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Well-being of Canadian Regular Force Veterans, Findings from LASS 2019 Survey

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Executive Summary

The Life After Service Studies (LASS) program of research is designed to further understand the transition from military to civilian life and ultimately improve the health of Veterans in Canada. LASS partners are Veterans Affairs Canada (VAC), the Department of National Defence/Canadian Armed Forces (DND/CAF), and Statistics Canada. LASS 2019 continues with the longitudinal component introduced in 2016 in two major studies: the survey of health and well-being, and the record linkage for pre- and post-release income trends. This technical report provides initial cross-sectional findings for Regular Force Veterans from the 2019 survey.

LASS 2019 survey data was collected by telephone between March 4th and May 10th 2019 by Statistics Canada interviewers who obtained a 72% response rate. Results describe Veterans who released (at post-entry ranks) from the CAF Regular Force between 1998 and 2018.

Findings indicate that 45% of Veterans reported an easy adjustment to civilian life, while nearly as many, 39%, reported difficulty. Officers had a lower rate of difficult adjustment (21%), compared to 35% of Senior Non-Commissioned Members (SrNCM) and 47% of Junior Non-Commissioned Members (JrNCM). Veterans with recent releases (between 2015 and 2018) had a higher rate of difficult adjustment (47%), compared to earlier releases between 1998 and 2015 (37%). Compared to those with earlier releases, these recently-released Veterans had higher rates of anxiety and depression and were less likely to be working as their main activity, all factors associated with difficult adjustment.

Veterans reported chronic conditions, including arthritis (35%), depression (26%), anxiety (21%), and post-traumatic stress disorder (PTSD) (24%), at higher prevalences than Canadians of comparable age and sex. SrNCM had the highest rate of arthritis (47%), and JrNCM had the highest rates of depression (31%), anxiety (25%), and PTSD (27%). Veterans also reported higher rates than Canadians for hearing problems, pain, and activity limitations. Since LASS 2013, the trend for chronic conditions has been increasing. In LASS 2019 there were significant increases in the rates of arthritis, high blood pressure, depression, anxiety, and PTSD compared to LASS 2016.

Most Veterans were employed (60%). SrNCM had a lower employment rate (50%) compared to Officers (58%), and JrNCM (66%). The unemployment rate for Veterans was 5%, similar to Canadians of comparable age and sex. Non-labour force activities for Veterans included retirement (21%), on disability (12%), and training (4%). Since LASS 2013, the trend for non-labour force activities has been increasing along with the average age of Veterans. The rates of retirement and disability were significantly higher in LASS 2019 compared to LASS 2016.

Some Veterans experienced low income (6%). This was lower than Canadians (12%, not age and sex adjusted), and has not changed significantly since LASS 2010. JrNCM had the highest rate (8%). Most Veterans were satisfied with their finances (72%) and the rate is not significantly different from LASS 2016. Officers had a higher satisfaction rate (90%) compared to SrNCM (77%), and JrNCM (62%).

When asked about the effect their release had on the family, the majority of Veterans reported that the transition was easy for their partner (54%) and their children (56%). However, 32% of Veterans indicated their partners had difficulty with their release, and 23% reported their children had difficulty with their release.

LASS findings have provided evidence to inform the efforts of both VAC and DND/CAF to support transition to civilian life. LASS 2019 findings will continue to contribute to improvements to programs, benefits, communications and outreach, to ultimately improve the health and well-being of Veterans in Canada.

Sommaire

Le programme de recherche Études sur la vie après le service militaire (EVASM) vise à nous aider à mieux comprendre la transition de la vie militaire à la vie civile et en bout de ligne à améliorer la santé des vétérans au Canada. Les partenaires des EVASM sont Anciens Combattants Canada (ACC), le ministère de la Défense nationale/les Forces armées canadiennes (MDN/FAC) et Statistique Canada. Les EVASM 2019 continuent avec la composante longitudinale introduite en 2016 dans deux études importantes : l'enquête sur la santé et le bien-être et le couplage de données sur les tendances en matière de revenu avant et après la libération. Ce rapport technique fournit les premières constatations transversales de l'enquête de 2019 pour les vétérans de la Force régulière.

Les données de l'enquête dans le cadre des EVASM 2019 ont été recueillies par téléphone entre le 4 mars et le 10 mai 2019 par des intervieweurs de Statistique Canada qui ont obtenu un taux de réponse de 72 %. Les résultats décrivent les vétérans qui ont été libérés (à des grades postérieurs à l'entrée) de la Force régulière des FAC entre 1998 et 2018.

Les constatations indiquent que 45 % des vétérans ont déclaré que leur transition à la vie civile avait été facile, alors que cette transition a été difficile pour 39 % d'entre eux. Les officiers affichaient un plus faible taux de difficulté d'adaptation (21 %), comparativement aux militaires de rang supérieur (MR sup) (35 %) et aux militaires de rang subalterne (MR sub) (47 %). Les vétérans récemment libérés (entre 2015 et 2018) ont affiché un taux plus élevé de difficulté d'adaptation (47 %), comparativement aux vétérans libérés entre 1998 et 2015 (37 %). Comparativement aux vétérans libérés plus tôt, les vétérans récemment libérés affichaient un taux plus élevé d'anxiété et de dépression et étaient moins susceptibles d'avoir le travail comme activité principale, soit tous des facteurs associés à une adaptation difficile.

Les vétérans ont déclaré souffrir d'affections chroniques, comme l'arthrite (35 %), la dépression (26 %), l'anxiété (21 %) et l'état de stress post-traumatique (ESPT) (24 %), à un taux de prévalence plus élevé que dans la population canadienne de même âge et sexe. Le taux d'arthrite était le plus élevé chez les MR sup (47 %), alors que les MR sub affichaient les taux les plus élevés de dépression (31 %), d'anxiété (25 %) et d'ESPT (27 %). Les taux de problèmes d'audition, de douleur et d'incapacités fonctionnelles étaient plus élevés chez les vétérans que chez les Canadiens. Depuis les EVASM 2013, la tendance pour les affections chroniques a augmenté. En les EVASM 2019 il y a eu des augmentations significatives dans les taux d'arthrite, d'hypertension artérielle, de la dépression, d'anxiété, at de ESPT par rapport à les EVASM 2016.

La plupart des vétérans occupaient un emploi (60 %). Le taux d'emploi des MR sup (50 %) était inférieur à celui des officiers (58 %) et des MR sub (66 %). Le taux de chômage chez les vétérans était de 5 %, semblable à celui de la population canadienne de même âge et sexe. Les activités autres que main d'œuvre pour les vétérans comprenaient la retraite (21 %), l'état d'invalidité (12 %) et la formation (4 %). Les taux de retraite and de l'état d'invalidité étaient significativement plus élevés en les EVASM 2019 par rapport à les EVASM 2016.

Certains vétérans avaient un faible revenu (6 %). Le taux était inférieur à celui de la population canadienne (12 %, pas ajusté pour l'âge et le sexe), et il est inchangé depuis les EVASM 2010. Les MR sub affichaient le taux le plus élevé (8 %). La plupart des vétérans étaient satisfaits de leur situation financière (72 %) ce qui n'a pas changé significativement depuis les EVASM 2016. Les officiers affichaient le plus haut taux de satisfaction (90 %) comparativement aux MR sup (77 %) et aux MR sub (62 %).

Lorsqu'on a demandé aux vétérans quelle avait été l'incidence de leur libération sur leur famille, la plupart d'entre eux ont indiqué que la transition avait été facile pour leur partenaire (54 %) et leurs

enfants (56 %). Toutefois, 32 % des vétérans ont indiqué que leurs partenaires avaient de la difficulté avec leur libération, et 23 % ont indiqué que leurs enfants avaient eu de la difficulté avec leur libération.

Les résultats des EVASM ont permis de fournir des éléments de preuve pour documenter les efforts d'ACC et du MDN/FAC et appuyer ainsi la transition vers la vie civile. Les résultats des EVASM 2019 continueront de contribuer à l'amélioration des programmes, des avantages, des communications et de la sensibilisation, pour améliorer en bout de ligne la santé et le bien-être des vétérans au Canada.

1. Introduction

The Life After Service Studies (LASS) program of research is designed to enhance understanding of the transition from military to civilian life and ultimately improve the health of Veterans in Canada (VanTil 2011). LASS partners are Veterans Affairs Canada, the Department of National Defence/Canadian Armed Forces and Statistics Canada.

LASS includes two major studies: the survey of health and well-being, and the record linkage for pre- and post-release income trends. LASS 2019 survey expands on the earlier studies in 2010[1], 2013[2], and 2016[3]. LASS 2010 studied former Regular Force personnel who released from service during 1998-2007. LASS 2013 studied both Regular Force Veterans and Primary Reserve Force Veterans. LASS 2016 included new family content and longitudinal design methods in both major studies. LASS 2019 continues with the longitudinal design introduced in 2016 and includes Regular Forces Veterans who released during the twenty year period from 1998-2018.

Veterans[4] in Canada are former officers or non-commissioned members of the Canadian Armed Forces (CAF), Regular or Reserve[5]. As of March 2019, there were about 640,000 Veterans living among the general population in Canada. Of these, about 600,000 served after 1953.[6]

This report provides cross-sectional findings for Regular Force Veterans from the 2019 survey, many of which are indicators being used to measure how Veterans are doing in VAC's seven domains of well-being. The objective of this report is to describe the health and well-being of the 64,000 Regular Force Veterans who released from service (at post-entry ranks) during 1998 to 2018.

[1] Thompson JM, MacLean MB, Van Til L, et al. Survey on Transition to Civilian Life: Report on Regular Force Veterans. VAC Research Directorate Technical Report, 2011. http://publications.gc.ca/pub?id=9.694222&sl=0

[2] Thompson JM, Poirier A, Sweet J, et al. Health and Well-being of Canadian Armed Forces Veterans, LASS 2013. VAC Research Directorate Technical Report. 3 July 2014. http://publications.gc.ca/pub?id=9.818364&sl=0

[3] Van Til LD, Sweet J, Poirier A, et al. Findings from LASS 2016 Survey. VAC Research Directorate Technical Report. 23 June 2017. http://publications.gc.ca/pub?id=9.839366&sl=0

[4] Canadian Forces Members and Veterans Re-establishment and Compensation Act, SC 2005, c21, s2(1).

[5] VanTil L, Thompson JM, MacLean MB, Pedlar D. Screening questions to identify Canadian Veterans. J Military Veteran Family Health, 2016; 2(1): 28–32. http://dx.doi.org/10.3138/jmvfh.3587

[6] VAC Statistics Directorate, VAC Facts & Figures, March 2019.

2. Methods

LASS 2019 survey design incorporated both cross-sectional and longitudinal design. The cross-sectional design represents Veterans who released from the Regular Force between 1998 and 2018. The longitudinal design follows Veterans of the Regular and Reserve Forces who participated in LASS 2013 and LASS 2016. Longitudinal results will be described in a subsequent report.

The LASS 2019 cross-sectional survey design describes Veterans who released from the Regular Force between 1998 and 2018. As in LASS 2016, entry ranks[7] were excluded from the survey. Statistics Canada removed out-of-scope records for Veterans residing in the three northern Territories, outside Canada or in an institution, those who were deceased, or who had re-enrolled in the CAF.

The LASS 2019 survey was stratified into three groups by rank[8] at release:

- Officers,
- Senior non-commissioned members (SrNCM),
- Junior non-commissioned members (JrNCM).

Survey data was collected from March 4th to May 10th 2019 by Statistics Canada interviewers using the Computer Assisted Telephone Interview. Survey questions for LASS 2019 are similar to LASS 2016[9] and used Canadian Community Health Survey (CCHS) modules where possible. Mastery questions, last seen in LASS 2013, were reintroduced in LASS 2019. The SF-12 series of questions was removed in LASS 2019 to make room for the entire HUI (Health Utility Index) series of questions. For the first time in LASS 2019 survey participants were asked both their sex at birth and their gender. Figure 1 shows the sample design, 72% response rate, and 92% agreed to share their data with VAC and DND.

Overall response rate for the Regular Force Veterans in the cross-sectional master file was 53%. This was calculated by combining the results of the cross-sectional releases since 2016 (65% response rate; n=1295) with the longitudinal nonresponse that occurred in previous cycles of the survey since 2013 (47% response rate; n=2105), and were re-weighted for the cross-sectional analysis.

LASS 2019 survey used stratified survey design as well as inclusion of the 2016 survey cohort and oversampling releases since the 2016 survey. This complex design requires all survey estimates and analyses to use sample weights, similar to the methodology of LASS 2016[10]. These weights were calculated by Statistics Canada to incorporate the unequal probabilities of selection, eligibility, non-response, and sharing. This report applied cross-sectional share weights using Stata SVY commands, and excluded missing responses from the denominator.

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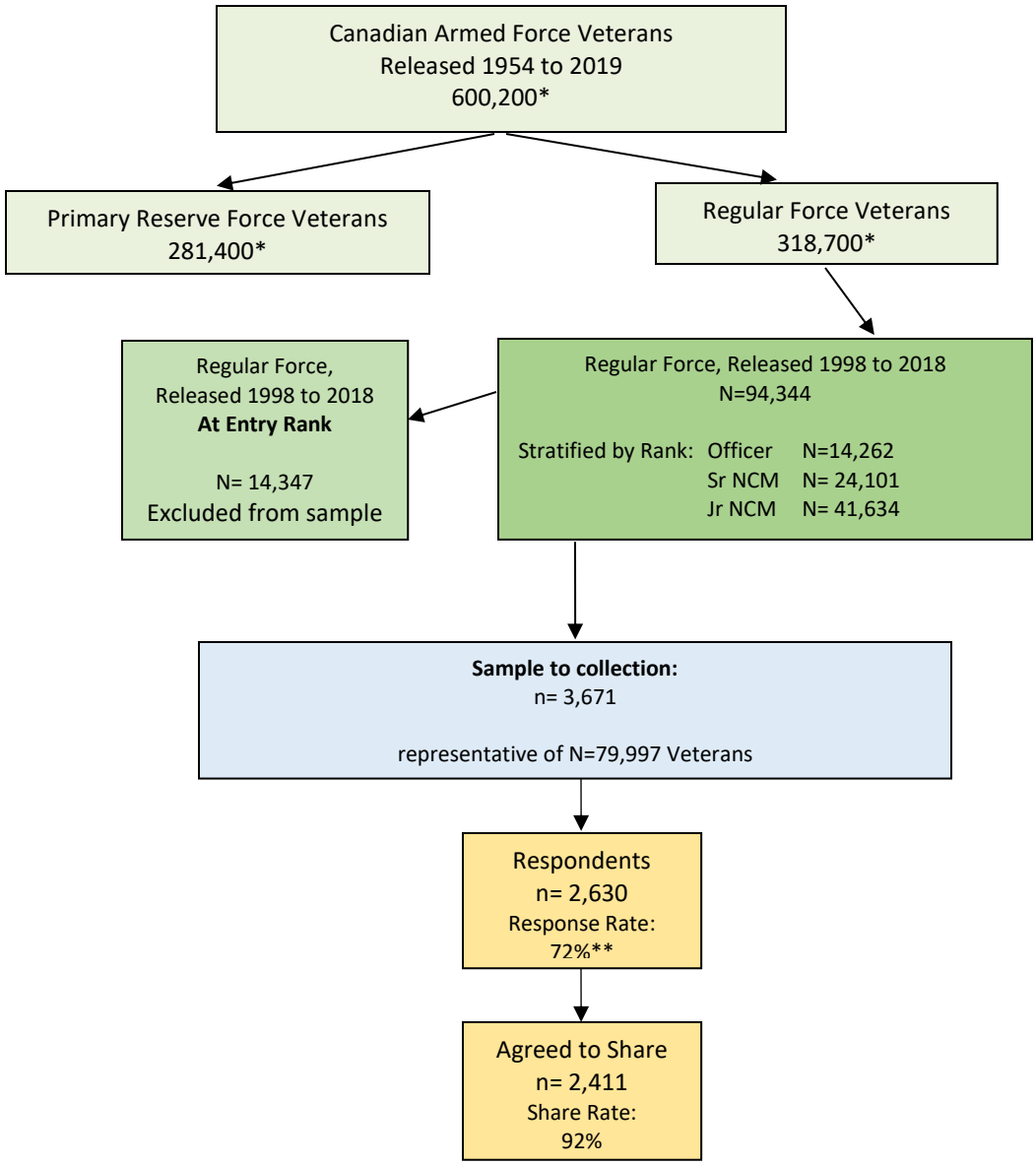
7 Entry ranks: Private (Recruit), Officer Cadet, and Second Lieutenant; and their Navy equivalents: Ordinary Seaman (Recruit), Naval Cadet, Acting Sub-Lieutenant.

