## **CRDCN Research Policy Snapshot Digest**

Volume 2 Issue 2 July 2023

## Recueil des instantanés recherchespolitiques du RCCDR

Volume 2, numéro 2 juillet 2023



### Introductory Note/Remarque préliminaire

CRDCN invites researchers publishing academic articles or producing policy reports that use microdata available through CRDCN to provide one-page snapshots that can be used to communicate their work to a wide audience.

Each CRDCN Research Policy Snapshot Digest, produced twice per year, assembles the individual snapshots prepared in the previous six months, inviting authors to include up to one page of supplementary material to accompany their snapshot.

Le RCCDR invite les chercheurs qui publient des articles universitaires ou produisent des rapports sur les politiques publiques en se servant des microdonnées disponibles par l'intermédiaire du RCCDR à en fournir des synthèses d'une page qui pourront être utilisées pour faire connaître leurs travaux à un large public.

Chaque d'instantanés recherches-politiques du RCCDR, produit deux fois par an, compile les instantanés préparés au cours des six mois précédents en invitant leurs auteurs à ajouter jusqu'à une page de documentation supplémentaire pour les accompagner.

Citation: CRDCN. "CRDCN Research Policy Snapshot Digest". Vol. 2, no.2, 2023. http://hdl.handle.net/11375/28744

### **Table of Contents/Table des matières**

#### Page

"A better understanding of joint and survivor life expectancies in Canada," AlFakhri, Marwa and	
Compton, Janice	4
"Heat and air quality related cause-based elderly mortalities and emergency visits," Dardir, Mohamed,	
Wilson, Jeffrey and Berardi, Umberto	5
"Heat and air quality related cause-based elderly mortalities and emergency visits," (Supplementary	
Information) Dardir, Mohamed, Wilson, Jeffrey and Berardi, Umberto	6
"The Effect of Quebec's CEGEPs on Total Years of Schooling," Fortin, Pierre	7
"Physical and social community characteristics associated with higher risk of diabetes-related	
hospitalization," Gupta, Neeru	<b>8</b>
"Addressing Physician Shortages in Canada: The Significance of Adjusting Population Aging and	
Changing Hours of Work by Physicians," Islam, Rabiul, Kralj, Boris and Sweetman, ArthurArthur	9
"Transgender and sexual minority youth at increased risk of suicide attempt," Kingsbury, Mila and	
Colman, lan	.10
"Transgender and sexual minority youth at increased risk of suicide attempt," (Supplementary Information)	
Kingsbury, Mila and Colman, Ian	11
"Formal help seeking among men who experienced intimate partner violence," Lysova, Alexandra,	
Dim, Eugene E. and CRDCN	12
Examining differences in diet quality between Canadian Indigenous and non-Indigenous adults:	
results from the 2004 and 2015 Canadian Community Health Survey Nutrition Surveys," Riediger, Natalie	.13
"Do childhood experiences of abuse prior to joining the military influence the mental health and suicide	
behaviors of Canadian military personnel during their military careers?" Taillieu, Tamara,	
Sareen, Jitender and Afifi, Tracie	14



## A better understanding of joint and survivor life expectancies in Canada

Marwa AlFakhri, Janice Compton. "A better understanding of joint and survivor life expectancies in Canada." CRDCN research-policy snapshots. Volume 2 July 2023 http://hdl.handle.net/11375/28734

#### **Context**

We provide benchmark estimates for joint and survivor life expectancy for Canadian couples and show how these estimates vary with the income and employment status of couples approaching retirement. For example, a 65-year-old couple with his and her life expectancies of 15.7 and 19.8 years can expect to both be alive for only 12.5 years. 60% of these women will outlive their spouses and should expect an average of 11.9 years of widowhood; 40% of these men will be predeceased by their wives and will live another 9.1 years on average.

#### **Key finding(s) from the research**

There is a lack of available information on couple-based longevity measures and without appropriate benchmarks, we are likely overestimating the average number of years couples have remaining together (joint life expectancy) and underestimating the number of years following the death of a spouse (survivor life expectancy).

