House of Commons Standing Committee on Health

The Canadian Health Workforce Network on Labour Shortages, Working Conditions & the Care Economy

April 6th, 2022

The Canadian Health Workforce Network (CHWN) is keenly interested in HUMA's current deliberations on labour shortages, working conditions and the care economy, in particular its impact on Canada's health and personal care workforce. We are a pan-Canadian knowledge exchange network of researchers, decision-makers and other knowledge users, dedicated to bringing the best evidence to health workforce policy and decision makers for over a decade.

The Importance of the Health Workforce to the Care Economy

The care economy, which includes the provision of health and personal care, is a fundamental yet undervalued component of Canadian society.[1] In Canada, health and personal care workers account for more than 10 per cent of all employment and over two-thirds of all health-care spending, which amounted to $175 billion in 2019, or nearly eight per cent of Canada's total GDP.[2] Recognizing these facts, all levels of government – federal, provincial, territorial, First Nations, Inuit and Metis - play an important role in sound policy development, strategic health workforce planning, and health system stewardship. Properly staffed, well-functioning health and personal care systems make for healthy workers, a healthier population, and a strong economy including the often-neglected care economy.

The Health and Personal Care Workforce is Highly Gendered

As with the care workforce in general,[i] women predominate in the health and personal care workforce. Women comprise 82 per cent of health workers in Canada,[3] in contrast to 47 per cent in the total labour force. This surpasses the global rate of 75 per cent.[4] From 1997 to 2016, the health sector employment increased approximately 69 per cent, almost twice that of the Canadian labour force. The proportion of women working in that sector grew at a faster pace than that of men (72 per cent versus 55 per cent).[5]

According to recently released data from CIHI (January 2022), the proportion of women and men in health and personal care professions are not evenly distributed, with much higher proportions of women working as midwives and dental assistants (both 99%), dental hygienists, dietitians and genetic counselors (all 97%) and regulated nurses (92%) but considerably lower among dentists (52%), physicians (56%), chiropractors (63%) and paramedics (64%).[6]

It is also racialized

Black, Indigenous and immigrant health and personal care workers are more likely to be on the frontline of the COVID-19 pandemic, in jobs that carry a high risk of exposure to infection and a reduced chance of essential protections such as personal protective equipment (PPE), paid sick leave or health benefits.[7] Egregiously, we do not know the Indigenous or racial identity of health workers despite being required by

Federal Employment Equity legislation and part of the Truth and Reconciliation Commission's *Calls to Action* (specifically Calls 18-24) to increase the number of Indigenous health workers.[8] There are no comprehensive Indigenous nor race-based data on the health and personal care workforce. We know anecdotally that there has been a disproportionate number of deaths from COVID-19 amongst Black and racialized health workers, concentrated in the lowest tier of the health workforce, especially in long-term care.[9] We also know that immigrants make a significant contribution to Canada's health and care sector, yet the underutilization of immigrant skills is a matter of ethical and economic concern for Canada and for the source countries immigrant hail from.[10]

These facts have impact on working conditions in health & personal care

The highly gendered and racialized nature of health work also has implications for the invisibility of the endemic bullying, discrimination, sexual harassment and violence experienced in the health workplace.[11] This topic garnered interest by members of the House of Commons in their 2019 report, *Violence Facing Health Care Workers in Canada* where it was noted that health care workers are four times as likely to fact workplace violence than any other profession yet goes unreported due to a culture of acceptance.[12] Violence and harassment not only limits health workers' abilities to undertake their work, but it can also silence their voices with patients, managers and at leadership tables. The pre-pandemic report by the Canadian Federation of Nurses Unions, *Enough is Enough* warned us about how violence in the health sector is increasing, caused by understaffing, inadequate security and increased patient numbers.[13] Women in the traditionally male-dominated profession of medicine are also more likely to experience incivility, bullying and harassment.[14]

It is no wonder why health and personal care work are ranked among the most stressful occupations,[15,16,17] experiencing burnout,[18,19] anxiety,[20,21] depression,[22,23] and PTSD.[24,25, 26] These outcomes are tied, in part, to the organization of work within the health care settings: irregular and inflexible work schedules, shift work, and required overtime.[27] These challenges are also compounded by the emotionally demanding nature of this work - caring for patients and families through immensely challenging and stressful times leads to both compassion fatigue and moral distress.[28] Due to these intersecting factors, health workers are one and a half times more likely to be off work due to illness or disability than workers in other sectors of the Canadian economy.[29] These statistics predate the pandemic.