8 www.forces.gc.ca/en/honours-history-badges-insignia/rank.page

9 Statistics Canada. Life After Service Survey. http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=257809

10 VanTil L, Perrie S, Poirier P, et al. Methodology: Life After Service Studies 2013. VAC Research Directorate Technical Report; 31 December 2014. http://publications.gc.ca/pub?id=9.629947&sl=0

Figure 1. LASS 2019 Cross-sectional Sample



*Source: VAC Facts & Figures, March 2019
** 72% response rate in 2019; 53% response rate since 2013.

LASS 2019 indicators of well-being are defined in **Appendix 1**. Analysis in the main text of this report is drawn largely from the tables in the Appendices. Veterans in 2019 are described in a series of tables:

- **Appendix 2** lists the indicators by the three rank groups. Additional analysis is required to account for differences in age, sex, and other factors.
- **Appendix 3** lists the indicators by three age groups. Additional analysis is required to account for differences in sex, rank, and other factors.
- **Appendix 4** lists the indicators by sex. Additional analysis is required to account for differences in age, rank, and other factors.
- **Appendix 5** lists the indicators by the four LASS cycles in 2010, 2013, 2016 and 2019. This comparison used only post-entry rank releases for all 4 cycles. Confidence intervals were produced by Stat SVY commands and will differ from those produced using Statistics Canada bootstrap weights. Confidence intervals that do not overlap were considered statistically significant. Additional analysis is required to account for differences in age, sex, rank, and other factors, and to take into account the dependence of the 2013, 2016 and 2019 samples.
- **Appendix 6** lists the indicators by two periods of release: LASS 2019 recent release (2015 to 2018), and LASS 2019 earlier release (1998 to 2015). For comparison LASS 2016 is also listed (1998 to 2015). Additional analysis is required to account for differences in age, sex, rank, and other factors, and to take into account the dependence of the 2013, 2016 and 2019 samples.
- **Appendix 7** lists the indicators from 2019 compared to Canadian data. Most of the Canadian comparators were from the most recent Canadian Community Health Survey available (2015-16), age-sex adjusted to the Veteran population (who are predominantly younger and male).

Strengths of the LASS 2019 survey include the use of DND administrative data to identify Veterans and the use of Statistics Canada resources to survey participants and protect their confidentiality, and achieve a high response rate. The survey content used validated questions, mostly from national Canadian population health studies. Limitations of this report include the cross-sectional design that does not provide evidence about causal relationships between factors such as military service or VAC programs and well-being outcomes, but does allow quantification of the strength of association. Findings cannot necessarily be generalized to all Veterans; however the findings of this report are representative of Regular Force Veterans who released from 1998 to 2018.

3. Demographics

The average age of Regular Force Veterans participating in LASS 2019 was 50 years (see Table 1). JrNCM were younger (44 years), compared to SrNCM and Officers (both 57 years). The majority of Regular Force Veterans were male (87%) at the time of the survey; similar results are reported by sex.

The highest level of education attained at the time of the survey is described in Table 1. Overall, 18% of Regular Force Veterans had a university degree. Officers had the highest rate of university graduation (76%), compared to JrNCM (6%) and SrNCM (5%).

Table 1. Demographic Indicators by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
	≤ 30	F	F	9%	5%	5%	F
	30-39	6%	F	32%	18%	18%	15%
	40-49	14%	16%	24%	20%	18%	27%
	50-59	39%	45%	29%	36%	35%	37%
	60+	40%	38%	7%	22%	23%	16%
Sex	Male	88%	89%	86%	87%		
	Female	12%	11%	14%	13%		
Gender	Male	88%	89%	86%	87%		
	Female	12%	11%	14%	13%		
	Other gender identity	F	F	F	F		
Marital status	Married/Common-law	87%	85%	72%	78%	80%	70%
	Widowed/Separated/Divorced	9%	10%	13%	11%	11%	15%
	Single, never married	4%	5%	16%	10%	10%	16%
Education	Less than high school graduation	F	6%	5%	4%	5%	F
	High school graduation	12%	51%	37%	37%	39%	28%
	Post-secondary graduation	11%	38%	51%	40%	39%	46%
	University degree	76%	5%	6%	18%	17%	24%

F = too few to calculate a reliable estimate

Since LASS 2016, the age of participants has increased (see Appendix 5). Appendix 3 lists the indicators by three age groups. The trends for sex and marital status have not changed while the proportion with a university degree has started to rise (see Appendix 5).

Compared to Canadians of similar age and sex, Veterans report higher rates of married or common-law (78% vs. 73%), and lower rates of post-secondary education (58% vs. 67%), see Appendix 7.

The large differences in the age and sex distribution of the Veteran population compared to the Canadian population require comparisons that adjust for age and sex.

4. Military Characteristics

The majority of Regular Force Veterans had service in the Army (51%), 32% in the Air Force, and 16% in the Navy (see Table 2). JrNCM had the highest rate of service in the Army (61%), compared to SrNCM (42%) and Officers (38%).

About half of Veterans had 20 or more years of military service, 54% of Regular Force Veterans (see Table 2). JrNCM had the lowest rate (25%), compared to Officers (79%) and SrNCM (91%). This pattern across rank groups was also observed for the rate of deployment during military service.

Table 2. Military Characteristics by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
Service Environment	Air*	42%	37%	26%	32%	31%	43%
	Land*	38%	42%	61%	51%	53%	40%
	Sea*	20%	21%	13%	16%	16%	17%
Enrolment Era	1954-1975	26%	25%	F	13%	14%	F
	1976-1990	53%	63%	36%	47%	47%	45%
	1991-2000	11%	10%	17%	14%	14%	18%
	2001-2015	10%	F	45%	26%	25%	32%
Length of Service	< 10 years	9%	F	48%	27%	27%	31%
	10 to 19 years	13%	8%	27%	19%	17%	27%
	≥ 20 years	79%	91%	25%	54%	56%	42%
Release Type	Voluntary	80%	66%	60%	65%	66%	57%
	Involuntary	F	F	F	4%	F	F
	Medical	19%	33%	34%	31%	30%	42%
Deployment	Deployed during military service	79%	90%	67%	76%	79%	58%

* also known as Air Force, Army, Navy.
F = too few to calculate a reliable estimate

Since LASS 2016, most military characteristics have not changed (see Appendix 5). The trend for medical releases has been increasing.

Compared to males, more females are in the Air Force and fewer females have 20 or more years of service or have been deployed.

5. Health

Self-rated health of very good or excellent was reported by 39% of Regular Force Veterans (see Table 3). SrNCM had the lowest rate (34%), compared to JrNCM (36%) and Officers (59%). This pattern across rank groups was also observed for arthritis, diabetes, bowel disorders, hearing problems, chronic pain, activity limitations, needing help with activities of daily living, and obesity.

Self-rated mental health of very good or excellent was reported by 48% of Regular Force Veterans (see Table 3). JrNCM had the lowest rate (43%), compared to SrNCM (47%) and Officers (68%). This pattern across rank groups was also observed for depression, anxiety, PTSD, asthma, moderate or severe psychological distress, probable PTSD symptoms, and suicidal ideation[11].

Table 3. Health Indicators by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
Self-Rated health	Very good or excellent	59%	34%	36%	39%	39%	40%
Self-Rated mental health	Very good or excellent	68%	47%	43%	48%	49%	44%
Chronic Conditions	Arthritis	29%	47%	30%	35%	35%	38%
	Depression	15%	23%	31%	26%	24%	35%
	Anxiety	10%	21%	25%	21%	21%	25%
	PTSD	11%	25%	27%	24%	24%	22%
	Diabetes	6%	13%	7%	9%	9%	F
	Bowel disorders	7%	10%	9%	9%	8%	18%
	Asthma	5%	6%	9%	8%	7%	F
	Heart disease	7%	10%	F	6%	6%	F
	TBI effects	F	7%	8%	7%	7%	F
Hearing Problem	Has hearing problem	13%	24%	14%	17%	18%	F
Chronic Pain	Has chronic pain	38%	57%	51%	51%	50%	54%
Activity Limitations	Often restricted activity	20%	35%	32%	31%	30%	35%
ADL	Needs help with at least one daily activity	16%	29%	26%	25%	23%	36%
Mobility	Able to walk without difficulty	94%	83%	86%	87%	87%	83%
	Able to walk with difficulty, no aid required	F	5%	4%	4%	4%	F
	Able to walk with difficulty, aid required	5%	12%	10%	10%	9%	13%
	Cannot walk at all	F	F	F	F	F	F
Psychological distress	Moderate or severe distress (K-10 score 15-40)	8%	20%	27%	21%	22%	21%
PC-PTSD Screen	Probable PTSD (3+ symptoms)	11%	22%	27%	23%	23%	20%
BMI	Obese	27%	37%	35%	34%	35%	27%
Suicidal Ideation	12-Month Ideation	4%	9%	12%	10%	10%	11%

F = too few to calculate a reliable estimate

[11] Thompson JM, Zamorski MA, Sweet J, et al. Roles of physical and mental health in suicidal ideation in Canadian Armed Forces Regular Force veterans. Can J Public Health 2014;105(2):e109-e115. Avail: http://journal.cpha.ca/index.php/cjph/article/view/4217

For the first time a question on mobility was included in LASS 2019. Most Veterans are able to walk without difficulty (87%). The rate is highest for Officers (94%) and lowest for SrNCMs (83%).

Compared to males, more females have depression and more females need help with at least one daily activity.

The prevalence of most chronic health conditions increase with age, however the mental health conditions are most prevalent in mid-life (see Appendix 3). Chronic health conditions are associated with chronic pain[12] and with activity limitations[13].

Since LASS 2013, the trend for chronic conditions has been increasing (see Appendix 45). A number of conditions, including arthritis, high blood pressure, depression, anxiety, PTSD, and TBI effects, are significantly higher in 2019 compared to 2016. Veterans with recent releases (between 2015 and 2018) had a lower rate of excellent/very good mental health (41%), compared to earlier releases between 1998 and 2015 (50%, see Appendix 6).

For most health indicators, Veterans reported higher prevalences than Canadians of comparable age and sex (see Appendix 7). There are multiple hypotheses for the higher prevalence of mental health disorders in Veterans that span their life course before, during, and after service[14]. Additional health indicators can be derived from the survey data (see Table 4). These include comorbidity by count of conditions [15] and a composite indicator to describe a comprehensive picture of the full spectrum of mental health problems [16]. Different measures of hearing problems have also been measured[17].

Prevalence of having a regular medical doctor was 86% (see Table 4). Differences by province were not statistically significant (see Fig 2), and the trend was for lower prevalence for the more recently released Veterans.

[12] VanDenKerkhof EG, VanTil LD, Thompson JM, et al. Pain in Canadian Veterans: Analysis of data from the Survey on Transition to Civilian Life. Pain Research and Management, 2015; 20(2):89-95.
Avail: www.ncbi.nlm.nih.gov/pmc/articles/PMC4391444/

[13] Thompson JM, Pranger T, Sweet J, et al. Disability correlates in Canadian Armed Forces Regular Force Veterans. J Disability and Rehabilitation, 2015; 37(10): 884-891. Avail: dx.doi.org/10.3109/09638288.2014.947441

[14] Thompson JM, VanTil L, Zamorski MA, et al. Mental health of Canadian Armed Forces Veterans – review of population studies. J Military Veteran Family Health, 2016; 2(1): 70–86. http://dx.doi.org /10.3138/jmvfh.3258

[15] Thompson JM, Poirier A, Sweet J, et al. Health and Well-being of CAF Veterans, LASS 2013. VAC Research Directorate Technical Report. 3 July 2014. http://publications.gc.ca/pub?id=9.818364&sl=0

[16] Thompson JM, VanTil L, Zamorski MA, et al. Composite Measure of Mental Health Problems in Canadian Armed Forces Veterans, LASS 2013. VAC Research Directorate Technical Report. 15 May 2017.

