



## Income, Income Inequality & Health: Background Document

### BACKGROUND

In Canada, social and economic conditions account for about half of population health outcomes (Standing Senate Committee on Social Affairs, Science and Technology, 2009). Health is determined by our living and working conditions and access to resources to take part in the customs and activities of society (Bernas & MacKinnon, 2015). Income, childhood environments, access to food and housing, education, and employment conditions influence health. For example, large life expectancy gaps of 15 years for men and 17 years for women exist between those living in the highest and lowest income areas in Winnipeg (CHI & WRHA, 2015). Public health must consider and influence these conditions to improve health.

This document summarizes the impact of income on health. It considers both average individual income and income inequality, which is a more population-level perspective. For this discussion, we consider income as the money that comes into a household from any/all sources. This includes employment insurance, social assistance, government benefits, earned wages, informal work, scholarships, bursaries, gifts, inheritances and other.

This discussion considers income as structurally imposed and socially produced. Income is often thought of as a result solely of an individual's hard work. Some believe that those on a low-income do not try hard enough or lack in ambition. This view assumes that every person in our society has equal access to opportunities, resources, and supportive environments. This is untrue, as Indigenous status, social class, disability, gender, immigrant status and experiences of racism and trauma influence access. For example, systematic cultural oppression and marginalization of Indigenous peoples create imbalances in fair access. The perception of income as individual merit deflects from our responsibility to address structures. These structures provide unfair advantage to some, while further disadvantaging others.

Everyone is entitled to a standard of living that supports their highest attainable mental and physical health status. Health is a fundamental human right. All do not equally experience health, as social status can determine access to these resources. Health relates closely to other human rights such as the right to food, housing, work, education, human dignity, non-discrimination, and equality (United Nations, 2000).

Although this document focuses on income, income is inseparably linked to the real costs of healthy living. The affordability of housing, food, childcare, transportation, education, and recreation is relative to income. These costs are also relative to household size. Subsidized or low cost goods reduce income pressures. The impact of low income can be mitigated by approaches such as affordable housing, subsidized childcare, income-related sliding scale bus passes, child benefits, tuition support, recreation passes, free Wi-Fi, and facilitated access to the labour markets. All these services and resources need to be free of racism and stigma. While these interventions are valuable and needed, the scope of this paper is specifically focused on income.



## INCOME, INCOME INEQUALITY & HEALTH: WHAT THE EVIDENCE SAYS

### **Income is structurally imposed and socially produced.**

- Income determines the conditions that shape the chances of good health throughout life. The quality of early childhood, education, food security, employment and housing are all in part determined by income (Raphael, 2015). People with less income than others experience material and social exclusion.
- Socio-economic data describes individual conditions such as education level, income, and occupation. This incorrectly attributes these conditions to the individual and their ability to gain income (Graham, 2007). Income is a reflection of experiences of advantage rather than individual merit.
- The labour market, educational path, and family history influence income, occupation and education. These conditions determine socio-economic position (Graham, 2007).
- Income inequality intensifies the health effects of social hierarchy. Negative health outcomes that increase as income decreases are impacted by income inequality. For example, there is a steep gradient in all cause mortality in working age adults associated with income inequality (Pickett & Wilkinson, 2015).

### **Income inequality impacts health.**

- 300 peer-reviewed studies explored relationships between income inequality and health or homicide. 70% found a significant association between higher inequality and worse outcomes (Pickett & Wilkinson, 2015).
- There is a correlation between income inequality and several measures of health. Measures include mental illness, teenage birth rates, drug use, child wellbeing, life expectancy, infant mortality, obesity, and homicides (Pickett & Wilkinson, 2015).
- There is a statistically significant linear relationship between income inequality and health. The effect increases step by step from the most unequal societies to most equal (Pickett & Wilkinson, 2015).
- Income rank (where a person is situated in income distribution) is a better predictor of self-reported health and chronic stress than average individual income (Wilkinson & Pickett, 2006).

### **Income and income inequality impact health through biological pathways.**

- Income influences access to material conditions. Nutritious food, housing, transportation, childcare, and recreation are vital components of health. Without these, individuals cannot reach their full health potential.
- The structure of society produces unequal positions in society. Social position impacts specific exposures as well as biological responses. For example, the environments people experience e.g., quality of housing or proximity to industrial areas can have positive or negative health impacts. Biological processes that are outcomes of unequal societal positions impact health. Negative health behaviours such as the use of substances for coping are influenced by social position (Graham, 2007).
- People who are stigmatized and socially rejected experience regular and ongoing stress. Ongoing stress can result in chronic activation of a high cortisol response. This has direct negative health impacts at a physical (cellular/organ) level (Dickerson & Kemeny, 2004).
- Those living with significant economic hardships experience poor health as measured by increased rates of diabetes, heart disease, cancer, clinical depression, physical impairment and



poor cognitive functioning (Lynch, Kaplan & Shema, 1997). Individuals who live without economic hardship have the highest health status measures.