COVID-19 has significantly impacted health and personal care workers

These troubling trends have only exacerbated in the last 2 plus years of the COVID-19 pandemic. Frontline health workers have faced increased job demands,[30] complex and quickly evolving working environments and riskier working conditions, all while navigating chronic staffing shortages that preceded COVID-19.[31]

Data show that the pandemic has put additional stress on workers in the health sector, leading to elevated levels of psychological distress,[32] which range from anxiety and depression to post-traumatic stress.[33] Health workers who work through endemics and pandemics are at greater risk for vicarious trauma, survivors' guilt, moral distress and compassion fatigue, all of which are directly correlated with burnout.[34,35] Other evidence indicates that risks of contamination, appropriate personal protective

equipment, and worker safety have been common concerns/stressors for workers in health and personal care sector during the current pandemic.[36,37]

A Statistics Canada survey of 18,000 health care workers found that 70 per cent of health care workers reported worsening mental health during the pandemic linked to their stressful working conditions.[38] Those who provided direct care for suspected or confirmed COVID-19 cases fared even worse. Health care workers have faced extended days, unmanageable workloads, cancelled vacation leaves, and moral distress.

The findings from the *Healthy Professional Worker* study involving over 4000 surveys and 400 interviews conducted between December 2020 and April 2021 has found that levels of mental health issues, distress, presenteeism and burnout among health workers were all significantly higher during the pandemic than pre-pandemic levels. Similarly, levels of burnout amongst Ontario physicians "increased to 72.9 per cent in 2021 from 66 per cent in 2020."[39] The length of the COVID-19 pandemic is also of significance. Data suggest that traumatic events of more than 6 months increase the longevity of the impact.[40]

Overall, while health and personal care workers care for others, they have not received the support and care they need through proper staffing and supportive public policy. Indeed, the challenges they face can be traced to poor staffing and inadequate health workforce planning.[12]

This is causing unprecedented labour shortages which requires action

Many workers have left already and many more will leave the health care system in the wake of the pandemic. We are already seeing the pandemic's impact on the sustainability of health care services. In the 4th quarter of 2021, Statistics Canada reported the number of vacancies in health care and social services has increased dramatically during the pandemic to 126,000, the highest vacancy rate of any sector.[41] Nurses, who have provided most of the hands-on care throughout the pandemic, have seen an alarming year-over-year increase in vacancies driven in large part by nurses leaving their jobs.[42] Anecdotally we hear that this is playing out across many health and personal care workforces, but little data to confirm trends and factors influencing these decisions.

In addition to the evident poor treatment of individuals in the workforce, the COVID-19 pandemic has been especially difficult for women in the care economy. Deeply entrenched patriarchal values have caused women in the care economy to be highly marginalized. Throughout the pandemic, women (particularly BIPOC women) in the care work force have also been undervalued and overburdened.[7] Cutbacks in health and personal care affect women workers disproportionately, but so too do investments.

Deeply ingrained structural issues

While the COVID-19 pandemic has exacerbated labour shortages within Canada, it is important to acknowledge that deeply ingrained structural issues existed long before the pandemic emerged. Seemingly over the past decade, vacancies and shortages in the workforce continue to develop due to

two core structural reasons. First, vacancies have emerged due to the growing disparity between the aging Canadian population and the skills required for employment.[43] As new technologies develop, new employment opportunities emerge that can help to improve an organization's ability to operate more effectively and efficiently, issues arise when individuals are not familiar with said approaches and have not been granted the means to update their skills.

A set of promising solutions for consideration[44]

Building on the recommendation from the House of Commons Standing Committee on Health for "the Government of Canada [to] work with the provinces and territories to address staffing shortages in health care settings", we echo this call for the federal government to take the leadership role by enhancing health workforce data to enable more informed staffing decisions, optimize the contributions of the current workforce, and enable physically and psychologically safer workplaces.

Efforts should centre on three key elements that will improve data infrastructure, bolster knowledge creation, and inform decision-making activities:

- Foster the co-development of a minimum data standard and support enhanced health workforce data collection across all stakeholders;
- More timely, accessible, interactive and fit-for-purpose decision-support tools;
- Capacity building in health workforce data analytics, digital tool design, policy analysis and management science.