[17] Thompson JM, VanTil LD, Feder K, et al. Prevalence of Hearing Problems in Canadian Armed Forces Veterans – Life After Service Studies. J Military Veteran Family Health, 2016; 2(2).
Avail: http://dx.doi.org/10.3138/jmvfh.4030

Figure 2. Prevalence of having a regular medical doctor, LASS 2019

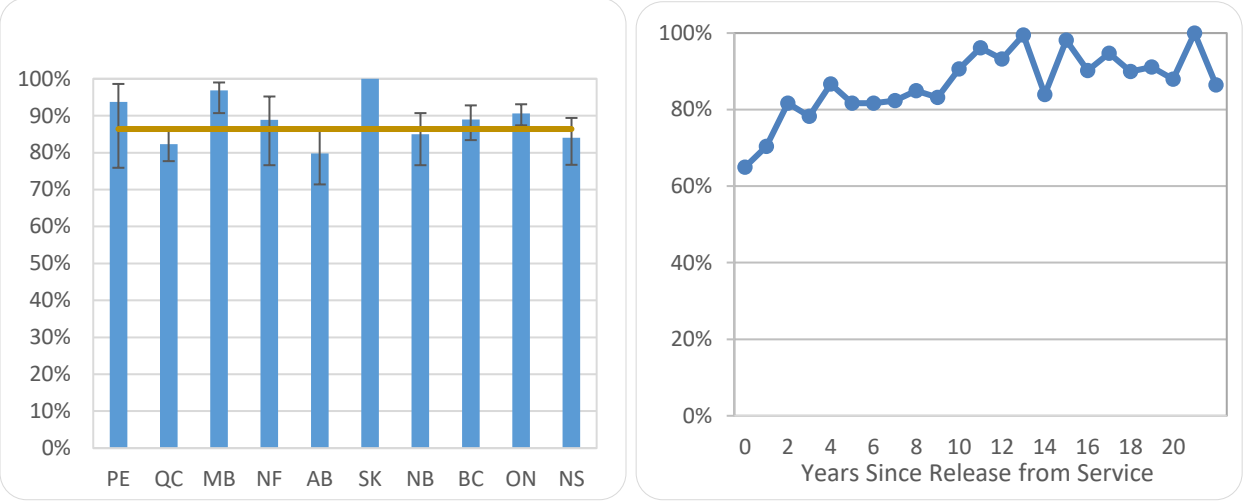


Table 4. Additional Health Indicators, by LASS cycle

Indicator	Category	LASS 2010	LASS 2013	LASS 2016	LASS 2019
Age	Mean years	46.3	46.8	48.1	50.2
Quality of Life (PCS)	PCS, Mean	46.2 (45.9, 46.6)	46.8 (46.2, 47.4)	48.3 (47.8, 48.9)	--
	SF-12 60+	1.7% (1.2, 2.4)	4.1% (3.1, 5.4)	5.4% (4.3, 6.8)	--
	SF-12 50-59	49.6% (47.7, 51.4)	48.6% (46.1, 51.1)	48.6% (46.0, 51.1)	--
	SF-12 40-49	20.2% (18.7, 21.9)	20.5% (18.5, 22.5)	23.0% (21.0, 25.2)	--
	SF-12 30-39	15.8% (14.6, 17.2)	14.8% (13.1, 16.6)	14.9% (13.4, 16.7)	--
	SF-12 <30	12.6% (11.7, 13.7)	12.2% (10.6, 13.9)	8.0% (6.9, 9.3)	--
Quality of Life (MCS)	MCS, Mean	51.6 (51.2, 52.0)	51.2 (50.6, 51.8)	50.7 (50.1, 51.3)	--
	SF-12 60+	15.3% (13.9, 16.8)	21.3% (19.3, 23.3)	19.8% (18.0, 21.8)	--
	SF-12 50-59	55.7% (53.8, 57.7)	44.9% (42.4, 47.5)	45.5% (43.0, 48.0)	--
	SF-12 40-49	12.6% (11.3, 14.0)	16.8% (14.7, 18.6)	16.6% (14.7, 18.6)	--
	SF-12 30-39	9.5% (8.5, 10.6)	9.9% (8.4, 11.6)	10.9% (9.4, 12.5)	--
	SF-12 <30	6.9% (6.1, 7.9)	7.4% (6.1, 8.9)	7.3% (6.0, 8.7)	--
Physical Health Condition (PHC)	Any PHC*	75.6% (73.7, 77.4)	69.4% (67.0, 71.8)	70.6% (68.1, 72.9)	77.2% (74.6, 79.6)
	Musculoskeletal (back problem, arthritis)	53.6% (51.6, 55.5)	49.1% (46.6, 51.6)	50.8% (48.3, 53.3)	56.8% (54.0, 59.5)
	Cardiovascular (high BP, heart dis, stroke)	23.8% (22.2, 25.5)	21.9% (20.0, 23.9)	23.0% (21.1, 25.1)	27.6% (25.4, 29.9)
	Gastrointestinal (ulcers, bowel disorders)	12.1% (11.0, 13.4)	8.9% (7.6, 10.3)	9.6% (8.3, 11.0)	12.5% (10.9, 14.4)
	Respiratory (asthma, COPD)	8.7% (7.6, 9.9)	8.0% (6.7, 9.4)	8.3% (7.0, 9.8)	10.0% (8.5, 11.8)
	Diabetes	6.3% (5.4, 7.3)	6.7% (5.6, 8.0)	7.2% (6.2, 8.5)	8.5% (7.3, 9.9)
	Cancer	1.4% (1.0, 1.9)	1.7% (1.3, 2.3)	2.6% (2.0, 3.4)	2.6% (2.0, 3.3)
	Urinary	--	3.2% (2.5, 4.2)	4.1% (3.3, 5.0)	4.5% (3.4, 5.8)
	Central Nervous System (migraine, dementia, TBI effects)	--	16.9% (15.0, 18.9)	16.6% (14.8, 18.6)	22.0% (19.7, 24.4)
	Obesity	29.8% (28.0, 31.6)	27.4% (25.2, 29.7)	28.8% (26.6, 31.1)	34.1% (31.6, 36.7)
Mental Health Condition (MHC)	Any MHC	25.8% (24.2, 27.3)	25.4% (23.2, 27.7)	30.3% (28.0, 32.7)	36.7% (34.1, 39.3)
	Mood disorder	--	18.1% (16.2, 20.2)	20.5% (18.5, 22.7)	25.7% (23.4, 28.1)
	Anxiety Disorder	11.2% (10.2, 12.4)	11.8% (10.2, 13.6)	14.6% (12.9, 16.4)	21.3% (19.2, 23.5)
	PTSD	12.8% (11.8, 13.9)	15.2% (13.5, 17.2)	16.4% (14.7, 18.3)	23.7% (21.5, 26.1)
Comorbid Condition	Both PHC* and MHC	23.4 (21.9, 24.9)	21.7% (19.7, 23.9)	24.7% (22.6, 26.9)	32.0% (29.6, 34.5)
	No PHC* or MHC	21.9 (20.1, 23.8)	27.0% (24.8, 29.4)	25.5% (23.3, 27.8)	18.2% (16.1, 20.6)
Suicidal Ideation	12-Month Ideation	6.2% (5.4, 7.2)	6.8% (5.6, 8.2)	8.1% (6.8, 9.5)	9.8% (8.3, 11.5)
	Lifetime Ideation	18.6% (17.2, 20.2)	20.8% (18.8, 23.0)	21.7% (19.6, 23.9)	26.2% (23.9, 28.6)
Health Services	Have a regular medical doctor	83.6% (81.9, 85.1)	83.1% (80.9, 85.0)	82.8% (80.8, 84.7)	86.4% (84.4, 88.2)
	Unmet health care need in past year	--	16.3% (14.5, 18.3)	10.7% (9.2, 12.3)	13.3% (11.5, 15.3)

*PHC includes musculoskeletal, cardiovascular, gastrointestinal, respiratory conditions, diabetes, cancer, obesity.

6. Employment, Main Activity

The employment rate of Regular Force Veterans was 60% (see Table 5). SrNCM had the lowest rate (50%), compared to Officers (58%) and JrNCM (66%). This pattern across rank groups is similar to work as the main activity in the past year. Veterans not in the workforce report their main activity as retired (21%), on disability (12%), or training (4%). Veterans not in the workforce was associated with older age and female gender[18].

Satisfaction with their main activity was reported by 72% of Regular Force Veterans (see Table 5). JrNCM had the lowest rate (65%), compared to SrNCM (75%) and Officers (84%). This pattern across rank groups was also observed for transferability of military skills to a civilian job.

Table 5. Employment Indicators by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
Labour Force Status (current)	Unemployment Rate	F	F	7%	5%	5%	F
	Employment Rate	58%	50%	66%	60%	61%	49%
	Not in the workforce	40%	48%	30%	37%	36%	46%
Main activity (past year)	Work	56%	50%	67%	60%	61%	51%
	Retired	34%	33%	11%	21%	21%	21%
	On disability	5%	13%	13%	12%	11%	15%
	Training	F	F	5%	4%	4%	F
Satisfaction with main activity	Satisfied or very satisfied	84%	75%	65%	72%	71%	74%
Skills transferability	Agree/strongly agree	71%	64%	43%	53%	55%	38%

F = too few to calculate a reliable estimate

In LASS 2019, of those who listed working as their main activity, 79% were satisfied or very satisfied with their main activity.

Since LASS 2013, the trend for non-labour force activities has been increasing. In 2019 the percentage who were retired and the percentage who were on disability both increased compared to 2016 (see Appendix 5). Satisfaction with main activity and transferability of military skills have not changed.

Compared to Canadians of similar age and sex, Veterans report higher rates of being not in the workforce (see Appendix 7).

Female Veterans were less likely to be employed than male Veterans and were less likely to agree that their skills were transferable to a civilian job.

[18] MacLean MB, Keough J, Poirier A, et al. Labour-market outcomes of Veterans. VAC Research Directorate Technical Report. 15 February 2016. http://publications.gc.ca/pub?id=9.811336&sl=0

7. Finances

Some Veterans experienced low income, 6% of Regular Force Veterans reported incomes below the Low Income Measure (see Table 6). JrNCM had the highest rate (8%), compared to SrNCM (5%). The number of Officers experiencing low income was too small to report.

Satisfaction with finances was reported by 72% of Regular Force Veterans (see Table 6). JrNCM had the lowest rate (62%), compared to SrNCM (77%) and Officers (90%). This pattern across rank groups was also observed for other satisfaction measures such as satisfaction with work.[19]

Table 6. Financial Indicators by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
Low Income Measure	Below LIM	F	5%	8%	6%	5%	F
Household income	$0 to <$50,000	F	10%	14%	11%	10%	17%
	$50,000 to <$100,000	20%	41%	42%	38%	39%	30%
	$100,000 to <$150,000	27%	27%	22%	24%	25%	24%
	$150,000+	51%	22%	22%	27%	27%	29%
Satisfaction with Finances	Satisfied or very satisfied	90%	77%	62%	72%	71%	75%

F = too few to calculate a reliable estimate

The low income rate has increased in LASS 2019, compared to the other cycles of LASS (Appendix 5), but it is not a significant difference. The trend for satisfaction with finances has not changed.

Compared to Canadians of similar age and sex, Veterans report lower rates of low income (6% vs. 12%), see Appendix 7.

Income of Veterans will be described in a subsequent report, using the LASS 2019 income linkage study.

Male and female Veterans have a similar income distribution and satisfaction with finances.

[19] MacLean MB, VanTil L, Sweet J, et al. Factors associated with work satisfaction among veterans. J Military Veteran Family Health, 2017.

8. Social Indicators

An easy adjustment to civilian life was reported by 45% of Regular Force Veterans, while 39% reported difficulty (see Table 7). Officers had the lowest rate of difficult adjustment (21%), compared to SrNCM (35%) and JrNCM (47%). This pattern across rank groups is similar to a number of other social indicators, including social support[20], life satisfaction, family satisfaction, sense of community belonging and alcohol use.

Mastery, a feeling that you have control over your life, was reintroduced in LASS 2019. About one quarter of Regular Force Veterans (26%) experienced high mastery. The rate was highest for Officers (41%) and much lower for SrNCM (22%) and JrNCM (23%).

Table 7. Social Indicators by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
Adjustment to Civilian Life	Very or moderately easy	67%	49%	36%	45%	45%	43%
	Neither difficult nor easy	13%	16%	18%	16%	16%	18%
	Very or moderately difficult	21%	35%	47%	39%	39%	40%
Satisfaction with Life	Satisfied or very satisfied	93%	83%	78%	82%	82%	81%
Social Support	High support	91%	83%	76%	81%	80%	84%
Satisfaction with Family	Satisfied or very satisfied	91%	87%	75%	82%	81%	84%
Sense of Community Belonging	Very or somewhat strong	67%	58%	46%	53%	53%	53%
Mastery	High (>=23)	41%	22%	23%	26%	25%	31%
	Middle	58%	75%	72%	71%	71%	66%
	Low (<=7)	F	4%	5%	4%	4%	F
Alcohol use	Heavy drinker	17%	22%	27%	24%	25%	17%
Life Stress	Extremely or quite a bit stressful	21%	21%	31%	26%	25%	32%

F = too few to calculate a reliable estimate

In LASS 2019 the rate of difficult adjustment has significantly increased compared to other LASS cycles (see Appendix 5). The percentage reporting that they are satisfied or very satisfied with their family decreased significantly in LASS 2019. Other social indicators have not changed.

Veterans with recent releases (between 2015 and 2018) had a higher rate of difficult adjustment (47%), compared to earlier releases between 1998 and 2015, 37% (see Appendix 6). Compared to those with earlier releases, these recently-released Veterans had higher rates of anxiety (30% versus 20%) and depression (33% versus 24%). Recently-released Veterans were less likely to have a main activity of working (50%), compared to Veterans with earlier releases

[20] Hachey K, Sudom K, Sweet J, et al. Transitioning from military to civilian life: The role of mastery and social support. J Military Veteran Family Health, 2016; 2(1): 9–18. http://dx.doi.org/10.3138/jmvfh.3379

(62%). These factors are associated with difficult adjustment [21, 22, 23].

Compared to Canadians of similar age and sex, Veterans report a similar rate of life stress, and lower satisfaction with life and community belonging (see Appendix 7).

Female and male Veterans are similar across social indicators.

[21] MacLean MB, VanTil L, Thompson JM, et al. Post-military adjustment to civilian life: potential risk and protective factors. Physical Therapy J. 2014; 94(8):1186-1195. http://dx.doi.org/10.2522/ptj.20120107

[22] Hachey K, Sudom K, Sweet J, et al. Differences in adjustment to civilian life between male and female CAF Veterans. Res Militaris, ERGOMAS Women in the Military (PtII), February 2016; published online. Avail:http://resmilitaris.net/ressources/10227/15/res_militaris_article_hachey_et_al._differences_in_adjustment_to_civilian_life_between_male_and_female_canadian_veterans.pdf

[23] Thompson JM, Sweet J, VanTil L, et al. Correlates of mental health problems in CAF Veterans, LASS 2013. VAC Research Directorate Technical Report, 14 September 2016.

9. Health Services

Most Veterans visited a family doctor in the year prior to the survey, reported by 76% of Regular Force Veterans (see Table 8). Officers had the highest rate (83%), compared to SrNCM (81%) and JrNCM (71%).

More than half were receiving services from VAC, reported by 52% of Regular Force Veterans (see Table 8). SrNCM had the highest rate (61%), compared to JrNCM (51%) and Officers (38%). Characteristics of VAC clients were described in an earlier report[24].

