McMaster University | HEALTH FORUM

Rapid Evidence Profile

Exploring female-dominant conditions among military personnel and Veterans in each of the 'Five Eyes' countries

5 February 2024

[MHF product code: REP 66]

Appendices

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Appendix 1: Methodological details

We use a standard protocol for preparing rapid evidence profiles (REP) to ensure that our approach to identifying research evidence is as systematic and transparent as possible in the time we were given to prepare the profile.

Engaging subject matter experts

At the beginning of each rapid evidence profile and throughout its development, we engaged two subject matter experts, who helped us to scope the question and ensure relevant context is considered in the summary of the evidence.

Identifying research evidence

For this REP, we searched Health Systems Evidence, PubMed and Forces in Mind research repository for:
1) evidence syntheses
2) protocols for evidence syntheses that are underway
3) single studies related to Canadian military personnel and Veterans.

We searched Health Systems Evidence using open search terms for (woman OR women OR female) AND (military OR Veteran). In PubMed, we used an open search for (woman OR women OR female) AND (prevalence OR incidence OR burden) AND (condition or disorder) AND (military OR veteran). We applied filters for the last 10 years and for systematic reviews and other reviews. For single studies in PubMed, we used an open search for (woman OR women OR female) AND (prevalence OR incidence OR burden) AND (condition or disorder) AND (military OR veteran) AND (Canada OR Canadian) and a filter for the last 10 years. In the Forces in Mind research centre, we used the following search terms (woman OR women OR female). Links provide access to the full search strategy.

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the

process, which provides a running list of considerations that all members can consult during the first stages of assessment.

During this process we include published, pre-print and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing. We excluded documents that did not directly address the research questions and the relevant organizing framework.

Assessing relevance and quality of evidence

We assess the relevance of each included evidence document as being of high, moderate or low relevance to the question.

Two reviewers independently appraised the quality of the guidelines we identified as being highly relevant using AGREE II. We used three domains in the tool (stakeholder involvement, rigour of development and editorial independence) and classified guidelines as high quality if they were scored as 60% or higher across each of these domains.

Two reviewers independently appraise the methodological quality of evidence syntheses that are deemed to be highly relevant. Disagreements are resolved by consensus with a third reviewer if needed. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents an evidence synthesis of the highest quality. High-quality evidence syntheses are those with scores of eight or higher out of a possible 11, medium-quality evidence syntheses are those with scores between four and seven, and low-quality evidence syntheses are those with scores less than four. It is important to note that the AMSTAR tool was developed to assess evidence syntheses focused on clinical interventions, so not all criteria apply to those pertaining to health-system arrangements or to economic and social responses. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, an evidence synthesis that scores 8/8 is generally of comparable quality to another scoring 11/11; both ratings are considered 'high scores.' A high score signals that readers of the evidence synthesis can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the evidence synthesis should be discarded, merely that less confidence can be placed in its findings and that the evidence synthesis needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1): S8.)

Identifying experiences from other countries and from Canadian provinces and territories

For each REP, we work with the requestors and a subject matter expert to collectively decide on what countries (and/or states or provinces) to examine based on the question posed. For other countries, we search relevant government and stakeholder websites including websites for departments and offices of Veterans' affairs. In Canada, a similar approach was used, searching the website of Veterans Affairs Canada as well as websites of provincial and territorial ministries of health. While we do not exclude content based on language. Where information is not available in English, Chinese, French or Spanish, we attempt to use site-specific translation functions or Google Translate. A full lit of websites and organizations searched is available upon request.

Preparing the profile

Each included document is cited in the reference list at the end of the REP. For all included guidelines, evidence syntheses and single studies (when included), we prepare a small number of bullet points that provide a summary of the key findings, which are used to summarize key messages in the text. Protocols and titles/questions have their titles hyperlinked, given that findings are not yet available.

We then draft a summary that highlights the key findings from all highly relevant documents (alongside their date of last search and methodological quality) as well as key findings from the jurisdictional scan.

Upon completion, the REP is sent to the subject matter expert for their review.

Appendix 2: Summary of key findings from highly relevant evidence documents organized by condition

Health risk or condition	Summary of key findings
• Communicable disease	• No literature identified
• Non-communicable disease	• One recent low-quality evidence synthesis found that post-deployment health risks for females in the military include gastrointestinal disorders, increased cardiovascular disease rates, and chronic pain, all of which occur at a higher rate than among female civilians (1) • One recent single study of Canadian Veterans found female Veterans were more likely than males to report migraines and gastrointestinal disorders, including bowel disorders and ulcers (2) • One recent single study of Canadian Veterans living in Ontario found female Veterans are more likely to experience higher incidences of asthma (3)
• Pregnancy and obstetric conditions and diseases	• One recent low-quality evidence synthesis reported that female Veterans had increased risk of pre-term birth, preeclampsia and gestational diabetes as compared to their civilian counterparts (4) o Though the pathway from deployment to birth outcomes is uncertain, PTSD is being examined as one possible link (4)
• Maternal health and related conditions	• One recent low-quality evidence synthesis and one recent single study found a high prevalence of perinatal depression in military women compared to their civilian counterparts (ranging from 4.6 to 50.7%), with deployment status identified as a significant risk factor (5; 6)
• Other reproductive and gynecological conditions	• One low-quality recent evidence synthesis found that females serving in the military face distinct challenges during and after the completion of service, in particular, a lack of bathrooms can lead to poor vaginal hygiene and elevated rates of vaginitis and urinary tract infection when compared to female civilians (1) • One recent low-quality evidence synthesis included one study that identified higher rates of long-acting reversible contraceptive among active duty women (7) • One recent single study of Canadian Armed Forces members found female members are more likely to experience urinary incontinence and pelvic organ prolapse, particularly among those with physically demanding roles (8)
• Musculoskeletal conditions	• One recent medium-quality evidence synthesis found an increased risk of musculoskeletal injuries, stress fractures and general injuries among female serving military members compared to men (9) o The synthesis found female recruits are generally at a higher risk for stress fractures compared to female active military personnel • One older single study of Canadian Armed Forces Members found higher rates of musculoskeletal problems and back problems among women as compared to men (10) • One older single study of Canadian Veterans reported that though male Veterans were more likely to report consistent or recurrent chronic pain, female Veterans were more likely to report moderate to extreme pain interferences with work, with females aged 40 to 49 reporting the highest percentages (11) • One recent single study of Canadian Veterans living in Ontario found they experience a higher incidence of rheumatic arthritis compared to male Veterans (3)
• Mental health and related conditions	*Mental health conditions (general)* • One recent single study of Canadian Armed Forces members reported that females were more likely to experience co-morbid mental health conditions as compared to their male counterparts, with the most frequent being major depression and PTSD (12) • One older single study of Canadian Armed Forces members reported women, older people and junior non-commissioned officers were more likely to experience moderate mental health conditions than other military personnel (10) • One older single study of Canadian Veterans found female Veterans were more likely to report diagnosed mood and anxiety disorders as compared to male Veterans (2) • One older single study of Canadian Veterans found that female Veterans had higher rates of mental health conditions compared to male Veterans (13)

