



Health and Well-Being of Canadian Armed Forces Veterans: Findings from the 2013 Life After Service Survey -- Executive Summary

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Contents

Introduction	2
Methods	2
Importance of Age and Gender	3
Well-Being of Primary Reserve Force and Regular Force Veterans	3
Comparison to the General Canadian Population.....	6
Regular Force Veterans Released in 1998-2007: 2010 and 2013 Surveys.....	7
Regular Force Veterans Released in 2008-2012 versus 1998-2007.....	7
Veterans Receiving Services from VAC (VAC Clients)	7
Interpretation Guidance	8
Next Steps.....	9

Introduction

The first comprehensive survey of the health and well-being of Canadian Armed Forces (CAF) Veterans¹ was the 2010 *Survey on Transition to Civilian Life* (STCL 2010). STCL 2010 was one of two studies that together comprised the 2010 *Life After Service Studies* (LASS) program of research, the other being the 2010 LASS *Income Study*. LASS 2010 studied the health and well-being of former Regular Force personnel who had released from service during 1998-2007. Reserve Force Veterans were not included in the 2010 studies owing to limitations in the data available at the time. The CAF has increasingly drawn on Primary Reserve Force personnel to supplement the Regular Force since the 1990-91 first Gulf War including the missions in Bosnia and Afghanistan, so it is important to also study their health and well-being.

The 2013 program extended the 2010 studies by including Primary Reserve Force Veterans for the first time, and by including Regular Force Veterans who had released in 1998-2012. Two studies were conducted, as in 2010: the 2013 income study and the *Life After Service Survey* (LASS 2013). This report gives findings from the survey.

Methods

LASS 2013 was a computer-assisted telephone interview survey conducted by Statistics Canada for Veterans Affairs Canada (VAC) and the Department of National Defence (DND) in February-March 2013. The survey sampled former Primary Reserve Force personnel with Class A/B and C service² who released from service 01 January 2003 to 31 August 2012 and Regular Force personnel who released 01 January 1998 to 31 August 2012:

1. *Reserve Force Class A/B*. Veteran who was a Primary Reserve Force member with any Class B temporary full-time service in addition to Class A service, and no Regular Force service.

¹ For this study, "Veteran" means a former CAF member with any length of service.

² Former CAF personnel with only Class A service were not surveyed.

2. *Reserve Force Class C*: Veteran who was a Primary Reserve Force member with Class C service, and also had Class A and Class B service and no Regular Force service. Class C service is full-time service in support of deployed operations, domestically or internationally.
3. *Regular Force*. Veteran who was a member of the Regular Force. Some in this category also had service in the Primary Reserve Force.

The sample consisted of Primary Reserve Force Class A/B (514 sampled, 60% response rate, 93% share rate) and Class C Veterans (1,013 sampled, 70% response rate, 91% agreed to share data with VAC and DND), and Regular Force Veterans (2,611 sampled, 72% response rate, 89% share rate). The samples are considered representative of CAF Primary Reserve Force Class A/B and Class C and Regular Force Veterans living in the general Canadian population who were released during those time periods.

Importance of Age and Gender

Reserve Class A/B Veterans who released in 2003-12 were younger (average age 31 years, range 18-67) than Reserve Class C Veterans who released in 2003-12 (40 years, range 20-67). They in turn were younger than Regular Force Veterans who released in 1998-2012 (44 years, range 18-78). There were also differences in the proportions of women: 19% for Reserve Class A/B, 23% for Reserve Class C and 13% for Regular Force Veterans. These differences in age and gender are important to consider when comparing prevalences across the three Veteran groups. For example, physical health conditions are more prevalent with age, and mental health conditions are more prevalent in adult middle years.

Well-Being of Primary Reserve Force and Regular Force Veterans

The following table paints pictures of the health, disability, stress/satisfaction and determinants of health status of the three Veteran groups. Statistical analysis that accounts for confounding (differences in age, sex and other factors) is required to confirm differences and similarities, and to identify reasons for differences between the groups.