This vision requires leadership by the federal government and resources to create a coordinating body to support the collection of accurate, standardized and more complete data. We propose two data infrastructure and capacity-building recommendations as immediate priorities:

1. The federal government should create an initiative dedicated to enhancing and equity-informed standardized health workforce data, purpose-built for strategic planning and associated decision-making tools for targeted planning, through a specially earmarked contribution agreement with the Canadian Institute for Health Information (CIHI).
2. The federal government should invest in a targeted Canadian Institutes of Health Research (CIHR) administered fund to create a strategic training investment in health workforce research and a complementary signature initiative to fund integrated research projects that cut across the existing scientific institutes. These funds would help to address the less than 1% of funds dedicated to health workforce research[45] and help to contribute to the parallel need to build the capacity for health workforce analytics.

Building on these two necessary but insufficient building blocks, a co-ordinating national health workforce organization could be created through one of the following three options:

3.1. The federal government could create a dedicated agency with a mandate to enhance existing data infrastructure and decision-support tools for strategic planning, policy, and management across Canada.
3.2. Through a contribution agreement, the federal government could support the creation of an arm's-length, not-for-profit organization — a partnership for health workforce — as a steward of a renewed

strategy and to provide health labour market information, training, and management of human resources in the health sector, including support for recruitment and retention.

3.3. The federal government could support the creation of a robust, transparent, and accessible secretariat for a council on health workforce to improve data and decision-making infrastructures, and to bolster knowledge creation through dedicated funding to inform policy and decision-making and collaborate on topics of mutual interest across stakeholders.

Models for these kind of coordinating bodies already exist in Canada and are in place in nearly every OECD country to which Canada compares itself.

Because of the importance of the health workforce to Canada's economy and pandemic recovery, building the necessary infrastructure requires a sizable and sustained investment. *Continuing with the status quo should be recognized as the most expensive option.*

In conclusion, as we stated in an open Call to Action[46] signed onto by over 60 health-care organizations and 300 health workforce experts, "Canada's health workers have been here for all of us throughout the COVID-19 pandemic. It is time for us to be there for them. We call on the Government of Canada to support health workers by making significant and immediate investments to enhance the data infrastructure that provinces, territories, regions and training programs need to better plan for and support the health workforce."

Who is CHWN?

Established in 2011, CHWN seeks to be the Canadian source of health workforce information, making it accessible and valuable to support better health system decision-making. Our vision is: open, transparent, and evidence-informed health workforce decision-making supporting workers, patients, and health systems. We are organized by *sector* – primary, mental health, older adult and maternity care – and by *theme* – planning, equity, governance, mobility, interprofessionalism and healthy work environments. We value collaborating in partnerships; supporting decision-making based on available evidence; fostering equity of access, a diversity of participants and inclusion of different perspectives; effective communication of high-quality health workforce knowledge to a range of users and building capacity for health workforce science.

Sources Cited

[1] Statistics Canada. Study: Women working in paid care occupations, January 25, 2022. https://www150.statcan.gc.ca/n1/daily-quotidien/220125/dq220125a-eng.htm

[2] Source: Estimated from the National Health Expenditure Data, CIHI, 2019

[3] http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2820012

[4] http://www.who.int/hrh/statistics/spotlight_2.pdf

[5] http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2820012

[6] https://www.cihi.ca/en/a-profile-of-health-care-providers-in-canada-2020

[7] Resetting Normal: Women, Decent Work and Canada's Fractured Care Economy Canadian Women's Foundation, Canadian Centre for Policy Alternatives, Ontario Nonprofit Network, and Fay Faraday https://policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2020/07/Executive%20Summary%20-%20Women,%20Decent%20Work%20and%20Canada's%20Fractured%20Care%20Economy.pdf

[8] https://www.hhr-rhs.ca/images/Webinar_Series/Fact_Sheet_EN.pdf

[9] https://www.thestar.com/opinion/contributors/2020/09/04/health-worker-deaths-from-covid-19-not-just-about-the-numbers.html

[10] Walton-Roberts, M. (forthcoming) "The ethics of recruiting foreign-trained health care workers in the Canadian context." *Healthcare Management Forum*

[11] https://www.learningtoendabuse.ca/research/our-projects-resources/national_survey_on_harassment_and_violence_at_work_in_canada/Respect-at-Work-Report-ENGLISH.pdf

[12] https://www.ourcommons.ca/Content/Committee/421/HESA/Reports/RP10589455/hesarp29/hesarp29-e.pdf#:~:text=Workplace%20violence%20is%20a%20pervasive%20problem%20in%20health,goes%20unreported%20due%20to%20a%20culture%20of%20acceptance.

