The Impact of Marital Status on Health and Wellbeing: A Canadian Study

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#### Abstract

Using survey data collected from the Canadian Community Health Survey (2016), this study examined the impact of marital status on Canadians' physical and mental health, and their sense of wellbeing. The study found that for the overall sample, being married or being divorced/separated/widowed has a significant positive impact on Canadians' health, while living in a cohabitating relationship has negative effects on health. The results also show that quantitatively, being married has a larger positive impact on physical health compared to other marital status categories. Further, being married, being in a cohabitating relationship, or being divorced/separated/widowed each have positive effects on mental health. However, quantitatively, being married has a larger positive effect on mental health compared to other marital status categories. The study further examined whether there was a gender difference in the impact of marital status and found slight differences between men and women. It found that being married has a positive effect on men and women's health, while cohabitating has a negative effect on men and women's health. Divorced/separated/widowed women are healthier while there are no statistically significant than single people, results for divorced/separated/widowed men. Onwards, women and men are both mentally healthiest when married, and also mentally healthier when cohabitating as opposed to single people. Divorced/separated/widowed women are mentally healthier than single women, and there is no statistically significant result for separated/divorced/widowed men's mental health effects. Finally, being married has a positive effect on men and women's wellbeing. Similarly, cohabitating positively affects men and women's wellbeing. There is no significant effect on wellbeing for men who are divorced/separated/widowed whereas there is a positive effect on divorced/separated/widowed women.

Keywords: Health outcomes; Gender; Marriage; Canada

#### 1. Introduction

The objective of this study is to examine impacts of marital status on physical health, mental health and wellbeing. Marital status for the purposes of this study includes being married, single, common law or divorced/separated/widowed. Several socioeconomic studies have concluded being married improves one's wellbeing, their physical health and their mental health in numerous ways.

Many existing studies examine the health benefits from marriage but fail to consider how cohabitation affects health. Since the rate at which people are choosing to cohabitate rather than marry is increasing in Canada, this study aims to compare the health benefits from being married to the benefits of cohabitation or common law. Additionally, this study draws distinctions between the health benefits from being married with health benefits from being divorced/separated/widowed so health outcomes can be measured.

Both economic and psychological benefits can result from marriage. Economically, marriage may result in two incomes and in economies of scale, ultimately improving the economic wellbeing of people who marry (Lerman, 2002). More income leads to a higher consumption level, better access to health care and lower levels of stress. Umberson (1987) argues marriage positively impacts health through marriage protective effects since marriage can protect people against poor health outcomes. The marriage protection effect hypothesis suggests that married couples monitor each other's health, they encourage healthy behaviours in each other, such as regular exercise, and they discourage harmful health behaviours, such as smoking. In addition to benefitting physical health outcomes, marriage may also lead to improvements in mental health. Burgeoning literature suggests a wide array of benefits to married adults such as emotional intimacy and support, fewer depressive symptoms and stress reductions. Physical and mental health levels have major effects on one's sense of wellbeing. The research suggests, choosing to marry, to divorce or to cohabitate with someone may affect one's current and future health, as well as their wellbeing.

Umberson (1987) finds that married men experience higher health-compromising behaviours than women, thus resulting in more harmful health outcomes. Regardless of these health behaviours, the benefits of marriage far outweigh the costs in regard to personal health. Additionally, the study found that divorced/separated/widowed women are healthier than single women, yet the health of the men who are divorced/separated/widowed is virtually unaffected. Wood, Goesling and Avellar (2007) finds that marital dissolution (divorce) typically lowers the self-rated health of men over 50 years old, while finding no relationship between marital dissolution and women's self-rated health. Using data from the U.S. National Health Interview Survey (2011-2012), Blumberg et al. (2014) found that cohabiting men were less likely to have had a health care visit in the past 12 months compared with married and non-married men. The study also found that cohabiting men were less likely to have had selected clinical preventive

services, including blood pressure checks and screenings for elevated cholesterol and diabetes. Averett et al. (2013) found that cohabitation had a positive effect on some measures of health for both men and women. However, the effects were smaller than for married couples.

This paper is structured as follows: Section 2 outlines the data and methodology employed, Section 3 presents the results and Section 4 provides the conclusions.

### 2. Data and Methodology

The empirical analyses of this study are based on data collected from the Canadian Community Health Survey 2016 (CCHS). This survey was created by joined forces of the Canadian Institute for Health Information (CIHI), Statistics Canada, and Health Canada in an effort to support health surveillance. The CCHS is a cross-sectional survey that collects information related to health status, health care utilization and health determinants for the Canadian population. We collected data from the respondents aged 18 and over from all Canadian regions.

