

# Work and Health

## Exploring the impact of employment on health disparities

Sheila Block, Director – Economic Analysis

Our working lives are an essential contributor to what keeps us healthy and what makes us sick. This paper explores the linkages between labour market policies, employment conditions, working conditions and health disparities. It discusses evidence on the impact of these factors on health outcomes. Finally, it outlines next steps the Wellesley Institute will be taking to further our understanding of the relationship between labour market policies, labour market outcomes and population health, and to advocate for policies that will reduce labour market inequality.

Increasing inequality in incomes and wealth in Canada has been widely documented and the labour market is an important contributor to it. Statistics Canada data shows that *inflation-adjusted* earnings of the bottom 20 percent of workers fell by 21 percent between 1980 and 2005, while the earnings of the top 20 percent increased by 16 percent.<sup>1</sup> This sharp divergence in earnings points to shifts in the structure of the labour market over this period. Recent research on the Ontario labour market shows a shift to an hourglass shape with jobs concentrated at the high and low ends, and a disappearing middle.<sup>2</sup> Increasing numbers of workers and an increasing share of the total labour force are at the bottom of that hourglass and endure low incomes and increased insecurity.

From a population health perspective, labour market poverty and inequality interact with and have an impact on a number of other social determinants of health including: incomes, housing, racism, immigration, and social inclusion.<sup>3</sup> The World Health Organization (WHO) Commission on the Social Determinants of Health stated:

Employment and working conditions have power-

ful effects on health and health equity. When these are good they can provide financial security, social status, personal development, social relations and self-esteem and protection from physical and psychological hazards – each important for health. In addition to the direct health consequences of tackling work-related inequities the health equity impact will be even greater due to work's potential role in reducing gender, ethnic, racial and other social inequities.<sup>4</sup>

Our work affects our health through a number of different pathways. A direct pathway is the impact of work on our health through our incomes. A recent report from Statistics Canada provides a stark Canadian example of the impact of income and income inequality. Using data from 1991 to 2001, a clear socio-economic gradient emerged for life expectancy at age 25 for both men and women. The difference in life expectancy between the bottom and the top deciles was 7.4 years for men and 4.5 years for women.<sup>5</sup> While these differences are striking, an equally important finding is that life expectancy increases with each and every decile.

When these researchers considered health-related quality of life they found the gaps were even greater. Men in the highest income group had 14.1 more years of healthy living than those in the lowest income group. That gap between women in the lowest and highest income groups was 9.5 years. Once again there was a gradient evident when comparing those in the middle of the income scale with those at the top – an extra 4.7 years of health-adjusted life expectancy for men and 2.7 years for women.<sup>6</sup> The social gradient in health is a worldwide phenomenon observed in high, middle, and low income countries.<sup>7</sup>

This recent Canadian evidence confirms earlier findings. At least 17 Canadian studies of individual-level income data and at least 11 studies of small geographic area-based socio-economic data have found a link between income and health.<sup>8</sup>

**EMPLOYMENT RELATIONS, EMPLOYMENT CONDITIONS, WORKING CONDITIONS AND HEALTH**

To understand how our working lives affect our health we need to understand the pathways that link the two. Research for the WHO Commission on Social Determinants of Health provided a framework for and description of three such pathways.<sup>9</sup> The first is employment or labour relations – the institutional framework that governs the relationships between employers and employees, and the social programs and policies that affect our working lives. The second pathway is employment conditions, which encompasses access to employment, unemployment and the security of work. The

final pathway is working conditions, the way work is organized. This includes the physical and chemical work environment, ergonomics, and the psychosocial work environment.