- The trajectory (timing and speed) of functional decline in aging is socio-economically patterned. Functional aging decline occurs ten years earlier in groups with lower incomes (Graham, 2007).

#### **Income and income inequality impact health through psychosocial pathways.**

- Income inequality is linked to lower levels of social cohesion and generalized trust. Measures of how we relate to one another (friendship, social support, social networks) are protective of health (Pickett & Wilkinson, 2015).
- Individuals with less income feel negative social comparisons. This can cause stress and ill health (Hounkpatin, Wood & Dunn, 2016).

#### **Childhood experiences of advantage or disadvantage impact long-term health.**

- Childhood circumstances have powerful effects on adult health status. Effect of poor circumstances during childhood is independent of position and advantage in adulthood (Graham, 2007).
- Parents in households with low incomes are more than twice as likely to be chronically stressed as middle to high-income parents. Chronic stress in the family impedes children's ability to learn and build relationships with others (Bernas & MacKinnon, 2015).

#### **Income inequality is racialized in Canada, particularly in Winnipeg.**

- The rate of poverty among visible minorities in Canada was 28% compared to the total population rate of 16% in 2000. The difference was even greater for Aboriginal peoples, with a poverty rate of 34% (Canadian Council on Social Development, 2007).
- Almost half of recent immigrants to Canada live in poverty (Canadian Council on Social Development, 2007).
- Poverty disproportionately impacts the Indigenous population in Winnipeg. Aboriginal households in Winnipeg experience poverty at a rate of 2.5 times that of non-Aboriginal families. 1/3 of Aboriginal households in Winnipeg have incomes below the low-income measures (LIM) (Silver, 2015).
- Half of Aboriginal children under six in Winnipeg live in families with income below LIM (Silver, 2015).
- Aboriginal people represent 25% of those living in poverty in Winnipeg even though the Aboriginal people make up only 11% of the city's population (World Vision Canada, 2013; City of Winnipeg, 2016).
- 4 in 10 recent immigrants to Winnipeg live in poverty, whereas 2 in 10 of Canadian-born people living in Winnipeg live in poverty (Canadian Council on Social Development, 2007).

#### **Income & income inequality causes higher use of the healthcare system.**

- Approximately 20% of people make up each income quintile. People in the lowest income quintile use almost 30% of emergency department (ED) visits annually. In comparison, people in the highest income quintile use only 15% of all ED visits annually in Winnipeg (Doupe et. al., 2017).
- About 20% of people in the lowest income quintile had one or more visits to an ED annually. 11% of people who resided in the highest income areas in Winnipeg had one or more visits (Doupe et. al., 2017).



- Canadian healthcare costs increase as income decreases\* (PHAC, 2017). \*based on Canadian data on the costs of acute care in-patient hospitalizations, prescription medications (non-hospital) and physician consultations (general practitioner and specialist)
- Health inequalities cost the Canadian health care system an estimated \$6.2 billion annually. This represents over 14% of total annual expenditures on acute care in-patient hospitalizations, prescription medications and physician consultations (PHAC, 2017).
- The lowest income group in Canada accounts for 60% (\$3.7 billion) of the health care costs of socio-economic health inequalities (PHAC, 2017).

### Health and income data for Winnipeg

- Residents in lower income communities are more likely to die at an earlier age. Females in the lowest income community in Winnipeg have a life expectancy 17 years less than females in the highest income community. There is a 15-year difference for males. The premature mortality rate is 5-fold higher in the lowest income neighbourhood (CHI & WRHA, 2015).
- Lower household income is associated with higher infant mortality rates. There is a 4 times higher infant death rate in children in low-income community areas compared to the highest income areas of Winnipeg (CHI & WRHA, 2015).
- Lower income community residents are more likely to have chronic diseases such as hypertension, diabetes, and ischemic heart disease (CHI & WRHA, 2015).
- Lower income communities tended to have higher mental disorder and substance abuse prevalence (CHI & WRHA, 2015).
- Intentional and unintentional injuries hospitalization rates for residents living in the lowest income quintile are more than double than that for those living in the highest income quintile (CHI & WRHA, 2015).
- Newborns from families in lower income communities are more likely to be exposed to risk factors prenatally and more likely to be born prematurely (CHI & WRHA, 2015).

### SUMMARY

The impact of income inequity on health is well documented and staggering. Public health must advocate with and on behalf of structurally disadvantaged populations (World Health Organization, 2013; NCCDH, 2015; WRHA, 2013). There is an urgent need to narrow income gaps to effectively narrow health gaps. It is possible through a variety of policy means to do this. Poverty reduction and social inclusion actions such as affordable housing, accessible transportation, universal early learning and childcare and anti-racism will support this work. The health sector needs to plan with other stakeholders to reduce income inequity effectively. Until we do, the health toll on our most disadvantaged citizens will continue. The exorbitant overspending on unneeded health care services will continue unchecked.

