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***Re: Workplace wellness in the Ontario Ministry of Labour's [Changing Workplaces Review](#)***

Dear Misters Mitchell and Murray:

I am pleased to offer the following comments on the present consultation on behalf of the Centre for Science in the Public Interest (Canada).<sup>1</sup> Our comments are in keeping with the broad scope of the review to account for societal changes affecting the health and productivity of the Ontario workforce.

**1. The human and economic burden of poor diet at work and home is enormous.**

Poor nutrition is *the* leading cause of preventable death and disability in Canada. Improving nutrition could be a major driver of increased workforce productivity and, in turn, a major source of enhanced human liberty, quality of life, and childhood life chances in peaceful countries with modern health care systems, like Canada. Good nutrition can also provide important relief for provincial and federal Medicare and public and private employer disability pension budgets and shorten wait times for publicly funded health care. An estimated 48,000 to 66,000 Canadians die each year as a result of nutrition-related heart disease, stroke, cancer, and diabetes caused by excess sodium intake, risky blood cholesterol and glucose levels, inadequate fruit and vegetable intake, and excess abdominal body fat.<sup>2</sup>

In high-sodium-consumption countries like Canada, there is a 90% lifetime risk of developing hypertension—the world's leading single risk factor for death, due mainly to heart attacks and strokes.<sup>3</sup> And Type II diabetes is mainly a creation of unhealthy diet. Nearly two-thirds of Canadian adults are currently overweight<sup>4</sup> which is estimated to cost billions of dollars in health care costs and lost productivity.<sup>5,6,7</sup> Annual nutrition-related financial losses, even at a paltry \$25,000 per lost life-year totalled more than \$21 billion in Canada in 2010 based on the estimated 864,034 life-years lost.<sup>8</sup> While Health Canada has never put a dollar value on the economic losses associated with poor diet, it recently estimated that people consuming an unhealthy diet are 11% less productive than those who have a

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healthy diet.<sup>9</sup> This suggests that the potential indirect health benefits of better nutrition in a \$2 trillion economy could also be in the tens of billions of dollars per year. Ways to effectively prevent nutrition-related illness also take on heightened importance Ontario and other governments consider implementing a national pharmacare program.<sup>10</sup>

## **2. Food, tobacco, alcohol, and other industries resist new nutrition regulations.**

Efforts to regulate the food industry in aid of a healthier workforce and society may be resisted by affected food companies. A recent World Health Organization consultation document noted that some industries try to undermine the adoption of good public health policies by using:

- *front groups, lobbies, promises of self-regulation, lawsuits and industry-funded research that confuses the evidence and keeps the public in doubt;*
- *gifts, grants and contributions to worthy causes that cast these industries as respectable corporate citizens in the eyes of politicians and the public; and*
- *arguments that place the responsibility for harm to health on individuals, and portray government actions as interference in personal liberties and free choice.<sup>11</sup>*

Plainly, if food, alcohol, tobacco, and pharmaceutical industries succeed in undermining or stalling the enactment of effective prevention laws and policies, the human and economic toll of diet-related disease will be externalized to other sectors of the economy (and all of society) which generate the bulk of economic activity in Canada.

## **3. Workplaces may be slow to adopt wellness programs despite evidence of benefits.**

Dr. Graham Lowe, a consultant to Health Canada and the Canadian Federal Labour Standards Review noted that even when faced with compelling evidence of the productivity gains possible by adopting workplace wellness policies, institutional inertia, difficulties mobilizing people around a new workplace vision, a tendency to substitute rhetoric for action, and unexplained lack of management commitment to healthy workplaces all impeded action by employers.<sup>12</sup>

Similarly, a report of the Industrial Accident Prevention Association concluded that, though employers began to recognize that unhealthy work environments were costly to productivity in the 1970s, part of the reason why Canadian employers have been slower than American counterparts to promote healthy lifestyles among workers is that part of the costs are absorbed by public health care even though Canadian employers are also subject to escalating health related losses due to absenteeism, prescription drug costs, short and long term disability costs.<sup>13</sup> Some employers may be reluctant to invest in prevention for fear that employee turnover may deliver the benefits to another employer,<sup>14</sup> i.e., employers' inability to recoup their training investment for "poached" employees.<sup>15</sup>

