RESEARCH IN ACTION

Canadian Institute for Military and Veteran Health Research

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ARTICLE:

Article: Determinants of chronic physical health conditions in Canadian Veterans

Authors: Mayvis Rebeira, Paul Grootendorst, and Peter C. Coyte

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ABSTRACT:

Introduction: Limited information is available about the determinants of chronic health conditions of Veterans despite the increasingly perilous nature of military engagements in recent decades.
Methods: Econometric analysis, using probit and negative binomial models, was conducted on the basis of data from a cross-sectional self-reported health survey of Canadian Veterans to investigate the determinants of musculoskeletal, respiratory, gastrointestinal, and cardiovascular health conditions; pain; and diabetes.
Results: The results stress the role of military service–related factors in the increased likelihood of chronic physical health conditions in Canadian Veterans. Army Veterans had an increased probability of musculoskeletal (0.08, $p \leq 0.001$) and gastrointestinal (0.05, $p \leq 0.001$) conditions and pain (0.07, $p \leq 0.01$). Veterans who were deployed had an increased risk of musculoskeletal conditions (0.08, $p \leq 0.001$) and pain (0.06, $p \leq 0.001$). In terms of non–service-related factors, the results confirm the role of obesity as a statistically significant determinant of chronic musculoskeletal, respiratory, and cardiovascular conditions; pain; and diabetes. Female Veterans were also at higher risk of respiratory and gastrointestinal conditions. Low-income Veterans have increased probability of musculoskeletal, gastrointestinal, pain, and cardiovascular conditions, and the risk decreased with rising income level. Finally, Veterans with mental health conditions had increased odds of musculoskeletal (OR = 2.79, $p \leq 0.001$), respiratory (OR = 2.40, $p \leq 0.001$), gastrointestinal (3.66, $p \leq 0.001$), pain (OR = 2.61, $p \leq 0.001$), and cardiovascular (OR = 1.45, $p \leq 0.01$) conditions and diabetes (OR = 1.37, $p \leq 0.05$).
Discussion: The findings have important clinical and health resource use implications as Veterans seek treatment in community settings once they transition from military to civilian life. They also serve to advance the research agenda on the health of Veterans, an understudied population in Canada.

About the Authors:

Mayvis Rebeira, PhD, is a Fellow of the Canadian Centre for Health Economics, University of Toronto. She obtained her PhD in health economics from the Institute of Health Policy, Management and Evaluation, University of Toronto.

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HIGHLIGHTS:

- **Veterans diagnosed with a mental health condition, are at a greater risk of all six chronic health conditions: musculoskeletal, respiratory, gastrointestinal, pain, cardiovascular conditions and diabetes.**
- **The likelihood of pain and musculoskeletal conditions is greater for Veterans who were deployed outside of Canada for a period greater than 30 days.**
- **Researchers found that Army Veterans are of greater risk of chronic pain, musculoskeletal and gastrointestinal conditions when compared with veterans from all other branches of the military.**
- **More so than any other determinant, obesity among Canadian Veterans showed a strong association to the greatest number of chronic health conditions.**
- **The findings show that there is an association between a Veteran's income level and their level of risk of the following chronic health conditions: pain, musculoskeletal, cardiovascular, and gastrointestinal. The lower the Veteran's income, the greater their chance is of having one of those four chronic health conditions.**
- **Finally, the findings show that sex can also be a significant determinant; female Veterans are more likely than their male counterparts to be diagnosed with chronic respiratory and gastrointestinal conditions.**

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PROJECT:

Article: The 2013 Canadian Forces Mental Health Survey: Background and Methods

Authors: Mark A. Zamorski, MD, MHSA; Rachel E. Bennett, MSc; David Boulos, MSc; Bryan G. Garber, MD, MSc, FRCSCC; Rakesh Jetly, MD, FRCPC; and Jitender Sareen, MD, FRCPC

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CIMVHR PARTICIPATES IN MCT SUMMIT

In March, CIMVHR co-hosted the *Military to Civilian Transition (MCT) Summit: Expert Panel on Building a Theoretical Framework for MCT* with the Center for Innovation and Research on Veterans & Military Families at the University of Southern California, School of Social Work. Bringing together experts from the U.S., U.K, Netherlands, Canada, New Zealand and Australia, MCT Summit delegates worked to develop a theoretical framework on MCT.

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HIGHLIGHTS:

In the studies leading up to the 2013 Canadian Forces Mental Health Survey, the researchers found that:

- **overall the mental health of Canadian Armed Forces personnel was good;**
- **individuals with diagnosable mental health disorders and those who suffer from psychosocial problems should both be included in the conceptualization of "need for help";**
- **the most prominent barrier to mental health care for both, the general Canadian population as well as the CAF population, is not knowing/recognizing that there is a need for care;**
- **stigma was found to be a less prominent barrier to care;**
- **depression is more prevalent in CAF personnel than PTSD; and**
- **in 2002, delays to care were long; however it appears that for those suffering from service-related disorders, the delays are decreasing.**

The CAF's mental health system as well as their mental health strategies were both revamped as a result of the findings of these studies.

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