Free at Point of Care, But Not at Point of Need

Income-Related Health Inequity in a Universal Health Care System

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advancing urban health

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Wellesley Institute works in research and policy to improve health and health equity in the Greater Toronto Area through action on the social determinants of health.

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Introduction

Canada's universal health system is widely considered by the public to be its crown jewel. Public surveys demonstrate repeatedly the centrality that health care occupies among Canadians (Picard, 2013), and it is no surprise that Tommy Douglas, the Father of Canadian Medicare, was voted the Greatest Canadian in a 2004 Canadian Broadcasting Corporation poll (Canadian Broadcasting Corporation, 2004). While principles of accessibility, comprehensiveness and universality are enshrined in the Canada Health Act, inequity in health persists among Canadians (James, Wilkins, Detsky, Tugwell & Manuel, 2007). Even as public health interventions improve risk factors at the population level (Health Quality Ontario, 2016), access to health care services and healthy neighbourhoods remain challenging for vulnerable individuals in Ontario and the Greater Toronto Area. In this essay, I outline examples of such inequity, and propose solutions aimed not only to improve population-wide health, but also reduce disparity across all segments of society, including those living in poverty.

Socioeconomic Gradients in Illness Burden and Outcomes

Through national health surveys, it has been established that decreasing income is associated with lower self-reported and objective health status and increasing mortality (James, Wilkins, Detsky, Tugwell, & Manuel, 2007; Humphries & van Doorslaer, 2000). Notably, this relationship appears more marked in Canada when compared to similar European countries (Humphries & van Doorslaer, 2000; The Commonwealth Fund, 2014). Across Canada's urban centres, hospitalization rates between low- and high-income groups varies from a relative increase of 20 percent in low birth weight and childhood injuries, to 170 percent in chronic obstructive pulmonary disease (Canadian Institutes for Health Information, 2008). Behavioural risk factors also vary – despite Ontario having a lower prevalence of current smokers (18.1percent) compared to the Canadian average (19.6 percent), this rate varies considerably across income, where 14.4 percent of individuals with high socioeconomic status being current smokers, compared to 22.1 percent for those with lowest income (Health Quality Ontario, 2016). A gradient across education was also noted: smoking rates were more than double among Ontarians with post-secondary education compared to those with less than high school education (Health Quality Ontario, 2016). Furthermore, lower socioeconomic status has been associated with lower rates of colorectal investigations (Singh et al., 2004), higher risk of surgery among children with inflammatory bowel disease (Benchimol, Griffiths, Guttmannn, Rabeneck, & To, 2011), and higher rates of stroke among patients with diabetes (Booth e t al., 2012). These disparities in health comorbidities not only contribute to the observed 2.2-fold increase in age-adjusted mortality among individuals with lowest and highest income (Tjepkema, Wilkins, & Long, 2013), they also contribute to higher health care resource utilization (Fitzpatrick et al., 2015).

Unfortunately, our current health care delivery is not designed to address the needs of socially deprived patients. Contemporary quality metrics are typically provider-centric in focus, measuring prescription of therapy or delivery of service by a provider. While a health care provider's sphere is naturally focused on health, a patient's medical decision must also incorporate significant personal, vocational, and financial burden associated with managing one's chronic condition: to follow the American Diabetes Association guidelines requires 122 minutes per day for an average patient (Safford, Russell, Suh, Roman, & Pogach, 2005); to be guideline-concordant, an elderly person with type 2 diabetes and chronic obstructive lung disease would need to be prescribed at least five medications with eight more recommended, engage in six self-care or lifestyle changes, make five to eight primary care visits and attend numerous appointments for smoking session and pulmonary rehabilitation (Hughes, McMurdo, & Guthrie, 2013). The current structure of medical care significantly increases the treatment burden among patients with limited financial stability, as they must navigate between attendance at medical appointments and self-care activities with opportunity costs of missed work and income.

Further exacerbating the situation is the model of primary health care delivery, which tends to be misaligned with patient demographics served: family health teams, which are well poised to provide integrated, inter-professional care to marginalized populations, frequently roster patients with the highest levels of income (Institute for Clinical Evaluative Sciences, 2015). Meanwhile, community health centres, which have a focus on population needs and social determinants of health, were the care model accessible to only 1.2 percent of all Ontario patients (Institute for Clinical Evaluative Sciences, 2015).