Table 8. Utilization of Health Services in the Past Year by Rank Group and by Sex

Indicator	Category	Officers (17%)	Senior NCM (30%)	Junior NCM (52%)	Regular Force (100%)	Males (87%)	Females (13%)
Age	Mean (years)	57	57	44	50	50	49
Service Use in past year	Family doctor visit	83%	81%	71%	76%	76%	80%
	Mental health visit	20%	28%	36%	31%	29%	46%
	Home care	8%	15%	12%	12%	11%	20%
	Hospitalization	6%	10%	8%	8%	8%	F
	VAC client	38%	61%	51%	52%	52%	51%

F = too few to calculate a reliable estimate

Since LASS 2010, VAC clients have increased and now stand at 52% of the LASS 2019 population. Mental health visits also increased significantly in 2019. Other service use has not changed (see Appendix 5).

Female Veterans reported higher rates of home care usage and mental health visits than male Veterans.

Compared to Canadians of similar age and sex, Veterans report higher rates of visits to family doctors and hospitals (see Appendix 7).

[24] Thompson JM, Poirier A, Sweet J, et al. Health and Well-being of Canadian Armed Forces Veterans, LASS 2013. VAC Research Directorate Technical Report. 3 July 2014. http://publications.gc.ca/pub?id=9.818364&sl=0

10. Family

The majority of Veterans have a current partner; 78% are married or common-law (see Appendix 4). For Veterans with a current partner, 82% of partners experienced the Veteran's release from the military. This was most common for Veterans aged 55 or older (91%), 78% for Veterans aged 35 to 54, and 65% for Veterans under the age of 35.

The majority of Veterans report high social support (81%, see Appendix 5), and 96% of Veterans agreed they had people to count on in an emergency. For these Veterans, 72% indicated their partner was the person they can count on in an emergency for support (see Table 9). Friends or neighbours provided the majority of support for 12% of Veterans.

Table 9. Source of Social Support in an Emergency by Age Group and by Sex

LASS 2019	Age Groups				Males	Females
	<35	35-54	55+	Total		
Spouse or partner	60%	72%	75%	72%	73%	64%
Parent or sibling	21%	11%	5%	10%	9%	15%
Friends or neighbours	15%	11%	11%	12%	11%	12%
Son or daughter	F	F	6%	4%	4%	F
Other extended family	F	F	3%	3%	3%	F
Total	100%	100%	100%	100%	100%	100%

F = too few to calculate a reliable estimate

One quarter of Veterans report they need help with daily activities of living (25%, see Appendix 5). For these Veterans, 79% indicated their partner was the person who provides the most unpaid help (see Table 10).

Table 10. Source of Support for ADL Needs by Age Group and by Sex

LASS 2019	Age Groups				Males	Females
	<35	35-54	55+	Total		
Spouse or partner	F	78%	84%	79%	81%	70%
Parent or sibling	F	F	F	F	F	F
Friends or neighbours	F	F	F	7%	F	F
Son or daughter	F	F	F	6%	F	F
Other extended family	F	F	F	F	F	F
Total	100%	100%	100%	100%	100%	100%

F = too few to calculate a reliable estimate

Since partners (married or common-law) are an important part of the Veteran's family, their characteristics of level of education, main activity, and activity limitations are described in Table 11.

Table 11. Characteristics of Veteran Partners by Age Group and by Sex

LASS 2019	Age Group of Veterans				Males	Females
	<35	35-54	55+	Total		
Partner's Highest Education						
Less than high school	F	F	5%	3%	3%	F
High school graduation	F	26%	37%	29%	28%	36%
Post-secondary graduation	53%	42%	36%	40%	40%	41%
University degree	32%	31%	23%	28%	28%	21%
Total	100%	100%	100%	100%	100%	100%
Partner's Main Activity						
Working	68%	73%	46%	60%	60%	62%
Retired	F	6%	39%	20%	19%	28%
Caring for children/home	F	6%	F	5%	5%	F
Other	21%	14%	14%	15%	15%	F
Total	100%	100%	100%	100%	100%	100%
Partner's Activity Limitations at Home						
No activity limitation	69%	59%	49%	55%	56%	49%
Sometimes restricted activity	26%	24%	29%	26%	26%	25%
Often restricted activity	F	17%	23%	19%	17%	26%
Total	100%	100%	100%	100%	100%	100%

F = too few to calculate a reliable estimate

Nearly 4 in 10 Veterans report they had a difficult adjustment to civilian life (39%, see Appendix 5). Of the 78% of Veterans who described the effect of their release on their partner, 32% reported their partner had difficulty with their release. Of the 55% of Veterans who described the effect of their release on their children, 23% reported their children had difficulty with their release (see Table 12).

Table 12. Difficult Adjustment to Civilian Life by Age Group and by Sex

LASS 2019		Age Group of Veterans				Males	Females
		<35	35-54	55+	Total		
Veteran	Easy	37%	37%	56%	45%	45%	43%
	Neither	17%	17%	16%	16%	16%	18%
	Difficult	46%	46%	28%	39%	39%	40%
Partner	Easy	49%	48%	61%	54%	54%	56%
	Neither	F	15%	14%	14%	14%	14%
	Difficult	42%	37%	25%	32%	32%	31%
Children	Easy	F	51%	63%	56%	56%	55%
	Neither	F	21%	20%	21%	21%	22%
	Difficult	F	28%	18%	23%	23%	23%

F = too few to calculate a reliable estimate

Appendix 1. Definitions of LASS 2019 Indicators of Well-being

Indicator	Definition	Source
Demographics		
Age	Age at survey.	DND
Sex	Sex at birth - male or female.	LASS 2019
Gender	Current gender (may identify as different from sex at birth or legal documents) – male, female, other gender identity	LASS 2019
Marital Status	Are you … married, living common-law, widowed, separated, divorced, single never married.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Education	What is the highest certificate, diploma or degree that you have completed? Less than high school; High school or equivalent; Post-secondary grad (Trade certificate; College/CEGEP diploma; University certif); University degree (Bachelor or above).	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Military Characteristics		
Rank	Rank[25] at release, grouped as Officer, Senior NCM, Junior NCM Excludes Entry Ranks – (Recruit, Officer Cadet, 2nd Lieut).	DND
Service Environment	Environment at release: Air (Air Force), Land (Army), Sea (Navy).	DND
Enrolment Era	Year of CAF enrolment grouped into 4 periods.	DND
Length of Service	Years of Regular Force service calculated from the first date of enrolment to last date of release.	DND
Release Type	Voluntary (Immediate Annuity, Fixed Service, Retirement, Service Complete); Involuntary (dismissal, misconduct, illegally absent, fraudulent/irregular enrollment, unsatisfactory conduct, reduction in strength, not advantageously employed); Medical (career-limiting medical limitations 3a, 3b).	DND
Deployment	During your military service, did you ever deploy? Include international or domestic deployments, exclude training exercises.	LASS 2010 LASS 2016 LASS 2019
Health		
Self-rated health	In general, would you say your health is...? Excellent, Very, good, Good, Fair, Poor.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Self-rated mental health	In general, would you say your mental health is...? Excellent, Very good, Good, Fair, Poor.	LASS 2010 LASS 2013 LASS 2016 LASS 2019

[25] www.forces.gc.ca/en/honours-history-badges-insignia/rank.page

Indicator	Definition	Source
Chronic Conditions (>6 month duration)	Do you currently have any of the following diagnosed by a health professional? … **back problems**, excluding fibromyalgia and arthritis? … **arthritis**, excluding fibromyalgia? … **high blood pressure**? … mood disorder such as **depression**, mania, dysthymia or bipolar disorder? … **anxiety** disorder such as phobia, obsessive-compulsive or panic disorder? … **PTSD**? … **migraine** headaches? … **diabetes**? … **bowel disorder** such as Crohn's, ulcerative colitis, Irritable Bowel, bowel incontinence? … **asthma**? … **heart disease**? … intestinal or stomach **ulcers**? … **urinary** incontinence? … effects of a traumatic brain injury (**TBI**) or concussion? … **cancer**? [ever diagnosed with cancer?] … chronic bronchitis, emphysema or chronic obstructive pulmonary disease (**COPD)**? … effects of a **stroke**? … Alzheimer's Disease or any other **dementia**?	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Hearing Problem	Scale of 5 questions on hearing from the Health Utilities Index Mark 3 scale (HUI3), derived by CCHS into 6 levels; this report used "not able to hear conversation in a group of three other persons without a hearing aid" (levels 2-6).	LASS 2013 LASS 2016 LASS 2019
Chronic Pain	Scale of 3 questions on chronic pain or discomfort from the Health Utilities Index Mark 3 scale (HUI3), derived by CCHS into 5 levels; this report used pain that prevents a few, some, or most activities (levels 3-5).	LASS 2013 LASS 2016 LASS 2019
Vision	Scale of 5 questions on vision from the Health Utilities Index Mark 3 Scale (HUI3).	LASS 2019
Speech	Scale of 4 questions on speech from the Health Utilities Index Mark 3 Scale (HUI3).	LASS 2019
Mobility	Scale of 7 questions on ability to walk and wheelchair use from the Health Utilities Index Mark 3 Scale (HUI3).	LASS 2019
Dexterity	Scale of 4 questions on use of hands and fingers from the Health Utilities Index Mark 3 Scale (HUI3).	LASS 2019
Happiness	Would you describe yourself as being usually? Happy and interested in life, somewhat unhappy, unhappy with little interest in life, so unhappy that life is not worthwhile from Health Utilities Index Mark 3 Scale (HUI3).	LASS 2019
Memory and Thinking	Two questions on memory and ability to think from the Health Utilities Index Mark 3 Scale (HUI3).	LASS 2019
SF-12	Quality Metric's SF-12 Health Survey is a short form scale that uses proprietary software to generate a physical component score (PCS) and mental component score (MCS).	LASS 2010 LASS 2013 LASS 2016
Activity Limitations	Scale of 5 questions to measure health-related reduction of activity in life domains of home, school/work, or other activities such as transportation or leisure. Ranked as none, sometimes, often (RACDIMP).	LASS 2010 LASS 2013 LASS 2016 LASS 2019
ADL Need	Scale of 6 questions that list basic and instrumental activities of daily living; ADL need included help with any of: personal care, indoor mobility; meals, errands, housework, or bill payment.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Psychological Distress	Kessler's scale of 10 questions on symptoms of depression and anxiety; low distress (score 0-9), mild distress (score 10-14); moderate distress (score 15-19); severe distress (score 20 to 40, likely severe mental disorder).	LASS 2013 LASS 2016 LASS 2019
PC-PTSD screen	Primary Care PTSD scale of 4 questions on the symptoms of re-experiencing trauma, numbing, avoidance, and hyper-arousal. Probable PTSD if score 3+.	LASS 2013 LASS 2016 LASS 2019

Indicator	Definition	Source
Body Mass Index (BMI)	Series of questions on self-reported weight and height are used to calculate BMI. BMI = [weight in kilograms / height in metres] SQUARED BMI categories use the international standard: Underweight (< 18.5), Normal weight (18.50 - 24.99), Overweight (25.00 - 29.99), **Obese** (30.00+).	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Suicidal ideation	Have you ever seriously considered committing suicide or taking your own life, in the past 12 months?	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Employment, Main Activity		
Labour Force Status	Unemployment Rate: Looking for work in past 4 weeks, of those in the labour force. Employment Rate: Have a job (working or absent), of those in the population. Not in the labour force: Neither employed nor unemployed, of those in the pop'n. *NOTE:* Status at time of survey; LFS definitions of categories do not total 100%.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Main Activity	Main activity in the past 12 months: Worked at a job or ran a business; Retired and not looking for work; Attended school or training; Looked for work; Cared or nurtured a family member or partner; Was disabled or on disability.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Satisfaction with main activity	How satisfied are you with your main activity? Very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Military skills transfer	The knowledge and skills at current job are the same as used in military service. Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Finances		
Low income	Household income below the Low Income Measure. Calculated by household size, and corresponding LIM thresholds published by Statistics Canada.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Household Income	Estimate of income (before taxes) received by all household members, from all sources, for the 2018 year.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Satisfaction with finances	How satisfied are you with your financial situation? Very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Social Indicators		
Adjustment to civilian life	In general, how has the adjustment to civilian life been since you were released from the Canadian Forces? Very Difficult, Moderately Difficult, Neither Difficult nor Easy, Moderately Easy, Very Easy.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Satisfaction with life	How do you feel about your life as a whole right now? (Score 0-10). Converted to very satisfied (9-10), satisfied (6-8), neither (5), dissatisfied (2-4), very dissatisfied (0-1).	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Mastery	In this module, respondents are asked how much control they have over their life. Answer categories are used to produce measures or sense of mastery, that is, the extent to which individuals believe that their life-chances are under their control. For example "*You have little control over the things that happen to you.*" strongly agree, agree, neither agree nor disagree, disagree, strongly disagree. Score 0-35 low to high.	LASS 2010 LASS 2013 LASS 2019

Indicator	Definition	Source
Social Support	Social Provisions Scale of 10 questions on perceived social support. High social support for SPS score 30-40 (strongly agree or agree).	LASS 2013 LASS 2016 LASS 2019
Satisfaction with family	How satisfied are you with your relationships with family members? very satisfied, satisfied, neither, dissatisfied, very dissatisfied.	LASS 2010 LASS 2016 LASS 2019
Community belonging	How would you describe your sense of belonging to your local community? very strong/ somewhat strong; somewhat weak/ very weak	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Heavy drinking	5 or more drinks per occasion, at least monthly in the past year. In 2016 & 2019, used 4 or more for women.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Life stress	Thinking about the amount of stress in your life, would you say that most days are...? Not at all, not very, a bit, quite a bit, extremely (stressful).	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Health Services		
Family Doctor	Seen or talked to a family doctor or general practitioner, in the past year.	LASS 2010 LASS 2013 LASS 2016 LASS 2019
Mental Health	Seen or talked to a health professional about your emotional or mental health, in the past year.	LASS 2016 LASS 2019
Home Care	Received any home care services, in the past 12 months.	LASS 2013 LASS 2016 LASS 2019
Hospitalization	Overnight patient in a hospital, in past 12 months.	LASS 2013 LASS 2016 LASS 2019
VAC Client	Veteran received any benefit from VAC as of 31 March 2019; includes all disability benefit clients (DA and/or DP).	VAC