- *Class A/B Primary Reserve Veterans* were the youngest on average and in general had the best health and well-being. Very few were participating in VAC programs.
- *Class C Primary Reserve Veterans* looked more similar to Regular Force Veterans than Class A/B Veterans. Most were doing well, but they were older on average than Class A/B Veterans and were experiencing problems more often.
- *Regular Force Veterans* in LASS 2013 were very similar to the picture in STCL 2010: most Regular Force Veterans who released in 1998-2007 were doing well, but of the three groups they had the highest prevalences of health and well-being problems.

Characteristic or Indicator ³	Reserve Class A/B Released 2003-2012	Reserve Class C Released 2003-2012	Regular Force Released 1998-2012
Participation in VAC programs	F*	17%	35%
Mean Age	31 years, Range 18-67	40 years, Range 20-67	44 years, Range 18-78
Women (CI)	19% (15-22%)	23% (21-26%)	13% (12-15%)
Marital status	56% married or commonlaw 39% single or never married F* for widowed, separated or divorced	72% married or commonlaw 22% single or never married 6% widowed, separated or divorced.	74% married or commonlaw 16% single or never married 10% widowed, separated or divorced.
Educational attainment	25% high school 39% post-secondary other than university degree 35% university degree.	26% high school 41% post-secondary other than university degree 30% university degree.	43% high school 36% post-secondary other than university degree 17% university degree.
Unemployment rate (CI)	6% (4-9%)	5% (4-7%)	7% (6-8%)
Labour force participation, 2013	84% employed 10% not in the workforce	80% employed 13% not in the workforce	71% employed 19% not in the workforce 4% unable to work
Main activity in the past year	77% working at a job or business 14% in school or training	77% working at a job or business 6% in school or training 5% disabled or on disability 6% retired	69% working at a job or business 5% in school or training 6% disabled or on disability 12% retired
Low income (CI)	12% (9-15%)	8% (6-10%)	8% (6-9%)
Length of service	21% <2 years 66% 2-9 years 10% 10-19 years F* > 20 years	F* <2 years 41% 2-9 years 36% 10-19 years 22% > 20 years	21% <2 years 20% 2-9 years 12% 10-19 years 48% > 20 years
Release type (CI)	76% (72-80%) voluntary 16% (12-20%) involuntary ⁴ F* for other types, including medical release	65% (61-68%) voluntary 10% (8-12%) involuntary 13% (11-15%) medical release 8% (6-10%) service complete 5% (4-7%) retirement age	52% (50-55%) voluntary 7% (5-8%) involuntary 21% (19-23%) medical release 16% (14-17%) service complete 5% (4-5%) retirement age
Rank at release	F* for senior officers and senior NCMs 7% junior officers 33% junior non-commissioned members (NCM) 14% privates 39% recruits.	17% officers 20% senior NCMs 58% junior NCMs F* for number of cadets, privates and recruits	15% officers 4% cadets 25% senior NCMs 30% junior NCMs 7% privates 18% recruits
Enrolment era	16% 1990s and 77% 2000s, suggesting a high turnover rate	Peak in the 1990s but spread across all eras from the 1960s	Broadly spread across all eras from the 1950s
Release year	Little variation, ranged 6-12% in the release period (2003-2012)	Slightly highest in 2011 (16%)	Ranged 4-10% by year across the release period 1998-2012, peak in 2008
Service Environment	83% Army 13% Navy F* for Air Force	80% Army 13% Navy 7% Air Force	54% Army 16% Navy 30% Air Force

³ See Appendix Table 1 for definitions.

⁴ "Involuntary Release" includes misconduct dismissal, misconduct service, illegally absent, fraudulent enrollment, unsatisfactory conduct, unsatisfactory performance, not advantageously employed, death and transfer out.

