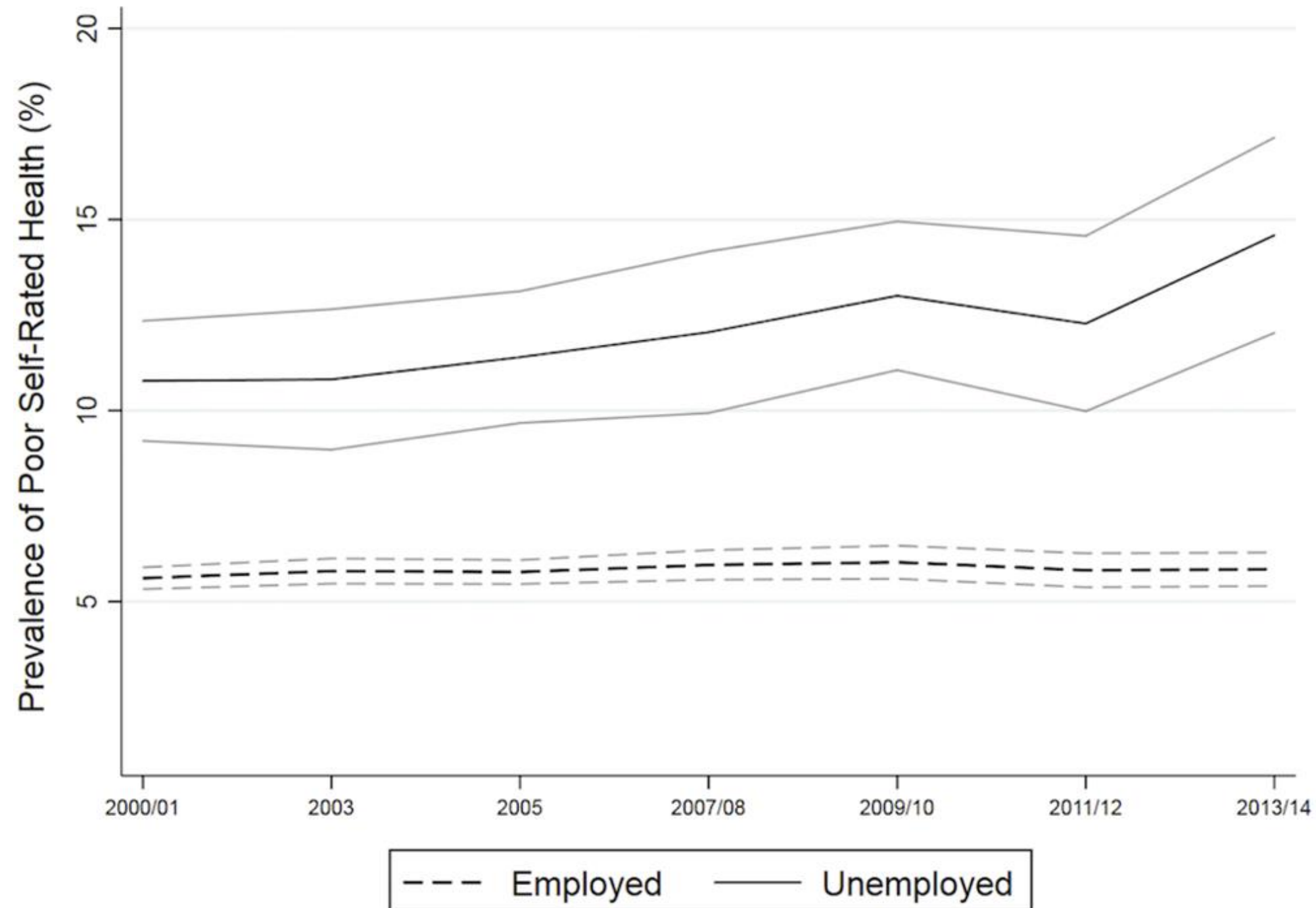
RESEARCH ARTICLE

Widening health inequalities between the employed and the unemployed: A decomposition of trends in Canada (2000-2014)

Faraz Vahid Shahidi , Carles Muntaner, Ketan Shankardass, Carlos Quiñonez, Arjumand Siddiqi