Population(s) studied: Married individuals aged 60, 65, 70, 75 in Canada between 1987 and 2001

**Research dataset(s) used:** Longitudinal Administrative Database

### Policy implications for this research

As individuals age, expectations of longevity become increasingly important to decisions regarding savings, health behaviours, pension take-up, long-term-care plans, and residential location. Many individuals face these decisions as part of a couple, so these decisions are influenced not only by their individual life expectancies but also by their joint and survivor life expectancies. The lack of benchmark values for these couple-based measures could be detrimental to couples planning for their advanced years.

**Policy area(s) this research can inform:** Families, households and marital status; Health; Income, pensions, spending and wealth; Population and demography; Seniors and aging

#### Read the full article

AlFakhri, Marwa and Janice Compton. (2023). "Life Expectancy of Couples in Canada." Canadian Public Policy. Volume 49, Issue S1 (February 2023) pp. 76-92.











### Heat and air quality related cause-based elderly mortalities and emergency visits

Mohamed Dardir, Jeffrey Wilson and Umberto Berardi. "Heat and air quality related cause-based elderly mortalities and emergency visits." CRDCN research-policy snapshots. Volume 2, July 2023 http://hdl.handle.net/11375/28736

#### **Context**

The study assesses the impact of the short-term variations of environmental variables (air pollutants and ambient conditions) on specific community health responses (mortalities and emergency department visits) on a municipalitybased scale. The study focuses on the health records of the elderly population and people diagnosed with cardiorespiratory causes.

#### **Key finding(s) from the research**

Vulnerable populations, especially elderly people with cardiorespiratory diseases, are at the greatest health risk of poor environmental conditions.

Population(s) studied: Population in the municipalities of Mississauga and Brampton, Peel Region, ON, CA, with focus on individuals >65 years old

Research dataset(s) used: Canadian Census Health and Environment Cohort (CanCHEC) linked to the National **Ambulatory Care Reporting System (NACRS)** 

### Policy implications for this research

The impact of extreme heat conditions and poor air quality levels was confirmed on community health records; the correlation was most potent with elderly cause-based populations. The research results support decision-making processes associated with implementing heat and air quality mitigation strategies, for example, increasing urban greenery cover.

Policy area(s) this research can inform: Environment; Health; Population and demography; Society and community

#### Read the full article

Dardir, M., Wilson, J., & Berardi, U. (2023). "Heat and Air Quality related Cause-based Elderly Mortalities and Emergency Visits." Environmental Research, 216 (3), 114640. DOI:10.1016/j.envres.2022.114640







### **Supplementary Information**

Mohamed Dardir, Jeffrey Wilson and Umberto Berardi. "Heat and air quality related cause-based elderly mortalities and emergency visits." CRDCN research-policy snapshots. Volume 2, July 2023

#### Heat and Air Quality related Cause-based Elderly Mortalities and Emergency Visits **METHOD** A novel combined multi-**Fotal record Mortalities** dimensional hierarchical and k-means clustering approach to assessing the **Ambient Emergency Department Visits** impact of the short-term temperature variations of environmental Relative humidity variables on community health responses. Extreme heat conditions and poor Moderate environmental variables air quality levels Ground-level Short-term daily total mortalities Short-term daily elderly causeozone and emergency department visits based mortalities and emergency Fine particulate visits matter Respiratory and cardiovascular patients, especially elderly people, are at greater risk of poor environmental conditions, while the elderly sector is more vulnerable to environmental changes Columbia University Mailman School of Public Health





### The effect of Quebec's CEGEPs on total years of schooling

Fortin, Pierre. "The Effect of Quebec's CEGEPs on Total Years of Schooling." CRDCN research-policy snapshots. Volume 2, July 2023 http://hdl.handle.net/11375/28739

#### **Context**

The researchers described the CEGEP (collèges d'enseignement général et professionnel) innovation of the late 1960s in Quebec and its effect on total years of schooling in the province, using Ontario as a control. They used various Statistics Canada microdata sets to compare the broad trends in post-secondary enrolment and credentials in Quebec and Ontario from 1960 to 2018. The researchers used 2001 Census microdata to estimate the effect of the CEGEP reform on total years of schooling of the initial cohorts of Francophones and Anglophones.