Characteristic or Indicator³	Reserve Class A/B Released 2003-2012	Reserve Class C Released 2003-2012	Regular Force Released 1998-2012
Last military occupation	59% combat arms 15% administration, logistics or security 10% maritime F* for the other 5 groups	44% combat arms 27% administration, logistics or security 11% communications, 8% maritime F* for the other 4 groups	26% combat arms 24% administration, logistics or security 8% communications 14% aviation 12% maritime 11% engineering/technical 5% medical
Adjustment to civilian life (CI)	74% (70-78%) easy 11% (8-14%) difficult	61% (58-64%) easy 24% (21-27%) difficult	56% (54-59%) easy 27% (25-29%) difficult
Self-rated health (CI)	69% (65-73%) very good/excellent 7% (5-10%) fair/poor	61% (58-64%) very good/excellent 13% (11-15%) fair/poor	53% (50-55%) very good/excellent 18% (16-20%) fair/poor
Self-rated mental health (CI)	74% (70-77%) very good/excellent 6% (5-9%) fair/poor	67% (64-70%) very good/excellent 11% (9-13%) fair/poor	62% (59-64%) very good/excellent 16% (14-18%) fair/poor
1+ chronic physical health condition⁵ (CI)	55% (50-60%)	68% (65-71%)	74% (72-76%)
Chronic physical health conditions (CI)	17% (14-21%) Back problems 6% (4-8%) Arthritis 7% (5-10%) Cardiovascular 7% (5-10%) Gastrointestinal 10% (7-13%) Migraine 18% (15-22%) Obesity 13% (10-16%) Chronic pain F* Others	32% (29-35%) Back problems 16% (14-19%) Arthritis 14% (12-17%) Cardiovascular 9% (7-11%) Gastrointestinal 7% (6-9%) Respiratory 11% (9-13%) Migraine 3% (2-4%) Traumatic brain injury (TBI) effects 5% Diabetes 24% (21-26%) Obesity 28% (25-31%) Chronic pain	35% (32-37%) Back problems 22% (21-24%) Arthritis 19% (18-21%) Cardiovascular 9% (7-10%) Gastrointestinal 7% (6-9%) Respiratory 14% (13-16%) Migraine 3% (2-4%) Traumatic brain injury (TBI) effects 6% Diabetes 26% (24-28%) Obesity 2% (1-2%) Cancer 3% Urinary incontinence 34% (32-36%) Chronic pain
1+ chronic mental health condition⁶ (CI)	9% (7-12%)	17% (15-20%)	24% (22-26%)
Chronic mental health conditions	F*	12% (10-14%) Mood disorder 8% (6-10%) Anxiety disorder 8% (6-9%) Posttraumatic stress disorder (PTSD)	17% (15-19%) Mood disorder 11% (10-13%) Anxiety disorder 13% (12-15%) Posttraumatic stress disorder (PTSD)
Likely mental disorders (K10) (CI)	7% (5-9%) mild F* moderate and severe	8% (6-10%) mild F* moderate 6% (5-8%) severe	9% (7-10%) mild 5% (4-6%) moderate 8% (6-9%) severe
Both physical and mental health condition	F*	16% (14-18%)	22% (20-24%)
Past-year suicidal ideation	F*	5% (4-7%)	7% (6-8%)
SF-12 Health-related quality of life (CI)	Physical 54.1 (53.5-54.8) Mental 52.6 (51.8-53.3)	Physical 50.8 (50.1-51.4) Mental 51.1 (50.4-51.8)	Physical 47.9 (47.4-48.5) Mental 51.3 (50.8-51.8)

⁵ Physical health condition = any one of musculoskeletal condition (arthritis or back problem), cardiovascular condition (heart disease, effects of stroke or high blood pressure), gastrointestinal condition (ulcer or bowel disorder), respiratory condition (asthma or COPD chronic obstructive pulmonary disease), central nervous system condition (migraine, dementia or effects of traumatic brain injury), urinary incontinence, diabetes, cancer, obesity, hearing problem or chronic pain/discomfort.

⁶ Mood disorder (including depression), anxiety disorder, posttraumatic stress disorder (PTSD).

Characteristic or Indicator ³	Reserve Class A/B Released 2003-2012	Reserve Class C Released 2003-2012	Regular Force Released 1998-2012
Reduction of activity in a major life domain (CI)	23% (19-27%)	40% (37-43%)	49% (47-52%)
Satisfied with life (CI)	94% (91-96%)	89% (87-91%)	86% (84-87%)
Stress on most days	33% not at all/not very 17% quite a bit/extremely	29% not at all/not very 26% quite a bit/extremely	36% not at all/not very 23% quite a bit/extremely
Work stress past year	29% not at all/not very 18% quite a bit/extremely	26% not at all/not very 28% quite a bit/extremely	33% not at all/not very 22% quite a bit/extremely
Daily smoking	10%	13%	17%
Heavy drinking	32%	28%	25%
Health insurance	83% prescription drugs 75% dental insurance 68% eye glasses	88% prescription drugs 78% dental insurance 73% eye glasses	92% prescription drugs 87% dental insurance 84% eye glasses
Regular medical doctor (CI)	76% (71-79%)	78% (76-81%)	81% (79-83%)
Home care paid by government	F*	4% (3-5%)	7% (6-9%)
Home care not paid by government	F*	9% (7-11%)	8% (7-9%)
Unmet need for health care past year (CI)	12% (9-15%)	16% (14-18%)	16% (14-18%)

CI – 95% confidence interval.