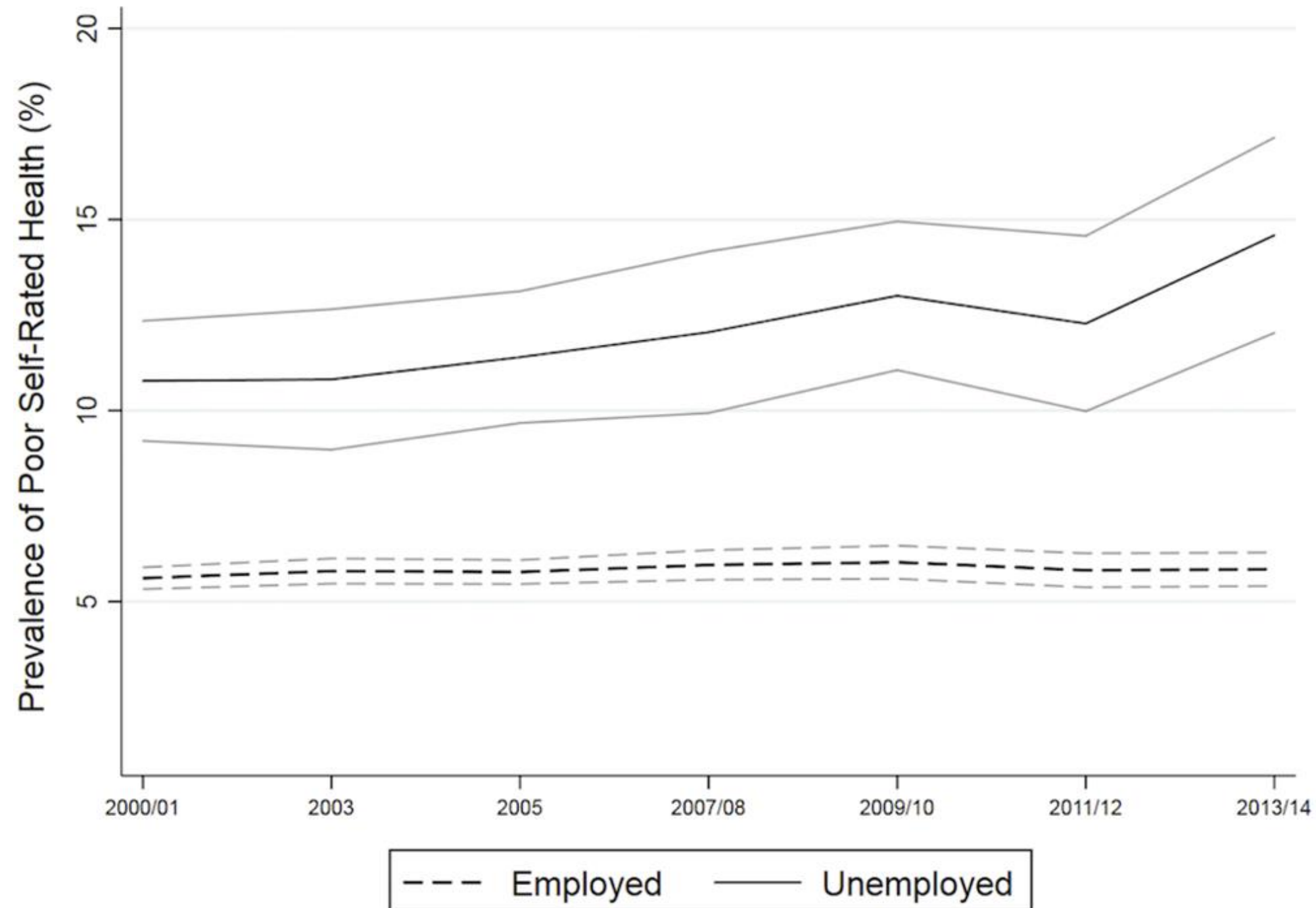
Published: November 29, 2018 • <https://doi.org/10.1371/journal.pone.0208444>





Descriptive Pattern:

Between 2000 and 2014, the prevalence of poor self-rated health among unemployed Canadians increased from 10.8% to 14.6%, while rates among employed Canadians were stable at around 6%.



Fairlie Decomposition: How much of the 3.8% rise in poor self-rated health amongst the unemployed between 2000/2001-2013/2014 is accounted for by changes in:

Demographics: age, sex, marital status, having children, race, immigrant status, region of Canada, urbanicity

Socioeconomics: education, home ownership, income, receipt of social assistance or unemployment insurance.