Health risk or condition	Summary of key findings

	Post-traumatic stress disorder (PTSD)
	• Two recent low-quality evidence syntheses reported that women Veterans had higher probability of developing PTSD as compared to men (7; 14)
	  o The recent low-quality evidence synthesis noted that statistically significant associations in decreasing order of strength for developing PTSD were: sexual assault, feeling in danger of being killed, sexual harassment, and witnessing someone else being killed or injured (7)
	• One recent single study of Canadian Forces members and Veterans found females, junior commissioners and land officers who have experienced previous trauma have a higher likelihood of experiencing PTSD than male or other occupational members (10)
	• One recent single study of Canadian Armed Forces members found that although men and women experience similar exposures to traumatic events during their military careers, women were twice as likely to develop PTSD (15)
	• A second single study of the Canadian Armed Forces and Canadian Veterans found females were more likely to experience illness-induced PTSD as compared with males, and were more likely to experience persistent symptoms of PTSD than other sub-groups (16)
	• One recent single study of U.S. Veterans found female Veterans were more likely to experience PTSD, depression and suicidal thoughts than male Veterans (17)
	
	Depression
	• One recent low-quality evidence synthesis reported that women with a history of military service exhibited higher rates of diagnosed depression than those who had not served as well as a higher incidence ratio as compared to men across all military services (7)
	  o The evidence synthesis noted that depression is also frequently correlated with other mental health conditions including PTSD symptomology (7)
	  o The evidence synthesis reported on results from a longitudinal cohort study and found female soldiers were more likely to attempt suicide than men in any deployment status (never deployed, currently deployed or previously deployed) with the highest odds occurring for those while on current deployment (7)
	• One recent single study of Canadian Armed Forces members found females to have higher rates of major depression, with individuals working in Joint Personnel Support Units having notably higher rates of diagnoses while technicians and Air Force members had relatively low rates (18)
	
	Suicide
	• One older low-quality evidence synthesis reported that female Veterans using Veterans Affairs services were disproportionately likely to commit suicide as compared to male Veterans using Veterans Affairs services, who were more likely to attempt suicide (19)
	
	Substance use problems and disorders
	• One older medium-quality evidence synthesis found substance rates were generally higher in male than in female Veterans, although one study reported comparable or higher rates of heavy drinking in female compared to male National Guard and reserve members (20)
	• One recent single study found that although male Veterans were more likely to report substance use, drug use was found to predict greater severity of PTSD in female Veterans (21)

• Medically unexplained symptoms	No literature was identified
• Other female-dominant health risks	*Eating disorders or distorted eating* • One older low-quality and one recent low-quality evidence synthesis found rates of eating disorders are higher among female active service members and Veterans than their male counterparts, but the older low-quality synthesis noted that these rates were comparable to the general populations (22; 23) o The recent low-quality evidence synthesis emphasized the impact of military-related trauma, adverse childhood experiences, and military fitness testing on the development of eating disorders (23)

Health risk or condition	Summary of key findings
	• One older single study of Canadian Veterans found female Veterans had higher rates of eating disorders than male Veterans, with younger female Veterans, those with PTSD and those with depression at particularly high risk (24) *Sleep disturbances* • One recent low-quality evidence synthesis reported that female military members exhibited a higher prevalence of insomnia compared to civilian women and male military members (25) o The evidence synthesis noted that insomnia was associated with a variety of co-morbidities including depression, PTSD, hypertension and diabetes and were more frequently observed among female military members than in civilian women or male military members (25) *Military sexual trauma* • An older medium-quality evidence synthesis revealed that 15.7% of military personnel and Veterans report military sexual trauma, with a significantly higher portion of females reporting both assault (23.6% of female military personnel and Veterans compared to 1.9% of male) and harassment (52.5% of female and 8.9% male) (26) o A recent low-quality evidence synthesis noted that military sexual trauma has a number of adverse consequences including both mental and physical health conditions, namely associated with the onset of both PTSD and depression, chronic illnesses including increased risk of diabetes mellitus, hypertension, obesity and cardiovascular risk factors, and reproductive health challenges including sexual dysfunction disorder, sexually transmitted infections, infertility and perinatal depression (27) • One recent single study of Canadian Armed Forces members and one older single study of Canadian military personnel found females are significantly more likely to experience military sexual trauma than males (28; 29) o The recent single study noted that this rate was higher in younger females, those with lower incomes, and those with a history of deployment or serving in air units (28), while the older study noted that risk factors included being single, a senior non-commissioner, or living in a Western region (29)

Appendix 3: Key findings from evidence syntheses, sorted by relevance

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations

• Health risk or condition
  ○ Non-communicable diseases
  ▪ Gastrointestinal disorders
  ○ Pregnancy and obstetric related conditions
  ▪ Fertility and infertility
  ▪ Unintended pregnancies
  ▪ Terminations and miscarriages
  ○ Other reproductive and gynecological conditions
  ▪ Menstrual health and hygiene
  ▪ Perimenopause, menopause and post-menopause
  ▪ Urological conditions and diseases
  ○ Mental health and related conditions
  ○ Other female-dominant health risks
  ▪ Intimate or domestic partner violence
	Women who have served in the military are at a higher risk for developing sexually transmitted infections, severe gynecological symptoms, urogenital injury, unintended pregnancies, PTSD and experiencing intimate partner violence than men (1)
	• Unintended pregnancies are associated with an increased rate of intimate partner violence and low rates of long-acting reversible contraceptive usage in the military.
	  ○ Approximately 60% of unintended pregnancies that occur in women in the military are due to the lack of contraception use.
	• Post-deployment health risks include gastrointestinal disorders, increased cardiovascular disease rates, substance abuse, obesity and chronic pain.
	• 35% of women in the military experience intimate partner violence and approximately 38.4% of women in the military have reported military sexual trauma.
		High	No	3/9	Not Available	No	Gender/Sex
							Occupation