*F - Sample size too small for reliable estimate.

Proportions and prevalences not adjusted for differences in age, sex and other factors.

Comparison to the General Canadian Population

Each of the groups were compared to the Canadian general population by adjusting the prevalences for the general population to fit each of the age-gender structures of the Veteran groups and using 95% confidence interval comparisons to assess statistical significance.

All three Veteran groups had similar rates of unemployment and lower rates of low income compared to the Canadian general population.

Class A/B Reserve Force Veterans were similar to Canadians with the same age-gender structure in the general population. They had higher prevalences than the general population for being married or common law and having high school and post-secondary education, and lower prevalences of having quite a bit/extreme life stress and daily smoking. They had similar prevalences to the general population for most health and well-being indicators, but had slightly higher prevalences of back problems and gastrointestinal conditions.

Class C Reserve Force Veterans were more like Regular Force Veterans than Canadians in the general population. They had lower prevalences of excellent/very good self-rated mental health and higher prevalences of arthritis, back problems, gastrointestinal problems, obesity, hearing problems, pain or discomfort, mood disorders, anxiety disorders, and activity limitations (both types). They were less often satisfied with life than Canadians in the general population.

Regular Force Veterans were least like the general Canadian population after adjusting the general population prevalences to match the age-gender structure of the Regular Force Veterans. They had lower prevalences of excellent/very good self-rated health and self-rated mental health and higher prevalences of arthritis, back problems, gastrointestinal problems,

cardiovascular disorders, migraine, obesity, hearing problems, pain or discomfort, mood disorders, anxiety disorders, and activity limitations. They less often had a strong sense of community belonging and were less often satisfied with life than Canadians in the general population, but less often had quite a bit or extreme life stress.

Regular Force Veterans Released in 1998-2007: 2010 and 2013 Surveys

Both LASS surveys in 2013 and 2010 gave similar health and well-being pictures for Regular Force Veterans who released in 1998-2007. The mean age was 44 in 2010 and 47 in 2013, consistent with the 3-year span between surveys. The proportions of women (12%) and VAC clients (34%) were the same in both studies. Prevalences were not significantly different for most chronic health conditions (prevalences within 1-2% between the two surveys), anxiety disorders (10% in 2013 vs. 11% in 2010), PTSD (11% vs. 13%) and past-year suicidal ideation (6% in both). Prevalences of most other health and well-being indicators appeared to be approximately similar. In both studies, age and sex-adjusted statistical comparisons to the Canadian general population showed that Regular Force Veterans had poorer well-being in several areas.

Regular Force Veterans Released in 2008-2012 versus 1998-2007

Regular Force Veterans who released in 2008-2012 had similar notable prevalences of health conditions and disability compared to Regular Force Veterans who released in 1998-2007. The mean age of those released in 2008-12 was 39 years, younger than those who released in 1998-2007 (47 LASS 2013). They had similar proportions of women (13% in LASS 2013). They were slightly more often single/never married (27% vs. 10%) in keeping with their younger age. They had a similar prevalence of difficult adjustment to civilian life (29% vs. 26%). Fewer had musculoskeletal conditions (39% vs. 46%), attributable in part to their younger average age. Considering their younger average age they had notable prevalences of poor self-rated health, poor self-rated mental health, physical and mental health conditions and disability assessed as both reduction of activities in major life domains and as needing help with basic and instrumental activities of daily living.

