

Report

ANALYSIS OF DEPRESSION IN QUEBEC DURING COVID-19 CRISIS

PRESENTED BY



IN COLLABORATION WITH

Douglas
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Leger

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(Nathan Denette, *The Canadian Press*, May 1, 2020)

METHODOLOGY



Web survey using computer-assisted Web interviewing (CAWI) technology.



From May 1st to May 6th, 2020



1,638 Quebec residents including oversample of English-speakers (637 total), 18 years or older, randomly recruited from LEO's online panel.



Using data from the 2016 Census, results were weighted according to gender, age, mother tongue, region, education level and presence of children in the household in order to ensure a representative sample of the Quebec population.



No margin of error can be associated with a non-probability sample (Web panel in this case). However for comparative purposes, a probability sample of 1,638 respondents would have a margin of error of $\pm 2.42\%$, 19 times out of 20.

The research results presented here are in full compliance with the CRIC Public Opinion Research Standards and Disclosure Requirements.

METHODOLOGY

Notes on Reading this Report

The numbers presented have been rounded up. However, the numbers before rounding were used to calculate the sums presented and might therefore not correspond to the manual addition of these numbers.

Data in bold **RED** characters indicate a significantly different proportion than that of other respondents.

The Patient Health Questionnaire (PHQ-8) was administered to the Quebec population from May 1 -6, 2020 and is based on the following eight items: Over the last two weeks, how often have you been bothered by any of the following problems: (1) Little interest or pleasure in doing things, (2) Feeling down, depressed or hopeless, (3) Trouble falling or staying asleep or sleeping too much, (4) Feeling tired or having little energy, (5) Poor appetite or overeating, (6) Feeling bad about yourself or thinking that you are a failure or have let yourself or your family down, (7) Trouble concentrating on things such as reading the newspaper or watching television, (8) Being so fidgety or restless that you have been moving around a lot more than usual.

Item responses were coded as 0 = Not at all, 1 = Several days, 2 = More than half the days, 3 = Nearly every day. The PHQ-8 score is computed by adding up all eight items (range 0 to 24). Only those individuals who responded to six or more items were assigned scores. The scale items showed great reliability with a Cronbach's alpha = .914.

If you have questions about the data presented in this report, please contact Paul Holley, Research Director at the Association for Canadian Studies at paul.holley@acs-aec.ca or Jack Jedwab, President & CEO of the Association for Canadian Studies at jack.jedwab@acs-aec.ca.

Females are having more trouble sleeping, feel tired and have poor eating habits during Covid-19 pandemic

Over the last 2 weeks, how often have you been bothered by any of the following problems? (% Nearly every day or more than half the days)	Sex		
	Male	Female	Total
Little interest or pleasure in doing things	16.5%	17.3%	16.9%
Feeling down, depressed or hopeless	11.3%	14.7%	13.0%
Trouble falling or staying asleep or sleeping too much	19.3%	29.8%	24.7%
Feeling tired or having little energy	18.4%	25.4%	22.0%
Poor appetite or overeating	15.3%	22.2%	18.8%
Feeling bad about yourself or thinking that you are a failure or have let you/your family down	10.8%	10.5%	10.6%
Trouble concentrating on things such as reading the newspaper or watching television	11.3%	13.5%	12.4%
Being so fidgety or restless that you have been moving around a lot more than usual	12.6%	12.8%	12.7%

Younger persons (age 18 to 34) show higher risk for depression on *all measures of the PHQ-8*

Over the last 2 weeks, how often have you been bothered by any of the following problems? (% Nearly every day or more than half the days)	Age Group		
	18-34	35-54	55+
Little interest or pleasure in doing things	23.1%	20.5%	10.1%
Feeling down, depressed or hopeless	19.1%	15.9%	6.9%
Trouble falling or staying asleep or sleeping too much	33.4%	30.0%	14.8%
Feeling tired or having little energy	29.0%	26.5%	13.8%
Poor appetite or overeating	27.2%	21.8%	11.2%
Feeling bad about yourself or thinking that you are a failure or have let you/your family down	19.3%	12.6%	3.6%
Trouble concentrating on things such as reading the newspaper or watching television	16.7%	12.6%	9.5%
Being so fidgety or restless that you have been moving around a lot more than usual	18.8%	14.3%	7.6%

Montreal residents more likely to show signs of depression than the Rest of Quebec

Over the last 2 weeks, how often have you been bothered by any of the following problems? (% Nearly every day or more than half the days)	Quebec Region		
	MTL	QC	ROQ
Little interest or pleasure in doing things	19.0%	11.0%	15.7%
Feeling down, depressed or hopeless	13.9%	11.7%	12.2%
Trouble falling or staying asleep or sleeping too much	25.5%	25.6%	23.4%
Feeling tired or having little energy	24.4%	12.3%	21.4%
Poor appetite or overeating	22.2%	13.5%	15.9%
Feeling bad about yourself or thinking that you are a failure or have let you/your family down	11.5%	7.4%	10.4%
Trouble concentrating on things such as reading the newspaper or watching television	14.8%	9.2%	10.1%
Being so fidgety or restless that you have been moving around a lot more than usual	13.9%	6.7%	12.7%