Proximal risk factors: self-rated stress, chronic conditions, hypertension, obesity, smoking, binge drinking, and physical inactivity.

Unemployed (2013/2014)	14.6%
Unemployed (2000/2001)	10.8%



Proportions of unemployed reporting poor self-rated health in each year

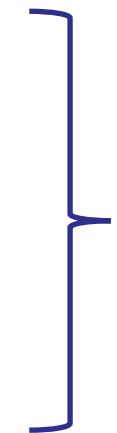
Difference	Estimate
Total	0.038
Explained	-0.005
Unexplained	0.043



Total gap in the proportion reporting poor self-rated health has grown by 3.8%

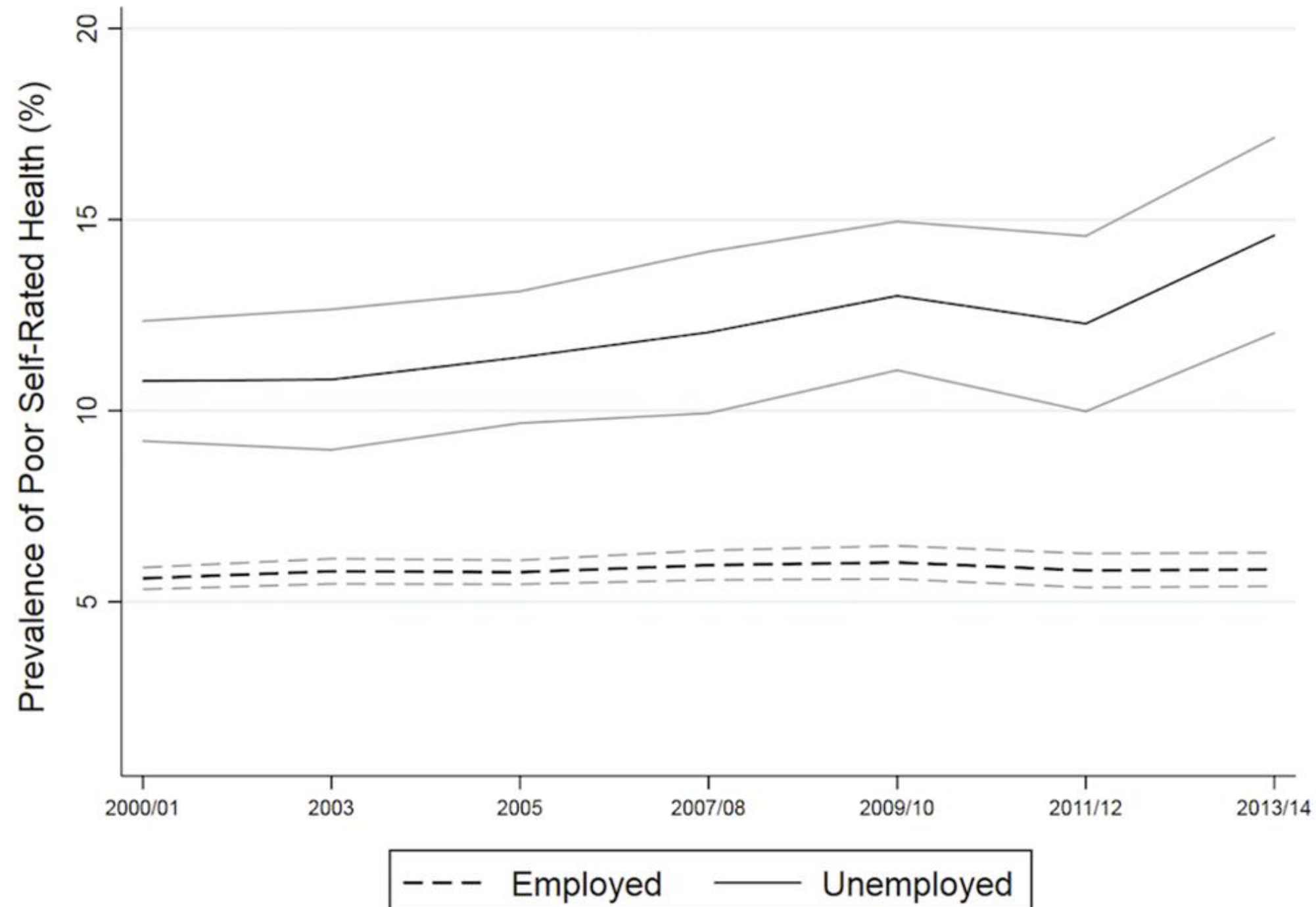


The combined 'story' from our explanatory variables explains only 13% of the difference (leaving us with 3.3% unexplained)