It is perhaps not surprising that NASA, the US National Aeronautics and Space Administration, was one of the early adopters of workplace wellness programs. In 1972, NASA established a work-site exercise program followed by a nutrition education and counselling programs in 1977, no doubt after noticing the toll that legions of ill-nourished highly trained scientists and engineers sitting in front of computer terminals for long hours, ironically, in efforts to move inanimate objects long distances and

safeguard the lives of a handful of astronauts. Its efforts were led by NASA's Office of the Chief Health and Medical Officer, and enjoyed the aid of some high level technical assistance from the President's Council on Fitness and Sports (from 1990 to 2000) and a review in 2005 by the Food and Nutrition Board of the Institute of Medicine of the National Academies of Science.<sup>16</sup>

#### **4. Conventional health & safety law does not reflect modern workplace challenges.**

Occupational health and safety protections in the Ontario (and federal) law are designed to prevent and reduce the toll of workplace mortality and morbidity primarily attributable to accidents and exposure to chemical and similar hazards.<sup>17</sup> However, the human and economic costs of preventable diet- and physical inactivity-related diseases such as cardiovascular disease, diabetes, and certain forms of cancer compare very unfavorably—to the annual death toll attributable to “traditional” industrial diseases and workplace accidents that, for instance, were 902 in 2013, Canada-wide.<sup>18</sup>

The shift from an labour-intensive agriculture and industrial economy to an increasingly knowledge and service based economy involving considerable use of labour-saving devices has transformed occupational requirements to now oblige many workers, like never before, to remain sedentary for most of the workday.<sup>19</sup> One authority estimated that 100 years ago, 50% of the populations got enough exercise from the workday to stay in shape, and today less than 2% do.<sup>20</sup> Widespread use of computers, e-mail, the Internet, elevators, teleconferences, have essentially compelled many workers to remain seated throughout the work day.<sup>21</sup> Moreover, evidence dating back to the 1950s suggest that many employees engaged in sedentary occupations--such as bank tellers, airline ticket agents, file clerks, radio broadcasters, long-haul pilots, mail sorters—have higher rates of premature death and disability due to the sedentary nature of their work.

Some of the earliest peer-reviewed evidence of this trend came from large scale studies of railroad workers in Italy and the United States,<sup>22</sup> bus conductors compared to drivers in the United Kingdom,<sup>23</sup> and postal office clerks compared to letter carriers in the United states<sup>24</sup> For example, in a five-year study of causes of death among more than 172,000 Italian railway workers aged 40-59 from 1963-68, found that myocardial infarction and sudden death of probable coronary origin were substantially higher among railway workers in sedentary compared to heavy workers.<sup>25</sup> A study of the autopsies of 2,600 men aged 40-59 in five Eastern European towns in the 1970s found that found that there was a strong association, independent of cause of death, between the extent of raised lesions on the coronary arteries and lack of physical activity at work.<sup>26</sup>

These types of risks are virtually ignored by current provincial (and federal) occupational health law regimes which were conceived to safeguard workers in much more physically active jobs – such as stevedores, postal carriers, and miners--who were exposed to other sorts of health risks often related to excessive physical demands.

#### **5. The workplace is an efficient forum for mounting effective health-promotion programs.**

The workplace is an ideal and convenient place to promote healthy eating to adults because it provides a captive audience and various on-site opportunities for positively influencing employees' food choices<sup>27</sup> and because, on average, working Canadians spend 50% of their waking hours in the

workplace.<sup>28</sup> Health Canada remains a proponent of, at least voluntary, workplace wellness programs to increase physical activity. The thrust of its efforts – for example in its publication, *The Business Case for Active Living at Work*<sup>29</sup>--is to furnish evidence to health and worker advocates to persuade reluctant employers of the wisdom of *voluntarily* adopting such programs. Similarly, the Ontario Public Health Association's Nutrition Resource Centre identified 17 critical success factors for establishing workplace nutrition programs in the workplace, of which at least nine involve overcoming resistance from managers, caterers, and other decision-makers. Cooperation from those parties would be greatly facilitated by statutory duties similar to those established to address traditional causes of industrial diseases and injuries.