Appendix 2. LASS 2019 by 3 Rank Groups

Variable	Category	LASS 2019					
		Officers		Senior NCM		Junior NCM	
		n	Wt%	n	Wt%	n	Wt%
		794	17.4%	950	30.2%	667	52.3%
Age	Mean (years)	56.5		57.3		44.0	
	< 30	F	F	F	F	79	8.8%
	30-39	53	6.2%	F	F	218	31.7%
	40-49	110	14.1%	141	15.6%	142	23.6%
	50-59	311	39.0%	436	45.1%	181	28.8%
	60+	314	40.1%	361	38.1%	47	7.0%
Sex	Male	696	87.6%	847	89.2%	575	86.4%
	Female	97	12.4%	100	10.8%	91	13.6%
Marital status	Married/Common-law	682	86.7%	809	85.2%	456	71.7%
	Widowed/Separated/Divorced	81	9.4%	95	9.7%	89	12.7%
	Single, never married	31	3.9%	46	5.2%	122	15.6%
Education	Less than high school graduation	F	F	54	5.9%	37	4.9%
	High school graduation	101	12.3%	489	51.5%	263	37.3%
	Post-secondary graduation	92	11.3%	364	38.1%	327	51.4%
	University degree	597	76.0%	40	4.6%	40	6.4%
Service Environment	Air	320	42.0%	344	37.1%	180	26.4%
	Land	318	38.3%	408	42.2%	406	61.1%
	Sea	156	19.7%	198	20.7%	81	12.5%
Enrolment Era	1954-1975	173	26.3%	217	24.5%	F	F
	1976-1990	372	52.8%	542	62.6%	196	36.0%
	1991-2000	84	11.3%	94	10.1%	89	17.4%
	2001-2015	79	9.7%	F	F	309	45.3%
Length of Service	< 10 years	57	8.7%	F	F	267	48.3%
	10 to 19 years	91	12.8%	65	7.7%	180	26.6%
	≥ 20 years	560	78.5%	805	91.1%	156	25.2%
Release Type	Voluntary	610	80.0%	601	66.2%	365	59.7%
	Involuntary	F	F	F	F	F	F
	Medical	179	19.4%	344	33.1%	278	34.1%
Deployment	Deployed during military service	643	79.1%	866	89.8%	445	67.4%
Self-Rated health	Very good or excellent	446	58.6%	309	34.0%	221	35.8%
	Good	220	27.4%	340	35.9%	213	31.5%
	Fair or poor	127	14.0%	301	30.1%	233	32.7%
Self-Rated mental health	Very good or excellent	510	67.5%	439	46.9%	256	42.8%
	Good	177	20.9%	249	25.7%	161	23.0%
	Fair or poor	107	11.7%	261	27.5%	249	34.2%
Chronic Conditions	Back problems	320	37.3%	501	50.3%	323	45.1%
	Arthritis	246	29.4%	453	46.5%	212	30.2%
	High blood pressure	219	26.9%	332	35.4%	117	18.4%
	Depression	133	14.8%	228	23.2%	226	30.8%
	Anxiety	94	10.1%	206	20.9%	197	25.2%
	PTSD	97	10.7%	241	25.1%	201	27.4%
	Migraine	88	10.1%	148	14.8%	139	20.6%
	Diabetes	51	6.1%	126	13.3%	51	6.6%
	Bowel disorders	58	7.0%	97	10.2%	63	8.8%
	Asthma	40	4.8%	64	6.4%	61	8.9%
	Heart disease	56	7.0%	95	10.1%	F	F
	Ulcers	F	F	55	5.5%	42	6.6%
	Urinary	F	F	55	5.1%	F	F
	TBI effects	F	F	66	6.5%	52	7.7%
	Cancer	F	F	47	4.9%	F	F
	COPD	F	F	54	5.4%	F	F
	Stroke	F	F	F	F	F	F
	Dementia	F	F	F	F	F	F

Variable	Category	LASS 2019					
		Officers		Senior NCM		Junior NCM	
		n	Wt%	n	Wt%	n	Wt%
		794	17.4%	950	30.2%	667	52.3%
Hearing Problems	Has hearing problem	110	13.1%	217	24.0%	92	13.8%
Chronic Pain	Has chronic pain	323	38.1%	566	57.1%	365	51.2%
Activity Limitations	No activity limitation	347	47.6%	267	30.7%	204	35.3%
	Sometimes restricted activity	271	32.7%	332	34.5%	208	32.8%
	Often restricted activity	176	19.7%	348	34.8%	255	31.9%
ADL	Needs help with at least one ADL	140	15.7%	282	28.9%	203	25.6%
Psychological Distress	Low distress (K10 <10)	659	85.6%	651	69.5%	376	60.2%
	Mild distress (K10 = 10-14)	59	6.5%	103	10.9%	90	12.8%
	Moderate distress (K10 = 15-19)	40	4.5%	85	8.9%	68	9.3%
	Severe distress (K10 = 20-40)	33	3.4%	99	10.6%	128	17.7%
PC-PTSD screen	Probable PTSD (3+ symptoms)	98	11.1%	207	22.0%	192	27.2%
Body Mass Index (BMI)	Underweight	F	F	F	F	F	F
	Normal weight	217	27.8%	162	17.4%	159	24.9%
	Overweight	354	45.2%	434	45.8%	262	39.2%
	Obese	217	26.7%	341	36.5%	235	35.2%
Suicidal Ideation	12-Month Ideation	33	3.7%	82	9.0%	88	12.2%
Labour Force Status (current)	Unemployment Rate		F		F		6.6%
	Employment Rate	439	57.6%	452	50.3%	387	65.7%
	Not in the workforce	332	40.2%	480	48.0%	246	29.6%
Main activity (past year)	Work	419	55.5%	448	49.9%	387	66.8%
	Retired	267	33.5%	324	32.6%	81	10.6%
	Disability	47	4.9%	133	13.2%	106	12.9%
	Training	F	F	F	F	53	5.2%
	Looked for work	F	F	F	F	F	F
	Caregiving	F	F	F	F	F	F
Satisfaction with main activity	Satisfied or very satisfied	647	83.7%	710	75.1%	415	65.3%
	Neither satisfied nor dissatisfied	72	8.1%	104	11.9%	114	16.0%
	Dissatisfied or very dissatisfied	75	8.2%	128	13.1%	129	18.7%
Skills Transferability	Agree/strongly agree	334	71.3%	315	64.2%	181	42.7%
	Neither	46	11.4%	49	9.9%	67	15.7%
	Disagree/strongly disagree	77	17.2%	121	26.0%	193	41.6%
Low Income Measure	Below LIM	F	F	46	5.1%	54	8.1%
Household income	$0 to <$50,000	F	F	89	10.4%	91	13.6%
	$50,000 to <$100,000	163	20.0%	394	41.0%	275	41.9%
	$100,000 to <$150,000	205	26.7%	235	26.8%	148	22.3%
	$150,000+	395	51.3%	188	21.7%	121	22.2%
Satisfaction with Finances	Satisfied or very satisfied	706	89.5%	736	77.2%	416	62.1%
	Neither satisfied nor dissatisfied	46	5.3%	117	12.5%	134	20.0%
	Dissatisfied or very dissatisfied	41	5.2%	91	10.3%	113	17.8%
Adjustment to Civilian Life	Very or moderately easy	510	66.5%	451	49.0%	219	35.7%
	Neither difficult nor easy	102	12.8%	149	15.8%	104	17.6%
	Very or moderately difficult	181	20.7%	346	35.3%	344	46.6%
Satisfaction with Life	Satisfied or very satisfied	728	93.1%	776	82.6%	504	78.2%
	Neither	35	3.6%	85	8.2%	73	10.4%
	Dissatisfied or very dissatisfied	31	3.3%	87	9.1%	90	11.5%
Social Support	High support	704	90.9%	751	83.1%	483	75.7%
Satisfaction with Family	Satisfied or very satisfied	717	90.9%	826	87.0%	508	75.3%
	Neither satisfied nor dissatisfied	42	5.1%	76	7.9%	95	14.8%
	Dissatisfied or very dissatisfied	33	4.0%	42	5.1%	63	10.0%
Community Belonging	Very or somewhat strong	523	66.8%	543	58.2%	276	45.9%
	Very or somewhat weak	269	33.2%	397	41.8%	384	54.1%

Variable	Category	LASS 2019					
		Officers		Senior NCM		Junior NCM	
		n	Wt%	n	Wt%	n	Wt%
		794	17.4%	950	30.2%	667	52.3%
Alcohol Use	Heavy drinker	140	17.1%	218	22.4%	178	27.4%
Life Stress	Not at all or Not very on most days	322	40.8%	395	40.5%	183	29.6%
	A bit stressful	305	38.7%	357	38.7%	277	39.6%
	Extremely or quite a bit stressful	166	20.5%	194	20.8%	206	30.8%
Service Use in past year	Family doctor visit	664	83.4%	779	81.1%	480	71.0%
	Mental health visit	180	20.4%	269	27.8%	271	35.8%
	Home Care	70	7.7%	151	15.1%	94	12.3%
	Hospitalization	54	6.4%	95	10.0%	56	7.5%
	VAC Client	328	38.1%	595	61.3%	366	50.9%

F = too few to calculate a reliable estimate

Appendix 3. LASS 2019 by 3 Age Groups

Variable	Category	LASS 2019					
		<35		35-54		55+	
		n	Wt%	n	Wt%	n	Wt%
Sex	Male	198	89.6%	753	85.6%	1167	88.8%
	Female	F	F	140	14.4%	123	11.2%
Marital status	Married/Common-law	139	63.3%	721	78.3%	1087	83.1%
	Widowed/Separated/Divorced	F	F	96	11.5%	157	13.0%
	Single, never married	72	32.2%	78	10.2%	49	3.9%
Education	Less than high school graduation	F	F	F	F	60	5.6%
	High school graduation	72	33.5%	281	32.6%	500	43.4%
	Post-secondary graduation	100	52.8%	320	45.2%	363	31.3%
	University degree	43	10.6%	267	18.5%	367	19.8%
Rank	Officer	31	4.7%	254	12.6%	509	26.6%
	Senior NCM	F	F	297	21.3%	650	48.9%
	Junior NCM	189	94.6%	344	66.0%	134	24.5%
Service Environment	Air	38	13.1%	261	26.7%	545	44.4%
	Land	154	71.1%	485	59.0%	493	37.1%
	Sea	31	15.8%	149	14.3%	255	18.5%
Enrolment Era	1954-1975	0	0%	F	F	399	29.5%
	1976-1990	0	0%	366	41.1%	744	66.1%
	1991-2000	0	0%	238	29.3%	F	F
	2001-2015	182	100%	200	29.6%	32	2.4%
Length of Service	< 10 years	154	92.2%	163	34.6%	F	F
	10 to 19 years	F	F	248	32.7%	60	6.4%
	≥ 20 years	F	F	393	32.7%	1128	92.2%
Release Type	Voluntary	167	75.5%	484	57.4%	925	70.3%
	Involuntary	F	F	F	F	F	F
	Medical	49	18.7%	390	36.9%	362	29.0%
Deployment	Deployed during military service	97	44.1%	746	78.2%	1111	84.2%
Self-Rated health	Very good or excellent	115	49.9%	325	35.9%	536	39.5%
	Good	53	21.7%	272	31.2%	448	36.3%
	Fair or poor	55	28.4%	298	32.9%	308	24.2%
Self-Rated mental health	Very good or excellent	104	44.6%	354	41.7%	747	56.6%
	Good	50	18.7%	224	23.7%	313	24.6%
	Fair or poor	69	36.7%	317	34.6%	231	18.7%
Chronic Conditions	Back problems	69	27.6%	470	49.6%	605	46.1%
	Arthritis	31	15.5%	310	32.5%	570	43.7%
	High blood pressure	F	F	183	19.3%	477	36.4%
	Depression	57	27.1%	305	32.8%	225	17.6%
	Anxiety	50	18.8%	262	28.0%	185	14.8%
	PTSD	42	17.2%	295	33.1%	202	15.6%
	Migraine	38	14.1%	200	23.7%	137	10.8%
	Diabetes	F	F	63	6.4%	165	13.4%
	Bowel disorders	F	F	94	10.0%	110	9.1%
	Asthma	F	F	69	7.4%	82	7.7%
	Heart disease	F	F	F	F	138	10.6%
	Ulcers	F	F	55	6.6%	59	5.1%
	Urinary	F	F	34	3.8%	70	5.6%
	TBI – yes	F	F	85	9.2%	44	2.9%
	Cancer	F	F	F	F	61	4.4%
	COPD	F	F	F	F	69	6.0%
	Stroke	F	F	F	F	F	F
	Dementia	F	F	F	F	F	F

Variable	Category	LASS 2019					
		<35		35-54		55+	
		n	Wt%	n	Wt%	n	Wt%
Hearing Problems	Has hearing problem	F	F	123	13.5%	287	23.8%
Chronic Pain	Has chronic pain	82	35.1%	516	55.2%	656	50.7%
Activity Limitations	No activity limitation	105	47.7%	258	33.8%	455	34.9%
	Sometimes restricted activity	64	29.5%	288	32.4%	459	35.4%
	Often restricted activity	54	22.8%	349	33.8%	376	29.7%
ADL	Needs help with at least one ADL	30	11.5%	292	29.9%	303	23.5%
Psychological Distress	Low distress (K10 <10)	149	63.7%	520	59.2%	1017	77.4%
	Mild distress (K10 = 10-14)	F	F	125	13.0%	105	9.0%
	Moderate distress (K10 = 15-19)	F	F	92	10.2%	80	5.8%
	Severe distress (K10 = 20-40)	30	14.4%	146	17.6%	84	7.9%
PC-PTSD Screen	Probable PTSD (3+ symptoms)	47	21.6%	276	31.6%	174	13.6%
Body Mass Index (BMI)	Underweight	F	F	F	F	F	F
	Normal weight	80	34.3%	196	23.3%	262	19.7%
	Overweight	86	39.5%	352	39.3%	612	46.3%
	Obese	52	25.9%	334	36.6%	407	33.9%
Suicidal Ideation	12-Month Ideation	F	F	103	11.9%	73	6.4%
Labour Force Status (current)	Unemployment Rate		F		4.6%		F
	Employment Rate	152	70.0%	573	68.1%	553	47.4%
	Not in the workforce	52	19.4%	287	28.7%	719	51.4%
Main activity (past year)	Work	149	72.8%	573	68.5%	532	46.2%
	Retired	F	F	80	8.8%	585	40.6%
	Disability	F	F	158	15.4%	114	9.6%
	Training	42	15.7%	40	3.1%	F	F
	Looked for work	F	F	F	F	F	F
	Caregiving	F	F	F	F	35	2.6%
Satisfaction with main activity	Satisfied or very satisfied	150	62.3%	587	66.7%	1035	79.4%
	Neither satisfied nor dissatisfied	37	16.6%	129	15.2%	124	10.4%
	Dissatisfied or very dissatisfied	36	21.1%	168	18.1%	128	10.2%
Skills Transferability	Agree/strongly agree	64	30.9%	380	51.7%	386	66.7%
	Neither	33	19.0%	73	14.0%	56	9.8%
	Disagree/strongly disagree	87	50.2%	177	34.4%	127	23.6%
Low Income Measure	Below LIM	F	F	37	4.9%	41	3.8%
Household income	$0 to <$50,000	32	17.9%	55	8.1%	107	10.8%
	$50,000 to <$100,000	96	48.8%	239	31.7%	497	40.7%
	$100,000 to <$150,000	48	17.6%	223	25.4%	317	25.6%
	$150,000+	43	15.7%	342	34.8%	319	22.9%
Satisfaction with Finances	Satisfied or very satisfied	130	54.2%	640	65.9%	1088	82.8%
	Neither satisfied nor dissatisfied	52	22.0%	121	17.8%	124	10.2%
	Dissatisfied or very dissatisfied	41	23.8%	126	16.2%	78	7.0%
Adjustment to Civilian Life	Very or moderately easy	78	36.8%	356	37.0%	746	56.4%
	Neither difficult nor easy	33	16.8%	123	16.7%	199	15.5%
	Very or moderately difficult	112	46.4%	415	46.2%	344	28.1%
Satisfaction with Life	Satisfied or very satisfied	186	80.7%	698	78.9%	1124	86.1%
	Neither	F	F	89	9.5%	89	7.4%
	Dissatisfied or very dissatisfied	F	F	108	11.7%	78	6.5%
Social Support	High support	184	80.4%	674	76.5%	1080	85.1%
Satisfaction with Family	Satisfied or very satisfied	175	74.8%	710	76.9%	1166	88.6%
	Neither satisfied nor dissatisfied	35	17.2%	104	13.2%	74	6.8%
	Dissatisfied or very dissatisfied	F	F	80	9.9%	45	4.6%