• Health risk or condition ○ Mental health and related conditions	PTSD, depression and gender isolation were frequently reported among active duty women; there were limited studies about perinatal metal health to make any conclusions (7) • Though studies involving active duty females consistently report differences in rates of psychological morbidity, most fail to investigate the intersectional psychosocial factors contributing to these disparities	High	No	0/9	Not reported	No	Gender/Sex

• Health risk or condition
  ○ Non-communicable diseases
  ○ Maternal health and related conditions
	In addition to higher incidence of chronic physical and mental health issues among Veteran women, they also have increased risk of preterm birth, preeclampsia and gestational diabetes (4)	High	No	0/9	2019	No	Gender/Sex

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
○ Other reproductive and gynecological conditions ○ Mental health and related conditions	• Pregnant Veterans could have increased risk of preterm birth, preeclampsia and gestational diabetes						
• Health risk or condition ○ Musculoskeletal conditions	Female military personnel are more likely to experience musculoskeletal injuries than males; female recruits may have higher incidences of injuries, particularly if they are lower in rank, education or have strenuous physical demands (9) • This study identified the types and causes of musculoskeletal injuries in female military personnel. • Female recruits had higher rates of musculoskeletal injuries (19.7–58.3%) than active female members (5.5–56.6%). • Stress fractures were more likely in female recruits (1.6–23.9%) than active female members (2.7%). • Female active members had higher risk of musculoskeletal injuries in the back (18%), knee (24%), hand/wrists (10%), lower limbs (67.5%) and foot and ankles (31.8%). • Risk factors for musculoskeletal injuries included increased body fat and less physical fitness. • Risk factors for fractures included less body fat and decreased weight. • Risk factors for both musculoskeletal injuries and factures included Caucasian descent, lower education, smoking, previous injury and lower military rank.	High	No	6/9	2019	Not available	Gender/sex Race/ethnicity/ culture/language Occupation Education
• Health risk or condition ○ Mental health and related conditions	Women were reported to have twice the probability of developing PTSD than men, in addition to increases in chronic inflammation due to PTSD (14)	High	No	0/9	Not reported	No	Gender/Sex
• Health risk or condition ○ Mental health and related conditions • Disordered eating and body image	Rates of eating disorders (EDs) in the military and veteran populations are comparable to the general population and considerably higher among women, particularly among those with a history of military sexual trauma (22) • Fear of stigma, potential adverse consequences, and the predominantly male perception of the	High	No	3/9	2015	No	Gender/sex

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
	military may contribute to under-detection and under-reporting of EDs among military personnel. • Individuals may go to great lengths to control their weight and conceal ED symptoms to avoid negative consequences, impacting evaluations, opportunities for advancement, and chances of promotion.						

• Health risk or condition
  ○ Mental health and related conditions
  ▪ Disordered eating and body image
	The review noted that there are higher rates of eating disorders and disordered eating among female active service members and Veterans than their male counterparts and reinforced previous findings related to the role of military sexual trauma and childhood trauma (23)
	• The prevalence of eating disorders (EDs) and probable eating disorders among military populations (specifically in Reserve active training corp, active-duty, and veteran service members), indicated that individuals with a history of or current co-morbid mental health conditions, such as PTSD, depression, anxiety and schizophrenia, are at a higher risk.
	• The review emphasized the impact of military-related trauma, adverse childhood experiences, and military fitness testing on the development of EDs, highlighting the need for tailored interventions and proactive screening, especially among junior servicemembers and specific demographic groups.
		High	No	3/9	2021	No	Gender/sex

• Health risk or condition • Mental health and related conditions	Perinatal depression symptoms were found to range from 4.6% to 50.7% in military women and spouses, with deployment status identified as a significant risk factor, emphasizing the urgent need for targeted interventions and enhanced screening protocols in military healthcare (5) • The high prevalence of perinatal depression in military women and spouses highlights the need for woman-centred care programs, military-appropriate interventions, and expanded education for military populations and healthcare providers.	High	No	2/9	2015	No	Gender/sex
• Health risk or condition ○ Other female-dominant health risks	Women and individuals with lower societal and institutional power, such as lower-ranking personnel, face elevated risks of military sexual trauma (MST),	High	No	0/9	Not reported	No	Gender/sex

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
▪ Military sexual trauma	resulting in significant, chronic and enduring adverse consequences spanning mental and physical health outcomes, as well as cumulative impairments in functioning (27) • Flexible interventions, varying significantly across survivors, are essential to accommodate diverse psychiatric disorders, physical health complications and the impact on functioning. • Barriers to reporting MST and receiving care must be addressed for the effectiveness of interventions.						
• Health risk or condition ○ Non-communicable diseases ▪ Neurological conditions and diseases	Service women exhibited a higher prevalence of insomnia compared to civilian women and servicemen, with obstructive sleep apnea (OSA) being more common among servicemen (25) • Servicewomen with OSA were younger and had lower body mass index and obesity rates than civilian women with OSA. • Sleep disorders in servicewomen were associated with various comorbidities, including depression, PTSD, hypertension and diabetes, and were more frequently observed than in civilian women or servicemen. • Servicewomen were more likely to seek care for sleep-related issues, highlighting the need for targeted interventions and sleep health policies within the military system.	High	No	2/9	2019	No	Gender/sex
• Health risk or condition ○ Mental health and related conditions	Female veterans using Veterans Administration services exhibited high levels of problematic substance use, with increased suicide rates, particularly when associated with comorbid mental health conditions such as depression or PTSD (19) • The findings highlight the importance of targeted interventions and robust mental health supports for female Veterans.	High	No	2/9	2013	No	Gender/sex
• Health risk or condition ○ Mental health and related conditions	Substance misuse rates in women Veterans varied widely, with alcohol misuse ranging from 4% to 37% and binge drinking from 7% to 25%, highlighting the need for careful screening and tailored interventions (20)	High	No	4/9	2013	No	Gender/sex