## 6. Recommendations

Accordingly, we recommend that the Ministry of Labour

- (a) **Food Procurement and Foodservice at Work:** establish nutrition standards for food procurement and food services available at workplaces, perhaps beginning with Ministry of Labour worksites, Government of Ontario worksites, and worksites where employees are engaged for long shifts or at inconvenient distances from commercial grocery stores;
- (b) **Expand the scope of occupational health and safety laws and programs to include preventing nutrition- and physical-inactivity-related disease:** ensure that occupational health and safety programs reflect the enormous preventable burden of diet- and inactivity-related disease in recognition that the work should not make a net negative impact on the health of workers by exacerbating poor diet and physical inactivity, nor by impairing workers to healthy food. Like school, the workplace is a forum where adults can learn about the value of physical activity and good diet making it an efficient location to promote health-and productivity-enhancing lifestyles.
- (c) **Data collection by employers:** Promoting workplace wellness reforms could begin with mandatory data collection and reporting. A first step to promote the prevention of non-communicable diseases might be requiring employers to report prescribed information about workplace foodservice options, use of consulting dietitian services, physical activity ratings of all job descriptions, and statistics related to absences and insurance claims concerning to NCDs. Collecting and reporting such statistics can inform evaluation research and help employers, occupational health experts, and government policy-makers quantify the risk of NCDs for productivity losses, calculate total NCD benefit pay-outs, and prioritize mitigating those risks. The workplace (like the school) can be an efficient forum for reaching entire families to improve population-level nutrition status.

I look forward to helping the Review explore these matters.

Respectfully submitted,



Bill Jeffery, LLB, National Coordinator  
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## References