Variable	Category	LASS 2019					
		<35		35-54		55+	
		n	Wt%	n	Wt%	n	Wt%
Community Belonging	Very or somewhat strong	97	46.4%	424	48.2%	821	60.9%
	Very or somewhat weak	124	53.6%	462	51.8%	464	39.1%
Alcohol Use	Heavy drinker	75	35.5%	227	27.3%	234	17.1%
Life Stress	Not at all or Not very on most days	55	26.4%	213	24.4%	632	48.6%
	A bit stressful	89	36.0%	395	43.8%	455	35.3%
	Extremely or quite a bit stressful	78	37.7%	285	31.8%	203	16.2%
Service Use in past year	Family doctor visit	134	55.8%	697	75.3%	1092	83.5%
	Mental health visit	83	34.9%	392	40.5%	245	18.8%
	Home Care	F	F	134	14.5%	176	13.3%
	Hospitalization	F	F	72	7.8%	117	9.1%
	VAC Client	77	33.6%	526	55.7%	686	53.2%

F = too few to calculate a reliable estimate

Appendix 4. LASS 2019 by Sex

Variable	Category	LASS 2019			
		Males		Females	
		n	Wt%	n	Wt%
Age	Mean (years)	50.3		49.3	
	< 30	75	4.8%	F	F
	30-39	242	18.4%	40	15.3%
	40-49	319	18.5%	74	27.2%
	50-59	819	35.3%	108	37.2%
	60+	663	23.0%	56	16.0%
Marital status	Married/Common-law	1749	79.6%	194	69.7%
	Widowed/Separated/Divorced	212	10.7%	52	14.6%
	Single, never married	157	9.7%	42	15.7%
Education	Less than high school graduation	90	4.8%	F	F
	High school graduation	773	38.6%	80	27.9%
	Post-secondary graduation	674	39.5%	105	46.0%
	University degree	577	17.1%	99	24.3%
Rank	Officer	696	17.5%	97	17.2%
	Senior NCM	847	30.8%	100	26.0%
	Junior NCM	575	51.7%	91	56.8%
Service Environment	Air	722	30.9%	121	42.8%
	Land	1006	52.9%	123	40.3%
	Sea	390	16.2%	44	16.9%
Enrolment Era	1954-1975	378	13.7%	F	F
	1976-1990	991	47.3%	117	44.7%
	1991-2000	221	13.6%	46	18.1%
	2001-2017	336	25.4%	77	32.1%
Length of Service	< 10 years	281	26.6%	51	30.9%
	10 to 19 years	263	17.3%	73	27.0%
	≥ 20 years	1382	56.1%	135	42.1%
Release Type	Voluntary	1418	66.2%	153	57.5%
	Involuntary	F	F	F	F
	Medical	667	29.7%	134	42.1%
Deployment	Deployed during military service	1768	78.9%	181	57.8%
Self-Rated health	Very good or excellent	861	39.1%	113	40.4%
	Good	679	32.3%	93	31.2%
	Fair or poor	578	28.7%	81	28.4%
Self-Rated mental health	Very good or excellent	1080	49.0%	125	44.1%
	Good	508	23.2%	74	24.5%
	Fair or poor	528	27.8%	89	31.4%
Chronic Conditions	Back problems	1002	45.4%	139	44.3%
	Arthritis	798	34.6%	112	38.2%
	High blood pressure	629	26.7%	38	13.7%
	Depression	481	24.4%	106	35.2%
	Anxiety	420	20.7%	77	25.4%
	PTSD	465	24.0%	73	22.0%
	Migraine	300	15.9%	74	25.1%
	Diabetes	216	9.2%	F	F
	Bowel disorders	166	7.7%	52	17.7%
	Asthma	137	7.2%	F	F
	Heart disease	161	6.4%	F	F
	Ulcers	107	5.8%	F	F
	Urinary	81	3.7%	F	F
	TBI – yes	129	6.8%	F	F

Variable	Category	LASS 2019			
		Males		Females	
		n	Wt%	n	Wt%
	Cancer	79	2.9%	F	F
	COPD	87	4.2%	F	F
	Stroke	F	F	F	F
	Dementia	F	F	F	F
Hearing Problems	Has hearing problem	404	18.4%	F	F
Chronic Pain	Has chronic pain	1086	50.2%	164	54.1%
Activity Limitations	No activity limitation	723	35.8%	94	37.6%
	Sometimes restricted activity	728	34.2%	81	27.0%
	Often restricted activity	664	30.0%	113	35.4%
ADL	Needs help with at least one ADL	508	23.2%	114	35.9%
Psychological Distress	Low distress (K10 <10)	1500	67.3%	182	68.4%
	Mild distress (K10 = 10-14)	213	11.2%	38	10.4%
	Moderate distress (K10 = 15-19)	164	8.5%	F	F
	Severe distress (K10 = 20-40)	224	13.1%	36	13.6%
PC-PTSD Screen	Probable PTSD (3+ symptoms)	431	23.2%	65	20.1%
Body Mass Index (BMI)	Underweight	F	F	F	F
	Normal weight	417	20.2%	119	44.6%
	Overweight	968	44.6%	82	25.2%
	Obese	722	35.0%	71	27.3%
Suicidal Ideation	12-Month Ideation	172	9.7%	31	10.6%
Labour Force Status (current)	Unemployment Rate		4.9%		F
	Employment Rate	1143	61.2%	133	49.1%
	Not in the workforce	909	35.7%	146	46.1%
Main activity (past year)	Work	1119	61.0%	133	51.2%
	Retired	603	21.3%	66	21.0%
	Disability	238	11.1%	48	15.1%
	Training	78	3.5%	F	F
	Looked for work	30	1.6%	F	F
	Caregiving	38	1.5%	F	F
Satisfaction with main activity	Satisfied or very satisfied	1556	71.1%	211	74.1%
	Neither satisfied nor dissatisfied	267	14.0%	F	F
	Dissatisfied or very dissatisfied	283	14.9%	49	17.1%
Skills Transferability	Agree/strongly agree	750	54.5%	79	38.2%
	Neither	143	13.0%	F	F
	Disagree/strongly disagree	338	32.5%	52	44.0%
Low Income Measure	Below LIM	80	5.0%	F	F
Household income	$0 to <$50,000	157	9.7%	37	17.0%
	$50,000 to <$100,000	744	38.7%	84	30.4%
	$100,000 to <$150,000	517	24.6%	71	24.0%
	$150,000+	618	27.1%	85	28.6%
Satisfaction with Finances	Satisfied or very satisfied	1630	71.0%	224	75.0%
	Neither satisfied nor dissatisfied	269	15.8%	F	F
	Dissatisfied or very dissatisfied	210	13.3%	35	14.0%
Adjustment to Civilian Life	Very or moderately easy	1059	45.5%	120	42.8%
	Neither difficult nor easy	307	16.0%	47	17.7%
	Very or moderately difficult	747	38.5%	121	39.5%
Satisfaction with Life	Satisfied or very satisfied	1771	82.4%	234	80.7%
	Neither	164	8.2%	F	F
	Dissatisfied or very dissatisfied	181	9.5%	F	F
Social Support	High support	1699	80.1%	236	83.9%

Variable	Category	LASS 2019			
		Males		Females	
		n	Wt%	n	Wt%
Satisfaction with Family	Satisfied or very satisfied	1804	81.2%	243	83.9%
	Neither satisfied nor dissatisfied	192	11.5%	F	F
	Dissatisfied or very dissatisfied	115	7.4%	F	F
Community Belonging	Very or somewhat strong	1196	53.5%	145	52.6%
	Very or somewhat weak	905	46.5%	141	47.4%
Alcohol Use	Heavy drinker	488	25.1%	48	17.0%
Life Stress	Not at all or Not very on most days	804	35.2%	93	32.1%
	A bit stressful	830	39.6%	108	36.2%
	Extremely or quite a bit stressful	479	25.2%	86	31.7%
Service Use in past year	Family doctor visit	1680	75.7%	239	79.7%
	Mental health visit	585	28.5%	134	45.8%
	Home Care	242	11.1%	70	20.5%
	Hospitalization	182	8.0%	F	F
	VAC Client	1134	52.0%	152	50.6%

F = too few to calculate a reliable estimate

Appendix 5. LASS 2010, 2013, 2016 and 2019[26]

Variable	Category	LASS 2010	LASS 2013	LASS 2016	LASS 2019
Year of Release		1998-2007	1998-2012	1998-2015	1998-2018
Sample Size		2,857	1,998	2,755	2,411
Years Since Release (mean)		6.9	7.4	8.6	10.1
Age	Mean (years)	46.3	46.8	48.1	50.2
	≤ 30	7.7% (6.5, 9.1)	8.9% (7.3, 10.9)	7.7% (6.5, 9.1)	4.7% (3.7, 6.0)
	30-39	15.7% (14.1,17.4)	16.7% (14.7, 19.0)	18.8% (16.6, 21.2)	18.0% (15.7, 20.7)
	40-49	39.1% (37.2, 41.1)	28.6% (26.4, 31.0)	21.1% (19.1, 23.3)	19.5% (17.3, 21.9)
	50-59	28.2% (26.4, 30.0)	34.1% (31.9, 36.4)	36.5% (34.2, 38.8)	35.5% (33.1, 38.1)
	60+	9.4% (8.3, 10.6)	11.6% (10.4, 12.9)	16.0% (14.7, 17.4)	22.2% (20.5, 23.9)
Sex	Male	88.5% (87.1, 89.7)	87.5% (85.7, 89.1)	87.8% (86.1, 89.4)	87.5% (85.5, 89.2)
	Female	11.5% (10.3, 12.9)	12.5% (10.9, 14.3)	12.2% (10.6, 13.9)	12.5% (10.8, 14.5)
Marital status	Married/Common-law	81.0% (79.4, 82.6)	77.9% (75.6, 80.0)	76.8% (74.6, 78.9)	78.4% (76.0, 80.6)
	Widowed/Separated/Divorced	10.1 (8.9, 11.3)	11.3% (9.8, 13.0)	10.5% (9.1, 12.1)	11.2% (9.6, 13.0)
	Single, never married	8.9 (7.7, 10.3)	10.9% (9.2, 12.8)	12.7% (11.0, 14.6)	10.4% (8.8, 12.3)
Education	Less than high school	6.9% (6.0, 8.0)	5.3% (4.3, 6.6))	4.1% (3.2, 5.2)	4.4% (3.4, 5.6)
	High school graduation	42.2% (40.2, 44.2)	44.5% (42.1, 47.1)	41.7% (39.3, 44.2)	37.2% (34.7, 39.8)
	Post-secondary graduation	36.2% (34.3, 38.2)	35.0% (32.6, 37.5)	37.0% (34.5, 39.4)	40.4% (37.7, 43.1)
	University degree	14.7% (13.2, 16.2)	15.2% (13.8, 16.7)	17.3% (15.9, 18.7)	18.0% (16.6, 19.5)
Rank	Officer	17.6% (16.1, 19.2)	17.1% (15.7, 18.6)	17.3% (16.6, 18.1)	17.4% (16.8, 18.1)
	Senior NCM	33.4% (31.5, 35.3)	30.6% (28.6, 32.6)	30.5% (29.5, 31.6)	30.2% (29.3, 31.2)
	Junior NCM	49.0% (47.0, 51.1)	52.3% (49.9, 54.8)	52.2% (50.7, 53.6)	52.3% (50.9, 53.7)
Service Environment	Air	35.2% (33.2, 37.2)	32.1% (29.9, 34.4)	30.5% (28.3, 32.8)	32.4% (30.0, 34.9)
	Land	47.9% (45.9, 50.0)	51.5% (49.0, 54.0)	51.6% (49.1, 54.0)	51.4% (48.7, 54.0)
	Sea	16.9% (15.4, 18.6)	16.4% (14.6, 18.2)	17.9% (16.1, 19.9)	16.2% (14.4, 18.2)
Enrolment Era	1954-1975	21.3% (19.8, 23.0)	17.8% (16.3, 19.4)	13.9% (12.7, 15.2)	12.7% (11.5, 14.0)
	1976-1990	55.3% (53.3, 57.3)	49.5% (47.0, 52.0)	47.0% (44.5, 49.4)	47.0% (44.2, 49.7)
	1991-2000	13.9% (12.4, 15.6)	13.9% (12.1, 16.0)	13.4% (11.6, 15.4)	14.1% (12.1, 16.4)
	2001-2017	9.4% (8.1, 10.9)	18.8% (16.5, 21.2)	25.8% (23.6, 28.1)	26.3% (23.7, 29.0)
Length of Service	<10 years	22.3% (20.5, 24.3)	28.2% (25.7, 30.8)	30.7% (28.3, 33.1)	27.2% (24.4, 30.1)
	10-19 years	15.3% (13.9, 16.8)	13.9% (12.1, 15.8)	15.5% (13.7, 17.4)	18.5% (16.4, 20.8)
	20+ years	62.4% (60.3, 64.4)	58.0% (55.3, 60.5)	53.9% (51.6, 56.1)	54.3% (51.8, 56.9)
Release Type	Voluntary	69.4% (67.8, 70.9)	71.1% (68.7, 73.4)	68.8% (66.4, 71.1)	65.2% (62.6, 67.7)
	Involuntary	2.6% (1.9, 3.4)	4.3% (3.2, 5.8)	4.8% (3.5, 6.5)	3.6% (2.3, 5.5)
	Medical	28.1% (26.6, 29.5)	24.6% (22.5, 26.9)	26.4% (24.3, 28.5)	31.2% (28.9, 33.6)
Deployment	Deployed during military service	70.3% (68.3, 72.2)	--	73.8% (71.4, 76.1)	76.3% (73.7, 78.7)
Self-Rated health	Very good or excellent	52.0% (50.1, 53.9)	48.9% (46.4, 51.4)	45.5% (43.0, 48.0)	39.2% (36.6, 41.9)
	Good	28.1% (26.4, 29.9)	31.0% (28.7, 33.4)	31.4 %(29.1, 33.8)	32.1% (29.7, 34.7)
	Fair or poor	19.9% (18.5, 21.3)	20.1% (18.2, 22.2)	23.1% (21.2, 25.2)	28.6% (26.3, 31.1)
Self-Rated mental health	Very good or excellent	64.9% (63.0, 66.7)	59.9% (57.4, 62.4)	55.6 (53.1, 58.1)	48.3% (45.6, 51.0)
	Good	19.8% (18.3, 21.5)	23.1% (21.0, 25.3)	23.3 (21.2, 25.6)	23.4% (21.3, 25.8)
	Fair or poor	15.3% (14.1, 16.6)	17.0% (15.2, 19.0)	21.1 (19.2, 23.2)	28.2% (25.9, 30.7)
Chronic Conditions	Back problems	43.8% (41.9, 45.8)	39.2% (36.8, 41.7)	40.8% (38.4, 43.3)	45.3% (42.6, 48.0)
	Arthritis	26.6% (25.0, 28.2)	26.1% (24.0, 28.2)	29.1% (27.0, 31.3)	35.0% (32.6, 37.5)
	High blood pressure	20.8% (19.2, 22.4)	19.6% (17.8, 21.5)	20.7% (18.9, 22.6)	25.0% (22.9, 27.3)
	Depression	--	18.1% (16.2, 20.2)	20.5% (18.5, 22.7)	25.7% (23.4, 28.1)
	Anxiety	11.2% (10.2, 12.4)	11.8% (10.2, 13.6)	14.6% (12.9, 16.4)	21.3% (19.2, 23.5)
	PTSD	12.8% (11.8, 13.9)	15.2% (13.5, 17.2)	16.4% (14.7, 18.3)	23.7% (21.5, 26.1)
	Migraine	--	13.7% (12.0, 15.6)	13.3% (11.7, 15.2)	17.1% (15.1, 19.3)
	Diabetes	6.3% (5.4, 7.3)	6.7% (5.6, 8.0)	7.2% (6.2, 8.5)	8.5% (7.3, 9.9)
	Bowel disorders	7.4% (6.5, 8.5)	6.0% (4.9, 7.2)	6.6% (5.6, 7.8)	8.9% (7.6, 10.5)
	Asthma	6.1% (5.2, 7.1)	6.0% (4.9, 7.3)	6.4% (5.3, 7.8)	7.5% (6.1, 9.0)
	Heart disease	4.7% (3.9, 5.6)	3.8% (3.1, 4.7)	4.5% (3.7, 5.4)	5.8% (4.8, 6.9)