#### **Key finding(s) from the research**

The Quebec-specific postsecondary CEGEP system is estimated to have increased the total years of schooling of young Francophones in the late 1960s and early 1970s by six months on average. The long-term comparisons and the census-based comparison of initial cohorts both suggest that the effect of CEGEPs on total years of schooling of young Quebeckers has been positive and significant. For the Francophone sample, the estimates suggest an increase of at least six months in total years of schooling. For the much smaller sample of Anglophones, women had similar total years of schooling as that of Francophones, and men varied positively and negatively in their total years of schooling.

Population(s) studied: Quebec and Ontario Francophone and Anglophone populations of postsecondary age

**Research dataset(s) used:** Canada Census microdata, various years; Labour Force Survey; 20-percent microdata from the 2001 Census long form

#### Policy implications for this research

Quebec's postsecondary CEGEP innovation, consisting of a two-year mandatory preuniversity stream and a three-year career stream, has accelerated educational attainment in the province. However, this kind of dual institution would be politically hard to establish in other Canadian provinces and the United States.

Policy area(s) this research can inform: Education, training and learning; Children and youth

#### Read the full article

Fortin, P., N. Mishagina and J. Royer (2022). "The Effect of Quebec's CEGEPs on Total Years of Schooling." *Canadian Public Policy* 43 (3)386-402. Fortin, P., N. Mishagina et J. Royer (2022). « L'effet des cégeps du Québec sur le nombre total d'années de scolarité. » *Analyse de politiques* 43 (3)386-402.









## Physical and social community characteristics associated with higher risk of diabetes-related hospitalization

Gupta. Neeru. "Physical and social community characteristics associated with higher risk of diabetes-related hospitalization." CRDCN research-policy snapshots. Volume 2, July 2023 http://hdl.handle.net/11375/28738

#### **Context**

Are the physical and social characteristics of our communities associated with being hospitalized for diabetes and commonly co-occurring health conditions, independently of one's own risk factors? The researchers investigated this question by linking data from population health surveys, healthcare administrative sources, and geographical measures of community remoteness and socioeconomic marginalization.

#### **Key finding(s) from the research**

Over a five-year period, Canadian adults with diabetes who resided in the most rural and remote areas of the country were 50% more likely to be hospitalized compared with those residing in the most urbanized and accessible communities. Residents in areas of high social disadvantage were also more likely to experience a diabetes-related hospitalization than those in neighbourhoods with better social resources.

**Research dataset(s) used:** Canadian Community Health Survey 2013–2014; Discharge Abstract Database 2013/14–2017/18; Material and Social Deprivation Index 2016; Index of Remoteness 2016

### Policy implications for this research

Hospital admissions for diabetes are thought to be largely preventable through community factors, which may reflect unequal access to primary care services, social isolation, and other non-medical determinants of health. Researchers and policymakers should recognize that rural and remote areas are highly diverse and consider the protective influence of neighbourhood contexts independently of individual characteristics and despite Canada's universal healthcare system.

Policy area(s) this research can inform: Health; Population and demography; Society and community

#### Read the full article

Gupta, N., Crouse, D.L., Miah, P., & Takaro, T. (2022). The role of neighbourhood environments in hospitalization risk for diabetes and related conditions: A population-based cohort analysis by remoteness and deprivation indices. *Health Reports*, 33(12), 3-13. doi:10.25318/82-003-x202201200001-eng









## Addressing physician shortages in Canada: The significance of adjusting population aging and changing hours of work by physicians

Rabiul Islam, Boris Kralj, and Arthur Sweetman. "Addressing Physician Shortages in Canada: The Significance of Adjusting Population Aging and Changing Hours of Work by Physicians." CRDCN research-policy snapshots. Volume 2, July 2023 <a href="http://hdl.handle.net/11375/28742">http://hdl.handle.net/11375/28742</a>

#### **Context**

Previous studies on physician shortages in Canada have predominantly focused on headcounts, billing systems, and burnout, disregarding the aspect of work hours due to data limitations. Unlike previous studies examining labor supply, our study utilizes up-to-date data spanning from 1987 to 2020 and adjusts for the significant impact of population aging and changes in physician work hours. Using the Labour Force Survey to incorporate these factors, we reveal notable shifts in expected medical services per person. This investigation offers valuable insights for medical professionals, the public, and governments when discussing and planning the optimal number of new physicians entering the field.

