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# PERSPECTIVES

EFFICIENCY AT THE HEART OF THE QUEBEC HEALTH CARE SYSTEM

## The negative effects that restrictive measures have on mental health during health crises

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The public health measures put in place in times of a health crisis, while necessary to protect the health of the most vulnerable, have an impact on the living and working habits of a large number of individuals. These include impacts on their physical, mental and social well-being, which can influence work productivity and employment status. A CIRANO study (Cissé et al. 2024) shows that the harm experienced from restrictive measures was significant during the COVID-19 pandemic in Quebec, and persisted over the medium term. Health-related quality of life (HRQoL), in particular, deteriorated for those who were working, and the challenges in reconciling family and working life appear to have worsened. This points to the importance of workplaces taking mental health into account.

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. At the time, there were 118,319 confirmed cases since its onset, including 4,292 deaths worldwide (WHO, 2020). The pandemic dealt an economic blow. The various measures taken to halt the spread of the disease left economic consequences, due to the constraints on the market economy. As early as March 2020, the United Nations Conference on Trade and Development (UNCTAD) predicted a drop in annual worldwide growth to below 2.5%, the threshold for recession in the global economy (UN, 2020).

At the time, no long-lasting, effective treatment existed. To combat the spread of the virus, governments were forced to introduce restrictive measures: curfews, a halt to certain economic—especially commercial—activities, confinement, proof of vaccination, and so on. These measures disrupted people's daily lives and changed the way they work. According to the OECD, the COVID-19 pandemic was the source of "one of the greatest employment crises since the Great Depression," with the average unemployment rate in member countries rising from 5.31% in December 2019 to 8.81% in April 2020. As such, the OECD called on its member countries to ensure that this job crisis would not turn into a "social crisis" (OECD, 2020).

## Containment measures have led to significant variations in employment levels

In Quebec, as in other provinces, states and countries around the world, physical distancing measures and restrictions on businesses—both in their implementation and withdrawal—made a significant impact on the labour market. Between February and April 2020, 825,900 jobs were lost and the unemployment rate reached an all-time high, rising from 4.5% to 17.6% (ISQ, 2021). Thanks to the efforts of the various levels of government to turn the economy around, the Quebec job market in 2021 grew by 4.1% from its 2020 numbers, experiencing 169,400 new jobs. These efforts continued in 2022, offsetting the rise in the number of unemployed observed in 2020. As a result, in 2022, the unemployment rate fell to its lowest level since 1976, to 4.3% (ISQ, 2023).

### Data

Our study is based on data from a series of seven survey cycles conducted between March 2020 and June 2022, covering the key moments in the management of the pandemic. Cycle 6, conducted between July and September 2021, and cycle 7, conducted between April and June 2022, are the most relevant for our analyses. Quota stratification by age, gender and level of education enabled us to target a population representative of the general population, aged 18 and over and living in Quebec. Overall, the characteristics of survey participants are relatively similar to those of the Quebec population, with differences in terms of average age (slightly higher) and levels of education (more university-educated).

The number of respondents varies little from one cycle to the next, the objective being to reach around 1,500 respondents per cycle, in order to achieve a representative sample. The number of potential respondents was gradually increased over the course of the surveys to compensate for non-respondents and ensure a certain sample size. For all seven cycles, 17,062 observations are available.

The employment histories of our survey participants show significant variation in employment levels over time. These variations often coincide with those observed at the provincial level. For example, after a drop in employment levels in April 2020, at the time of the first confinement, by May 2020, respondents' employment levels rose sharply, as did at the provincial level. On May 5, 2020, containment measures were gradually lifted, with the full reopening of the construction industry and the partial reopening of manufacturing, as well as the resumption of commercial and leisure activities.

From November 2020 onwards, we see a decline in the level of employment among participants, with employment at its lowest level in January 2021, consistent with Quebec-wide statistics. A significant rise in employment is observed in May 2021, the highest increase during the study period. It was on May 18, 2021, when half the Quebec population had been vaccinated. Restrictions were gradually lifted at the end of May 2021 and continued afterwards, with employment levels rising and falling.