### REFERENCES

Bernas, K., and MacKinnon, S. (2015). Poverty in Manitoba. In Jim Silver, Shauna MacKinnon, and Lynne Fernandez, *The Social Determinants of Health in Manitoba*. (75-91) Winnipeg: Canadian Centre for Policy Alternatives-Manitoba.

Canadian Council on Social Development (2007). *Populations Vulnerable to Poverty: Urban Poverty in Canada*, 2000. Retrieved July 24, 2017 from: <http://www.ccsd.ca/images/research/UPP/PDF/UPP-PopulationVulnerablePoverty.pdf>



- City of Winnipeg. (2016). *Community Trends and Performance Reports. Volume 1*. Retrieved May 24, 2017, from: [http://www.winnipeg.ca/cao/pdfs/CommunityTrendsandPerformanceReportVolume1\\_2016.pdf](http://www.winnipeg.ca/cao/pdfs/CommunityTrendsandPerformanceReportVolume1_2016.pdf).
- Centre for Healthcare Innovation (CHI) & Winnipeg Regional Health Authority (WRHA) (2015). *2014 Community Health Assessment*. Winnipeg MB: WRHA & CHI Evaluation Platform.
- Dickerson, S. and Kemeny, M. (2004). Acute stressors and cortisol responses: A theoretical integration and synthesis of laboratory research. *Psychological Bulletin*. 130 (3): 355-391.
- Doupe M, Chateau D, Derksen S, Sarkar J, Lobato de Faria R, Strome T, Soodeen RA, McCulloch S, Dahl M. (2017). *Factors Affecting Emergency Department Waiting Room Times in Winnipeg*. Winnipeg, MB. Manitoba Centre for Health Policy.
- Graham, H. (2007). *Unequal Lives. Health and Socioeconomic Inequalities*. New York: Open University Press.
- Hounkpatin, H.O., Wood, A.M., and Dunn, G. (2015). Does income relate to health due to psychosocial or material factors? Consistent support for the psychosocial hypothesis requires operationalization with income rank not the Yitzhaki Index. *Social Science and Medicine*. 150: 76-84.
- Lynch, J.W., Kaplan, G.A. and Shema, S.J. (1997). Cumulative impact of sustained economic hardship on physical, cognitive, psychological and social functioning. *New England Journal of Medicine*, 337 (26): 1889-95.
- NCCDH (National Collaborating Centre for Determinants of Health) (2015). Let's Talk: Advocacy and Health Equity. Antigonish, NS.
- Pickett, E., Wilkinson, R. (2015). Income inequality and health: A causal review. *Social Science & Medicine*, 128: 316-326.
- Public Health Agency of Canada (2017). *The Direct Economic Burden of Socioeconomic health inequalities in Canada*. Ottawa: Public Health Agency of Canada.
- Raphael, D. (2015). Making Sense of the Social Determinants of Health Scene in Canada. In Jim Silver, Shauna MacKinnon, and Lynne Fernandez, *The Social Determinants of Health in Manitoba*. (7-29) Winnipeg: Canadian Centre for Policy Alternatives-Manitoba.
- Silver, J. (2015). Spatially Concentrated, Racialized Poverty as a Social Determinant of Health: the Case of Winnipeg's Inner City. In Jim Silver, Shauna MacKinnon, and Lynne Fernandez, *The Social Determinants of Health in Manitoba*. (227-240) Winnipeg: Canadian Centre for Policy Alternatives-Manitoba.
- Standing Senate Committee on Social Affairs, Science and Technology. (2009). *A healthy productive Canada: A determinant of health approach*. Ottawa, Ontario. Retrieved May 24, 2017, from: <http://www.parl.gc.ca/content/sen/committee/402/popu/rep/rephealth1jun09-e.pdf>.
- Wilkinson, R., Pickett, E (2006). Income inequality and population health: A review and explanation of the evidence. *Social Science & Medicine*, 62:1768-1784
- World Health Organization (2013). *Implementing comprehensive HIV/STI programmes with sex workers: practical approaches from collaborative interventions*. Geneva: World Health Organization. Retrieved July 24, 2017 from [http://www.who.int/hiv/pub/sti/sex\\_worker\\_implementation/en/](http://www.who.int/hiv/pub/sti/sex_worker_implementation/en/).
- World Vision Canada. (2013). *Poverty at your doorstep*. World Vision Canada. Retrieved August 10, 2017 from: <https://www.reddoorshelter.ca/sites/default/files/files/WVCP-2013-PovertyAtYourDoorstep.PDF>
- WRHA (Winnipeg Regional Health Authority) (2013). *Health For All: Building Winnipeg's Health Equity Action Plan*. Winnipeg: Winnipeg Regional Health Authority.
- United Nations. (2000). *Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights*. General Comment No. 14. Retrieved June 21, 2017 from <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G00/439/34/PDF/G0043934.pdf?OpenElement>.