Dimension of organizing framework	Declarative title and key findings	Relevance rating	Living status	Quality (AMSTAR)	Last year literature searched	Availability of GRADE profile	Equity considerations
	• Women veterans with substance misuse showed higher rates of trauma exposure, depression, PTSD and various psychiatric and medical comorbidities						
• Health risk or condition ○ Mental health and related conditions	Socio-demographic risk factors (e.g., young age, unemployment, minorities), mental health risk factors (e.g., PTSD, depression, sleep disturbance, substance use) and military service–related risk factors (e.g., military sexual trauma, deployment factors) were frequently mentioned for suicidal thoughts and behaviours and intimate partner violence (30)	Medium	No	4/9	2016	No	Gender/Sex
• Health risk or condition ○ Non-communicable diseases	Inherited cardiac diseases (e.g., cardiomyopathies and primary electrical disease) were frequent causes of death among women (31)	Medium	No	0/9	2016	No	Gender/Sex

Appendix 4: Key findings from single studies, sorted by relevance

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study estimated the rate of major depression diagnosis in the Canadian Armed Forces, using electronic notes. *Publication date:* 26 September 2019 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional	A total of 68,416 participants' data was examined for this study. Of that population 1,812 had reported a major depression diagnosis.	High	Individual characteristics associated with a high incidence of major depression in the Canadian Armed Forces include females, persons 30 years or older, and joint personnel support units (18) • Females (24.5%), persons 30 years or older (18.5%) and non-officers were associated with higher rates of major depression. • Technicians and air force members were associated with a lower incidence rate. • Individuals working in Joint Personnel Support Units were three times more likely to have a diagnosis.

• Health risk or condition
  ○ Mental health and related conditions
	Focus of study: This study examined patterns with psychiatric comorbidity using data from the 2013 Canadian Forces Mental Health Survey.
	
	Publication date: 1 January 2019
	
	Jurisdiction studied: Canada
	
	Methods used: Cross-sectional
		A total of 6,700 Canadian Armed Forces personnel, who has been deployed to Afghanistan, completed this survey. The average age of participants was 35.4 years and participants were mostly male (86%).	High	Females in the Canadian Forces are likely to experience comorbid mental health conditions, most commonly major depression, and PTSD (12)
				• In descending order, the most common conditions were major depression disorder (8%), PTSD (5.3%), generalized anxiety disorder (4.7%), panic disorder (3.4%) and alcohol abuse disorder (2.5%).
				• PTSD, generalized anxiety disorder and panic disorder were likely to be comorbid with another condition.
				  • Comorbid conditions were more likely to occur in females.

• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study explored risk and protective predictors on PTSD in Canadian Forces members and Veterans. *Publication date:* November 2021 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional	A total of 2,941 force members and Veterans completed this survey.	High	Females, junior commissioners and land officers who have experienced previous trauma have a higher likelihood of experiencing PTSD (32) • Approximately 14.5% of participants had new onset PTSD, 4.1% had remitted PTSD and 2.7% had persistent PTSD. • Females, junior commissioners and land officers were more likely to have PTSD than other subgroups. • Predictors of PTSD included other mental health comorbidities, previous trauma and transitioning to Veteran status. • Protective factors included social networks and problem-focused coping.

• Health risk or condition
  ○ Musculoskeletal conditions
  ○ Mental health and related conditions
	Focus of study: To estimate the effects of mental and physical health in military personnel.
	
	Publication date: 19 May 2018
	
	Jurisdiction studied: Canada
		A total of 6,696 military members participated in this study.	High	Women, older people and junior non-commissioned officers are more likely to experience a moderate mental health condition than other military personnel (10)
				• Approximately 10% of participants had a moderate physical or mental health condition.
				• Physical conditions were seen in 62% of participants and included chronic musculoskeletal problems (33%) and back problems (29%).

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings
	Methods used: Cross-sectional			• Mental disorders accounted for 27% of disability and included mood disorders (16%) and PTSD (9%). • Physical conditions could contribute to mental conditions.

• Health risk or condition
  ○ Musculoskeletal conditions
  ▪ Arthritis
  ○ Mental health and related conditions
	Focus of study: This study described the prevalence of chronic pain and demographic factors in Canadian Veterans.
	
	Publication date: April 2015
	
	Jurisdiction studied: Canada
	
	Methods used: Cross-sectional
		Veterans with a mean age of 44 years (range 20 to 67 years) participated in this study. Participants were mostly male (88%).	High	Females aged 40 to 49 were more likely to experience pain and higher pain interference than males (11)
				• The prevalence of chronic pain in females ranged from 35% to 74%, with higher ranges seen in women 40 to 49 years of age.
				  ○ Approximately 11% (aged 20 to 29) to 42% (aged 40 to 49) of women reported pain interference.
				  ○ The rate of pain interference was higher in females than males.
				• Across genders, pain was correlated with mental health disorders including depression (86%), anxiety (88%) and PTSD (93%).
				• Conditions including back problems, arthritis gastrointestinal conditions and obesity were twice as high in the Veteran population, than civilians.

• Health risk or condition
  ○ Other female-dominant health risks
  ○ Military sexual trauma
	Focus of study: This study examined the prevalence and correlates of military sexual trauma in male and female Canadian Armed Forces members.
	
	Publication date: 19 September 2022
	
	Jurisdiction studied: Canada
	
	Methods used: Cross-sectional
		A total of 2,941 participants completed this survey.	High	Females are nine times more likely to experience military sexual trauma than males; this rate is higher in younger females, those with lower incomes, deployment history and serving in air units (28)
				• Approximately 44.6% of females experienced military sexual trauma (MST), in comparison to 4.8% of males.
				• The rate of MST was higher in younger participants in the age range of 33 to 49, persons with lower household income, or an occupational history of deployment or serving in air units.

• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study examined the prevalence of illness-induced PTSD in Canadian Armed Forces and Veterans. *Publication date:* 1 September 2021 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional	A total of 5,151 participants completed the survey. Participants were on average 35 years old and 87% were male.	High	Females with illness-induced PTSD are more likely to experience persistent symptoms of PTSD than other subgroups (16) • Approximately 22% of participants had a lifetime prevalence of PTSD. • Females (13.7%) were more likely to experience PTSD than males (7.2%). • A higher proportion of females (27.2%) had illness-induced PTSD, in comparison to trauma-induced PTSD (15.4%). • Illness-induced PTSD was associated with more persistent symptoms than trauma-induced.