[26] Entry ranks excluded from all 3 surveys. The confidence intervals were produced by Stata SVY commands and will differ from those produced using Statistics Canada bootstrap weights.

Variable	Category	LASS 2010	LASS 2013	LASS 2016	LASS 2019
	Ulcers	6.6% (5.7, 7.5)	4.0% (3.2, 5.1)	4.3% (3.4, 5.4)	5.6% (4.4, 7.1)
	Urinary	--	3.2% (2.5, 4.2)	4.1% (3.3, 5.0)	4.5% (3.4, 5.8)
	TBI effects	--	2.9% (2.2, 3.9)	3.9% (3.0, 5.0)	6.5% (5.3, 8.1)
	Cancer	1.4% (1.0, 1.9)	1.7% (1.3, 2.3)	2.6% (2.0, 3.4)	2.6% (2.0, 3.3)
	COPD	3.1% (2.5, 3.8)	2.9% (2.2, 3.9)	2.6% (1.9, 3.4)	4.0% (3.1, 5.3)
	Stroke	0.9% (0.6, 1.3)	F	F	F
	Dementia	--	F	F	F
Hearing Problems	Has hearing problem	--	10.2% (8.8, 11.7)	11.9% (10.5, 13.5)	16.7% (14.9, 18.7)
Chronic Pain	Has chronic pain	--	37.2% (34.8, 39.6)	40.8% (38.4, 43.2)	50.7% (48.0, 53.4)
SF-12	Physical Component Score (mean)	46.2 (45.9, 46.6)	46.8 (46.2, 47.4)	48.3 (47.8, 48.9)	--
	Mental Component Score (mean)	51.6 (51.2, 52.0)	51.2 (50.6, 51.8)	50.7 (50.1, 51.3)	--
Activity Limitations	No activity limitation	44.7% (42.9, 46.6)	44.7% (42.2, 47.2)	41.1% (38.6, 43.6)	36.1% (33.4, 38.8)
	Sometimes restricted activity	28.1% (26.3, 29.9)	28.2% (26.0, 30.4)	30.1% (27.8, 32.5)	33.3% (30.8, 35.9)
	Often restricted activity	27.2% (25.8, 28.7)	27.1% (25.0, 29.4)	28.8% (26.7, 31.0)	30.7% (28.4, 33.1)
ADL	Needs help with at least one ADL	19.3% (18.0, 20.5)	23.0% (21.0, 25.2)	20.3% (18.4, 22.3)	24.9% (22.8, 27.1)
Psychological Distress	Low distress (K10 <10)	--	77.6% (75.4, 79.7)	73.3% (71.0, 75.4)	67.4% (64.8, 69.9)
	Mild distress (K10 = 10-14)	--	9.1% (7.8, 10.7)	9.8% (8.5, 11.3)	11.1% (9.5, 13.1)
	Moderate distress (K10 = 15-19)	--	5.3% (4.2, 6.6)	6.2% (5.1, 7.4)	8.3% (7.0, 9.9)
	Severe distress (K10 = 20-40)	--	8.0% (6.7, 9.6)	10.8% (9.3, 12.5)	13.1% (11.3, 15.1)
PC-PTSD Screen	Probable PTSD (3+ symptoms)	--	15.6% (13.8, 17.6)	18.3% (16.4, 20.3)	22.8% (20.6, 25.2)
Body Mass Index (BMI)	Underweight	F	F	F	F
	Normal weight	25.4% (23.6, 27.3)	25.3% (23.1, 27.6)	24.6% (22.5, 26.9)	23.2% (20.9, 25.6)
	Overweight	44.7% (42.6, 46.7)	46.9% (44.4, 49.5)	46.1% (43.6, 48.6)	42.2% (39.6, 44.9)
	Obese	29.8% (28.0, 31.6)	27.4% (25.2, 29.7)	28.8% (26.6, 31.1)	34.1% (31.6, 36.7)
Suicidal Ideation	12-Month Ideation	6.2% (5.4, 7.2)	6.8% (5.6, 8.2)	8.1% (6.8, 9.5)	9.8% (8.3, 11.5)
Labour Force Status (current)	Unemployment Rate	5.6% (4.7, 6.7)	6.2% (4.9, 7.8)	8.4% (6.9, 10.2)	5.3% (3.9, 7.2)
	Employment Rate	72.8% (71.0, 74.5)	69.3% (67.0, 71.6)	65.3% (63.0, 67.5)	59.6% (57.1, 62.1)
	Not in the workforce	21.8% (20.3, 23.4)	26.1% (24.0, 28.3)	28.7% (26.7, 30.9)	37.0% (34.6, 39.5)
Main activity (past year)	Work	74.2% (72.5, 75.8)	68.3% (66.0, 70.5)	66.4% (64.2, 68.6)	59.7% (57.2, 62.2)
	Retired	10.6% (9.5, 11.9)	15.0% (13.5, 16.6)	16.3% (14.9, 17.9)	21.3% (19.5, 23.2)
	Disability	6.9% (6.2, 7.8)	6.7% (5.5, 8.1)	8.2% (7.0, 9.6)	11.6% (10.1, 13.3)
	Training	2.7% (2.1, 3.5)	3.4% (2.5, 4.6)	4.6% (3.7, 5.7)	3.6% (2.9, 4.6)
	Looked for work	2.2% (1.7, 2.9)	1.9% (1.4, 2.7)	2.1% (1.7, 2.8)	1.6% (1.0, 2.5)
	Caregiving	1.8% (1.3, 2.4)	1.5% (1.0, 2.3)	2.3% (1.6, 3.2)	2.1% (1.6, 2.9)
	Other	1.6% (1.2, 2.2)	3.2% (2.4, 4.2)	--	--
Satisfaction with main activity	Satisfied or very satisfied	75.5% (73.7, 77.1)	75.4% (73.1, 77.5)	74.0% (71.7, 76.1)	71.5% (68.9, 73.9)
	Neither satisfied nor dissatisfied	10.4% (9.2, 11.7)	11.3% (9.7, 13.1)	12.0% (10.4, 13.7)	13.4% (11.6, 15.4)
	Dissatisfied or very dissatisfied	14.2% (12.9, 15.5)	13.3% (11.7, 15.2)	14.1% (12.5, 15.9)	15.2% (13.3, 17.3)
Skills transferability	Agree/strongly agree	75.1% (73.2, 77.0)	51.6% (49.1, 54.2)	50.8% (47.9, 53.6)	52.8% (49.1, 56.4)
	Neither	8.3% (7.2, 9.6)	12.3% (10.7, 14.2)	12.4% (10.6, 14.5)	13.5% (11.1, 16.4)
	Disagree/strongly disagree	16.6% (15.0, 18.3)	36.0% (33.6, 38.6)	36.8% (34.0, 39.7)	33.7% (30.3, 37.3)
Low Income Measure	Below LIM	5.6% (4.7, 6.7)	4.8% (3.7, 6.1)	4.2% (3.2, 5.4)	5.8% (4.6, 7.4)
Household income	$0 to <$50,000	15.6% (14.2, 17.2)	9.5% (8.0, 11.3)	13.2% (11.5, 15.0)	10.5% (8.9, 12.5)
	$50,000 to <$100,000	40.1% (38.0, 42.1)	39.4% (36.8, 42.2)	38.0% (35.5, 40.6)	37.7% (35.1, 40.5)
	$100,000 to <$150,000	26.5% (24.6, 28.4)	29.4% (26.9, 32.0)	24.9% (22.7, 27.2)	24.4% (22.2, 26.8)
	$150,000+	17.9% (16.3, 19.6)	21.7% (19.6, 23.9)	24.0% (21.8, 26.3)	27.3% (24.9, 29.7)
Satisfaction with Finances	Satisfied or very satisfied	74.5% (72.6, 76.2)	73.8% (71.5, 76.1)	68.7% (66.3, 71.0)	71.5% (68.8, 74.0)
	Neither	11.2% (10.0, 12.6)	10.7% (9.2, 12.4)	13.7% (12.1, 15.5)	15.2% (13.2, 17.4)
	Dissatisfied or very dissatisfied	14.3% (13.0, 15.8)	15.5% (13.6, 17.5)	17.6% (15.7, 19.7)	13.3% (11.4, 15.5)

Variable	Category	LASS 2010	LASS 2013	LASS 2016	LASS 2019
Adjustment to Civilian Life	Very or moderately easy	59.5% (57.6, 61.5)	54.3% (51.8, 56.8)	52.4% (49.9, 54.9)	45.1% (42.5, 47.8)
	Neither difficult nor easy	12.8% (11.5, 14.2)	16.1% (14.3, 18.1)	15.2% (13.5, 17.2)	16.2% (14.2, 18.5)
	Very or moderately difficult	27.7% (26.0, 29.5)	29.6% (27.3, 32.0)	32.4% (30.1, 34.8)	38.7% (36.1, 41.3)
Satisfaction with Life	Satisfied or very satisfied	83.9% (82.5, 85.3)	85.1% (83.2, 86.9)	84.1% (82.2, 85.9)	82.1% (80.0, 84.1)
	Neither	8.6% (7.6, 9.8)	7.3% (6.1, 8.8)	7.7% (6.5, 9.1)	8.5% (7.1, 10.2)
	Dissatisfied or very dissatisfied	7.5% (6.6, 8.4)	7.5% (6.3, 9.0)	8.1% (6.9, 9.6)	9.3% (7.9, 11.0)
Social Support	High support	--	83.4% (81.4, 85.2)	83.7% (81.7, 85.6)	80.6% (78.2, 82.7)
Satisfaction with Family	Satisfied or very satisfied	87.4% (86.1, 88.6)	--	86.5% (84.7, 88.2)	81.5% (79.1, 83.7)
	Neither satisfied nor dissatisfied	6.2% (5.3, 7.2)	--	7.4% (6.2, 8.9)	11.0% (9.3, 13.1)
	Dissatisfied or very dissatisfied	6.5% (5.6, 7.4)	--	6.0% (4.9, 7.4)	7.4% (6.0, 9.2)
Community Belonging	Very or somewhat strong	59.0% (56.9, 61.0)	57.6% (55.1, 60.1)	57.4% (54.9, 59.8)	53.3% (50.6, 56.0)
	Very or somewhat weak	41.1% (39.1, 43.1)	42.4 (39.9, 44.9)	42.6% (40.2, 45.2)	46.7% (44.0, 49.4)
Alcohol Use	Heavy drinker	27.9% (25.9, 29.9)	24.7% (22.6, 27.0)	27.3% (25.1, 29.7)	24.1% (21.7, 26.6)
Smoking	Daily Smoker	18.4% (16.9, 20.1)	16.6% (14.7, 18.7)	--	--
Life Stress	Not at all or Not very on most days	36.4% (34.4, 38.4)	36.9% (34.5, 39.3)	32.1% (29.9, 34.4)	34.8% (32.3, 37.4)
	A bit	42.0% (40.0, 44.1)	40.2% (37.7, 42.7)	43.9% (41.4, 46.4)	39.2% (36.6, 41.9)
	Extremely or quite a bit stressful	21.6% (20.0, 23.3)	23.0% (20.9, 25.2)	24.1% (21.9, 26.3)	26.0% (23.6, 28.5)
Service Use in past year	Family doctor visit	--	76.6% (74.2, 78.8)	72.1% (69.7, 74.5)	76.2% (73.7, 78.6)
	Mental health visit	--	--	24.1% (22.1, 26.3)	30.7% (28.3, 33.2)
	Home Care	--	14.6% (13.0, 16.4)	10.4% (9.1, 12.0)	12.4% (10.8, 14.1)
	Hospitalization	--	7.5% (6.3, 9.0)	7.8% (6.6, 9.2)	8.0% (6.8, 9.5)
	VAC Client	39.0% (38.7, 39.2)	42.7% (40.2, 45.2)	45.7% (43.3, 48.2)	51.8% (49.1, 54.5)