The unexplained is greater than the actual gap

Decomposition	
Demographic	0.010
Socioeconomic	-0.011
Proximal	-0.004



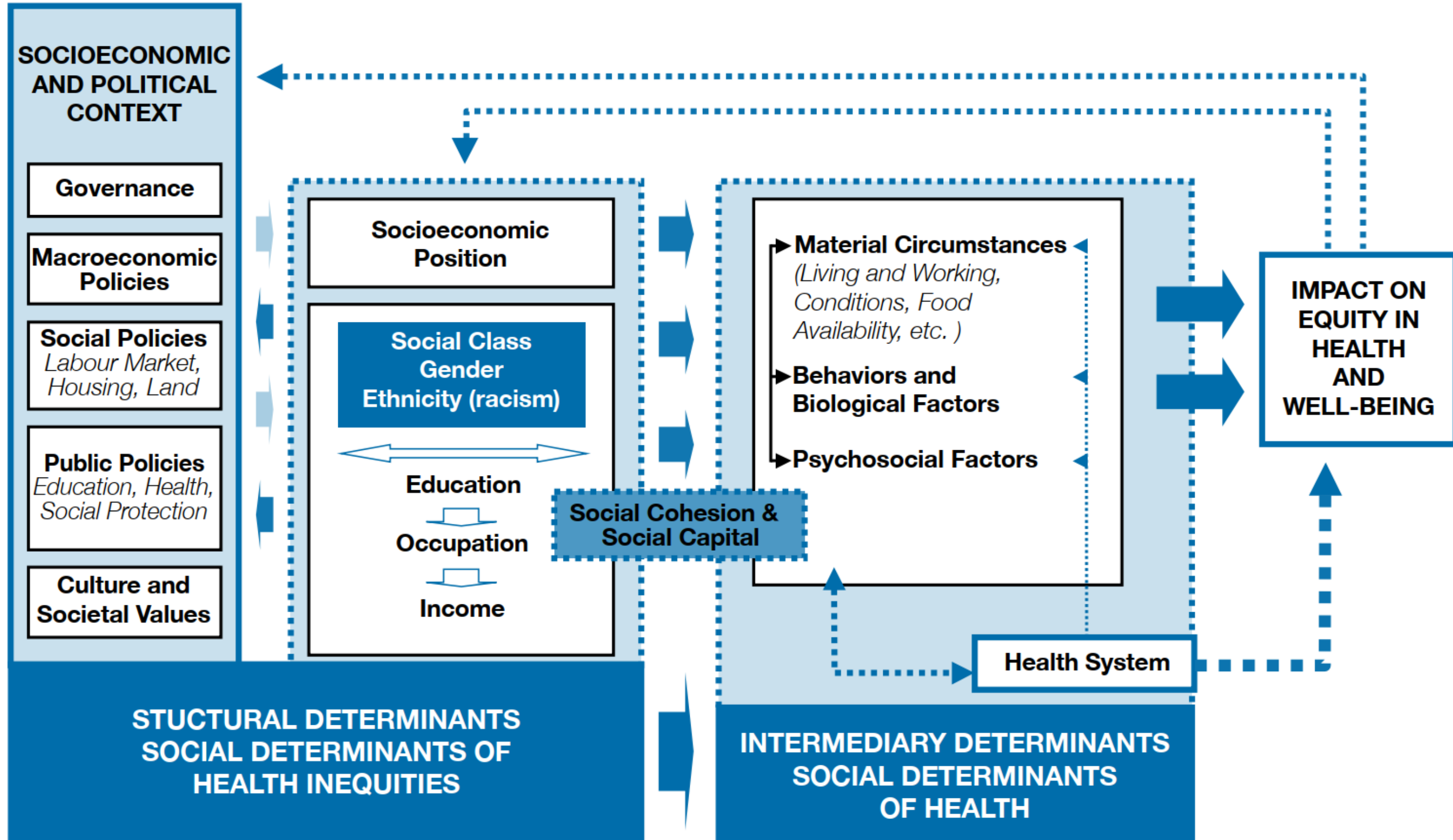
From this study: Employment related inequalities are widening, but this does not seem to be explained by compositional characteristics of the unemployed.

