

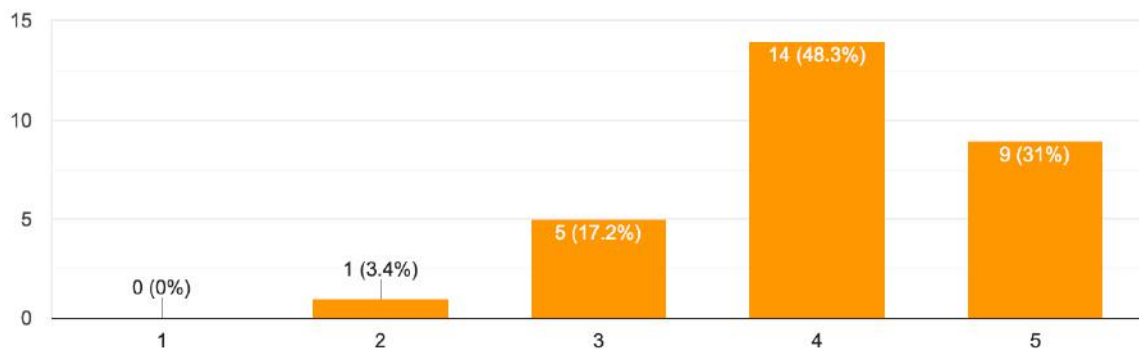
## Design Research

According to secondary research in addressing the novel coronavirus, the World Health Organization suggests that people should wash their hands regularly for 20 seconds with soap and water, cover their mouth and nose with a flexed elbow as opposed to hands, avoid close contact with others, and avoid touching your eyes, nose, and mouth<sup>1</sup>. Based on these suggestions, a survey and more secondary research was conducted to evaluate user's perceptions of COVID-19 and explore how these suggestions could be better enforced using technology.

29 respondents answered questions regarding their perceptions of the novel coronavirus between April 5<sup>th</sup> and April 7<sup>th</sup>. The first question seems to indicate that at the time of response, participants are generally wary of the coronavirus and feel it is a serious issue.

How serious do you feel about the current state of COVID-19?

29 responses

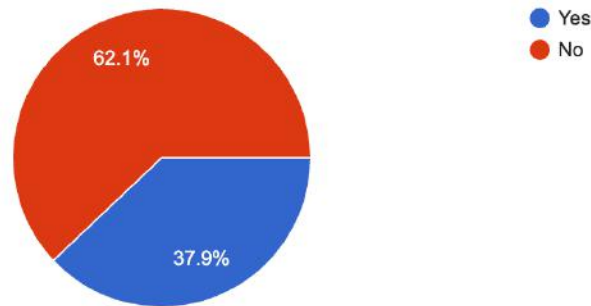


Moreover, respondents indicated that they have not considered getting tested for the virus. When asked why, many respondents indicated that they felt that they would be contributing the overburdening of testing facilities. Additionally, they felt that it would put them at risk of contracting the virus, given that these testing facilities are often populated by people who feel ill. Instead, they resort to being vigilant of their own symptoms and finding information online. Not many individuals know about self-administered coronavirus tests.

This may be problematic because in situations where the user is positive for coronavirus but is not tested, they may not know how to act and may continue their lives as normal, putting the lives of others at risk. Provinces across Canada have provided a self-assessment for individuals to screen themselves and provide actionable suggestions. In some situations, users are asked to remain physically isolated from others and in more severe situations, users are asked to call 911 immediately<sup>2</sup>.

Given that some people that are infected with COVID-19 do not show symptoms, have you considered getting tested for the virus?