There are three dependent variables in this study: Health, mental health and life satisfaction. These followed an ordered probit regression in the analysis. Respondents recorded the 'health' variable with categories: Poor health, fair health, good health, very good health and excellent health. Likewise, mental health was recorded on a rating from 1-5 with the same categories: Poor health, fair health, good health, very good health and excellent health. Life satisfaction measures a person's sense of wellbeing and was measured on a scale of 0-10, where 0 indicates "Very dissatisfied" and 10 indicates "Very satisfied". Independent variables in these models include: Marital status, gender, province of residence, education status, whether they owned a home, whether they were an immigrant, race, income, age, and working status. The independent variable 'gender' is a dummy variable that indicates whether a respondent is male or female, with male being the base category. The 'province' independent variable has 13 categories: Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Saskatchewan, Manitoba, Alberta, British Columbia, Yukon, Northwest Territory, Nunavut and Ontario. Ontario is the base category. The independent variable 'education' has 3 categories: Less than Secondary School graduation level, secondary school graduate, and university graduate; with less than secondary school being the base category. The dummy variable 'owned' indicates whether someone owns their house or rents their house, and owning their house is recognized as the base category. The dummy variable 'immigrant' indicates whether someone is or is not an immigrant, and 'white' is a dummy variable indicating if someone is or is not Caucasian. Independent variable 'income' includes 5 categories: Less than \$20,000, \$20,000-\$39,000, \$40,000-\$59,999, \$60,000-\$79,000, and \$80,000 or more with less than \$20,000 being the base category. The independent variable 'age' has 5 categories: 25-34 years old, 35-49 years old, 50-64 years old, 65-79 years old and 80+ years old, with 25-34 years old being the base category.

Finally, 'work' serves as a dummy variable and the base category on whether the respondent is currently working. There are 9 independent variables and 3 dependent variables in total.

Marital status includes the following categories in the study: Married, common-law, divorced/separated/widowed with the base category being single. Below, *Xi* represents the listed independent variables: Gender, province of residence, education status, whether they owned a home, whether they're an immigrant, race, income, age, and working status. The study will estimate using the following empirical models:

Health =  $\beta_0$ +  $\beta_1$ Married+  $\beta_2$ Common-Law+  $\beta_3$  Divorced/Separated/Widowed + $\beta_4$  Xi+  $\varepsilon$ Mental Health =  $\beta_0$ +  $\beta_1$ Married+  $\beta_2$ Common-Law+  $\beta_3$  Divorced/Separated/Widowed + $\beta_4$  Xi+  $\varepsilon$ Life Satisfaction=  $\beta_0$ +  $\beta_1$ Married+  $\beta_2$ Common-Law+  $\beta_3$  Divorced/Separated/Widowed + $\beta_4$  Xi+  $\varepsilon$ 

This study recognized health, mental health and wellbeing as the dependent ordered categorical variables. To examine gender differences between health, mental health, and wellbeing, this study re-estimated all of the models for males and females separately.

### 3. Results

The results shown in Table 1 indicate that married people are significantly healthier than single people. According to the data, being in a common-law relationship has significant negative health effects compared to single people and this is the case for both men and women. Being divorced/separated/widowed has significant positive health effects for women, however being divorced/separated/widowed has no significant impact on men's health. Further results in the table found Canadians living in Quebec self-rated their health higher than those in any other province, meanwhile all three territories' self-rated health scales were among the lowest in Canada. Both education and level of income have significant effects on one's health according to our data in Table 1. For both men and women, secondary school graduates, and university graduates are typically much healthier than individuals who did not graduate high school. Similarly, for every increase in level of income, health levels improved.

Table 2 displays the marginal effects of an ordered probit regression for the overall sample. Table 2 shows that being married reduces the probability of having poor health by .00272 units while it increases the probability of having excellent health by .014895 units. The table also shows that being in a cohabitating relationship reduces the probability of having excellent health by .00669829 units. Further, Table 2 shows that being divorced/separated/widowed reduces the probability of having poor health by .0017 units while it increases the probability of having excellent health by .0017 units while it increases the probability of having excellent health by .0017 units while it increases the probability of having excellent health by .0097 units. Thus, table 2 shows that being married has a quantitatively larger impact on having excellent health compared to other marital status categories. Similarly, being

married has quantitatively larger effects on reducing the probability of being in poor health compared to other marital status categories.

Table 3 shows the marginal effects for the male sample. It indicates that being married reduces the probability of being in poor health by .002 units while it increases the probability of being in excellent health by .009 units.

Table 4 shows the marginal effects for the female sample. Being married significantly decreases the probability of having poor health by .004 units while being divorced/separated/widowed significantly reduces the probability of having poor health by .009 units. Being married significantly increases the probability of having excellent health by .022 units while being divorced/separated/widowed significantly increases the probability of having excellent health by .022 units while being divorced/separated/widowed significantly increases the probability of having excellent health by .015 units.