We were interested in the determinants of job fluctuations during the period. Three quarters of participants had not changed jobs. Just over half of those who changed jobs experienced only one change in employment during the entire period. Estimation results from a Probit regression model show that women were more likely to change jobs during the health crisis. We also found an inverted-U relationship with respondent age. Thus, the older the individual, the greater the probability that they would change employer during the pandemic. However, for those 59 and over, the probability of changing decreased. Among those who were employed, 23% found that reconciling work and family became increasingly difficult. That challenge was even more prevalent among those who remained in the same job: 35% versus 14% among those who had changed jobs at least once.

## Containment measures have had negative effects on health-related quality of life

Larger economic issues aside, confinement has affected many people’s lives and work routines. They have also had an impact on their health-related quality of life (HRQoL)(Poder et al. 2021). Our measure of HRQoL is based on the so-called “indirect” method of calculation, using three indicators. Survey respondents were asked specific questions for each of the indicators’ components.

The **CORE-6D** (Clinical Outcomes in Routines Evaluation Six-Dimension) is the HRQoL indicator that best measures people’s mental health. It takes into account six dimensions of mental health: loneliness, terror, humiliation, abilities, suicidal ideation and physical

symptoms. The **SF-6Dv2** (Short Form Six-Dimension second version) also takes into account six dimensions: physical functioning, role limitations, social functioning, pain, mental health and vitality. Finally, the five dimensions of the **EQ-5D-5L** (EuroQol Five-Dimension Five-Level) are mobility, autonomy, daily activities, pain or discomfort, and anxiety or depression. A score approaching 1 corresponds to perfect health, while a score of 0 corresponds to death. A negative score corresponds to a situation considered worse than death.

The mean scores for CORE-6D, SF-6Dv2 and EQ-5D-5L across all cycles are 0.742, 0.722 and 0.827, respectively. For the CORE-6D and SF-6Dv2 (but not for the EQ-5D-5L), mean scores are slightly higher in cycles 6 and 7 compared to those in cycles 1 to 5. This result may be linked to the easing of measures as the virus evolved, since cycles 6 and 7 took place after major containment periods.

|                 | ALL CYCLES | CYCLES 1 TO 5<br>MARCH 2020 TO JUNE 2021 | CYCLES 6 TO 7<br>JULY 2021 TO JUNE 2022 |            |          |
|-----------------|------------|--|---|------------|----------|
|                 |            |  | ALL                                     | UNEMPLOYED | EMPLOYED |
| <b>CORE-6D</b>  |            |  |   |            |          |
| N               | 11,313     | 7,477                                    | 3,836                                   | 1,649      | 2,187    |
| SCORE           | 0.742      | 0.740                                    | 0.745                                   | 0.789      | 0.712    |
| <b>SF-6DV2</b>  |            |  |   |            |          |
| N               | 13,043     | 9,196                                    | 3,847                                   | 1,655      | 2,192    |
| SCORE           | 0.722      | 0.715                                    | 0.739                                   | 0.717      | 0.756    |
| <b>EQ-5D-5L</b> |            |  |   |            |          |
| N               | 11,332     | 7,491                                    | 3,841                                   | 1,651      | 2,190    |
| SCORE           | 0.827      | 0.830                                    | 0.821                                   | 0.810      | 0.830    |

**Average score for health-related quality-of-life indicators, March 2020 to June 2022 (Cissé et al., 2024)**

Average scores for health-related quality-of-life indicators differed depending on whether the person was employed or unemployed at the time of the survey. For SF-6Dv2 and EQ-5D-5L scores, employed participants score higher on average than unemployed ones. The opposite is true for CORE-6D scores. It is important to note that the CORE-6D is the HRQoL indicator that best measures mental health. Individuals who were employed during this period therefore had

poorer mental health than those who were unemployed, according to the results of our descriptive analyses. These findings are in line with other results from our study measuring people’s psychological state, which found that employed participants report higher levels of symptoms of depression, anxiety and stress, with the phenomenon being more pronounced among young people and women (Cissé et al., 2024).

Our study provides a partial assessment of how COVID-19 pandemic was managed. It assessed the impact on the employment situation and health-related quality of life of Quebecers. The seven survey cycles were spread out over a relatively long period, covering the key moments in the management of the pandemic. Our analyses reveal that the pandemic and the various restrictions imposed from early 2020 to spring 2022 had negative effects on

mental health. This deterioration may have affected worker productivity, reflecting the importance of taking mental health into account in the workplace. The lessons we draw from our analyses could support future development of public health and economic policies. These could also help prevent the kind of shock to the system that was felt by Quebecers during the pandemic.

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