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings

• Health risk or condition
  ○ Other female-dominant health risks
  ○ Military sexual trauma
	Focus of study: This study estimated the prevalence of sexual assault in Canadian military personnel.
	
	Publication date: 22 June 2017
	
	Jurisdiction studied: Canada
	
	Methods used: Cross-sectional
		A total of 6,696 military personnel completed this survey.	High	Approximately 15.5% of women experienced military sexual assault; this was more likely to occur in single women, senior non-commissioners or living in the Western region (29)
				• Approximately 11.3% of participants reported lifetime sexual assault. 39.8% of women experienced sexual assault, in comparison to 6.7% of men.
				• Military sexual assault rates were lower, with 15.5% of women experiencing it, in comparison to 0.8% of men.
				• Most incidences of military sexual assault in women (58.7%) occurred in the workplace
				• Risk factors for sexual assault included being single, a senior non-commissioner or living in the Western region.

• Health risk or condition
  ○ Other reproductive and gynecological conditions
  ○ Urological conditions and diseases
	Focus of study: This study characterized the profile of Canadian Armed Force members with symptoms of urinary incontinence or pelvic organ prolapse.
	
	Publication date: September 2023
	
	Jurisdiction studied: Canada
	
	Methods used: Cross-sectional
		A total of 765 female Veterans completed this survey.	High	Female Canadian Armed Force members are likely to experience urinary incontinence or pelvic organ prolapse, particularly if they had a physically demanding job, lower ranking role or were an older adult (8)
				• Approximately 57% of female Canadian Armed Forces members experienced urine leakage and 14.5% of that population experienced pelvic organ prolapse.
				• The likelihood of experiencing either symptom increased with age and if the individual worked as a non-commissioner officer or had a physically demanding occupation.

• Health risk or condition
  ○ Non-communicable disorders
  ▪ Gastrointestinal disorders
  ○ Musculoskeletal conditions
  ▪ Arthritis
  ○ Mental health and related conditions
	Focus of study: This study compared Veterans' health indicators in comparison to civilians.
	
	Publication date: February 2020
	
	Jurisdiction studied: Canada
	
	Methods used: Cross-sectional
		A total of 2,755 Canadian Veterans completed this survey.	High	Female Veterans are more likely to experience health conditions than male Veterans or civilians of other genders, particularly for mood and anxiety disorders, migraine and gastrointestinal disorders (2)
				• Approximately 12.4% of Veteran participants were female, in comparison to 54% of civilian females.
				• The most common condition in both males and females was chronic pain.
				• In comparison to civilians, Veterans experienced higher incidence of mental health disorders, suicidal ideation, arthritis, cancer and gastrointestinal problems.
				• Female Veterans were more likely to experience mood and anxiety disorders, migraines and gastrointestinal disorders than males.

• Health risk or condition ○ Communicable disorders	*Focus of study:* This study compared physical health and health services in male and female Veterans. *Publication date:* October 2023	This study included data from 27,058 male Veterans and 4,701 female Veterans living in Ontario. The average age of participants was 41.80 years.	High	Female Veterans are more likely to seek healthcare services than males and may experience higher incidences of rheumatic arthritis and asthma (3)

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings
○ Musculoskeletal conditions ▪ Rheumatic conditions	*Jurisdiction studied:* Ontario, Canada *Methods used:* Retrospective cohort			• Some health conditions were more prevalent in female Veterans than in males. This includes rheumatic arthritis (135% higher) and asthma (20% higher). • Some health conditions were lower in female Veterans than males, including hypertension and diabetes (35%) and myocardial infraction (90%). • Female Veterans were more likely to seek healthcare services than males.
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study estimated the lifetime prevalence of trauma exposure and PTSD in military personnel. *Publication date:* November 2015 *Jurisdiction studied:* Ontario, Canada *Methods used:* Cross-sectional	A total of 5,155 Canadian Armed Forces members participated in this study.	High	Men and women have similar exposures to traumatic events; however, women are more likely to develop PTSD after exposure to a traumatic event (15) • Men and women reported similar exposure to a traumatic event (84% men and 80% women), but women were less likely to be exposed to war, climate and violent trauma. • Persons of colour were more likely to be exposed to violence and sexual assault. • Women (14.5%) were twice more likely than males (6.6%) to develop PTSD.
• Health risk or condition ○ Mental health and related conditions ▪ Social isolation and loneliness	*Focus of study:* This study explored gender specific challenges women face during and after their military service. *Publication date:* 10 August 2021 *Jurisdiction studied:* United Kingdom *Methods used:* Cross-sectional	A total of 705 United Kingdom Veterans participated in this study.	High	Factors related to mental health conditions in women Veterans included: career related challenges, sexism, non-voluntary discharge or not working (33) • Women were more likely to experience mental health challenges during their service. • Factors related to challenges included having their first child during service or having a non-voluntary discharge. • After service, women with lower ranks, who left service early, who were not working, or who left the service against their will were more likely to report health challenges. • Conditions associated with military challenges included PTSD, common mental disorders, physical health problems and loneliness. • Themes related to challenges included carer-related challenges (e.g., lack of childcare) or sexism or sexual harassment.
• Health risk or condition ○ Pregnancy and obstetric related conditions ○ Mental health and related conditions.	*Focus of study:* This study evaluated psychiatric symptom severity and predictors of women's health during pregnancy and postpartum treatment. *Publication date:* January 2021 *Jurisdiction studied:* Texas	A total of 70 women Veterans participated in this study. Approximately 50% of participants had a mental health diagnosis.	High	Women Veterans expressing mental health symptoms before or during pregnancy are likely to seek mental health treatment (6) • The odds ratio of women attending mental health appointments for depressive symptoms during pregnancy was 1.18. • A diagnosis at least six months before pregnancy could be a predictor of attending a mental health appointment after delivery, with an odds ratio of 14.63.