Table 5 shows the impact of marital status on mental health for men and women. Common-law relationships positively affect mental health for both men and women. Being divorced or separated or widowed has a positive effect on women's health and no significant effect on men's health. The results also show that education, having owned a home, being an immigrant, and higher incomes have significant positive impact on mental health for both males and females. According to this analysis, mental health typically deteriorates as people get older similar to the regular health variable outcomes. There is however one exception to this decline in mental health reflected predominantly in female respondents. That is, women aged over 65 are significantly healthier than women aged between 25-34, and women aged between 65-79 have the greatest mental health compared to all other demographics. One of the largest ranges analyzed in the study is the difference in mental health between men aged over 80 and women aged over 80. There are statistically significant negative mental health effects for men aged 80 and above, whereas for women, there are statistically significant positive effects on mental health.

Table 6 shows the marginal effects of the ordered probit regression model for the overall sample. The results show that being married, being in a cohabitating relationship, and being divorced/separated/widowed increase the probability of having excellent mental health by .050, .0170, and .01774 units respectively. It means that being married has a quantitatively greater positive impact on mental health compared to other marital status categories.

Table 7 shows the marginal mental health effects for the male sample. The results suggest that being married and being in a cohabitating relationship increase the probability of being in excellent health by .053 and .020 units respectively. Thus, for males, being married has more positive impact on having excellent health compared to being in cohabitating relationship.

Table 8 shows the results of the marginal mental health effects for the female sample. The results show that being married, being in a cohabitating relationship, and being divorced/separated/widowed increase the probability of being in excellent health by .053, .017, and .022 units respectively. Thus, for females, being married has quantitatively a greater positive effect on having excellent health compared to other marital status categories.

Table 9 shows the ordered probit estimations of the impact of marital status on wellbeing. It found that being married or in a common-law relationship has a significant positive impact on one's sense of wellbeing as compared to being single for both males and females. Being divorced/separated/widowed has an insignificant impact on wellbeing in the male's sample while it has a significant positive impact on wellbeing in the male sample. Interestingly, this study found that of all the provinces, those residing in the eastern provinces (Newfoundland, PEI, and Nova Scotia) typically had the highest level of general wellbeing, and Alberta had the lowest. Level of education doesn't overwhelmingly affect someone's sense of wellbeing, although university graduates rank the highest. The data suggests owning a home has a significant positive effect on someone's wellbeing as opposed to renting. Additionally, income leads to significant positive impacts while being unemployed has significant negative effects on wellbeing.

### Conclusion

Using survey data collected from the Canadian Community Health Survey (2016), this study examined the impact of marital status on Canadians' physical and mental health, and their sense of wellbeing. The study found that for the overall sample, being married or being divorced/separated/widowed has a significant positive impact on Canadians' health, while living in a cohabitating relationship has negative effects on health. The results also show that quantitatively, being married has a larger positive impact on physical health compared to other marital status categories. Further, being married, being in a cohabitating relationship, or being divorced/separated/widowed each have positive effects on mental health. However, quantitatively, being married has a larger positive effect on mental health compared to other marital status categories. The study further examined whether there was a gender difference in the impact of marital status and found slight differences between men and women. It found that being married has a positive effect on men and women's health, while cohabitating has a negative effect on men and women's health. Divorced/separated/widowed women are healthier than single people, while there are no statistically significant results for divorced/separated/widowed men. The study found women and men are both mentally healthiest when married, and also mentally healthier when cohabitating as opposed to being single. Divorced/separated/widowed women are mentally healthier than single women, and there is no statistically significant result for separated/divorced/widowed men's mental health effects. The data found that being married has a positive effect on men and women's wellbeing, and similarly, cohabitation positively affects someone's sense of wellbeing. There is no statistically significant effect on wellbeing for men who are divorced/separated/widowed whereas there is a positive effect on divorced/separated/widowed women.

The data reveals that being married positively affects someone's physical health as shown in these results and argued by Umberson (1987) because married partners monitor each other's health. They promote healthy behaviours like medical check-ups and discourage harmful ones like smoking. Averett et. al. (2013) examined the relationship between marital status and health and found that both married men and married women had lower levels of negative health behaviours than those who were not married. The overall conclusion as reflected in our results indicate a strong relationship between marriage and physical health

The study found very similar results in self-rated mental health compared with physical health with a few critical exceptions. The data suggests married people are typically mentally healthier than single or common-law people and many studies discuss possible reasons behind this phenomenon. It is important to note that many of the economic benefits from marriage up until this point can occur from simply being in a common-law relationship. This data provides evidence for the claim that marriage can create a greater sense of mental health than common-law relationships. For example, Brown (2000) found fewer cases of depression among married people than among cohabitators. Measuring depressive symptoms is one common methods of measuring mental health. Studies suggest that marriage reduces depressive symptoms and divorce increases them (Kim and McKenry, 2002; Simon, 2002). Studies also found that adults in stable marriages had fewer depressive symptoms than unmarried adults (Marks et al., 1998; Kim and McKenry, 2002). Additionally, marriage provides emotionally fulfilling and intimate relationships as described by Wood et. al (2007).