Disparities in Healthy Living and Disease Prevention

Poverty is spatially concentrated; in other words, concentrations of marginalized individuals are not equally distributed. In Toronto, this clustering is manifest in neighbourhoods with vastly different rates of low-income families, from 4 percent in Princess-Rosethorn to 64 percent in Regent Park. Other areas of deprivation include Oakridge, Thorncliffe Park and Flemingdon Park, with low-income rates of 45 percent, 43 percent and 40 percent respectively (City of Toronto Social Development, Finance and Administration, 2010). Not only does concentrated neighbourhood poverty impact growth and development, it renders the community susceptible to deprivation amplification, wherein marginalized individuals live in an area of relative resource scarcity, resulting in poor health outcomes in a self-perpetuating fashion (United States Department of Agriculture Economic Research Service, 2009). This is supported by empiric evidence in Toronto: in 2007, a landmark study conducted by the Institute for Clinical Evaluative Sciences compared 140 Toronto neighbourhoods and their diabetes incidence, average household income, conduciveness to physical activity and availability of resources for healthy living (Institute for Clinical Evaluative Sciences, 2007). It was found that neighbourhoods in the northwest and east ends of Toronto, where diabetes prevalence was highest, were also areas that had lower household income, poorer access to transit and fewer stores selling fresh fruits and vegetables. In these areas, access to primary care physicians and diabetes education programs were also more challenging (Institute for Clinical Evaluative Sciences, 2007). In contrast, south central and core downtown Toronto, which scored high on domains of "activity-friendliness" by means of higher access to transit, bicycling and walking, as well as "healthy resources" through access to fresh produce, primary care and diabetes education programs, had low diabetes incidence. Remarkably, individuals with social deprivation living in these resource-rich areas also had lower-than-expected rates of diabetes (Institute for Clinical Evaluative Sciences, 2007). Similar concordance have been observed between low-income Toronto neighbourhoods and elevated rates of industrial air pollution (City of Toronto, 2008), which have been linked to heightened risks of stroke, asthma exacerbations and coronary artery disease (Gold & Samet, 2013; Schildcrout et al., 2006).

Not only are the effects of income disparity on disease prevention related to access to resources for healthy and active living, current health policies, especially those involving pharmaceutical coverage, disproportionately disadvantage the working poor. While unemployment rates of individuals with low income is twice that of average Torontonians (16 percent vs. 8 percent), over 50percent of this group actively participate in the labour force (City of Toronto Social Development, Finance and Administration, 2010). However, over two-thirds were involved in part-time or part-year work, with concomitant limitations on availability of supplemental health insurance (Statistics Canada, 2004). In 2015, an average household in Toronto spent $1,689 on out-of-pocket health care expenditures (Statistics Canada, 2016), despite our system's commitment to comprehensiveness. In fact, Survey of Household Spending reveals out-of-pocket expenses to have increased most swiftly among those with lowest household income, with an increase of 63 percent in absolute, inflation-adjusted terms. In fact, over 1 in 3 families in this group spent more than 5 percent of annual after-tax income on out-of-pocket health expenses (Statistics Canada, 2014). This is in stark contrast to those in the highest income quintile, whose costs comprised merely 2.6 percent of after-tax income. Among those with lowest household earnings, the largest component of out-of-pocket health spending was prescription drugs (Statistics Canada, 2014). It is therefore not surprising that 1 in 5 Canadian families with annual income < $20,000 were not able to adhere to medications due to cost considerations, with this figure rising to 35 percent for households without supplemental drug coverage (Law, Cheng, Dhalla, Heard, & Morgan, 2012). The direct implications of cost-related nonadherence is reflected in stark clinical outcome disparities – in Ontario, socioeconomic status is a much stronger predictor of death or cardiovascular complications among diabetic individuals less than 65, whose below the age of eligibility to universal pharmaceutical coverage via Ontario Drug Benefits (Booth et al., 2012). In fact, the effect of socioeconomic gradient on this outcome is 39 percent stronger compared to diabetics over 65 years.