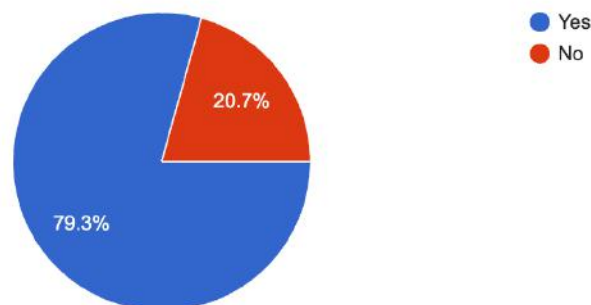
29 responses



Among the suggestions from the WHO, one of them are to restrain from going out of the house unless it's necessary<sup>1</sup>. According to surveyed participants, around 79% of participants broke self-quarantine over the past week. Among these participants, 96% said they went out to purchase groceries, 83% said they went out to take a walk or to exercise, 65% said they went out for work-related purposes, and 22% of participants said they went out to do home maintenance and gardening. Only 2 participants (or 8.7% of respondent who've went out) claimed they went out for social reasons. Although going out of the home for non-essential activities (such as taking a walk) is not recommended by the WHO, several sources have indicated that going out for walks while practicing safe measures can be beneficial for the immune system and may improve mood<sup>3,4,5,6,7</sup>.

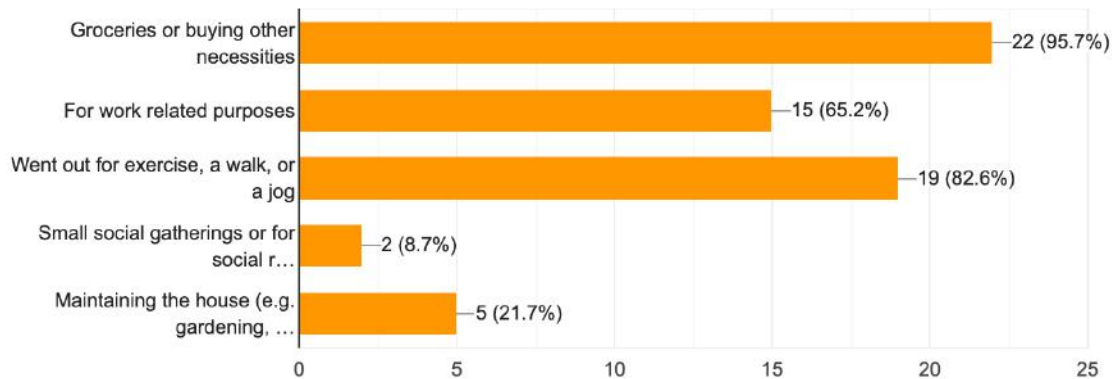
Have you gone out of self isolation over the past seven days?

29 responses



Why did you go out? Check all that apply..

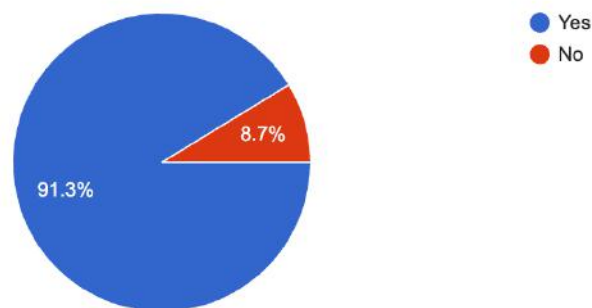
23 responses



One of the primary ways to take safe precautions against coronavirus while going out of quarantine is to avoid densely crowded places and avoiding places that have been frequently visited by someone who was tested positive for coronavirus. Interestingly in South Korea, citizens were able to recover relatively quickly and flatten the curve because when someone tested positive for coronavirus, their movement across the city were logged<sup>8</sup>. Although privacy laws may be different in Canada, individuals may still take precautions and log risky areas using self-reporting systems or by tracking public announcements.

When you went out, did you stay away from certain areas that you felt were more prone to the coronavirus (i.e. densely populated areas or places with previous exposure)?

