Thoughts from Scotland on the Challenge of Equitable Health Improvement

John Frank, MD, CCFP, MSc, FRCPC, FCAHS, FFPH

Greetings to all my friends and colleagues, from a very green Edinburgh in mid-winter. As I complete my first six months in this new position, it is helpful to reflect on what is both different and the same about my work here to reduce health disparities and improve the public's health, as compared to in Canada, where I have spent most of the past quarter century as an epidemiologist.

Scotland is a vibrant place, politically speaking. It has an ancient culture of independence, but its parliament was only devolved a decade ago from the United Kingdom's centuries-old rule. My position here is jointly funded by the U.K. Medical Research Council and the Scottish Chief Scientist Office, a branch of the devolved Scottish government responsible for funding health research. Both organizations decided in 2006 that they would recruit, via an international competitive search, someone to bring together applied public health researchers from across the country, and decision-makers from the policy, program, and practice world, to develop and test novel public health interventions for equitable health improvement. I was fortunate to be selected for this post in mid-2007, and moved here with my family in July of 2008.

The reasoning behind the new position is unassailable. With a fairly stable population of 5 million (only 2% of them immigrants from outside the U.K.), excellent record-linkage capabilities, and a strong political will on the part of the newly elected (2006) Scottish National Party to set its own national agenda, Scotland is a natural laboratory for novel public health intervention research. Furthermore, there is a clear need, in that the country has longstanding and wide health disparities by socio-economic status (SES), combined with much worse overall health status than other EU nations of comparable wealth and education.^{1,2} The challenge here is not lack of intellectual capacity to analyze these problems; Scottish public health experts are among the best – and best published – in the world. Rather, the challenge lies in a history of multiple small institutional entities, in both the academic and public service sectors, steeped in a strong tradition of direct competition for modest research and program resources. Consequently, these institutional entities function autonomously, so that fostering collaboration was understandably the central aim of my recruitment. Finally, public health and related programs are administered across three levels of government: 1) U.K. “national,” based at Westminster and Whitehall; 2) Scottish, based at the Scottish Parliament in Edinburgh – which nowadays is taking on a role rather akin to that of Quebec, the historically most independent of provincial governments in Canada; and 3) local councils and 14 regional National Health Service Boards, responsible for the implementation of many – but not all – social welfare, education and health programs. Small wonder that a Canadian feels rather at home with it all. But then, much of

the remarkably analogous structure of the public sector in Canada came from the U.K., brought by Scottish emigrants in particular, who formed much of our early Canadian political leadership. [This includes our first Prime Minister, Sir John A. MacDonald, whose epitaph plaque, on the Glasgow parish church he attended as a small boy, is well worth a visit next time you are in that fine city.]

As I work with my talented Scottish colleagues on the development of new approaches to equitable health improvement, specifically tailored to this culture and climate, there is much to learn. Some features of the public health landscape are unlike Canada's. For example, in only a handful of large-city Canadian neighbourhoods do we see the spatially-concentrated, multi-generational endemic poverty that strongly influences the health statistics of the Scottish nation as a whole. Indeed, seven of the ten worst districts in the entire U.K., in terms of mortality, are in greater Glasgow.³ What is really striking, however, is that much of that spatially concentrated poverty is set within dense public housing estates, built in the aftermath of World War II. Lest we think, in glorious hindsight, that we could have done a better job, consider the challenges faced by the quite progressively-minded town planners of the day. Much of the industrial core of greater Glasgow had been destroyed by Nazi airstrikes, so that there was empty land available for urban renewal, but insufficient public money in Britain immediately after the war to fully rebuild. By the 1960s, however, the outmoded and unsanitary Victorian-era housing of the industrial workforce simply had to be replaced. For a complex mixture of reasons, the new apartments were sited in dense neighbourhood concentrations. Furthermore, those housing estates included no mixed tenancy by SES, so that entire generations have subsequently grown up surrounded by homogenous poverty, with little opportunity to escape. And who could have predicted that those islands of deep-seated poverty would over time develop their own feistily independent subcultures, wary of outside influences and stubbornly resistant to change?

