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CHRONIC DISEASE PREVENTION: “UPSTREAM” AND “DOWNSTREAM” REVISITED

Thursday Health Sciences Building
May 4, 2017 Room HS106, 1st Floor
12:00 – 1:00 pm 155 College Street, Toronto, ON

Abstract: Dating back to the renowned epidemiological thinker Geoffrey Rose (Sick individuals and sick populations. Internat J Epidemiol 1985; 14:32-38) the notions of “upstream” and “downstream” prevention are deeply embedded in modern public health practice. However, detailed examples, with their respective pros and cons, are harder to find. In their new book “Prevention: A Critical Toolkit” (Oxford University Press, 2016), the presenter and colleagues offer such examples, which will be summarized in this presentation:

- 1) the instructive historical example of the pellagra epidemic in the US Old South, which lasted for nearly four decades of the first third of the last century, killing hundreds of thousands – even though the brilliant US Public Health Service investigator Joseph Goldberger had completed – by 1925) a series of novel epidemiological studies clearly demonstrating the disease’s nutritional cause and complete preventability;
- 2) the quintessential example of a modern pandemic – obesity and overweight – against which virtually no public health evidence points to the feasibility of only downstream prevention/treatment – but for which the precise target of upstream control efforts has remained elusive;
- 3) the more controversial example of incentivising primary care services to more intensively screen adults with no cardiovascular disease (CVD) symptoms or history, for primary CVD prevention by indefinite daily drug treatment with statins and/or anti-hypertensives – a clearly downstream strategy with distinct disadvantages, uncertain risks, and significant costs.

The presentation concludes by reflecting on why upstream preventive interventions are typically more challenging to develop and evaluate, ending with examples of upstream-prevention research questions which are typically neglected in most developed countries’ public health research portfolios.

Biography

Professor Frank trained in Medicine and Community Medicine at the University of Toronto, in Family Medicine at McMaster University, and in Epidemiology at the London School of Hygiene and Tropical Medicine. He has been Professor (now Emeritus) at the University of Toronto, at the Dalla Lana School of Public Health (since 1983); founding Director of Research at the Institute for Work & Health in Toronto (1991 to 1997); and inaugural Scientific Director of the Canadian Institutes of Health Research - Institute of Population and Public Health (2000-2008). In July 2008, he became Director of a new Edinburgh-based Unit, funded by the Medical Research Council and the Scottish Chief Scientist Office: the Scottish Collaboration for Public Health Research and Policy. The Collaboration seeks to develop and robustly test novel public health policies and programs to equitably improve health status in Scotland, through the convening and ongoing support of researcher/research-user consortia. He holds a Chair in Public Health Research and Policy at the University of Edinburgh. In 2013 he was elected a Fellow of the Royal Society of Edinburgh in recognition of his scholarly contributions.