#### **Key finding(s) from the research**

In Canada, although the number of physicians per capita increased by approximately 35% from 1987 to 2019, the adjusted growth rate considering the population aging and reduced work hours by physicians was about -4% during the same period.

Population(s) studied: Physicians ages 28 and above

**Research dataset(s) used:** The Rebased LFS (1987-2020); Statistics Canada's Population Estimates; the Canadian Institute for Health Information's (CIHI's) historical data on the physician supply in Canada; and CIHI's data on physician expenditures by age and sex

### Policy implications for this research

Canada has been facing challenges maintaining an adequately sized physician workforce for decades. In the past few decades, efforts to address this issue have involved recruiting foreign-trained physicians, increasing enrollment in domestic medical schools, and changing payment methods. Consequently, Canada's physician-to-population ratio has reached historically high levels. Despite these efforts, Canada continues to experience long waiting times for medically necessary specialist services and inadequate access to primary and emergency care. This article provides valuable out-of-box insights for future physician resource planning by combining the supply and demand sides to address these issues.

Policy area(s) this research can inform: Health; Labour; Statistical methods

#### Read the full article

Islam R, Kralj B, Sweetman A. (2023). Physician workforce planning in Canada: the importance of accounting for population aging and changing physician hours of work. *CMAJ*. 2023 Mar 6;195(9): E335-40. Available from: <a href="https://www.cmaj.ca/content/195/9/E335.short">https://www.cmaj.ca/content/195/9/E335.short</a>









## Transgender and sexual minority youth at increased risk of suicide attempt

Mila Kingsbury, Ian Colman. "Transgender and sexual minority youth at increased risk of suicide attempt." CRDCN research-policy snapshots. Volume 2, July 2023 <a href="http://hdl.handle.net/11375/28741">http://hdl.handle.net/11375/28741</a>

#### **Context**

Very little previous research has described risk of suicidality among transgender youth using high quality nationally representative data. Using data from the Canadian Health Survey on Children and Youth, we find that gender and sexual minority youth, particularly transgender and non-binary youth, appear to be at increased risk of suicidal ideation, and that this risk may be explained by elevated levels of bullying experienced by these adolescents.

#### **Key finding(s) from the research**

Transgender and sexual minority youth are at increased risk of suicidality compared to their cisgender, heterosexual peers, and this risk is partially accounted for by their experiences of bullying and cyberbullying.

Population(s) studied: Adolescents age 15-17

Research dataset(s) used: Canadian Health Survey on Children and Youth

### Policy implications for this research

These findings suggest that suicide prevention programs specifically targeted to transgender, gender-nonconforming, and sexual minority adolescents, as well as gender-affirming care for trans adolescents, may help reduce the burden of suicidality among this group of young people. Given that associations with suicidality were partially mediated through the experience of bullying, systemic change in the form of primary prevention programs aimed at public awareness may lead to a reduction of the experience of victimization among LGBTQ youth, reducing their risk of poor mental health and suicidality.

Policy area(s) this research can inform: Children and youth; Health; Society and community

#### Read the full article

Kingsbury, Mila, Nicole G. Hammond, Fae Johnstone, and Ian Colman. (2022). "Suicidality among Sexual Minority and Transgender Adolescents: A Nationally Representative Population-Based Study of Youth in Canada." *CMAJ* 194, no. 22 (June 6, 2022): E767–74. https://doi.org/10.1503/cmaj.212054.