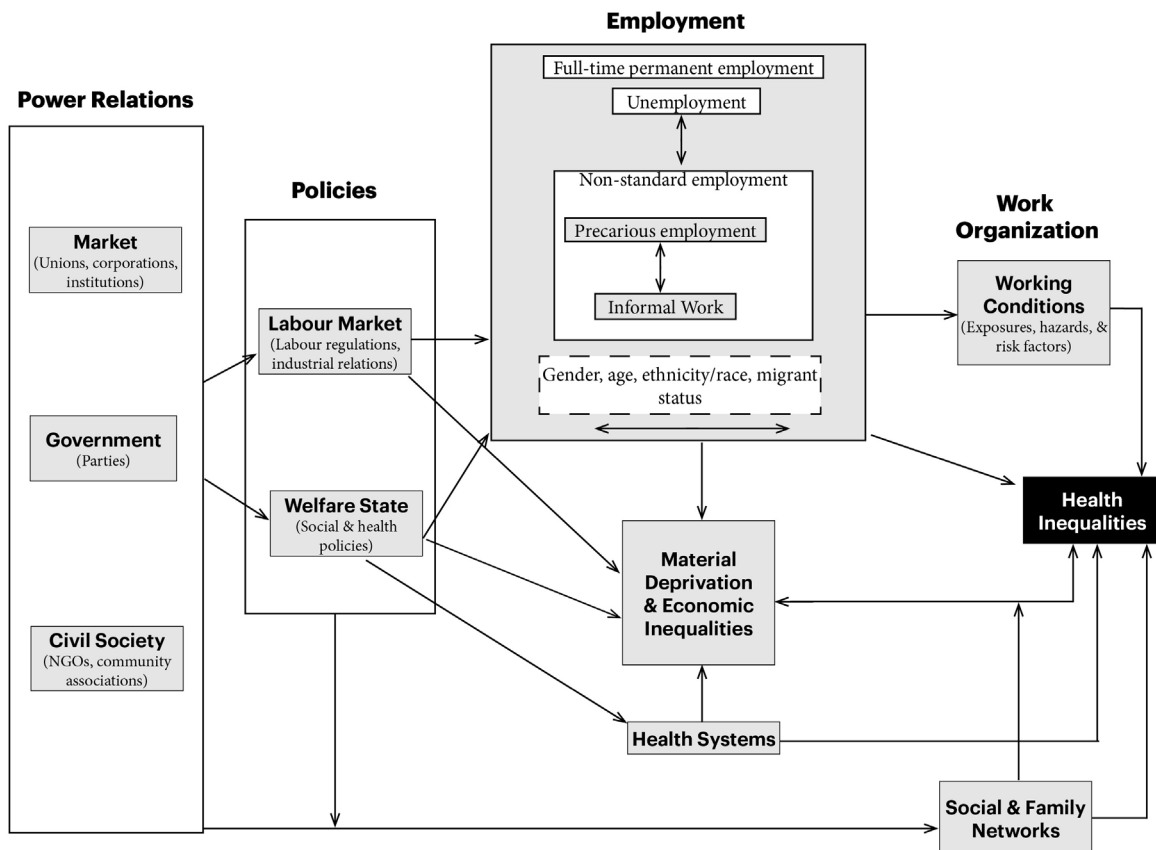
**LABOUR RELATIONS**

A model of the impact of labour relations on health outcomes was developed for the WHO Commission on the Social Determinants of Health. This model mapped relationships between different sectors of society, relative bargaining power, social programs and policies and health outcomes.<sup>10</sup>

The link between employment/ labour relations and health is described by the authors:

Where social safety nets are adequate workers can exit the labour market if they need to and avoid turning to hazardous work or adverse working environments....The key to understanding employment relations and the impact they have on the

**FIGURE 1: MACRO THEORETICAL FRAMEWORK OF LABOUR RELATIONS AND HEALTH INEQUITIES**



Adapted from Mutaner et al., 2010

health of workers is to realize the importance of the bargaining power that workers have; a leverage which allows them to push for a stronger welfare state and better working conditions.<sup>11</sup>

While the pathways and causation are complex, there is evidence that the relative power of labour institutions and welfare state is linked to population health.<sup>12</sup> Decreasing union density in the private sector in Canada highlights the importance of exploring these linkages further.

### LABOUR MARKET CONDITIONS

Labour market and employment conditions also have an impact on health outcomes. Employment and labour market conditions include how easy it is to find work, what kind of work you can find and its terms and conditions. Terms and conditions can range from secure employment with good pay and benefits to precarious work where conditions and pay are often below min-