The data reflects the notion that marriage significantly enhances someone's wellbeing. Self-identity and self-worth can be enhanced through marriage according to Gove et al. (1990), ultimately contributing to one's overall of personal wellbeing. sense Divorced/separated/widowed people tend to have similar sense of wellbeing scores as single people across both genders. Divorce however, typically has negative effects on happiness levels, and causes psychological distress following the dissolution of marriage (Johnson and Wu, 2002). This would suggest that single people also experience lower levels of life satisfaction. Depaulo and Morris (2005) speculate that one reasonable explanation behind this is society stigmatizes single people. Rather than stigmatizing single people, wellbeing levels among adults could be improved if health benefits of partnerships in marriage or common-law were encouraged. In any case, the effects of marital status on wellbeing are significant, and there is a strong link between one's sense of wellbeing and health.

One limitation of this study is it fails to test whether healthy people tend to marry, or happy people tend to marry. A correlation between being married and improved health doesn't necessarily indicate that marriage causes improvements in health. Rather, it's possible that healthier and happier people choose to marry in greater proportion than less healthy and happy people. In order to account for this limitation, longitudinal data must be considered. Future studies may address the relationship between marital status and health behaviour impacts. If being married promotes certain health behaviours and discourages unhealthy behaviours, the health benefits to marriage would be increased. Alternatively, if being married discourages healthy behaviours such as exercising because monogamous partners are not in need of a mate, health impacts could be negatively impacted.

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| Table 1: Impact of Marital Status on Heal |
|---|
|---|

| Variables                          | Overall   | Male     | Female    |
|------------------------------------|-----------|----------|-----------|
|                                    | Sample    | Sample   | Sample    |
| Married                            | 0.053***  | 0.032*** | 0.078***  |
|                                    | (0.012)   | (0.017)  | (0.016)   |
| Common Law                         | -0.025*   | -0.030   | -0.015    |
|                                    | (0.015)   | (0.022)  | (0.021)   |
| Divorced/Separated/Widow           | 0.034**   | 0.008    | 0.052***  |
|                                    | (0.014)   | (0.022)  | (0.018)   |
| Base Category: Single              |           |          |           |
| Female                             | 0.066***  |          |           |
|                                    | (0.008)   |          |           |
| Base category: Male                |           |          |           |
| Newfoundland                       | 0.058*    | 0.060*   | 0.059*    |
|                                    | (0.024)   | (0.036)  | (0.032)   |
| PEI                                | 0.024     | -0.007   | 0.040     |
|                                    | (0.029)   | (0.047)  | (0.038)   |
| Nova Scotia                        | -0.026    | -0.047*  | -0.010    |
|                                    | (0.019)   | (0.029)  | 0.026     |
| New Brunswick                      | -0.073*** | -0.086** | -0.062**  |
|                                    | (0.023)   | (0.036)  | (0.030)   |
| Quebec                             | 0.166***  | 0.196*** | 0.141***  |
|                                    | (0.011)   | (0.016)  | (0.015)   |
| Saskatchewan                       | -0.063*** | -0.055*  | -0.074*** |
|                                    | (0.019)   | (0.029)  | (0.027)   |
| Manitoba                           | -0.021    | -0.025   | -0.020    |
|                                    | (0.018)   | (0.027)  | (0.025)   |
| Alberta                            | -0.010    | -0.008   | -0.013    |
|                                    | (0.013)   | (0.019)  | (0.017)   |
| British Columbia                   | 0.007     | 0.007    | 0.007     |
|                                    | (0.013)   | (0.019)  | (0.017)   |
| Yukon                              | -0.090**  | -0.089   | -0.083    |
|                                    | (0.045)   | (0.062)  | (0.064)   |
| Northwest territory                | -0.146*** | -0.129   | -0.164**  |
|                                    | (0.054)   | (0.082)  | (0.072)   |
| Nunavut                            | -0.170*   | -0.135   | -0.214*   |
|                                    | (0.087)   | (0.124)  | (0.121)   |
| Base Category: Ontario             |           |          |           |
| Secondary School Graduate          | 0.193***  | 0.178*** | 0.203***  |
|                                    | (0.013)   | (0.020)  | (0.018)   |
| University Graduate                | 0.293***  | 0.280*** | 0.305***  |
|                                    | (0.012)   | (0.018)  | (0.017)   |
| Base Category: Less than Secondary |           |          |           |
| Owned Home                         | 0.154***  | 0.142*** | 0.165***  |
|                                    | (.010)    | (0.015)  | (0.013)   |
| Immigrant                          | 0.044***  | 0.082*** | 0.013     |
|                                    | (0.013)   | (0.019)  | (0.018)   |