[13] https://nursesunions.ca/wp-content/uploads/2017/05/CFNU_Enough-is-Enough_June1_FINALlow.pdf

[14] Tricco, A. C., Bourgeault, I., Moore, A., Grunfeld, E., Peer, N., & Straus, S. E. (2021). Advancing gender equity in medicine. *Cmaj*, *193*(7), E244-E250. https://www.cmaj.ca/content/193/7/E244.short

[15] Koinis A, Giannou V, Drantaki V, Angelaina S, Stratou E, Saridi M. The impact of healthcare workers job environment on their mental-emotional health. Coping strategies: the case of a local general hospital. Health Psych Res [Internet]. 2015 Apr 13 [cited 2021 Aug 7];3(1). Available from: http://www.pagepressjournals.org/index.php/hpr/article/view/hpr.2015.1984

[16] Ahmad W, Taggart F, Shafique MS, Muzafar Y, Abidi S, Ghani N, et al. Diet, exercise and mental-wellbeing of healthcare professionals (doctors, dentists and nurses) in Pakistan. PeerJ. 2015 Sep 17;3:e1250.

Maharaj S, Lees T, Lal S. Prevalence and Risk Factors of Depression, Anxiety, and Stress in a Cohort of Australian Nurses. IJERPH. 2018 Dec 27;16(1):61.

[17] Pezaro S, Clyne W, Turner A, Fulton EA, Gerada C. 'Midwives Overboard!' Inside their hearts are breaking, their makeup may be flaking but their smile still stays on. Women and Birth. 2016 Jun;29(3):e59–66.

[18] Singh P, Aulak DS, Mangat SS, Aulak MS. Systematic review: factors contributing to burnout in dentistry. OCCMED. 2016 Jan;66(1):27–31.

Suleiman-Martos N, Albendín-García L, Gómez-Urquiza JL, Vargas-Román K, Ramirez-Baena L, Ortega-Campos E, et al. Prevalence and Predictors of Burnout in Midwives: A Systematic Review and Meta-Analysis. IJERPH. 2020 Jan 19;17(2):641.

[19] Stoll K, Gallagher J. A survey of burnout and intentions to leave the profession among Western Canadian midwives. Women and Birth. 2019 Aug;32(4):e441–9.

[20] Paiva CE, Martins BP, Paiva BSR. Doctor, are you healthy? A cross-sectional investigation of oncologist burnout, depression, and anxiety and an investigation of their associated factors. BMC Cancer. 2018 Dec;18(1):1044.

Saksvik-Lehouillier I, Bjorvatn B, Hetland H, Sandal GM, Moen BE, Magerøy N, et al. Personality factors predicting changes in shift work tolerance: A longitudinal study among nurses working rotating shifts. Work & Stress. 2012 Apr;26(2):143–60.

[21] Chapman HR, Chipchase SY, Bretherton R. Understanding emotionally relevant situations in primary dental practice. 2. Reported effects of emotionally charged situations. Br Dent J. 2015 Nov;219(9):E8–E8.

[22] Saeedi Shahri SS, Ghashghaee A, Behzadifar M, Luigi Bragazzi N, Behzadifar M, Mousavinejad N, et al. Depression among Iranian nurses: A systematic review and meta-analysis. Med J Islam Republic Iran. 2017 Dec 30;31(1):860–8.

Outhoff K. Depression in doctors: A bitter pill to swallow. South African Family Practice. 2019 May 15;61(sup1):S11–4.

[23] Song K-W, Choi W-S, Jee H-J, Yuh C-S, Kim Y-K, Kim L, et al. Correlation of occupational stress with depression, anxiety, and sleep in Korean dentists: cross-sectional study. BMC Psychiatry. 2017 Dec;17(1):398

[24] Ben-Ezra M, Palgi Y, Walker R, Many A, Hamam-Raz Y. The impact of perinatal death on obstetrics nurses: a longitudinal and cross-sectional examination. Journal of Perinatal Medicine [Internet]. 2014 Jan 1 [cited 2021 Aug 7];42(1). Available from: https://www.degruyter.com/document/doi/10.1515/jpm-2013-0071/html

Cheryl Tatano Beck, Jenna LoGiudice, Robert K. Gable. Shaken Belief in the Birth Process: A Mixed-Methods Study of Secondary Traumatic Stress in Certified Nurse-Midwives [a]. Journal of Midwifery & Women's Health. 2015 Oct;60(5):637–637.