Veterans Receiving Services from VAC (VAC Clients)

Just over a third of Regular Force Veterans were receiving services from VAC (35%) while a smaller proportion of Reserve Class C Veterans were VAC clients (17%). Very few Reserve Class A/B Veterans were VAC clients (3%⁷), consistent with their younger average age and lower prevalence rates of chronic health conditions. Of Class C and Regular Force Veterans, almost all who were VAC clients had one or more chronic physical health condition (95% and 92%) and half had a mental health condition (50% and 47%) almost always complicated by a comorbid chronic physical condition (49% and 44% had co-occurring mental and physical health conditions). Both Regular Force and Reserve Class C Veterans who were VAC clients had high prevalences of chronic health conditions, as described below. Less than 10% of non-clients had comorbidity of physical and mental health conditions, demonstrating that while Veterans with more complex health conditions are largely reached by VAC programs, some are not.

In general, Reserve Class C and Regular Force VAC clients were similar. Compared to non-clients, VAC clients:

⁷ Based on data linkage of the whole sampling frame, not the survey sample: too few Class A/B respondents in the survey sample (< 30) were VAC clients to calculate a reliable estimate.

- Were older on average:
48 vs. 39 years for Reserve Class C and 48 vs. 41 years for Regular Force Veterans.
- More often had difficult adjustment to civilian life:
56% vs. 18% for Reserve Class C and 47% vs. 17% for Regular Force.
- More often were unemployed:
15% vs. 6% for Reserve Class C and 11% vs. 7% for Regular Force Veterans.
- Were not more likely to have low income:
5% vs. 9% for Regular Force Veterans.
- Were more likely to have 20 or more years of service:
39% vs. 18% for Reserve Class C and 64% vs. 39% for Regular Force Veterans.
- Much more often had service career-limiting employment limitations (medical release):
52% vs. 4% Reserve Class C and 49% vs 5% Regular Force .
- Much more often had chronic physical health conditions:
95% vs. 63% Reserve Class C and 92% vs 63% Regular Force
- Much more often had mental health conditions:
50% vs. 10% Reserve Class C and 47% vs 11% Regular Force.
- Much more often had co-occurring (comorbid) physical and mental health conditions:
49% vs. 9% for Reserve Class C and 44% vs. 9% for Regular Force.

- Were experiencing lower physical and mental health-related quality of life using the SF-12 Short Form Health Survey:
 - Physical component score 39 vs. 53 for Reserve Class C and 39 vs. 53 for Regular Force Veterans.
 - Mental component score 45 vs. 52 for Reserve Class C and 47 vs. 54 for Regular Force Veterans.
- Much more often had disability measured as activity limitations:
 - Reduction in activity in a major life domain: 93% vs. 29% for Reserve Class C and 88% vs. 28% for Regular Force Veterans.
 - Needing assistance with at least one basic or instrumental activity of daily living: 47% vs. 6% for Reserve Class C and 46% vs. 6% for Regular Force Veterans.
- More often had markers of stress, difficulty coping and satisfaction with life
 - Most days extremely/quite a bit stressful: 42% vs. 23% for Reserve Class C and 30% vs. 19% for Regular Force Veterans.
 - Work stress past year quite a bit/extreme: 39% vs. 27% for Reserve Class C and 28% vs. 20% for Regular Force Veterans.
- More often had a regular medical doctor:
90% vs. 76% for Reserve Class C and 87% vs. 77% for Regular Force Veterans.

Interpretation Guidance

- Use caution comparing the Veteran groups. Statistical analysis that accounts for confounding (differences in factors such as age, sex etc.) is required to confirm differences and similarities, and to identify reasons for differences.
- LASS 2013 was a point-in-time, cross-sectional survey, therefore causal conclusions cannot be drawn from this study alone, including effects of military service or DND/CAF/VAC programs.

- Be cautious about drawing conclusions about the presence of "risk" and "protective" factors. Inferential statistical methodology is required to control for the joint effects of characteristics and indicators on each other (confounding), and because the survey was cross-sectional then conclusions cannot be made about causal relationships.
- Findings cannot be generalized to all Veterans because the survey included only those who released in 1998-2012 (Regular Force) and 2003-2012 (Reserve Force).

Next Steps

These descriptive findings provide valuable insights into the socioeconomics, military characteristics, health, disability and well-being of CAF Primary Reserve and Regular Force Veterans. Further analyses are being planned that will deepen understanding of the health and well-being of these Veterans to inform policies, programs and services supporting CAF personnel in transition to civilian life.