| White                             | -0.002    | -0.035    | 0.026     |
|-----------------------------------|-----------|-----------|-----------|
|                                   | (0.016)   | (0.024)   | (0.022)   |
| Income: \$20000-\$39,999          | 0.226***  | 0.205***  | 0.235***  |
|                                   | (0.017)   | (0.028)   | (0.021)   |
| Income: \$40000-\$59,999          | 0.345***  | 0.343***  | 0.342***  |
|                                   | (0.017)   | (0.029)   | (0.022)   |
| Income: \$60000-\$79,999          | 0.415***  | 0.395***  | 0.426***  |
|                                   | (0.019)   | (0.030)   | (0.024)   |
| Income: \$80,000 or more          | 0.543***  | 0.536***  | 0.543***  |
|                                   | (0.018)   | (0.029)   | (0.023)   |
| Base Category: Less than \$20,000 |           |           |           |
| Age3549                           | -0.235*** | -0.228*** | -0.242*** |
|                                   | (0.012)   | (0.018)   | (0.017)   |
| Age5064                           | -0.395*** | -0.432*** | -0.363*** |
|                                   | (0.012)   | (0.018)   | (0.017)   |
| Age6579                           | -0.282*** | -0.314*** | -0.253*** |
|                                   | (0.015)   | (0.022)   | (0.020)   |
| Age 80 or more                    | -0.316*** | -0.339*** | -0.294*** |
|                                   | (0.021)   | (0.035)   | (0.027)   |
| Base Category: Age 25-34          |           |           |           |
| Working                           | 0.275***  | 0.298***  | 0.254***  |
|                                   | (0.010)   | (0.015)   | (0.013)   |
|                                   |           |           |           |
| Cut_1                             | -1.311    | -1.400    | -1.303    |
|                                   | (0.026)   | (0.039)   | (0.034)   |
| Cut_2                             | -0.511    | -0.592    | -0.509    |
|                                   | (0.025)   | (0.038)   | (0.033)   |
| Cut_3                             | 1.548     | 0.424     | 0.477     |
|                                   | (0.026)   | (0.038)   | (0.033)   |
| Cut_4                             | 1.548     | 1.481     | 1.542     |
|                                   | (0.026)   | (0.039)   | (0.034)   |
|                                   |           |           |           |

|                     | Poor Health | Fair Health | Good     | Very Good | Excellent   |
|---------------------|-------------|-------------|----------|-----------|-------------|
|                     |             |             | Health   | Health    | Health      |
| Married             | -0.0027***  | -0.007      | 010595   | .0056734  | .0148945*** |
|                     | (0.0006)    | (0.002)     | (.00236) | (.00126)  | (.00332)    |
| Common Law          | 0.0013      | 0.0034      | .0049741 | 0027731   | 0069829*    |
|                     | (0.0008)    | (0.0021)    | (.00297) | (.00171)  | (.00416)    |
| Divorced/Separated/ | -0.0017***  | -0.0047     | 0069377  | .0035992  | .0097622*** |
| Widow               | (0.0007)    | (0.0018)    | (.00273) | (.00137)  | (.00385)    |

Table 2: Marginal Effects After Ordered Probit (Health Model- overall sample)

|                           | Poor Health | Fair Health | Good    | Very Good | Excellent |
|---------------------------|-------------|-------------|---------|-----------|-----------|
|                           |             |             | Health  | Health    | Health    |
| Married                   | -0.002*     | -0.004*     | -0.006* | 0.003**   | 0.009**   |
|                           | (0.001)     | (0.002)     | (0.003) | (0.002)   | (0.005)   |
| Common Law                | 0.002       | 0.004       | 0.006   | -0.003    | -0.008    |
|                           | (0.001)     | (0.003)     | (0.004) | (0.003)   | (0.006)   |
| Divorced/Separated/ Widow | -0.000      | -0.001      | -0.002  | 0.001     | 0.002     |
|                           | (0.001)     | (0.003)     | (0.004) | (0.002)   | (0.006)   |

Table 3: Marginal Effects After Ordered Probit (Health Model- Male sample)

| Poor Health | Fair Health   | Good   | Very Good   | Excellent  |
|-------------|---|--|---|--|
|             |   | Health   | Health  | Health   |
| -0.004***   | -0.011***   | -0.015***  | 0.008***  | 0.022***   |
| (0.001)     | (0.002)   | (0.003)  | (0.002)   | (0.005)  |
| 0.001       | 0.002   | 0.003  | -0.002  | -0.004   |
| (0.001)     | (0.003)   | (0.004)  | (0.002)   | (0.006)  |
| -0.003***   | -0.007  | -0.010***  | 0.005***  | 0.015***   |
| (0.001)     | (0.003)   | (0.004)  | (0.002)   | (0.005)  |
|             | Poor Health<br>-0.004***<br>(0.001)<br>0.001<br>(0.001)<br>-0.003***<br>(0.001) | Poor Health Fair Health   -0.004*** -0.011***   (0.001) (0.002)   0.001 0.002   (0.001) (0.003)   -0.003*** -0.007   (0.001) (0.003) | Poor Health Fair Health Good<br>Health   -0.004*** -0.011*** -0.015***   (0.001) (0.002) (0.003)   0.001 0.002 0.003   (0.001) (0.003) (0.004)   -0.003*** -0.007 -0.010***   (0.001) (0.003) (0.004) | Poor Health Fair Health Good<br>Health Very Good<br>Health   -0.004*** -0.011*** -0.015*** 0.008***   (0.001) (0.002) (0.003) (0.002)   0.001 0.002 0.003 -0.002   (0.001) (0.003) (0.004) (0.002)   -0.003*** -0.007 -0.010*** 0.005***   (0.001) (0.003) (0.004) (0.002) |