[25] Vance MC, Mash HBH, Ursano RJ, Zhao Z, Miller JT, Clarion MJD, et al. Exposure to Workplace Trauma and Posttraumatic Stress Disorder Among Intern Physicians. JAMA Netw Open. 2021 Jun 8;4(6):e2112837

[26] Merlo LJ, Trejo-Lopez J, Conwell T, Rivenbark J. Patterns of substance use initiation among healthcare professionals in recovery: Substance Use Initiation. Am J Addict. 2013 Nov;22(6):605–12.

Pilgrim JL, Dorward R, Drummer OH. Drug-caused deaths in Australian medical practitioners and health-care professionals: Drug deaths in health-care professionals. Addiction. 2017 Mar;112(3):486–93.

[27] Ahmad W, Taggart F, Shafique MS, Muzafar Y, Abidi S, Ghani N, et al. Diet, exercise and mental-wellbeing of healthcare professionals (doctors, dentists and nurses) in Pakistan. PeerJ. 2015 Sep 17;3:e1250.

Pezaro S, Clyne W, Turner A, Fulton EA, Gerada C. 'Midwives Overboard!' Inside their hearts are breaking, their makeup may be flaking but their smile still stays on. Women and Birth. 2016 Jun;29(3):e59–66.

Deery R. The Tyranny of Time: Tensions between Relational and Clock Time in Community-Based Midwifery. Soc Theory Health. 2008 Nov;6(4):342–63.

[28] Kitts J. Psychological Health and Safety in Canadian Healthcare Settings. hcq. 2013 Oct 30;16(4):6–9.

[29] Casselman, Nancy. Wellness metrics in action [Panel presentation]. 2013 Jun 13; Toronto, Canada.

[30] Adams, J. G., & Walls, R. M. (2020). Supporting the Health Care Workforce During the COVID-19 Global Epidemic. JAMA: the Journal of the American Medical Association, 323(15), 1439–1440. https://doi.org/10.1001/jama.2020.3972

Crowe, S., Howard, A., Vanderspank-Wright, B., Gillis, P., McLeod, F., Penner, C., & Haljan, G. (2021). The effect of COVID-19 pandemic on the mental health of Canadian critical care nurses providing patient care during the early phase pandemic: A mixed method study. Intensive & Critical Care Nursing, 63, 102999–. https://doi.org/10.1016/j.iccn.2020.102999

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L.,Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. JAMA networkopen, 3(3), e203976

[31] Nyashanu M, Pfende F, Ekpenyong M. Exploring the challenges faced by frontline workers in health and social care amid the COVID-19 pandemic: experiences of frontline workers in the English Midlands region, UK. Journal of Interprofessional Care. 2020 Sep 2;34(5):655–61

[32] Morassaei, S. et al. A survey to explore the psychological impact of the COVID-19 pandemic on radiation therapists in Norway and Canada: A tale of two countries. *Journal of Medical Radiation Sciences*, 2021 1-11.

[33] Havaei F, Smith P, Oudyk J, Potter GG. The impact of the COVID-19 pandemic on mental health of nurses in British Columbia, Canada using trends analysis across three time points. Annals of Epidemiology. 2021 Oct;62:7–12.

Lu, W., Wang, H., Lin, Y., & Li, L. (2020). Psychological status of medical workforce during the COVID-19 pandemic: A cross-sectional study. Psychiatry Research, 288, 112936.https://doi.org/10.1016/j.psychres.2020.112936

Sampaio, F., Sequeira, C., & Teixeira, L. (2020). Nurses' Mental Health During the Covid-19 Outbreak: A Cross-Sectional Study. Journal of Occupational and Environmental Medicine, 62(10), 783–787. https://doi.org/10.1097/JOM.0000000000001987

Simms, A., Fear, N. T., & Greenberg, N. (2020). The impact of having inadequate safety equipment on mental health. Occupational Medicine (Oxford), 70(4), 278-281. https://doi.org/10.1093/occmed/kqaa101

Stuijfzand, S., Deforges, C., Sandoz, V. et al. (2020). Psychological impact of an epidemic/pandemic on the mental health of healthcare professionals: a rapid review. BMC Public Health 20, 1230(2020). https://doi.org/10.1186/s12889-020-09322-z

Temsah, M. H., Al Huzaimi, A., Alrabiaah, A., Alamro, N., Al-Sohime, F., Al-Eyadhy, A., Alhasan, K., Kari, J. A., Alhaboob, A., Alsalmi, A., AlMuhanna, W., Almaghlouth, I., Aljamaan, F., Halwani, R., Saddik, B., Barry, M., Al-Zamil, F., AlHadi, A. N., Al-Subaie, S., Jamal, A., … Somily, A. M. (2021). Changes in healthcare workers' knowledge, attitudes, practices, and stress during the COVID-19 pandemic. *Medicine*, *100*(18), e25825. https://doi.org/10.1097/MD.0000000000025825

Vizheh M, Qorbani M, Arzaghi SM, Muhidin S, Javanmard Z, Esmaeili M. The mental health of healthcare workers in the COVID-19 pandemic: A systematic review. J Diabetes Metab Disord. 2020 Dec;19(2):1967–78.