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings
	Methods used: Cross-sectional			
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study examined gender differences in PTSD and drug use. *Publication date:* July 2021 *Jurisdiction studied:* United States *Methods used:* Cross-sectional	A total of 1,243 Veterans participated in this study.	High	Drug use may predict PTSD in women Veterans; however, male Veterans are more likely to use substances (21) • Veteran men were more likely to report drug use, spousal complaints and withdrawals than Veteran females. • Drug use predicted future PTSD severity in women Veterans.
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study explored factors that disproportionately affect mental health in female Veterans. *Publication date:* February 2021 *Jurisdiction studied:* United States *Methods used:* Cross-sectional	A total of 85 female Veterans participated in this study. Participants were mostly Caucasian and on average 59 years old.	High	Female Veterans are more likely to experience PTSD, depression and suicidal thoughts than male Veterans, and this likelihood may increase without social and personal factors (17) • There were no sex differences found for Veterans Affairs healthcare service use. • Factors related to depression included age, childhood adversities, stressful events, combat exposure, concussion history, low resilience and low social support.
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study explored health conditions that may increase dementia risk in older female Veterans. *Publication date:* 2019 *Jurisdiction studied:* United States *Methods used:* Cohort study	Data from 109,140 female Veterans were included. Veterans were older than 55 and receiving care from the Veteran Health Administration.	Medium	Military-related risk factors and health conditions including traumatic brain injury, depression and PTSD can contribute to higher rates of dementia in female Veterans (34) • Women with traumatic brain injury, depression or PTSD have higher rates of dementia (3.9–5.7%). • A traumatic brain injury could increase dementia risk by 50%. • Women with more than one military-related risk factor had the highest risks of dementia.
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study explored differences in male and female experiences with mental and physical health conditions during the civilian transition. *Publication date:* February 2016 *Jurisdiction studied:* Canada *Methods used:* Cohort study	Data from 2,708 male and 374 female Veterans were included in this study. Most Veterans were between the ages of 45-49 and had a high school diploma.	High	Female and male Veterans had similar rates of physical health conditions; however, female Veterans had higher rates of mental health conditions (13) • No significant differences were found for the presence of physical health conditions in males (82%) or females (83%). The type of physical health conditions was not specified. • Female Veterans (33.1%) were statistically more likely to report a mental health condition than men (22.4%). The type of mental health condition was not specified.

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings

• Health risk or condition
  ○ Mental health and related conditions
  ○ Disordered eating and body image
	Focus of study: This study explored the rates of eating disorders in female Veterans.
	
	Publication date: July 2014
	
	Jurisdiction studied: Canada
	
	Methods used: Retrospective chart review
		Data from 492 female Veterans was included in this study. Participants mean age was 52.12, were mostly Caucasian (54.4%), and were overweight. Approximately 2.8% of participants had an eating disorder.	High	Eating disorders were more likely to occur in younger women Veterans, women who had a PTSD (57%) and depression (71.4%) (24)

• Health risk or condition ○ Mental health and related conditions	*Focus of study:* To examine and compare the level of mental health related stigma within the Canadian military and civilian populations. *Publication date:* 1 July 2017 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional population survey	6,696 military personnel who had completed the 2013 Canadian Forces Mental Health Survey and 25,113 Canadian civilians who had completed the 2012 Canadian Community Health Survey – Mental Health	High	Mental health stigma is more prevalent among individuals in the military; however, due to the greater access to mental health services, use of mental healthcare services is greater among military personnel (35)
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* To provide a comparison of major depressive disorder symptoms between men and women in the Canadian military and general population. *Publication date:* July 2014 *Jurisdiction studied:* Canada *Methods used:* Population Surveys	36,984 civilians that completed the Canadian Community Health Survey: Mental Health and Well-Being and 8,441 military personnel that completed the Canadian Forces Supplement of the survey	Medium	Women in the military with major depressive disorder have a better ability to cope with the disorder than the general population and show different symptoms than men (36)
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study explored the effects of deployment on mental disorder in members of the Canadian Armed Forces. *Publication date:* April 2016 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional	Participants were mostly middle aged and male.	Low	Rates of major depressive episode, PTSD and generalized anxiety disorder have increased in Canadian Armed Force members between 2002 to 2013 (37) • The most common mental health conditions included major depressive episode (8%), PTSD (5.3%) and generalized anxiety disorder (4.7%). • These rates of mental health conditions have increased from 27% to 41% in Canadian Armed Forces members. • No statistics on women were reported.

Dimension of the organizing framework	Study characteristics	Sample and intervention description	Relevance	Declarative title and key findings
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study examined the overlap between mental health and functional status in Canadian Armed Forces members. *Publication date:* September 2018 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional	Approximately 10% participants who completed this survey had psychological distress or a mood and anxiety disorder.	Low	Mood and anxiety disorder and psychological distress are associated with functional disability in Canadian Armed Forces members (38) • Disability was most significant in those with clinically significant mood and anxiety disorders and psychological distress. • Persons with just psychological distress and no mood/anxiety disorder still experienced low levels of functional disability. • No statistics on sex or gender was reported.
• Health risk or condition ○ Mental health and related conditions	*Focus of study:* This study compared the prevalence of mental disorders and suicidal behaviours in Canadian Armed Forces members to the general Canadian population. *Publication date:* April 2016 *Jurisdiction studied:* Canada *Methods used:* Cross-sectional	Regular force members were mostly male (86%), aged 55 or younger, and white (90%).	Low	Canadian Regular Force members have higher rates of mental disorders and suicidal behaviours than civilians (39) • Regular force members had higher rates of mental disorders and suicidal behaviours than the civilian populations, with the exception of alcohol use disorder. • No information on gender or sex was reported.

Appendix 5: Detailed jurisdictional scan about centres and programs focused on women Veterans' health in Canadian provinces and territories