Table 4: Marginal Effects After Ordered Probit (Health Model- Female sample)

| Variables                          | Overall   | Male      | Female    |
|------------------------------------|-----------|-----------|-----------|
|                                    | Sample    | Sample    | Sample    |
| Married                            | 0.140***  | 0.146***  | 0.151***  |
|                                    | (0.012)   | (0.017)   | (0.017)   |
| Common Law                         | 0.047***  | 0.056**   | 0.049**   |
|                                    | (0.015)   | (0.022)   | (0.022)   |
| Divorced/Separated/ Widow          | 0.049***  | 0.003     | 0.062***  |
|                                    | (0.014)   | (0.021)   | (0.018)   |
| Base Category: Single              |           |           |           |
| Female                             | -0.046*** |           |           |
|                                    | (0.008)   |           |           |
| Base category: Male                |           |           |           |
| Newfoundland                       | 0.089***  | 0.053     | 0.119***  |
|                                    | (0.025)   | (0.036)   | (0.033)   |
| PEI                                | 0.022     | 0.018     | 0.021     |
|                                    | (0.029)   | (0.045)   | (0.038)   |
| Nova Scotia                        | -0.032*   | -0.050*   | -0.017    |
|                                    | (0.019)   | (0.030)   | (0.026)   |
| New Brunswick                      | -0.081*** | -0.089**  | -0.075**  |
|                                    | (0.023)   | (0.036)   | (0.030)   |
| Quebec                             | 0.197***  | 0.216***  | 0.181***  |
|                                    | (0.011)   | (0.017)   | (0.012)   |
| Saskatchewan                       | -0.074*** | -0.082*** | -0.072*** |
|                                    | (0.020)   | (0.030)   | (0.028)   |
| Manitoba                           | -0.060*** | -0.067**  | -0.059**  |
|                                    | (0.019)   | (0.028)   | (0.025)   |
| Alberta                            | -0.025*   | -0.022    | -0.030*   |
|                                    | (0.013)   | (0.020)   | (0.018)   |
| British Columbia                   | -0.035*** | -0.036*   | -0.034*   |
|                                    | (0.013)   | (0.020)   | (0.018)   |
| Yukon                              | -0.101**  | -0.231*** | 0.019     |
|                                    | (0.045)   | (0.067)   | (0.062)   |
| Northwest territory                | -0.072    | -0.095    | -0.044    |
|                                    | (0.056)   | (0.077)   | (0.081)   |
| Nunavut                            | -0.167*   | -0.199*   | -0.131    |
|                                    | (0.087)   | (0.118)   | (0.130)   |
| Base Category: Ontario             |           |           |           |
| Secondary School Graduate          | 0.161***  | 0.155***  | 0.163***  |
|                                    | (0.014)   | (0.020)   | (0.019)   |
| University Graduate                | 0.206***  | 0.202***  | 0.213***  |
|                                    | (0.0122)  | (0.018)   | (0.017)   |
| Base Category: Less than Secondary |           |           |           |
| Owned Home                         | 0.074***  | 0.065***  | 0.083***  |
|                                    | (0.010)   | (0.016)   | (0.014)   |
| Immigrant                          | 0.060***  | 0.071***  | 0.051***  |
|                                    | (0.013)   | (0.020)   | (0.018)   |