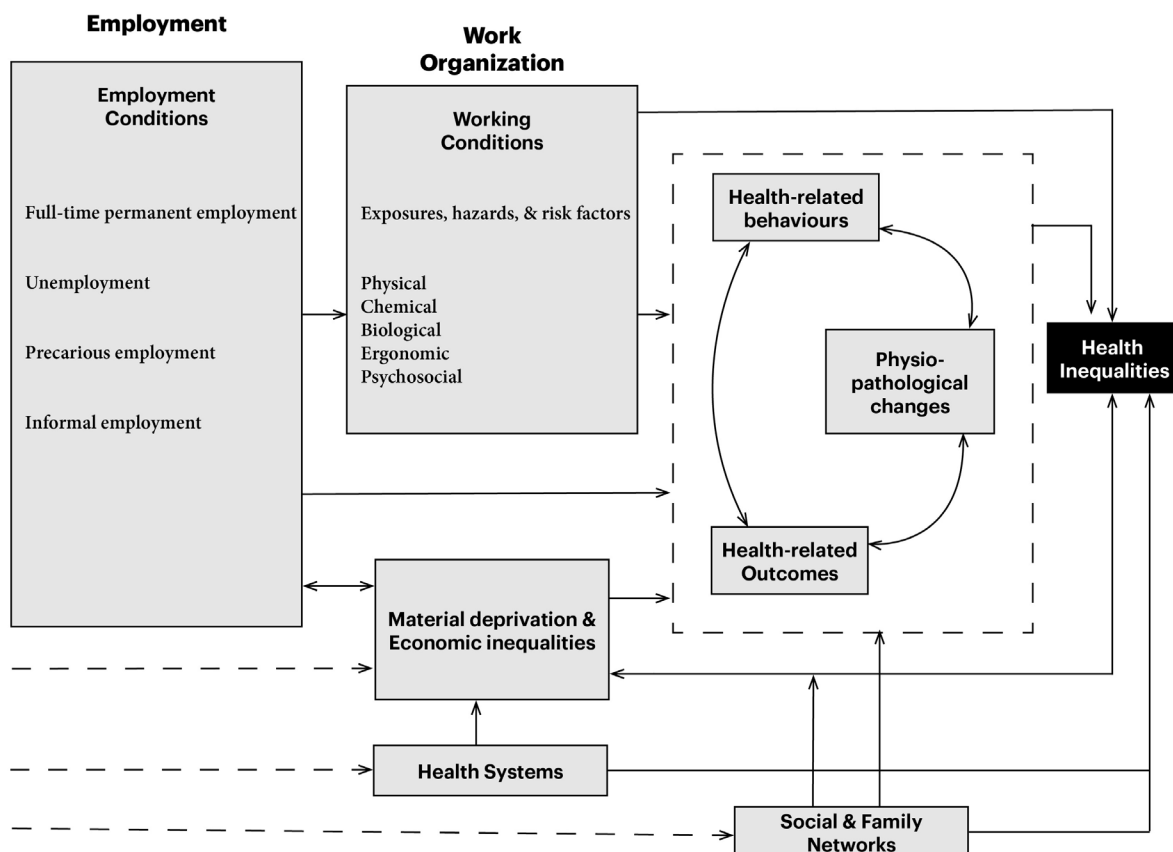
imum legislated standards.

A model was developed for the WHO Commission on the Social Determinants of Health to describe the potential links between employment conditions and health inequalities.<sup>13</sup> These links flow through incomes and working conditions to health outcomes through psychosocial factors, health-related behaviours and physiopathological changes.

There is a body of research that provides evidence on the impact of employment conditions on health. The link between unemployment and ill-health has been clearly established. A study in the European Union identified unemployment as one of the ten most important contributors to the total burden of disease in the 1990s.<sup>14</sup> Research on the aggregate level has shown that high levels of unemployment in both society and neighbourhood are correlated with poor health and increased mortality.<sup>15</sup>

However, the negative impact on health is not limited to unemployment. Precarious employment encom-

**FIGURE 2: MICRO THEORETICAL FRAMEWORK OF EMPLOYMENT CONDITIONS AND HEALTH INEQUITIES**



Adapted from Benach et al., 2010

passes forms of work that have limited social benefits and statutory entitlements, job insecurity, low wages, and high risks of ill health.<sup>16</sup> Increasing numbers of Canadians are precariously employed. Over the period 1976-2003, growth rates of multiple job holders, self-employed with no employees and part-time workers outstripped growth rates in total employment.<sup>17</sup> And, it appears that the great recession of 2008 has accelerated the move to precarious work.<sup>18</sup>

Precarious work has an impact on health both through occupational health and safety (OHS) and through the employment relationship itself. In a review of the evidence in industrialized countries, the vast majority of studies found precarious employment was associated with deterioration in occupational health and safety with respect to injury rates, disease risk, hazard exposures, and knowledge of OHS and regulatory responsibilities.<sup>19</sup> Of the more than 25 studies on outsourcing and organizational restructuring/downsizing, well over 90 percent found a negative association with OHS. Fourteen of 24 studies found a negative association with temporary work. The findings were more ambiguous with respect to small business and part-time workers.