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- <sup>1</sup> CSPI-Canada is a non-profit health advocacy organization specializing in nutrition and food safety with offices in Ottawa and staff in Toronto. To maintain its independence, CSPI does not accept funding from government or industry (though some do subscribe to our *Nutrition Action Healthletter*). Revenue from the sale of advertisement-free *Nutrition Action* finance CSPI's advocacy. Nearly 100,000 households and health professionals subscribe, on average, one subscriber within a one block radius of every Canadian street corner.
- <sup>2</sup> World Health Organization. *Global Health Risks: Mortality and burden of disease attributable to selected major risks*. 2009. W.H.O. Geneva. See, esp. p. 17. Available at: [http://www.who.int/healthinfo/global\\_burden\\_disease/GlobalHealthRisks\\_report\\_full.pdf](http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf)
- Statistics Canada. *Mortality, Summary List of Causes*. 2008. Ottawa. Catalogue no. 84F0209X which indicates the total number of deaths in 2008 was 238,617, 20% of which is: 47,723. Available at: <http://www.statcan.gc.ca/pub/84f0209x/84f0209x2008000-eng.pdf>
- See also: The Washington-based Institute for Health Metrics and Evaluation's disease risk factor calculator which uses country data compiled by the World Health Organization, to estimate, e.g., that 65,722 deaths in Canada are due to dietary risks: <http://www.healthmetricsandevaluation.org/gbd/visualizations/gbd-arrow-diagram>
- <sup>3</sup> Vasan RS, Beiser A, et al. Residual lifetime risk for developing hypertension in middle aged women and men: The Framingham Heart Study. *Journal of the American Medical Association*. 2002; 287:1003-1010 cited in Appel L (Panel Chair). *Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate*. U.S. Institute of Medicine. Washington, D.C. 2005 at 354.
- <sup>4</sup> Shields M, Gorber SC, et al. *Bias in self-reported estimates of obesity in Canadian health surveys: An update on correction equations for adults*. September 2011. *Health Reports*. Vol. 22, no. 3. Statistics Canada. Catalogue no. 82-003-XPE in Table 4 at p. 6. Two studies tracking adult over-weight and obesity in 2008 and 2007-2009 put the combined rate at approximately 60.5%. Available at: <http://www.statcan.gc.ca/pub/82-003-x/2011003/article/11533-eng.pdf>
- <sup>5</sup> Public Health Agency of Canada. *Obesity in Canada*. 2010. Ottawa at 28-29. Available at: <http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/oic-oac/assets/pdf/oic-oac-eng.pdf>
- <sup>6</sup> Anis AH, Zhang W, et al. Obesity and overweight in Canada: An updated cost-of-illness study. *Obesity Rev*. 2009;11(1):31-40.
- <sup>7</sup> Behan DF, Cox SH, et al. *Obesity and its Relation to Mortality and Morbidity Cost*. December 2010. Committee on Life Insurance Research. Society of Actuaries. University of Manitoba. Winnipeg.
- <sup>8</sup> The Washington-based Institute for Health Metrics and Evaluation's disease risk factor calculator also uses country data compiled by the World Health Organization, to estimate, e.g., that 65,722 deaths in Canada are due to dietary risks: <http://vizhub.healthdata.org/irank/arrow.php>
- World Health Organization. *Global Health Risks: Mortality and burden of disease attributable to selected major risks*. 2009. W.H.O. Geneva. See, esp. p. 17. Available at: [http://www.who.int/healthinfo/global\\_burden\\_disease/GlobalHealthRisks\\_report\\_full.pdf](http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf) – Statistics Canada. *Mortality, Summary List of Causes*. 2008. Ottawa. Catalogue no. 84F0209X which indicates the total number of deaths in 2008 was 238,617, 20% of which is: 47,723. Available at: <http://www.statcan.gc.ca/pub/84f0209x/84f0209x2008000-eng.pdf>
- <sup>9</sup> *Canada Gazette, Part I*. June 13, 2015, pages 1192-1265 at 1203. Available at: <http://www.canadagazette.gc.ca/rp-pr/p1/2015/2015-06-13/pdf/g1-14924.pdf>
- <sup>10</sup> Health minister says it's time to fix drug plan. *The Daily Gleaner* (New Brunswick). June 26, 2015 Friday. Pg. A1.
- <sup>11</sup> World Health Organization. Interim report. Fulfilling the promise of world leaders to call on the private sector to concretely contribute to national NCD responses in five specific action areas WHO Global Coordination Mechanism on NCDs. Jul 2015. Geneva. Available at: [http://www.who.int/global-coordination-mechanism/wg3\\_1\\_interim\\_report\\_corrected\\_24aug\\_english.pdf?ua=1](http://www.who.int/global-coordination-mechanism/wg3_1_interim_report_corrected_24aug_english.pdf?ua=1)
- <sup>12</sup> G.S. Lowe, *Healthy Workplace Strategies: Creating Change and Achieving Results*, (Kelowna, BC: The Graham Lowe Group Inc., 2004) at 7 and 26 available at [http://www.cprn.org/documents/26838\\_en.pdf](http://www.cprn.org/documents/26838_en.pdf) See also: K. Bachmann, *More than Just Hard Hats and Safety Boots: Creating Healthier Work Environments*, (Ottawa: Conference Board of Canada, 2000) at 27-8 available at <http://www.conferenceboard.ca/documents.asp?rnext=335>
- <sup>13</sup> IAPA, *Creating Healthy Workplaces*, (Toronto: IAPA, 2004) at 7 available at [http://www.iapa.ca/pdf/2004\\_HWP\\_Healthy\\_Workplace\\_FINAL.pdf](http://www.iapa.ca/pdf/2004_HWP_Healthy_Workplace_FINAL.pdf)
- <sup>14</sup> L.L. Barry, A.M. Mirabito, et al., "A health Care Agenda for Business: As Health Care Costs Continue to Skyrocket, Companies Must Aggressively Seek Ways to Work with Employers and Providers to Reduce Costs, While Improving Quality" (2004) 45 MIT Sloan Management Review 56.
- <sup>15</sup> Canadian Chamber of Commerce, submission to the 2005 Canada Labour Standards Review at 9. While counselling the Review to *not* mandate training requirements (at 10), the Chamber did not offer a resolution to the free rider problem.

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<sup>16</sup> Committee to Assess the Worksite Health Needs of NASA Employees, Food and Nutrition Board, *Integrating Employee Health: A Model Program for NASA*, (Washington, Institute of Medicine, National Academies of Sciences, 2005).