Wilbiks JMP, Best LA, Law MA, Roach SP. Evaluating the mental health and well-being of Canadian healthcare workers during the COVID-19 outbreak. Healthc Manage Forum. 2021 Jul;34(4):205–10.

Wu, P. E., Styra, R. & Gold, W. L. (2020). Mitigating the psychological effects of COVID-19 on health care workers. CMAJ ,192: doi: 10.1503/cmaj.200519

Xing LQ, Xu ML, Sun J, Wang QX, Ge DD, Jiang MM, et al. (2020). Anxiety and depression in frontlinehealth care workers during the outbreak of Covid-19. International Journal of Social Psychiatry,20764020968119.https://doi.org/10.1177/0020764020968119, 10.1177/0020764020968119

[34] Brown, C., Peck, S., Humphreys, J., Schoenherr, L., Saks, N. T., Sumser, B., & Elia, G. (2020). COVID-19 Lessons: The Alignment of Palliative Medicine and Trauma-Informed Care. *Journal of Pain and Symptom Management*, *60*(2), e26–e30. https://doi.org/10.1016/j.jpainsymman.2020.05.014

Shanafelt, T., Ripp, J., & Trockel, M. (2020). Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic. *JAMA : the Journal of the American Medical Association*, *323*(21), 2133–. https://doi.org/10.1001/jama.2020.5893

[35] Mohammed, S. Strategies for preventing technologist burnout during the pandemic. *Radiologic Technology*. May/June 2021, 92: 521-523.

[36] Berkhout SG, Sheehan KA, Abbey SE. Individual- and Institutional-level Concerns of Health Care Workers in Canada During the COVID-19 Pandemic: A Qualitative Analysis. JAMA Netw Open. 2021 Jul 27;4(7):e2118425

[37] Eastgate, P., Neep, M., Steffens, T., Westerink, A. COVID-19 pandemic – considerations and challenges for the management of medical imaging departments in Queensland. *Journal of Medical Radiation Sciences*, 67(4). 345-351.

[38] Statistics Canada https://www150.statcan.gc.ca/n1/daily-quotidien/210202/dq210202a-eng.htm. 2021

[39] Ontario Medical Association. Healing the Healers: System-Level Solutions to Physician Burnout [Internet]. 2021 p. 48. Available from: https://www.oma.org/uploadedfiles/oma/media/pagetree/advocacy/health-policy-recommendations/burnout-paper.pdf

[40] Anderson, M. L., Ziedonis, D. M., & Najavits, L. M. (2014). Posttraumatic stress disorder and substance use disorder comorbidity among individuals with physical disabilities: Findings from the National Comorbidity Survey Replication. *Journal of Traumatic Stress*, **27**(2), 182– 191.

Blanco, C., Xu, Y., Brady, K., Pérez-Fuentes, G., Okuda, M., & Wang, S. (2013). Comorbidity of posttraumatic stress disorder with alcohol dependence among US adults: Results from National Epidemiological Survey on Alcohol and Related Conditions. *Drug and Alcohol Dependence*, **132**(3), 630– 638.

[41] https://www150.statcan.gc.ca/n1/daily-quotidien/220322/dq220322a-eng.pdf

[42] https://nursesunions.ca/wp-content/uploads/2022/02/Viewpoints_Survey_Results_2022_January_EN_FINAL-1.pdf

[43] https://www.cpacanada.ca/en/news/features/2021-11-04-labour-shortage

[44] I.Bourgeault. A path to improved health workforce planning, policy and management in Canada. University of Calgary School of Public Policy, Vol 14:39, December 2021.

[45] According to the Pan-Canadian vision and strategy for health services and policy research: 2014–2019. CIHR IHSPR 2014:1–36. Health human resources research constitutes ~3% of all health services and policy research which in turn constitutes 7% of CIHR research – so 3% of 7% is easily less than 1%.

[46] https://www.hhr-rhs.ca/en/petition.html