Province or territory	Centre or program	Description
British Columbia	BC Women's Hospital & Health Centre	• BC Women's is dedicated primarily to the well-being of women, newborns and families • It stands as the sole facility in the province offering a unique combination of primary, secondary and tertiary services • Home to the provincial Medical Genetics program, BC Women's conducts genetic assessments for pregnant women, those planning pregnancy, and individuals across BC • The hospital offers specialized gynecology services, addressing chronic pelvic pain and featuring a distinctive early pregnancy assessment service • The Oak Tree Clinic delivers interprofessional HIV care for women, covering reproductive health, pregnancy, menopause and beyond in a secure environment • The Complex Chronic Disease Program, established in 2013, supports individuals with alternatively diagnosed chronic conditions such as Lyme syndrome, fibromyalgia and myalgic encephalomyelitis/chronic fatigue syndrome • BC Women's Health Centre extends services for heart health, breast health and clinical reproductive health screening for women with disabilities • The hospital advocates violence- and trauma-informed care, with dedicated services for Indigenous and newcomer women, promoting women-centred care province wide
	Sheway – Vancouver Aboriginal Health Society	• Sheway offers extensive health and social services tailored for pregnant and/or parenting women with current or past substance use issues • The program encompasses prenatal, postnatal and primary care, along with educational, counselling and addiction management services
Alberta	MAUD Medical Clinic	• Dedicated to promoting awareness and agency in women's health, establishes a safe and inclusive space in Calgary • Covering a spectrum of women's health concerns from puberty to menopause, it emphasizes education and compassionate care
	Alberta Breast Cancer Screening Program	• Alberta Breast Cancer Screening Program provides mammograms and breast health information • Targets women in Calgary, Edmonton and 120+ rural Alberta communities • Utilizes two mobile mammography clinics for screening in rural areas • Mobile clinics are fully equipped with reception, dressing rooms and exam room
	Calgary IUD Women's Clinic	• Services cover various aspects of women's health, including pap smears and routine female checks • Offers birth control, STI testing and HPV vaccination • Provides pregnancy care, fertility consultations and addresses breast issues • Deals with heavy or irregular menstrual bleeding • Addresses menopause-related concerns • Performs IUD placements, follow-ups and removals
	Lois Hole Hospital for Women	• Offers a range of program areas, including ambulatory, ante-partum, labour and delivery, prenatal education program, postpartum, surgery and operative services (e.g., gynecology day surgery and gynecology inpatient services) • The hospital provides comprehensive patient and family support through services such as cultural and spiritual care, Indigenous hospital navigation services, the perinatal bereavement program, social work and the Women's Resource Centre
	Breast Health Centre – Calgary	• The clinic specializes in diagnosing and treating breast abnormalities through a comprehensive approach • Services provided include multidisciplinary care for confirmed and suspected breast cancer, expedited referral for New Cancer and BIRADs 5 patients (aiming to see patients within four weeks from biopsy date), breast surgeon clinics for

Province or territory	Centre or program	Description
		benign imaging (seen < 31 weeks), clinics for suspicious clinical exam, benign pathology, or abnormal imaging (seen in < 28 weeks), and a breast health expert physician clinic for select benign breast conditions (seen within six months) • The health team includes surgeons for diagnostic assessment and surgical treatment, a family physician, a breast health expert, an oncologist for high-risk consultations, and nurse navigators specializing in breast health, providing information and answering questions about tests, surgery, treatments and care options
Saskatchewan	Women's Health Centre – All Nations' Healing Hospital	• Women's Health Centre focuses on improving access to preventative healthcare for women • Offers reproductive healthcare in a safe environment for women from all communities • Nurse Practitioners manage and treat women's health concerns throughout their lifespan • Goal is to enhance access to primary healthcare services for women • Services include birth control, IUD insertions, PAP tests, breast exams, STI testing and treatment, UTI assessment and treatment, bladder incontinence care, menopausal symptom management, mental health services and pregnancy-related support
Manitoba	Women's Health Clinic (WHC) – Winnipeg	• Women's Health Clinic (WHC) in Winnipeg is an inclusive, feminist community health clinic providing client-centred support through services and education • Ode'imin, a part of WHC, offers inclusive programs and services for pregnancy, childbirth, and parenting to create a safe, respected, and supported environment for families • The Birth Control and Pregnancy Counselling Program at WHC, staffed by trained volunteer counsellors, offers pro-choice, non-judgmental, and compassionate support, along with information and referrals • WHC's Counselling services are client-centred and inclusive, providing support through services and education • The Provincial Eating Disorder Prevention and Recovery Program at WHC is community-based and serves all genders, including women, men, trans and non-binary individuals
Ontario	Women's Health in Women's Hands Unity Health Toronto	• Women's Health in Women's Hands is a health centre for racialized women in Toronto providing services including health education, dietary issues and mental health disorders
	Women's College Hospital	• Women's College Hospital is a leader in women's health and offers specialized programs dedicated for women including Peter Gilgan Centre for Women's Cancers and Bay Centre: Sexual Health
	Ross Memorial Hospital Women's Health Clinic	• Ross Memorial Hospital Women's Health Clinic provides non-urgent care to women without primary physicians. The clinic focuses on preventative screening, abnormal bleeding, birth control and treatment of sexually transmitted infections
	Ontario Shores Women's Health Clinic	• Ontario Shores Women's Health Clinic provides mental health treatment specific to women's' needs • This treatment might involve psychotherapy and medications
	Mount Sinai Women's Unit	• Mount Sinai Women's Unit provides specialized services for pregnancy, menopause, premature ovarian insufficiency and colposcopy
	Hamilton Health Sciences Clinics	• Hamilton Health Sciences Women's Health Clinics offers specialized services for obstetrics and gynecology, prenatal services, sexual assault and domestic violence, and termination of pregnancy
	St. Joseph's Women's Health Concerns Clinic	• St. Joseph's Women's Health Concerns Clinic offers services to women experiencing emotional symptoms related to menstrual cycle, pregnancy and menopause • Individualized treatment plans are devised after consultations
Quebec	Project Health	• Project Health is a Quebec organization dedicated to training Indigenous women on sexual and reproductive health