The ill effects of precarious work are not limited to OHS outcomes. Researchers have developed the concept of “employment strain” by describing and establishing the links between health and the employment relationship itself – how people acquire work, how they keep work and how they negotiate the terms and conditions of work. Precarious work is associated with higher employment strain while more stable, standard working relationships are associated with less employment strain. For example, Canadian research shows the higher risk of self-reported ill health and a greater incidence of working in pain among precarious workers compared to workers in similar jobs who are in more secure forms of employment.<sup>20</sup>

A key link between work and health is the availability of health-related benefits. Having a low-wage job with no health benefits can mean an inability to buy medically necessary prescription drugs, as well as dental and other health services that are not publicly funded.<sup>21</sup>

It is also important to examine the relationship between health disparities, employment, and different population groups. The interaction between immigration status, employment and health disparities is crucial for the Canadian workforce that is increasingly reliant on immigrants. Migrant workers are over represented in dangerous industries and in hazardous jobs, occupations and tasks. A recent systemic review found

48 scientific papers, the majority of studies show that immigrant workers are at high risk for occupational injuries, diseases and death. This review also includes some analysis of social exclusion, lack of health and safety training, fear of reprisals for demanding better working conditions, linguistic and cultural barriers that minimize the effectiveness of training, incomplete surveillance of foreign workers, and difficulty accessing care and compensation when injured.<sup>22</sup>

The recent increased reliance on temporary foreign workers in the Canadian labour force means that more attention needs to be paid to the health impacts of this form of employment arrangements. In 2009, for the first time, the number of temporary workers entering Canada exceeded the number of new permanent residents.<sup>23</sup>

### **WORKING CONDITIONS**

The final pathway is the link between working conditions, the social gradient and health outcomes. The WHO model describes these linkages through physical, chemical, biological, ergonomic and psycho-social risks. Work-related injuries and occupational illnesses are a well-researched and documented area. There are estimates that there were five workplace fatalities per working day in Canada.<sup>24</sup>

Researchers have also documented the link between work stress and physical and mental health. Job – Demand control models have shown that employees’ control over how work is done and their workload have health impacts. Jobs with low levels of worker control and high expenditures of psychosocial effort expose employees to job strain. Job strain appears to lead to less job satisfaction, exhaustion and depression, and in the long run to stress-related illnesses, including cardiovascular disease.<sup>25</sup> A recent study of more than 17,000 women health professionals found those with high levels of job strain have a significantly higher risk of suffering a heart attack or other adverse cardiovascular event compared to those who report less stressful work lives. Researchers found an overall 40 percent increased risk for heart attack, stroke, the need for invasive procedures such as bypass surgery, and death from cardiovascular disease. The study also found that job insecurity was linked to risk factors for cardiovascular disease, such as high blood pressure, elevated cholesterol levels and excess body weight. However, job insecurity did not translate into a higher risk of heart attacks and other cardiovascular conditions.<sup>26</sup>

## CONCLUSIONS AND NEXT STEPS

Labour market conditions are an important contributor to rising inequality in Canada. There is evidence that draws important linkages from labour market conditions and policies to population health outcomes. Left unchecked, increasing inequality in Canada will result in increased health inequities and worsening population health outcomes. On the other hand, labour market policies that improve protection for workers, increase bargaining power, and contribute to more equitable workforce development have the potential to improve labour market outcomes, and therefore population health.

The Wellesley Institute will be further exploring the impact labour market policies, conditions, and outcomes have on population health. It will be working with partners to advocate for pragmatic policy solutions that will advance population health through improvements in labour market equity.

## ENDNOTES

- 1 Statistics Canada, Median earnings, in 2005 constant dollars, of full-time full-year earners by quintile, Canada, 1980 to 2005. Available at: <http://www12.statcan.gc.ca/census-recensement/2006/as-sa/97-563/table/t1-eng.cfm>.
- 2 Toronto Workforce Innovation Group (2010). *An Economy Out of Shape: Changing the Hourglass*. Toronto: Author.
- 3 Commission on Social Determinants of Health (2008). Background 3: Key Concepts. Geneva: Author 1. Retrieved October 4, 2010 from [http://www.who.int/social\\_determinants/final\\_report/key\\_concepts\\_en.pdf](http://www.who.int/social_determinants/final_report/key_concepts_en.pdf)
- 4 Commission on Social Determinants of Health (2008). Closing the gap in a generation: health equity through action on the Social Determinants of Health. Geneva: Author, 72.
- 5 McIntosh, C., Fines, P., Wilkins, and Wolfson M, (2009). Income disparities in health-adjusted life expectancy for Canadian adults, 1991 to 2001. *Health Reports*. 20 (4), 58. Retrieved October 4, 2010 from <http://www.statcan.gc.ca/pub/82-003-x/2009004/article/11019-eng.htm>
- 6 McIntosh, C., 58 .
- 7 Commission on Social Determinants of Health (2008). Background 3: Key Concepts. Geneva. Retrieved October 4, 2010 [http://www.who.int/social\\_determinants/thecommission/finalreport/key\\_concepts/en/index.html](http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/index.html).
- 8 Auger, N., and Alix, C., (2009). Income, Income distribution and Health in Canada, In Raphael, D. (ed) *Social Determinants of Health* 2nd Edition, pp. 61-75. Toronto: Canadian Scholars' Press. p.63.