<sup>17</sup> By the same token, since 2000, tremendous interest in public health has focussed almost exclusively on fears about infectious diseases in animal and human populations caused by contaminated water, SARS, BSE, Avian Influenza, and West Nile Virus. According to Health Canada's West Nile Virus Surveillance database for the years 2002-2004, 34 human deaths were attributed to the disease in 2002 and 2003 and none in 2004. (See: <http://www.phac-aspc.gc.ca/wnv-vwn/>). According to the Naylor Report, SARS caused 44 Canadian deaths in 2003 (See: National Advisory Committee on SARS and Public Health, (David Naylor, Chair), *Learning from SARS: Renewal of Public Health in Canada*, (Toronto: Health Canada, October 2003) at 20 (see: <http://www.hc-sc.gc.ca/english/protection/warnings/sars/learning.html>). And the contaminated water supply in Walkerton, Ontario caused or contributed to the deaths of seven Canadians in 2000 (see: Hon. Justice Dennis R. O'Connor, *Report of the Walkerton Inquiry*, (Toronto: Queen's Printer for Ontario, 2002) at 51 (at: <http://www.attorneygeneral.jus.gov.on.ca/english/about/pubs/walkerton/part1/>). Avian Influenza, Mad Cow Disease (BSE) have not caused any human deaths in Canada

However, only a few dozen deaths have been attributed to these outbreaks, or about 1/10<sup>th</sup> of 1% of the deaths attributable to disease caused by poor diet and physical inactivity during the same period. *Id.* 85 deaths due to three infectious disease outbreaks in the period 2000-2004 divided by even the minimum number of deaths attributed to poor diet and physical inactivity during the period, (85,360; *supra* note 11), is equivalent to 1/10<sup>th</sup> of 1%.

<sup>18</sup> Association of Workers Compensation Boards of Canada. Available at: [http://awcbc.org/?page\\_id=14#fatalities](http://awcbc.org/?page_id=14#fatalities)

<sup>19</sup> Even from 1975 to 1995 (i.e., before the popularization of the Internet), the proportion of workers in the US engaged in blue collar jobs declined from approximately 36% to 29% -- a phenomenal change in just two decades. See: Kutscher, R. "Historical trends, 1950-1992, and current uncertainties" *Monthly Labor Review*, November 1993, and *Handbook of US Labor Statistics*, 5<sup>th</sup> Edition.

<sup>20</sup> Unattributed figure quoted in Health Care Health and Safety Association, *A Step in the Right Direction: Wellness in the Workplace*, (Toronto: HSHSA of Ontario, 2003) at 12.

<sup>21</sup> B.A. Franklin, "The Down Side of Our technological Revolution? An Obesity-Conducive Environment" (2001) 87 *American Journal of Cardiology* 1093 at 1094.

<sup>22</sup> J.N. Morris, et al., "\_\_\_\_" (1962) 1967 *American Journal of Public Health* 1967 comparing railway clerks to switchmen and servicemen.

<sup>23</sup> J.N. Morris, et al., "\_\_\_\_" (1953) 2 *Lancet* 1053, 1111 and J.N. Morris, et al., "\_\_\_\_" (1966) 2 *Lancet* 553 comparing bus drivers with bus conductors..

<sup>24</sup> C.W. Frank, et al., "\_\_\_\_" (1966) 34 *Circulation* 1022.

<sup>25</sup> A. Menotti, & A. Puddu, "Death Rates Among Italian Railroad Employees, with Special Reference to Coronary Heart Disease and Physical Activity at Work" (1976) 11 *Environmental Research* 331 at 331, 332, 336 and 339.

<sup>26</sup> A.R. Kagan, "Arteriosclerosis and Myocardial Disease in relation to Physical Activity of Occupation" (1976) 53 *Bulletin of the World Health Organization* 615 at 620.

<sup>27</sup> Nutrition Resource Centre of the Ontario Public Health Association, *Guide to Nutrition Promotion in the Workplace*, (Toronto: NRC/OPHA, 2002) at 8.

<sup>28</sup> Health Canada, *Workplace Health System: An Overview – Creating a Healthy Workplace*, (Ottawa: health Canada, 1990) cited in Nutrition Resource Centre of the Ontario Public Health Association, *Guide to Nutrition Promotion in the Workplace*, (Toronto: NRC/OPHA, 2002) at 8.

<sup>29</sup> Health Canada, *The Business Case for Active Living At Work*, (Ottawa: HC, 2001, updated 2004) available at [http://www.phac-aspc.gc.ca/pau-uap/fitness/work/introduction\\_e.html](http://www.phac-aspc.gc.ca/pau-uap/fitness/work/introduction_e.html) See also, the US National Institute for Occupational Safety and Health, *Steps to a Healthier US Workforce* program . For more information see: <http://www.cdc.gov/niosh/steps/default.html>