### **Supplementary Information**

Mila Kingsbury, Ian Colman. "Transgender and sexual minority youth at increased risk of suicide attempt." CRDCN research-policy snapshots. Volume 2, July 2023

+ Research | Nationally representative population-based study of youth in Canada

#### Suicidality risk among sexual minority and transgender adolescents

	Suicidal ideation in previous year* RR (95% CI); n=6800, 980 events	Suicide attempt in lifetime* RR (95% CI); n=6795, 480 events
Boys attracted to boys	<b>2.08</b> (0.89 to 4.87)	<b>3.79</b> (0.56 to 25.8)
Girls attracted to girls	<b>3.63</b> (2.59 to 5.08)	<b>3.31</b> (1.81 to 6.06)
Attracted to >1 gender	<b>2.51</b> (2.12 to 2.98)	<b>2.83</b> (2.18 to 3.68)
Transgender	<b>4.95</b> (3.63 to 6.75)	<b>7.60</b> (4.76 to 12.1)
Not sure	<b>1.37</b> (0.96 to 1.97)	<b>2.03</b> (1.23 to 3.36)

These findings highlight the need for inclusive prevention approaches to address suicidality among Canada's diverse youth population.

\*Reference group is heterosexual cisgender adolescents. RR=relative risk; CI=confidence interval

CMAJ 2022 June 6;194:E767-74. doi: 10.1503/cmaj.212054

cmaj









## Formal help seeking among men who experienced intimate partner violence

Alexandra Lysova, Eugene E. Dim, and CRDCN. "Formal help seeking among men who experienced intimate partner violence." CRDCN research-policy snapshots. Volume 2 July 2023 http://hdl.handle.net/11375/28740

#### **Context**

This research explores the prevalence and heterogeneity of male IPV in Canada, revealing four major types of IPV victimization among men that range from milder forms of physical violence (57.3%) to extremely severe physical IPV combined with psychological abuse (9.7%). The number of men who reported experiencing physical and sexual IPV in their current relationships between 2010 and 2014 exceeded the number of women who reported IPV, but men who experienced IPV were less likely than female victims to seek help and report incidents of IPV victimization to the authorities.

### **Key finding(s) from the research**

Men facing intimate partner violence (IPV) are less likely to seek formal or informal help. However, severity of IPV was a key predictor for seeking professional services. Further, being unemployed and residing with young children were identified as structural barriers for seeking formal help. Being in a longer relationship and possessing a university degree were associated with more formal help seeking.

**Population(s) studied:** Men above the ages of 15 years who reported to have experience with intimate partner violence, randomly selected from the 10 provinces in Canada

Research dataset(s) used: 2009 and 2014 cycles of the Canadian General Social Survey on Victimization

#### Policy implications for this research

These findings highlight prominence and variability of male experience of IPV in Canada and demonstrate the need to develop gender-inclusive and gender-sensitive public policy and intervention programs that help all victims of IPV regardless of victim gender. Developing effective programs and policies to address IPV requires comprehensive knowledge about the experiences of IPV and strategies to obtain help among both women and men. Examining men's experiences with formal help seeking is especially crucial in the light of the studies that find many men are also victims of IPV. Further, these formal IPV support services should recognize and address potential structural barriers to access, such as unemployment.

**Policy area(s) this research can inform:** Crime and justice; Families, households and marital status; Health; Society and community

#### Read the full article

Lysova, A. and Dim, E. (2020). Severity of Victimization and Formal Help Seeking Among Men Who Experienced Intimate Partner Violence in Their Ongoing Relationships. *Journal of Interpersonal Violence*, 0 (0), 1-26. DOI: 10.1177/0886260520922352









# Examining differences in diet quality between Canadian Indigenous and non-Indigenous adults: results from the 2004 and 2015 Canadian Community Health Survey Nutrition Surveys

Natalie Riediger. "Examining differences in diet quality between Canadian Indigenous and non-Indigenous adults: results from the 2004 and 2015 Canadian Community Health Survey Nutrition Surveys." CRDCN research-policy snapshots. Volume 2, July 2023 <a href="http://hdl.handle.net/11375/28737">http://hdl.handle.net/11375/28737</a>

#### **Context**

This study used data from the 2004 and 2015 Canadian Community Health Survey, nutrition focused surveys. It compared diet quality between off-reserve Indigenous and non-Indigenous adults in 2004 and 2015, examining food security as a predictor of diet quality. Diet quality scores were not significantly different for Indigenous men and women in 2015 as compared with 2004 but continued to be lower compared with diet quality of the non-Indigenous population.