# Table 5: Impact of Marital Status on Mental Health

| White                             | -0.027*** | -0.085*** | -0.064*** |
|-----------------------------------|-----------|-----------|-----------|
|                                   | (0.006)   | (0.025)   | (0.023)   |
| Income: \$20000-\$39,999          | 0.234***  | 0.229***  | 0.241***  |
|                                   | (0.017)   | (0.028)   | (0.021)   |
| Income: \$40000-\$59,999          | 0.352***  | 0.361***  | 0.353***  |
|                                   | (0.018)   | (0.029)   | (0.023)   |
| Income: \$60000-\$79,999          | 0.397***  | 0.415***  | 0.389***  |
|                                   | (0.019)   | (0.030)   | (0.024)   |
| Income: \$80,000 or more          | 0.503***  | 0.535***  | 0.478***  |
|                                   | (0.179)   | (0.029)   | (0.023)   |
| Base Category: Less than \$20,000 |           |           |           |
| Age3549                           | -0.100*** | -0.139*** | -0.070*** |
|                                   | (0.127)   | (0.019)   | (0.017)   |
| Age5064                           | -0.058*** | -0.121*** | -0.004*** |
|                                   | (0.013)   | (0.019)   | (0.017)   |
| Age6579                           | 0.112***  | 0.006     | 0.197***  |
|                                   | (0.014)   | (0.021)   | (0.019)   |
| Age 80 or more                    | 0.035*    | -0.170*** | 0.169***  |
|                                   | (0.020)   | (0.033)   | (0.026)   |
| Base Category: Age 25-34          |           |           |           |
| Looking                           | -0.153*** | -0.155*** | -0.158*** |
|                                   | (0.025)   | (0.032)   | (0.039)   |
| Cut_1                             | -1.756    | -1.825    | -1.646    |
|                                   | (0.028)   | (0.042)   | (0.037)   |
| Cut_2                             | -0.967    | -1.034    | -0.858    |
|                                   | (0.026)   | (0.039)   | (0.035)   |
| Cut_3                             | 0.039     | -0.019    | 0.146     |
|                                   | (0.026)   | (0.039)   | (0.034)   |
| Cut_4                             | 1.046     | 0.972     | 1.168     |
|                                   | (0.026)   | (0.039)   | (0.034)   |
|                                   |           |           |           |

| Ŭ                   |             |             |             | 1 /         |            |
|---------------------|-------------|-------------|-------------|-------------|------------|
|                     | Poor Health | Fair Health | Good Health | Very Good   | Excellent  |
|                     |             |             |             | Health      | Health     |
| Married             | -0.00343*** | -0.01274*** | -0.03135*** | -0.00324*** | 0.05076*** |
|                     | (0.00031)   | (0.00111)   | (0.00270)   | (0.00035)   | (0.00436)  |
| Common Law          | -0.00110*** | -0.00416*** | -0.01047*** | -0.00134**  | 0.01707*** |
|                     | (0.00035)   | (0.00133)   | (0.00343)   | (0.00054)   | (0.00564)  |
| Divorced/Separated/ | -0.00116*** | -0.00437*** | -0.01091*** | -0.00131*** | 0.01774*** |
| Widow               | (0.00032)   | (0.00122)   | (0.00309)   | (0.00044)   | (0.00506)  |

Table 6: Marginal Effects After Ordered Probit (Mental Health Model- overall sample)

|                     | Poor Health | Fair Health | Good Health | Very Good   | Excellent  |
|---------------------|-------------|-------------|-------------|-------------|------------|
|                     |             |             |             | Health      | Health     |
| Married             | -0.00325*** | -0.01262*** | -0.03273*** | -0.00518*** | 0.05377*** |
|                     | (0.00042)   | (0.00154)   | (0.00393)   | (0.00067)   | (0.00642)  |
| Common Law          | -0.00117*** | -0.00467*** | -0.01251**  | -0.00243**  | 0.02079**  |
|                     | (0.00044)   | (0.00179)   | (0.00491)   | (0.00112)   | (0.00824)  |
| Divorced/Separated/ | -0.00006    | -0.00024    | -0.00063    | -0.00010    | 0.00104    |
| Widow               | (0.00047)   | (0.00183)   | (0.00477)   | (0.00078)   | (0.00785)  |
|                     |             |             |             |             |            |

Table 7: Marginal Effects After Ordered Probit (Mental Health Model- Male sample)

|                     |             |             |             |             | -1         |
|---------------------|-------------|-------------|-------------|-------------|------------|
|                     | Poor Health | Fair Health | Good        | Very Good   | Excellent  |
|                     |             |             | Health      | Health      | Health     |
| Married             | -0.00393*** | -0.01421*** | -0.03369*** | -0.00190*** | 0.05373*** |
|                     | (0.00046)   | (0.00159)   | (0.00375)   | (0.00039)   | (0.00600)  |
| Common Law          | -0.00124**  | -0.00457**  | -0.01104**  | -0.00084    | 0.01769**  |
|                     | (0.00052    | (0.00194)   | (0.00481)   | (0.00053)   | (0.00779)  |
| Divorced/Separated/ | -0.00158*** | -0.00578*** | -0.01384*** | -0.00093**  | 0.02213*** |
| Widow               | (0.00046)   | (0.00169)   | (0.00413)   | (0.00038)   | (0.00664)  |
|                     |             |             |             |             |            |

