McGill | Department of Epidemiology, Biostatistics and Occupational Health

EPIDEMIOLOGY

EPIDEMIOLOGY SEMINAR / WINTER 2020

THE DEPARTMENT OF EPIDEMIOLOGY, BIOSTATISTICS AND OCCUPATIONAL HEALTH, - SEMINAR SERIES 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

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Contingent Inequalities – An Exploration of Health Inequalities in the U.S. and Canada

MONDAY, 17 FEBRUARY 2020 / 4:00 pm – 5:00 pm
Strathcona Anatomy Building

3640 rue University – Rm M-1

ALL ARE WELCOME

ABSTRACT:

There has been considerable debate in the social epidemiology literature as to whether there is an empirical association between income inequality and population health. An intriguing observation is that at the metropolitan level, there is a strong correlation of a measure of income inequality and working age mortality in the US, but none at all in Canada, hence a "contingent correlation". We assess alternative theories that could account for this observed contingent correlation by constructing a novel abstract agent-based model (ABM), and exploring possible explanations including the effects of neighbourhood income segregation and the extent of parent-child transmission of social (dis) advantage. The THIM (Theoretical Health Inequality Model) ABM incorporates plausible empirically-based but stylized relationships among health status, education, income, mortality rates and neighbourhood sorting / segregation. As an indication of the sufficiency of its theory, THIM reproduces the observed contingent correlation. However, and perhaps surprisingly, the analysis suggests that greater neighbourhood income segregation alone is insufficient to generate the observed patterns. Other factors like parent-child transmission of social (dis)advantage and the structures of urban government appear more important.

OBJECTIVES

1. Learn about international differences in the relationship across cities between income inequality and mortality;
2. See the application of a new form of theorizing in health science based on computer agent-based simulation models (ABMs);
3. Hear that urban structures may be an under-appreciated policy tool for public health.

BIO:

Dr. Michael C. Wolfson received his B.Sc with honours.from U of Toronto jointly in mathematics, computer science and economics in 1971, and then a Ph.D. from Cambridge in economics in 1977. He retired as Assistant Chief Statistician, Analysis and Development (which included the Health Statistics program and the central R&D function), at Statistics Canada in 2009. He was awarded a Canada Research Chair in Population Health Modeling in the Faculty of Medicine at the University of Ottawa for 2010-2017. Prior to joining Statistics Canada, he held increasingly senior positions in the Treasury Board Secretariat, the Department of Finance, the Privy Council Office, the House of Commons, and the Deputy Prime Minister's Office. While a senior public servant, he was also a founding Fellow of the Canadian Institute for Advanced Research Program in Population Health (1988-2003).. He is a Fellow of the Canadian Academy of Health Sciences, and an elected member of the International Statistical Institute.