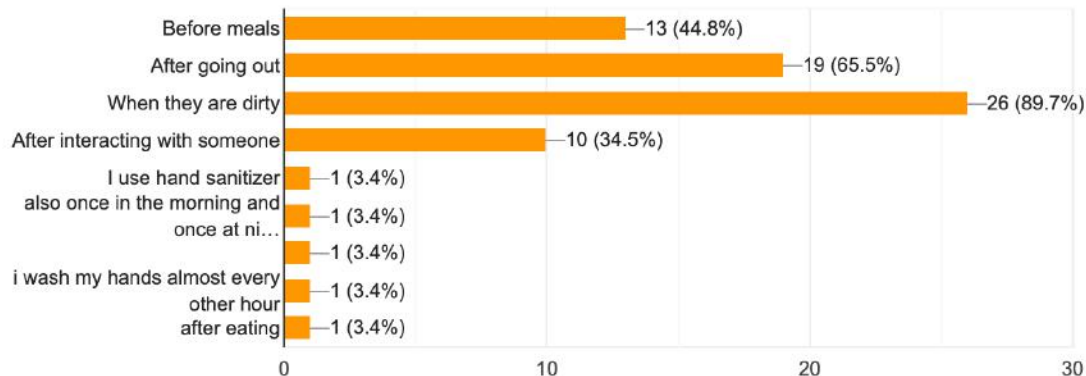
23 responses



Another suggestion by the WHO is to wash your hands properly. According to surveyed responses, people wash their hands mostly when they are dirty. Only 45% of individuals washed their hands before meals and 34.5% washed their hands after interacting with someone.

#### When do you wash your hands?

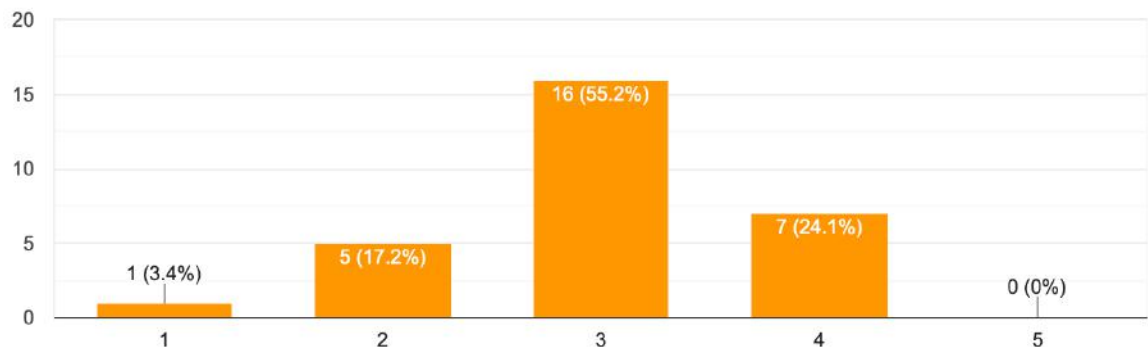
29 responses



Moreover, respondents were only somewhat confident that their handwashing abilities were adequate. When asked, most respondents only suggested that they washed their hands until they felt clean – this could range from 5 seconds to 10 seconds, but several sources suggest washing hands for 20 seconds is the minimum. Moreover, the way in which people wash their hands is important – the government of Canada suggests washing your palms, under your nails, in between your fingers, and the back of the hand<sup>9,10</sup>.

#### How confident are you that your hands are clean after washing your hands?

29 responses



According to the CDC and the WHO, touching your face may be problematic as well. When someone places their hands near their face, they may introduce bacteria and germs to the eyes, nose, and mouth, which are “mucosal surfaces” that can be the primary site of entry for the virus. Unfortunately, people touch their faces on average 20 times per day without even knowing. The best way to avoid touching your face would be to catch yourself in the act and breaking the habit before it forms<sup>11,12,13,14,15</sup>.

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**Prototype Link:**

<https://www.figma.com/proto/Z4570kPrksXmhctxBCfGSo/COVert?node-id=45%3A52&scaling=min-zoom>