Table 8: Marginal Effects After Ordered Probit (Mental Health Model- Female sample)

|                                    | 0         |          |           |
|------------------------------------|-----------|----------|-----------|
| Variables                          | Overall   | Male     | Female    |
|                                    | Sample    | Sample   | Sample    |
| Married                            | 0.288***  | 0.307*** | 0.278***  |
|                                    | (0.011)   | (0.017)  | (0.016)   |
| Common Law                         | 0.177***  | 0.191*** | 0.168***  |
|                                    | (0.014)   | (0.021)  | (0.020)   |
| Divorced/Separated/ Widow          | 0.024*    | -0.008   | 0.032*    |
|                                    | (0.013)   | (0.021)  | (0.017)   |
| Base Category: Single              |           |          |           |
| Female                             | 0.098***  |          |           |
|                                    | (0.008)   |          |           |
| Base category: Male                |           |          |           |
| Newfoundland                       | 0.202***  | 0.189*** | 0.211***  |
|                                    | (0.027)   | (0.039)  | (0.037)   |
| PEI                                | 0.135***  | 0.135*** | 0.129***  |
|                                    | (0.030)   | (0.047)  | (0.040)   |
| Nova Scotia                        | 0.052***  | 0.067**  | 0.040     |
|                                    | (0.020)   | (0.031)  | (0.027)   |
| New Brunswick                      | 0.076***  | 0.053    | 0.092***  |
|                                    | (0.024)   | (0.037)  | (0.032)   |
| Quebec                             | 0.097***  | 0.123*** | 0.076***  |
|                                    | (0.011)   | (0.016)  | (0.014)   |
| Saskatchewan                       | 0.054***  | 0.067**  | 0.042     |
|                                    | (0.020)   | (0.028)  | (0.027)   |
| Manitoba                           | -0.006    | 0.012    | -0.021    |
|                                    | (0.019)   | (0.028)  | (0.025)   |
| Alberta                            | -0.049*** | -0.035*  | -0.062*** |
|                                    | (0.013)   | (0.019)  | (0.017)   |
| British Columbia                   | -0.028**  | -0.016   | -0.037**  |
|                                    | (0.123)   | (0.018)  | (0.017)   |
| Yukon                              | -0.025    | -0.031   | -0.015    |
|                                    | (0.042)   | (0.065)  | (0.055)   |
| Northwest territory                | -0.022    | -0.016   | -0.023    |
|                                    | (0.055)   | (0.076)  | (0.081)   |
| Nunavut                            | -0.057    | 0.028    | -0.161*   |
|                                    | (0.072)   | (0.109)  | (0.086)   |
| Base Category: Ontario             |           |          |           |
| Secondary School Graduate          | 0.011     | -0.001   | 0.019     |
|                                    | (0.014)   | (0.021)  | (0.019)   |
| University Graduate                | 0.023**   | 0.034*   | 0.012     |
|                                    | (0.013)   | (0.019)  | (0.018)   |
| Base Category: Less than Secondary |           |          |           |
| Owned Home                         | 0.153***  | 0.179*** | 0.134***  |
|                                    | (0.010)   | (0.015)  | (0.013)   |
| Immigrant                          | -0.021*   | -0.011   | -0.030*   |
|                                    | (0.013)   | (0.019)  | (0.017)   |

## Table 9: Impact of Marital Status on Wellbeing

| White                             | 0.044***  | 0.044**   | 0.043**   |
|-----------------------------------|-----------|-----------|-----------|
|                                   | (0.015)   | (0.023)   | (0.021)   |
| Income: \$20000-\$39,999          | 0.183***  | 0.148***  | 0.207***  |
|                                   | (0.017)   | (0.029)   | (0.022)   |
| Income: \$40000-\$59,999          | 0.308***  | 0.290***  | 0.325***  |
|                                   | (0.018)   | (0.029)   | (0.023)   |
| Income: \$60000-\$79,999          | 0.358***  | 0.345***  | 0.372***  |
|                                   | (0.019)   | (0.030)   | (0.024)   |
| Income: \$80,000 or more          | 0.485***  | 0.491***  | 0.478***  |
|                                   | (0.018)   | (0.029)   | (0.023)   |
| Base Category: Less than \$20,000 |           |           |           |
| Age3549                           | -0.198*** | -0.202*** | -0.196*** |
|                                   | (0.012)   | (0.017)   | (0.016)   |
| Age5064                           | -0.194*** | -0.226*** | -0.169*** |
|                                   | (0.012)   | (0.017)   | (0.016)   |
| Age6579                           | -0.027**  | -0.068*** | -0.000    |
|                                   | (0.013)   | (0.020)   | (0.018)   |
| Age 80 or more                    | 0.057***  | -0.017    | 0.095***  |
|                                   | (0.021)   | (0.035)   | (0.027)   |
| Base Category: Age 25-34          |           |           |           |
| Looking                           | -0.289*** | -0.283*** | -0.302*** |
|                                   | (0.023)   | (0.030)   | (0.035)   |
| Cut_1                             | -2.357    | -2.423    | -2.406    |
|                                   | (0.035)   | (0.053)   | (0.045)   |
| Cut_2                             | -1.984    | -2.052    | -2.033    |
|                                   | (0.029)   | (0.044)   | (0.038)   |
| Cut_3                             | -1.682    | -1.725    | -1.749    |
|                                   | (0.027)   | (0.041)   | (0.035)   |
| Cut_4                             | -1.390    | -1.420    | -1.466    |
|                                   | (0.026)   | (0.039)   | (0.034)   |
|                                   |           |           |           |