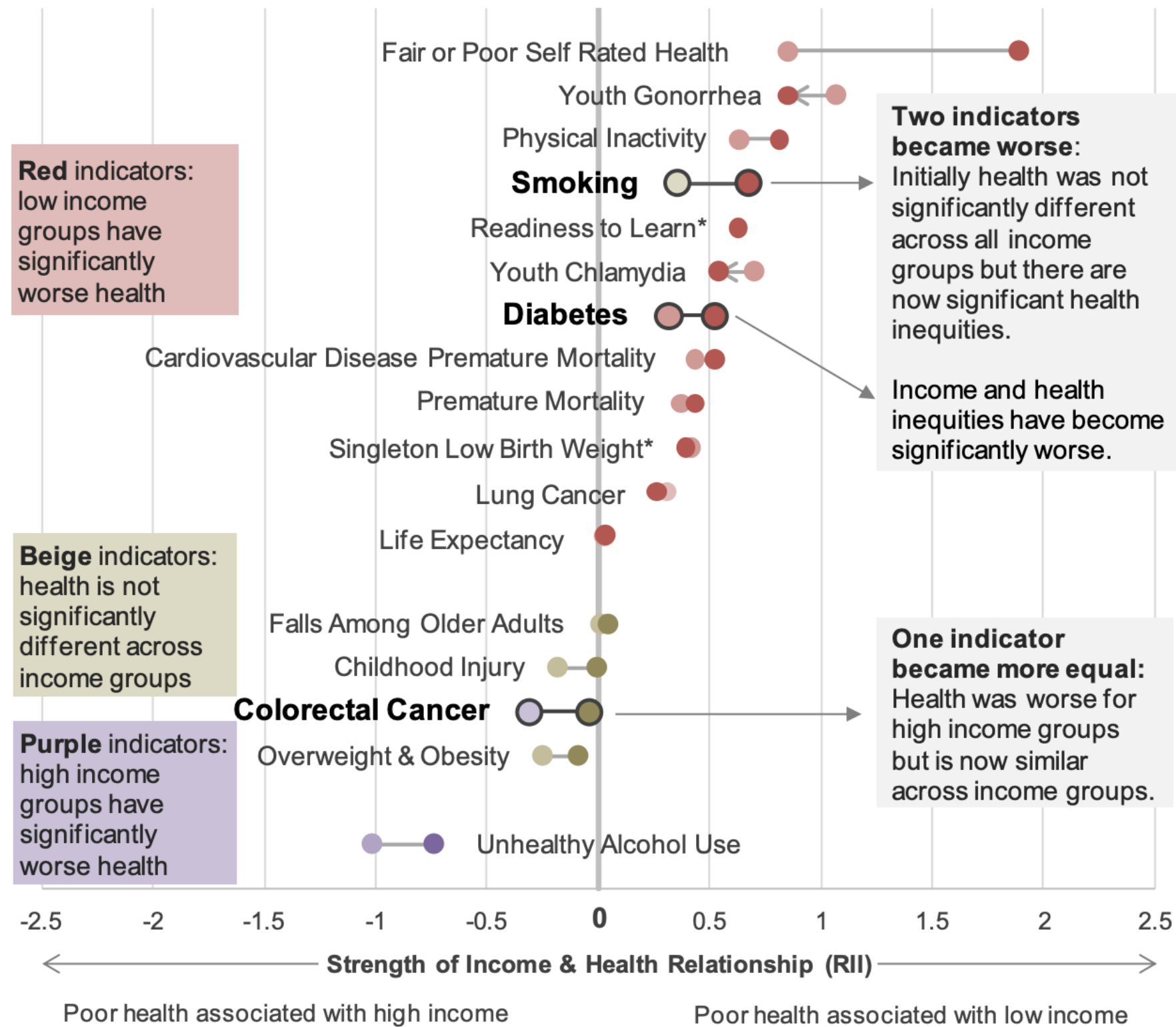
Why:

- Societal change may have changed the measured that matter
- Societal context matters and isn't being measured.