Moving Towards Health Equity

Income-related health disparity is not exclusive to Canada, and important approaches have been made in a variety of health systems from which important lessons hold (Frank et al., 2015). At the societal level, there is need to encourage policies and

interventions that narrow socioeconomic disparities in addition to improving population-wide health indicators. For example, when Scotland became the first country in the United Kingdom to legislate a ban on smoking in public places in January 2006, subsequent analysis demonstrated not only a decrease in rates of pre-term and low-birth weight infants overall (Mackay, Nelson, Haw, & Pell, 2012) but a closing of outcome disparities across social deprivation scales (The Scottish Government, 2010). Similarly, policy interventions that promote health equity, including primary care reforms that have been demonstrated to improve access among disadvantaged populations in England's National Health System (Asaria et al., 2016), should be rigorously studied and pursued. One of the promising policies gaining traction in Canada is universal pharmaceutical coverage, which has been projected to reduce overall national drug spending by $7.3 billion while substantially improving prescription drug access to the vulnerable working poor (Morgan, Law, Daw, Abraham, & Martin, 2015; Morgan et al., 2015).

At the community level, enhanced urban planning in suburban areas with a focus on food deserts (lack of healthful foods) and food swamps (overabundance of unhealthy foods), walkability, access to public transit and safe bicycling are needed. Toronto's Strong Neighbourhoods Strategy 2020 is a powerful vehicle through which these goals can be integrated (City of Toronto, 2016). Toronto Community Health Profiles, a public-facing portrait of the health status of Toronto neighbourhoods hosted by the Toronto Community Health Profiles Partnership (Toronto Community Health Profiles Partnership, 2016), should be adequately resourced to encourage data-driven resource planning and promote public transparency. A core component of such urban planning must also include housing strategies. In At Home/Chez Soi, a four-year pragmatic trial across five Canadian cities, a Housing-First strategy that provided immediate housing and wrap-around supports to individuals living with homelessness and mental illness was found to be cost-saving for participants with high baseline needs and costs (Mental Health Commission of Canada, 2014). At the Toronto site, for every $10 invested in the intervention, $15.05 in savings was accrued, primarily through reduced hospitalizations, physician services and emergency room visits (Stergiopoulos et al., 2014). Improved community functioning was also observed compared to treatment-as-usual group. Recently, a Memorandum of Understanding between the United Kingdom's National Health Service and National Housing Federation is poised to lead to closer collaboration between the two sectors (Housing Learning and Improvement Network, 2014). As evidence accumulates on caring for our most vulnerable citizens, rigorous advocacy is needed to generate similar political will to adopt an integrated, evidence-based approach to health and housing in Ontario and Toronto.

At the individual level, health care providers need to re-orient their roles from a solo-participant in clinical decision-making to a patient-centred framework that considers the diverse dimensions of patients, especially their needs outside of the sphere of health care. In the end, health services should be enablers of, not barriers to, the overall well-being and life goals of patients. Care that is minimally disruptive becomes especially relevant in the context of multi-morbidity frequently encountered by patients with limited resources, especially when financial opportunity costs to attending medical appointments are high (May, Montori, & Mair, 2009). Coproduction of health (Batalden et al., 2015), a concept that recognizes the inter-dependency between providers and patients in creating the best health outcomes, is especially crucial in this population. At the same time, focus on high users of health care, such as the Health Links approach taken in Ontario, must recognize the inter-relatedness of income vulnerability and health care resource utilization (Fitzpatrick T et al, 2015; Rosella LC, et al, 2014).

Conclusion

As a publicly-administered service funded by taxation, Canada's health care system requires accountability on part of government to ensure a high quality of delivery that is commensurate with public investment into the sector. With $151 billion invested publicly in health care in 2014 (Canadian Institute for Health Information, 2014), this is a tall order. One of the six dimensions of quality identified by the Institute of Medicine and recently espoused by Health Quality Ontario is the principle of equity. As health care faces ever-increasing financial scrutiny, each reform effort must be accompanied by questions that focus on disparities: can the proposed new model benefit all segments of the population, or will it exacerbate outcome variation across socioeconomic gradients? Will the quality measure accurately capture marginalized populations, or will it mask them under a population-wide overall trend? Senator Hubert Humphrey once remarked, "The moral test of government is how it treats people in the dawn of life, the children, in the twilight of life, the aged, and in the shadows of life, the sick, the needy, and

the handicapped" (Berwick, 2014). As Ontario embarks on its journey towards quality through the Excellent Care for All Act, we must confront the persistent inequity in health outcomes to ensure that every Ontarian, including those living in Toronto, is given an equal footing to stand on.

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