Province or territory	Centre or program	Description
New Brunswick	Women and Children's Health Clinic	• Horizon's Health Network Women and Children's Health program offers clinics related to family medicine and obstetrics and gynecology
	Cervical Cancer Preventing & Screening Program	• The Cervical Cancer Prevention & Screening Program promotes screening for women aged 21 to 69 • Women outside of the age group, who do not have a cervix, or who previously had cervical cancer are not required to participate in the program
	Robert Wood Johnson University Hospital Women's Health Services	• Women's Health Services at Robert Wood Johnson University Hospital provides comprehensive care services including breast cancer, gender services, maternal-fetal medicine, family planning, gynecology and maternity
	Saint Peter's University Hospital Women's Health Program	• Saint Peter's University Hospital Women's Health program includes services for antenatal testing, breast screening, gynecological care, prenatal treatment, family planning, infertility services, maternal-fetal medicine, nutritional counselling and imaging • The centre prioritizes treatment to persons from underserved communities
	St. Joseph's Women's Health Concerns Clinic	• St. Joseph's Women's Health Concerns Clinic offers breast health programs (surgery and screening), menopause, osteoporosis, education and wellness services • The hospital provides a Breast Health Program Trust Fund that provides breast cancer patients with items needed for treatment and recovery
Nova Scotia	CMHA Women's Mental Health	• Canadian Mental Health Association Nova Scotia offers Women's mental health services for mothers or those thinking of pregnancy
	Dalhousie University Department of Obstetrics and Gynaecology	• Dalhousie University Department of Obstetrics and Gynaecology offers routine and preventative care including maternal fetal medicine, endocrinology and fertility, pelvic medicine and surgery, and perinatal care
	Tri-County Women's Centre	• The Tri-County Women's Centre offers free services including reproductive health information and trauma counselling services
Prince Edward Island	Women's Wellness Program and Sexual Health Services	• Prince Edward Island Community Navigators offers access to Women's Wellness Program and Sexual Health Services • Services include education and counselling, infection screening and treatment, birth control, pregnancy supports, prenatal care, menopause, infertility assessment and abortion services
Newfoundland and Labrador	Eastern Health Children and Women's Health program	• Eastern Health Children and Women's Health program offers gynecology services (e.g., ovarian cystic, pelvic pain, and sexual dysfunction) • The Cervical Screening Initiative promotes coordination with private and government organizations to promote cervical screenings
Northwest territories	Women's Health and Gynecology	• The Northwest Territories Women's Health and Gynecology program treats health concerns including breast lumps, menopause, pelvic inflammation, abnormal uterine bleeding and more
	NOW	• The Government of Northwest Territories offers a program called NOW, which provides reproductive choice and abortion services • Services include decision making, ultrasound, abortion and counselling
Yukon	Yukon Women's Midlife Health Clinic	• Yukon Women's Midlife Health Clinic offers menopause related health supports and does not require referrals from primary care providers

Province or territory	Centre or program	Description
	Yukon Obstetrics and Gynecology	• Yukon Obstetrics and Gynecology provides services with pelvic and reproductive health issues
Nunavut		• No clinics could be identified • The Qikiqtani General Hospital does not have a specified Women's health program and other health clinics do not specify services

Appendix 6: Detailed jurisdictional scan about centres and programs focused on women Veterans' health in each of the 'Five Eye' countries

'Five Eye' country	Centre or program	Description
Australia	• Women Veterans Australia • Female Veterans and Veterans' Families Policy Forum	• Women Veterans Australia is the only not-for-profit charity that provides women Veterans support and services such as community and connection, referral services and resources, and mentoring and development • Female Veterans and Veterans' Families Policy Forum provides a platform for female veterans and veterans' families to generate ideas to solve issues facing their communities, co-design Department of Veteran's Affairs products and services, and build networks across represented cohorts.

Canada	• Serene View Ranch
	• Women Warriors Healing Garden
	• Quebec Veterans Foundation's Women Veterans Program
	• Women and 2SLGBTQI+ Veteran Engagement
		• The Veteran and Family Well-Being Fund provides grants to organizations who may support women Veterans.
		• Examples of funded programs are:
		  ○ The Serene View Ranch to provide multidisciplinary and personalized trauma treatment for women Veterans
		  ○ Women Warriors Healing Garden is a not-for-profit organization, funded by the Veteran and Family Well-Being Fund, and provides mental health support
		• The Quebec Veterans Foundation offers a Women Veterans Program, funded by Veterans Affairs Canada and private organizations
		  ○ The program aims to reduce isolation and suicide in women Veterans by providing services that meet their unique need
		  ○ The website provides access to webinars and research specific to women Veterans' health
		  ○ The platform encourages the development of wellness activities for women veterans and hosts resources exclusively to women Veterans (e.g., the Pepper Pod)
		• Veterans Affairs Canada Women and 2SLGBTQI+ Veteran Engagement are initiatives to understand the experiences of Women and 2SLGBTQI Veterans, but no health plan was identified

New Zealand	• None identified	• The New Zealand Ministry of Defence does not have specific programs for women Veteran health • However, the department has made recommendations to recruit more women Veterans, retain their employment, improve pathway for leadership roles and reduce discrimination • Restrictions on women's participation in the military were in place until 2007, which may explain a lack of health resources specified for women

United Kingdom	• Women Veterans' Strategy
	• Centre for Military Women's Research
		• The Office for Veterans' Affairs (OVA) does not currently have specified program for Women Veterans, but the OVA is currently developing a Women Veterans' Strategy to explore the specific needs of women veterans including mental and physical health; this initiative began in the spring of 2023 and will be updated in 2024
		  ○ This program includes dedicated funds to develop clinical supports for women who suffered from sexual trauma in the military
		  ○ The OVA 2022–2024 Veterans' Strategy Action Plan has recommendations for Women research
		  ○ The OVA commits to conducting qualitative research exploring the lived experiences of Women Veterans
		  ○ Approximately £150,000 in funding to support Veteran women charities and enhance their accessibility is allocated
		• The OVA provides funding to the Centre for Military Women's Research to conduct research exploring the physical healthcare needs to improve care pathways for female Veterans

United States	• Center for Women Veterans	• The United States Department of Veterans Affairs has a Center for Women Veterans providing specialized healthcare services for women Veterans
		  ○ Services include wellness checks, routine screenings, reproductive health services, management of long-term conditions, pain management, mental health services, military sexual trauma, fertility treatment, sensory aids and specialized services
		  ○ The Women's Health Transition Training program can educate women veterans on healthcare services, eligibility criteria, social engagement opportunities and navigating the Veterans affairs system

Appendix 7: Documents excluded at the final stages of reviewing

Document type	Hyperlinked title
Evidence synthesis (that do not meet criteria for a systematic or rapid review)	Sexually transmitted infections in the military environment
Single studies	Mental illness-related stigma in Canadian military and Civilian populations: A comparison using population health survey data
	Differences between the Canadian military's regular and reserve forces in perceived need for care, mental health services use and perceived sufficiency of care: A cross-sectional survey
	Overall mortality of Canadian Armed Forces personnel enrolled 1976–2012
	Does a history of childbirth impact injury prevalence and mental health in female military members
	Association of TBI, PTSD, and depression with dementia risk among female military veterans: Not just men

Waddell K, Jaspal A, Shivji A, Ali A, Bhuiya A, Wilson MG. Rapid evidence profile #66: Exploring female-dominant conditions among military personnel and Veterans in each of the 'Five Eyes' countries. Hamilton: McMaster Health Forum, 5 February 2024.

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