Demographics	PHQ-8 score of 10 or higher	PHQ-8 score of 5 to 9
Total	19.2%	20.9%
Sex		
Male	16.7%	18.1%
Female	21.6%	23.6%
Age Group		
18 to 24	37.8%	26.8%
25 to 34	24.1%	29.7%
35 to 44	22.0%	24.3%
45 to 54	22.3%	21.9%
55 to 64	14.0%	16.7%
65 and over	7.9%	13.0%
Visible Minority		
Yes	24.7%	27.0%
No	18.5%	20.3%
Language		
English	19.4%	23.4%
French	18.0%	19.9%
Other	17.2%	32.3%
Multiple	30.8%	20.3%
Immigrant Status		
Yes	23.1%	21.5%
No	18.6%	20.9%

- 22% of females and 17% of males in Quebec show moderate to severe signs of depression (PHQ-8 score of 10+). National studies using data from the Canadian Community Health Survey (CCHS 2015/16) have shown the rate of depression to be 5% for males and 9% for females. Another 24% of females and 18% of males also show mild depressive symptoms (PHQ-8 score of 5 to 9).
- 38% of youth ages 18 to 24 in Quebec show moderate to severe depressive symptoms. This rate is 3.5 times higher than found in previous studies (CCHS 2015/16) where only 11% of youth in this age group showed moderate to severe depression. 30% of those age 35 to 44 show mild depressive symptoms.
- Visible minorities (25%), persons who speak multiple languages (31%) and immigrants (23%) also show higher rates of depression than other groups.

Family & Geography	PHQ-8 score of 10 or higher	PHQ-8 score of 5 to 9
Total	19.2%	20.9%
Marital Status		
Single	31.1%	26.3%
Married	13.0%	16.8%
Common law	16.0%	21.6%
Divorced, Widowed or Separated	13.4%	18.0%
Children in Household		
Yes	21.8%	24.1%
No	18.4%	19.9%
Quebec Region		
Montreal	21.8%	21.4%
Quebec City	11.7%	25.8%
Other Quebec Region	17.9%	19.0%

- Single people are the most depressed during the Covid-19 pandemic with 31% showing moderate to severe depression and another 26% showing mild symptoms of depression.
- Parents with children under the age of 18 in the household also show slightly higher rates of mild depression (24%) relative to households without children (20%).

In terms of geography, residents of Montreal show the highest rates of moderate to severe depression (22%) while residents of Quebec City are more likely to be experiencing mild to moderate depression (26%) during the Covid-19 pandemic.

Socioeconomic Status	PHQ-8 score of 10 or higher	PHQ-8 score of 5 to 9
Total	19.2%	20.9%
Income		
\$19,999 or less	27.3%	28.9%
Between \$20,000 and \$39,999	24.3%	19.6%
Between \$40,000 and \$59,999	22.5%	17.9%
Between \$60,000 and \$79,999	17.0%	21.3%
\$80,000 or more	16.0%	22.3%
Education		
High school or less	20.5%	23.4%
Postsecondary certificate or diploma	18.6%	18.6%
University bachelors degree	19.0%	24.0%
University master's or PhD	13.6%	21.2%
Work Status		
Worker	22.0%	22.1%
Non Worker	16.0%	19.6%

- Persons living in low-income (below \$20,000 per year) show the highest rate of depressive symptoms – both mild (29%) and moderate to severe (27%) depression.
- Moderate to severe depression appears to follow a linear pattern with education: as education level increase, the risk of moderate to severe depression decreases.
- University graduates, however, have the highest rate of mild depression (24%).

Those who are currently employed in the labour force have higher rates of moderate to severe depression (22%) than those out of the labour force, including homemakers and retirees (16%).

DV: PHQ-8 Score (Continuous)		Coefficients			
Predictors	B	S.E.	Std. Beta	t	Sig.
Fear					
Are you personally afraid of contracting the Coronavirus (1=not afraid at all ... 4=very afraid)	1.260	0.169	0.180	7.460	0.000
Finances					
Lost job and pay permanently	4.901	0.930	0.125	5.268	0.000
Lost job and pay temporarily	-0.058	0.389	-0.004	-0.149	0.882
Lost some pay/income from work	1.034	0.449	0.055	2.302	0.021
No impact on job/not applicable (ref.)					
Demographics					
Age (in years)	-0.093	0.008	-0.274	-11.010	0.000
Sex (1=female, 0=male)	1.244	0.279	0.107	4.467	0.000
Visible minority (1=yes, 0=no)	0.237	0.454	0.013	0.521	0.603
Highest level of education					
High school or less (ref.)					
Post-secondary certificate or diploma	-0.971	0.320	-0.083	-3.034	0.002
University bachelor's degree	-0.844	0.440	-0.051	-1.917	0.055
University master's degree or higher	-1.586	0.600	-0.067	-2.645	0.008
Constant	6.104	0.664		9.196	0.000

R-Square (Adj.) = .136

F (8,1451) = 25.684

The results presented above correspond to a Regression Analysis using the continuous PHQ-8 scale measure as the dependent variable (range 0 to 24). According to the findings, fear of contracting the virus is strongly associated with increased mental health problems (B=1.260, SE=.169) as is permanent job loss (B=4.901, SE=.930) during the Covid-19 pandemic, even after controlling for age, sex, ethnicity and educational attainment.