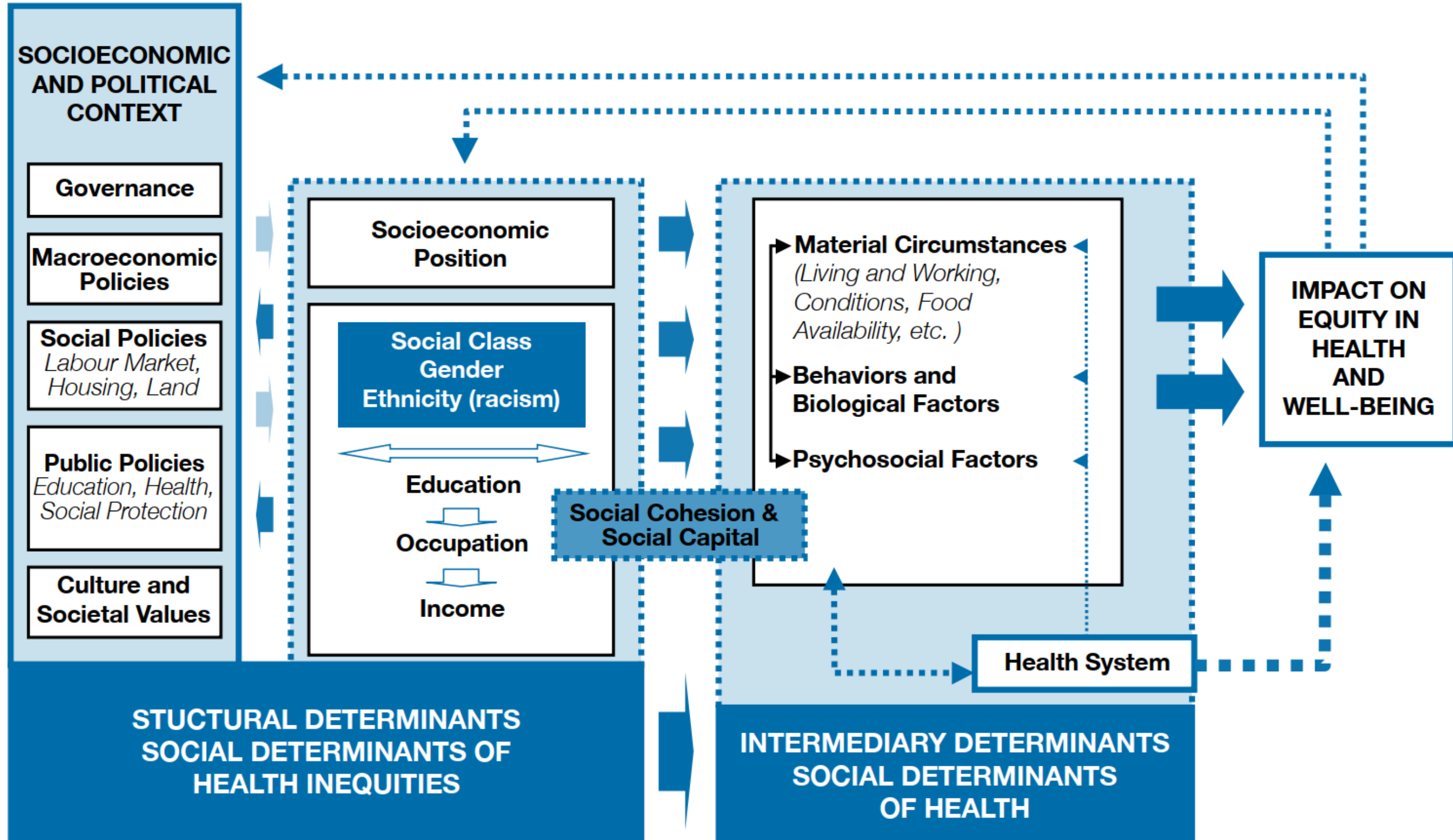
In other words, there are a set of societal conditions that are likely to be the fundamental explanation.

BUT, very unclear how we will go about testing this through traditional social epidemiological strategies.





Between 2005 and 2015, 21 of 34 health indicators worsened for poorer people in Toronto



Discussion Period

Any questions?

Please use the **Q&A tab** to submit your questions for our speakers. You can “**like**” other people’s questions to push them up in priority.



Closing Remarks



Thank You!

Join us on Tuesday, November 28, 2023
(1:00-2:00pm ET) for the next seminar!

Please complete our **survey** that will be shared shortly after the seminar. Scan the QR code.

Seminar recording and presentation slides will be posted on <https://nccid.ca/> within two weeks.

Visit <https://nccid.ca/surveillance-advances-seminar-series/> for more information about the Surveillance Advances seminar series.