### Key finding(s) from the research

Indigenous adults reported significantly lower diet quality independent of food security status and other factors suggesting that addressing household food insecurity among Indigenous populations is necessary to improve diet quality, but likely not sufficient.

Population(s) studied: Canadian adults

**Research dataset(s) used:** Canadian Community Health Survey Nutrition survey 2004; Canadian Community Health Survey Nutrition survey 2015

### Policy implications for this research

The findings have implications for addressing the Truth and Reconciliation Commission Call to Action #19, to close gaps in health outcomes between Indigenous and non-Indigenous communities. Diet quality is important in the prevention and management of type 2 diabetes, of which large inequities between Indigenous and non-Indigenous communities exist. Therefore, policies that address food insecurity among Indigenous populations, while necessary, will likely not be sufficient to close gaps related to diet quality.

Policy area(s) this research can inform: Agriculture and food; Health; Indigenous Peoples

#### Read the full article

Riediger, N., LaPlante, J., Mudryj, A., Clair, L. (2022). Examining differences in diet quality between Canadian Indigenous and non-Indigenous adults: results from the 2004 and 2015 Canadian Community Health Survey Nutrition Surveys. *Canadian Journal of Public Health*, <a href="https://doi.org/10.17269/s41997-021-00580-x">https://doi.org/10.17269/s41997-021-00580-x</a>









# Do childhood experiences of abuse prior to joining the military influence the mental health and suicide behaviors of Canadian military personnel during their military careers?

Tamara Taillieu, Jitender Sareen and Tracie Afifi. "Do childhood experiences of abuse prior to joining the military influence the mental health and suicide behaviors of Canadian military personnel during their military careers?" CRDCN research-policy snapshots. Volume 2, July 2023 <a href="http://hdl.handle.net/11375/28735">http://hdl.handle.net/11375/28735</a>

#### **Context**

This study used information from the 2013 Canadian Forces Mental Health Survey to examine how experiencing abuse in childhood and/or traumatic events during military deployments influence mental health and suicide behaviours among Canadian military personnel. The study also examined whether relationships between child abuse, deployment trauma, mental disorders, and suicide behaviours were different for male compared to female military personnel.

### **Key finding(s) from the research**

This study found that both a child abuse history and deployment-related traumatic events were strongly related to mental disorders among military personnel. In particular, experiencing both child abuse (before joining the military) and deployment-related traumas (during military career) was more strongly related to mental disorders than experiencing wither type of trauma on its own. Although mental disorders were strongly related to suicide behaviours, a child abuse history remained associated with suicide ideation even after the influence of deployment traumas and mental disorders were taken into account. The pattern of findings was the same for both male and female military personnel.

Population(s) studied: Canadian Armed Forces Regular Force personnel between 18 and 60 years of age

Research dataset(s) used: 2013 Canadian Forces Mental Health Survey

### Policy implications for this research

Preventing child abuse remains an important public health priority. Early screening and intervention for pre-enlistment factors that might have an impact on mental health, such as a child abuse history, might help to improve the overall health and well-being of Canadian military personnel. In addition, the strong association between mental health disorders and suicide behaviours suggests that military personnel who are experiencing mental health issues should undergo a thorough risk assessment for self-harming behaviors while adhering to the principles of trauma-informed care.

**Policy area(s) this research can inform:** Health; Government; Population and demography; Society and community

#### Read the full article

Taillieu, T.L., Sareen, J., & Afifi, T.O. (2022). Associations among child abuse history, deployment-related traumatic events, mental disorders, and suicidal behaviors in Canadian Regular Force personnel. *Journal of Traumatic Stress*, 35, 1060-1071. doi:10.1002/jts.22814