Fortunately, much valuable work is going on to change all that, with major community regeneration projects and housing redevelopments. For example, the novel “Go Well Project” in Glasgow will seek to robustly measure, among other outcomes, the health impacts of moving residents from old crumbling estates to new, better-designed and less socially homogeneous communities. The challenge, of course, is that the health conditions of modern life

Author Affiliation

Former Scientific Director, CIHR Institute of Population and Public Health; Director, Scottish Collaboration for Public Health Research and Policy; Professor, University of Edinburgh and (on leave) University of Toronto Dept. of Public Health Sciences

Acknowledgements: The author gratefully acknowledges the helpful input of his Edinburgh colleagues Sally Haw and Peter Craig in writing this article, although all errors and omissions are his own.

that disable and kill the poor so much younger than the rich, are here – as elsewhere in the developed world – spread and sustained by the “vector” of culture itself: preferences set early in life for certain foods, psychotropic agents, and patterns of social interaction. It is a very slow business indeed to change such basic predilections of human existence, usually requiring whole generations to be brought up differently than their parents.

While some underlying drivers of lifelong health problems are gradually improving in the overall Scots population – such as smoking rates – the absolute disparities between such risk factor prevalences and the associated chronic disease rates, between rich and poor, remain virtually unchanged in the past few decades. Recent, very sophisticated analyses of these SES health disparities in Scotland, based largely on routinely collected natality, hospitalization and mortality statistics, give little cause for optimism.^{1,2} Indeed, since the 1980s a slow pandemic has appeared, of early disease and deaths from “external causes” – such as violence, alcohol and drug associated problems, and suicide. Sadly, this pandemic has been concentrated in deprived neighbourhoods, initially in men under 45 beginning in the 1980s, and then in the last two decades clearly emerging in young women. Thus the major drivers of health disparities in Scotland now are quite different among the old and the young: the old still have the usual chronic diseases that are prevalent elsewhere in the developed world, with the usual marked improvements in the last quarter century in population-wide rates of heart disease and stroke mortality, but very little improvement in the absolute health disparities due to these conditions, and worrisome trends due to emerging, inequitably distributed threats, such as overweight and obesity, and their early complications (e.g., Type II diabetes). The young, on the other hand, have not only widening disparities due to external causes of ill health, but also rapidly increasing rates of premature death and hospitalization overall (see, for example, the recently skyrocketing rates of liver cirrhosis, at younger ages than have ever been seen before⁴). It is as if there are two cemeteries in Scotland, one for the young and one for the old; but the one for the young, and especially the poor young, is now forced to buy space from the one for the (rich) old – hardly a sustainable situation.

The question I would pose to my many friends and colleagues in Canada is this: are we sure that this new pandemic of ill health,

among youth and young adults, is not also emerging in North America? Have a look at recent time trends in mental health outcomes, especially depression and its equivalents, in well-designed surveys (of which we unfortunately have too few historical time series to be sure about long-term time trends). I suggest that there is much to be concerned about. Increases in young adults’ hospitalization and death rates, and increased inequalities therein, may not yet be evident in Canada. However there are clear signs that all is not well with the next generation. I would argue that public health should now shift some of its longstanding focus on the chronic diseases that claim most of us well into late life, to the more culturally-framed mental health and behavioural problems of those just starting adult life, and – all importantly – the childhood antecedents of those problems. For, as experience in Scotland shows, chronic diseases of late life disable and kill rather slowly, and are largely influenced only very gradually by deliberate social and public health interventions. This new pandemic of youth, however, has short latencies from cause to effect that can shift health status markedly within a decade – and yet it is in theory completely preventable, given its underlying social and psychological drivers. Don’t mistake me – this is no time to let up in our efforts to prevent the still-very-unequal patterns of the major chronic diseases afflicting most Westernized populations after mid-life. But relying on traditional, routinely collected – but very slow-to-respond – hospitalization and mortality indicators, so dominated by these late-life conditions, to tell us how the young canaries are doing in the mine, could leave it all too late.

REFERENCES

1. Leyland A, Dundas R, McLoone P, Boddy FA. Inequalities in Mortality in Scotland, 1981-2001. MRC Social and Public Health Sciences Unit. Occasional Paper Series no. 16. Glasgow, February 2007 [ISBN: 1-901519-06-6].
2. Short-life Technical Advisory Group on Monitoring Health Inequalities. Long-Term Monitoring of Health Inequalities: First Report on Headline Indicators. Scottish Government Health Analytical Services Division. Edinburgh, September 2008. [ISBN: 978 0 7559 7250 0 – web only publication.]
3. Mitchell R, Dorling D, Shaw M. *What if Britain were More Equal?* London: Policy Press, 2000 (see especially the map on page 26.)
4. Leon DA, McCambridge J. Liver cirrhosis mortality rates in Britain from 1950 to 2002: An analysis of routine data. *Lancet* 2006;367(9504):52-56.