- 9 Employment Conditions Knowledge Network. (2007) Employment Conditions and Health Inequities Final Report to the WHO Commission on Social Determinants of Health Geneva: WHO, 20.
- 10 Employment Conditions Knowledge Network, 30-32.
- 11 Benach, J., Muntaner, C., Chung, H., Solar, O., Santana, V., Friel, S, Tanja AJ Houweling, Marmot, M., (2010). The importance of government policies in reducing employment related health inequalities *BMJ*; 340:c2154, 1393.
- 12 Benach, J., Muntaner, C., Chung, H., Solar, O., Santana, V., Friel, S, Tanja AJ Houweling, Marmot, M., 1394.
- 13 Benach, J et al. (2010). A Micro-level Model of Employment Relations and Health Inequities. *International Journal of Health Services*. Volume 40 Number 2, 223-227.
- 14 Benach, J., Muntaner, C., Chung, H., Solar, O., Santana, V., Friel, S, Tanja AJ Houweling, Marmot, M., (2010), 40:c2154, 1393.
- 15 Employment Conditions Knowledge Network, 54.
- 16 Vosko, Leah (2005). Precarious employment: towards an improved understanding of labour market insecurity. In Vosko, L (Ed) *Precarious Employment* Montreal and Kingston: McGill Queens University Press, 3.
- 17 Tremblay, Diane Gabrielle (2009). Precarious work and the labour Market. In Raphael, D. (ed) *Social Determinants of Health* 2<sup>nd</sup> Edition (pp.75-87). Toronto: Canadian Scholars' Press, 79-81.
- 18 Canadian Labour Congress (2010). Recession Watch Bulletin Issue 4 – Winter 2010. Available at: [http://beta.images.theglobeandmail.com/archive/01028/CLC\\_on\\_Canadian\\_em\\_1028026a.pdf](http://beta.images.theglobeandmail.com/archive/01028/CLC_on_Canadian_em_1028026a.pdf)
- 19 Quinlan M., Mayhew C., Bohle, P., (2001). The global expansion of precarious employment, work disorganization, and consequences for occupational health: a review of recent research. *International Journal of Health Services*, 31, 335-414.
- 20 Lewchuk, W, de Wolff, A., King, A., Polyani, M., (2005). The Hidden Costs of Precarious Employment: Health and the Employment Relationship (pp.141-162) in Vosko, L (ed) *Precarious Work* Montreal and Kingston: McGill Queens University Press, 161.
- 21 Jackson, A., (2009). The Unhealthy Canadian Workplace, In Raphael, D., (ed) *Social Determinants of Health* 2<sup>nd</sup> Edition (pp. 99-114). Toronto: Canadian Scholars' Press, 102.
- 22 Benach J, Muntaner C, Chung H, Benavides, F, (2010) Immigration, Employment Relations and Health: Developing A Research Agenda *American Journal of Industrial Medicine* 53: 338-343.
- 23 Canada Employment and Immigration. Available at: <http://>

[www.cic.gc.ca/english/resources/statistics/facts2009/permanent/01.asp](http://www.cic.gc.ca/english/resources/statistics/facts2009/permanent/01.asp) and <http://www.cic.gc.ca/english/resources/statistics/facts2009/temporary/08.asp>

- 24 Sharpe, Andrew and Hart, J., (2006). Five deaths a Day: Workplace Fatalities in Canada Centre for Study of Living Standards Research Paper cited in Jackson, p.103.
- 25 Lewchuk, W, de Wolff, A., King, A., Polyani, M., (2003). From Job Strain to Precarious Employment: Health Effects of Precarious Employment. *Just Labour* vol 3. Fall 2003, 24.
- 26 Ubelacker, S., November 15, (2010). Women with high job strain more likely to suffer heart attack, *The Globe and Mail*. Available at: <http://www.theglobeandmail.com/news/national/time-to-lead/work-life-balance/women-with-high-job-strain-more-likely-to-suffer-heart-attacks-study-says/article1798469/print/>.

**The Wellesley Institute is a leading national, non-partisan research and public policy institute. Our focus is on developing applied research and community-based policy solutions to the problems of urban population health and health disparities.**

©The Wellesley Institute, 2010