F = too few to calculate a reliable estimate

Appendix 6. LASS 2019 Recent Releases and Earlier Releases Compared to LASS 2016

Variable	Category	LASS 2019				LASS 2016	
		Released Sept 2015-Aug 2018		Released 1998-Aug 2015		Released 1998-Aug 2015	
		n	Wt%	n	Wt%	n	Wt%
		545		1864		2755	
Age	Mean (years)	43		52		48	
	≤ 30	50	15.7%	33	2.6%	182	7.7%
	30-39	103	24.4%	180	16.9%	343	18.8%
	40-49	136	24.8%	257	18.6%	534	21.1%
	50-59	218	30.6%	710	36.5%	1097	36.4%
	60+	38	4.5%	684	25.5%	599	16.0%
Sex	Male	479	87.3%	1637	87.5%	2414	87.4%
	Female	66	12.7%	222	12.5%	341	12.6%
Marital status	Married/Common-law	422	74.2%	1525	79.3%	2166	76.8%
	Widowed/Separated/Divorced	55	8.9%	210	11.7%	278	10.5%
	Single, never married	68	17.0%	129	9.0%	309	12.7%
Education	Less than high school	F	F	73	4.4%	100	4.1%
	High school graduation	189	40.4%	662	36.5%	1032	41.7%
	Post-secondary graduation	161	34.4%	622	41.5%	894	36.9%
	University degree	174	20.6%	503	17.5%	724	17.3%
Rank	Officer	198	20.3%	596	16.9%	893	17.3%
	Senior NCM	185	31.3%	765	30.1%	981	30.5%
	Junior NCM	162	48.3%	503	53.0%	881	52.2%
Service Environment	Air	164	26.9%	680	33.4%	892	30.5%
	Land	285	57.0%	845	50.3%	1336	51.6%
	Sea	96	16.1%	339	16.3%	527	17.9%
Enrolment Era	1954-1975	F	F	396	14.9%	483	13.9%
	1976-1990	233	34.7%	877	49.2%	1340	47.0%
	1991-2000	104	19.3%	163	13.2%	299	13.4%
	2001-2017	163	45.5%	251	22.7%	631	25.8%
Length of Service	< 10 years	80	25.9%	253	27.4%	576	30.7%
	10 to 19 years	105	24.3%	231	17.4%	417	15.5%
	≥ 20 years	318	49.8%	1203	55.2%	1760	53.9%
Release Type	Voluntary	285	49.8%	1289	68.1%	1715	68.8%
	Involuntary	F	F	F	F	71	4.8%
	Medical	255	48.7%	546	28.0%	964	26.4%
Deployment	Deployed during military service	439	74.4%	1515	76.7%	2175	73.8%
Self-Rated health	Very good or excellent	210	37.0%	766	39.7%	1171	45.5%
	Good	165	29.9%	607	32.5%	849	31.4%
	Fair or poor	169	33.1%	491	27.8%	735	23.1%
Self-Rated mental health	Very good or excellent	235	40.6%	970	49.8%	1525	55.6%
	Good	152	26.5%	435	22.9%	601	23.3%
	Fair or poor	158	32.9%	457	27.3%	627	21.1%
Chronic Conditions	Back problems	273	49.0%	869	44.5%	1210	40.8%
	Arthritis	187	32.6%	724	35.5%	938	29.1%
	High blood pressure	107	16.9%	561	26.6%	651	20.7%
	Depression	160	32.9%	426	24.3%	601	20.5%
	Anxiety	143	29.7%	353	19.7%	426	14.6%
	PTSD	147	29.3%	392	22.7%	521	16.4%
	Migraine	94	19.0%	281	16.7%	370	13.3%
	Diabetes	F	F	200	9.2%	236	7.2%
	Bowel disorders	52	9.3%	166	8.9%	227	6.6%
	Asthma	30	5.7%	135	7.8%	173	6.4%
	Heart disease	F	F	149	6.4%	160	4.5%

Variable	Category	LASS 2019				LASS 2016	
		Released Sept 2015-Aug 2018		Released 1998-Aug 2015		Released 1998-Aug 2015	
		n	Wt%	n	Wt%	n	Wt%
		545		1864		2755	
	Ulcers	F	F	92	5.7%	116	4.3%
	Urinary	F	F	91	4.8%	128	4.1%
	TBI effects	46	9.1%	100	6.1%	115	3.9%
	Cancer	F	F	68	2.7%	81	2.6%
	COPD	F	F	85	4.5%	78	2.6%
	Stroke	F	F	F	F	F	F
	Dementia	F	F	F	F	F	F
Hearing Problems	Has hearing problem	75	14.4%	344	17.2%	369	11.9%
Chronic Pain	Has chronic pain	311	56.7%	942	49.6%	1261	40.8%
SF-12	Physical Component Score (mean)	--		--			
	Mental Component Score (mean)	--		--			
Activity Limitations	No activity limitation	144	27.2%	674	37.8%	986	41.1%
	Sometimes restricted activity	183	31.2%	627	33.7%	822	30.1%
	Often restricted activity	218	41.6%	560	28.6%	945	28.8%
ADL	Needs help with at least one ADL	167	32.3%	458	23.5%	668	20.3%
Psychological Distress	Low distress (K0 <10)	356	63.1%	1330	68.3%	1972	73.3%
	Mild distress (K10 = 10-14)	54	10.3%	197	11.3%	288	9.8%
	Moderate distress (K10 = 15-19)	61	12.1%	131	7.6%	191	6.2%
	Severe distress (K10 = 20-40)	64	14.6%	196	12.8%	296	10.8%
PC-PTSD Screen	Probable PTSD (3+ symptoms)	133	27.7%	364	21.9%	534	18.2%
Body Mass Index (BMI)	Underweight	F	F	F	F	F	F
	Normal weight	129	25.4%	408	22.7%	623	24.6%
	Overweight	222	39.4%	828	42.8%	1251	46.1%
	Obese	186	34.7%	607	34.0%	840	28.8%
Suicidal Ideation	12-Month Ideation	49	10.7%	153	9.5%	254	8.1%
Labour Force Status (current)	Unemployment Rate		F		4.6%		8.4%
	Employment Rate	281	52.0%	996	61.1%	1560	65.3%
	Not in the workforce	235	42.6%	822	36.0%	1005	28.7%
Main activity (past year)	Work	269	49.6%	984	61.6%	1561	66.4%
	Retired	95	14.3%	577	22.6%	596	16.3%
	Disability	93	18.0%	193	10.4%	277	8.2%
	Training	55	12.6%	36	1.9%	168	4.6%
	Looked for work	F	F	F	F	89	2.1%
	Caregiving	F	F	49	2.0%	57	2.3%
Satisfaction with main activity	Satisfied or very satisfied	369	65.9%	1402	72.6%	2011	74.0%
	Neither satisfied nor dissatisfied	75	14.9%	215	13.1%	313	12.0%
	Dissatisfied or very dissatisfied	97	19.2%	234	14.4%	427	14.1%
Skills transferability	Agree/strongly agree	209	57.1%	621	52.1%	1155	50.8%
	Neither	F	F	137	14.2%	234	12.4%
	Disagree/strongly disagree	85	33.2%	305	33.7%	658	36.8%
Low Income Measure	Below LIM	F	F	83	5.8%	96	4.2%
Household income	$0 to <$50,000	F	F	164	11.0%	313	13.2%
	$50,000 to <$100,000	175	38.1%	657	37.7%	999	38.0%
	$100,000 to <$150,000	142	25.7%	446	24.2%	645	24.9%
	$150,000+	183	28.4%	521	27.1%	650	24.0%
Satisfaction with Finances	Satisfied or very satisfied	429	73.8%	1428	71.1%	1933	68.7%
	Neither satisfied nor dissatisfied	58	13.2%	239	15.6%	382	13.7%

Variable	Category	LASS 2019				LASS 2016	
		Released Sept 2015-Aug 2018		Released 1998-Aug 2015		Released 1998-Aug 2015	
		n	Wt%	n	Wt%	n	Wt%
		545		1864		2755	
	Dissatisfied or very dissatisfied	58	13.1%	186	13.3%	435	17.6%
Adjustment to Civilian Life	Very or moderately easy	232	38.2%	948	46.5%	1458	52.4%
	Neither difficult nor easy	80	14.7%	274	16.5%	372	15.2%
	Very or moderately difficult	232	47.1%	638	37.1%	922	32.4%
Satisfaction with Life	Satisfied or very satisfied	444	79.2%	1563	82.7%	2280	84.1%
	Neither	47	9.4%	146	8.4%	233	7.7%
	Dissatisfied or very dissatisfied	53	11.4%	154	8.9%	239	8.1%
Social Support	High support	426	78.0%	1510	81.1%	2240	83.7%
Satisfaction with Family	Satisfied or very satisfied	461	81.4%	1588	81.5%	2401	86.5
	Neither satisfied nor dissatisfied	56	12.9%	157	10.7%	193	7.4
	Dissatisfied or very dissatisfied	F	F	110	7.8%	153	6.0
Community Belonging	Very or somewhat strong	256	44.7%	1085	55.0%	1545	57.4%
	Very or somewhat weak	285	55.3%	764	45.0%	1198	42.6%
Alcohol Use	Heavy drinker	137	27.9%	398	23.3%	702	27.3%
Life Stress	Not at all or Not very on most days	174	29.0%	726	36.0%	970	32.1%
	A bit stressful	225	42.6%	714	38.6%	1131	43.9%
	Extremely or quite a bit stressful	145	28.5%	419	25.4%	650	24.1%
Service Use in past year	Family doctor visit	416	73.5%	1506	76.7%	2131	72.1%
	Mental health visit	215	42.7%	505	28.5%	736	24.1%
	Home Care	63	11.9%	252	12.5%	336	10.4%
	Hospitalization	34	6.5%	171	8.3%	238	7.8%
	VAC Client	331	62.2%	957	49.9%	1480	45.7%

F = too few to calculate a reliable estimate

Appendix 7. LASS 2019 with Canadian Comparators

Variable	Category	LASS 2019		Canadian data	
		n	Wt% (CI)	Canadian Comparator[27]	Source of comparator
Marital status	Married/Common-law	1947	78.4% (76.0, 80.6)	73.4%	CCHS 2015-16
	Widowed/Separated/Divorced	265	11.2% (9.6, 13.1)	10.1%	CCHS 2015-16
	Single/Never married	199	10.4% (8.8, 12.3)	16.5%	CCHS 2015-16
Education	Less than high school graduation	94	4.4% (3.4, 5.6)	10.9%	CCHS 2015-16
	High school graduation	853	37.2% (34.7, 39.8)	21.7%	CCHS 2015-16
	Post-secondary education	1460	58.4% (55.7, 61.0)	67.4%	CCHS 2015-16
Self-Rated health	Very good or excellent	976	39.2% (36.6, 41.9)	60.3%	CCHS 2015-16
Self-Rated mental health	Very good or excellent	1205	48.3% (45.6, 51.0)	72.9%	CCHS 2015-16
Chronic Conditions	Back problems	1144	45.3% (42.6, 48.0)	21.8%	CCHS 2015-16
	Arthritis	911	35.0% (32.6, 37.5)	20.2%	CCHS 2015-16
	High blood pressure	668	25.0% (22.9, 27.3)	20.3%	CCHS 2015-16
	Depression	587	25.7% (23.4, 28.1)	7.0%	CCHS 2015-16
	Anxiety	497	21.3% (19.2, 23.5)	6.3%	CCHS 2015-16
	PTSD	539	23.7% (21.5, 26.1)	1.3%	CCHS 2012
	Migraine	375	17.1% (15.1, 19.3)	7.6%	CCHS 2015-16
	Diabetes	228	8.5% (7.3, 9.9)	8.7%	CCHS 2015-16
	Bowel disorders	218	8.9% (7.6, 10.5)	3.7%	CCHS 2013-14
	Asthma	165	7.5% (6.1, 9.0)	6.8%	CCHS 2015-16
	Heart disease	169	5.8% (4.8, 6.9)	5.0%	CCHS 2015-16
	Ulcers	119	5.6% (4.4, 7.1)	2.2%	CCHS 2013-14
	Urinary	107	4.5% (3.4, 5.8)	2.2%	CCHS 2013-14
	Cancer	81	2.6% (2.0, 3.3)	1.5%	CCHS 2015-16
	COPD	95	4.0% (3.1, 5.3)	2.8%	CCHS 2015-16
Hearing Problem	Has hearing problem	419	16.7% (14.9, 18.7)	3.3%	CCHS 2013-14
Chronic Pain	Has chronic pain	1254	50.7% (48.0, 53.4)	22.4%	CCHS 2011-12
Activity Limitations	No activity limitation	818	36.1% (33.4, 38.8)	73.6%	CCHS 2013-14
	Sometimes restricted activity	811	33.3% (30.8, 35.9)	16.3%	CCHS 2013-14
	Often restricted activity	779	30.7% (28.4, 33.1)	10.1%	CCHS 2013-14
ADL	Needs help with at least one ADL	625	24.9% (22.8, 27.1)	7.0%	CCHS 2013-14
Body Mass Index (BMI)	Obese	793	34.1% (31.6, 36.7)	23.8%	CCHS 2015-16
Labour Force Status	Unemployment Rate		5.3% (3.9, 7.2)	5.8%	LFS Mar 2019
	Employment Rate	1278	59.6% (57.1, 62.1)	73.0%	LFS Mar 2019
	Not in the workforce	1058	37.0% (34.6, 39.5)	22.4%	LFS Mar 2019
Low Income Measure	Below LIM	104	5.8% (4.6, 7.4)	12.3%	CIS 2018[28]
Satisfaction with Life	Satisfied or very satisfied	2008	82.1% (80.0, 84.1)	92.0%	CCHS 2015-16
Community Belonging	Very or somewhat strong	1342	53.3% (50.6, 56.0)	67.1%	CCHS 2015-16
Alcohol Use	Heavy drinker	536	24.1% (21.7, 26.6)	25.2%	CCHS 2015-16
Life Stress	Extremely or quite a bit stressful on most days	566	26.0% (23.6, 28.5)	23.2%	CCHS 2015-16
Service Use in past year	Family doctor visit	1923	76.2% (73.6, 78.5)	67.3%	CCHS 2015-16
	Hospitalization	205	8.0% (6.8, 9.5)	5.3%	CCHS 2015-16

[27] Canadian comparator is age and sex adjusted to LASS 2019 Veteran population.
[28] Canadian Income Survey 2018 is not age and sex adjusted to LASS 2019 Veteran population.