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## Decision-making Regarding the Use of Personal Protective Measures to Prevent the Spread of Respiratory Infectious Diseases

### Executive Summary

Prepared for the Public Health Agency of Canada

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# Decision-making Regarding the Use of Personal Protective Measures to Prevent the Spread of Respiratory Infectious Diseases

## Executive Summary

Prepared for the Public Health Agency of Canada by Abacus Data

March 2024

The Public Health Agency of Canada commissioned Abacus Data to conduct a public opinion research survey to understand how people make decisions regarding the use of personal protective measures (PPMs) to protect themselves from respiratory infectious diseases. A total of 6,611 people in Canada were surveyed using an online panel to reflect the Canadian population. The online survey was conducted between February 15 and February 28, 2024. In addition, a total of 8 focus groups were conducted online in the Fall of 2023 and an online qualitative community with 100 participants took place in January of 2024. This publication reports on the findings of this research.

Cette publication est aussi disponible en français sous le titre: Prise de décisions concernant le recours à des mesures de protection individuelle pour prévenir la propagation des maladies respiratoires infectieuses.

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# 1 Executive Summary

## 1.1 Research Purpose

The Public Health Agency of Canada (PHAC) and Health Canada need to understand how people make decisions regarding the use of public health measures (PHMs) to protect themselves and those around them from COVID-19 and other respiratory infectious diseases (RIDs). PHMs have been one of the primary tools available to public health organizations to reduce COVID-19 transmission in communities during the pandemic and for other infectious diseases. Non-pharmaceutical PHMs that can be used by individuals, otherwise known as personal protective measures (PPMs), include interventions such as wearing a mask, staying home when sick, and improving indoor ventilation.

The purpose of the qualitative phase is to better understand how the Canadian public understands, perceives, and uses PPMs in an evolving COVID-19 and other RIDs context. Specifically, the qualitative research will help PHAC understand key decision inputs and the decision-making processes for the initial uptake of PPMs and their sustained use over time and across respiratory disease contexts.

The purpose of the quantitative phase of the research is to build on the qualitative findings with quantitative data. The research measures how people understand and use PPMs to protect themselves and those around them. The survey also allows for the measurement of contextual factors, external information and barriers encountered by people living in Canada when it comes to making decisions about uptake and sustained use of PPMs.

Taken together the research will inform and support the development of PPM guidance and communication strategies related to use of PPMs, which will contribute to the prevention, control and reduction of the spread of infectious diseases among people in Canada. The results will build on our understanding of individual risk assessments to better understand how individuals make decisions when it comes to using PPMs for COVID-19 and other respiratory infectious diseases.

The results of this POR will help ensure that guidance on using PPMs remains effective and relevant. It will also inform the future development of public facing PPM products, tools, and messaging, helping ensure that people in Canada are well informed and protected.

## 1.2 Research Objectives

The overall objective of the research is to understand how people make decisions on how and when they use PPMs to protect themselves and others from respiratory infectious diseases. The findings will inform the development of public facing PPM products, tools, and messaging.

Specific research objectives include, but are not limited to, the following:

1. Identify and understand how people in Canada access, perceive and use PPM advice
2. Explore the barriers, motivators and facilitators for the uptake and sustained use of PPMs across respiratory infectious disease contexts;
3. Determine the drivers of the Canadian population's perceptions of the importance of the adoption of PPM advice;

4. Identify key decision inputs and understand decision making processes for the initial uptake of PPMs and their sustained use over time and across respiratory infectious disease contexts; and
5. Understand the evolution of attitudes and perceptions about PPMs throughout pandemic, inter-pandemic, and cyclic respiratory infectious disease seasons.

## 1.3 Methodology

### 1.3.1 *Qualitative Research*

The results from the qualitative research cannot be extrapolated to a broader audience because participants were not randomly selected. By its nature, qualitative research is directional in nature.

#### *Focus Groups*

The qualitative phase of the research consisted of eight (8) online focus groups with the public in Canada conducted between December 11 and December 14, 2023.

- Details of the focus groups are shown in [appendix](#).
- In total, there were 90 participants across all eight focus groups.
- Each focus group was between 115 and 120 minutes in length.
- Observers from PHAC attended each focus group.

The focus group discussion guides (English and French), as well as the recruiting screeners used, are provided in [Appendix](#).

#### *Online Community*

The online community took place from January 7 to 22, 2024 with 102 adults across the country. The online community was designed to probe and explore the evolving PPMs adopted by individuals in response to the pandemic and beyond and examine how people perceive risk, their decision-making processes when it comes to PPM use, as well as barriers, facilitators and motivators for PPM use.

An online community is a qualitative form of research in which participants are invited to participate in a series of tasks (some of which are viewed only by the moderators and some of which are viewed by other participants). The Recollective platform was used for this project and allowed participants to share information and discuss ideas, regardless of geographical location or time of day.

Participants in the community were asked to complete an online journal for 3-5 days, detailing their activities, perceived risk of contracting an RID, and how they decided to use/not use PPMs. The discussion guide for the community is provided as an [Appendix](#). Recruitment was conducted by surveying participants using a screening process, and candidates were selected based on specific target groups identified for the study seen below (the recruiting screener is also found in the [Appendix](#)).

### 1.3.2 *Quantitative Research*

The online quantitative survey was conducted between February 15 and February 28, 2024. A total of 6,611 surveys were completed across Canada using an online panel. The 6,611 includes regional

oversamples as well as an oversample of 200 Indigenous persons and 400 youths (12 to 17 years of age), resulting in n=301 Indigenous persons and n=470 youth responding. All results were weighted to the 2021 Canadian Census from Statistics Canada. The weighting ensures that the results for the overall percentages reported are not influenced by the decision to oversample key groups.

All those 16 years and younger (and some of those 17 and 18 years old) were recruited through their parents or guardians to complete the survey.

As a non-probability sample, the results cannot be extrapolated to a broader audience and there is no margin of error associated with the findings because the sampling method used does not ensure that the sample represents the target population with a known margin of sampling error. Reported percentages are not generalizable to any group other than the sample studied, and therefore no formal statistical inferences can be drawn between the sample results and the broader population.

### *Sub-group analyses and rounding*

In addition to descriptive analysis, analysis was undertaken to establish any differences in views based on personal demographic characteristics such as location, gender, and identity (e.g., Indigenous). Differences between groups are highlighted in the report if they are large enough to be substantively meaningful (e.g., they change our understanding of the underlying structure of opinion or inform different communication challenges/opportunities) and are based on samples that are large enough to be reliable.

Please note that due to rounding, in some cases it may appear that merged categories collapsed together are different by a percentage point from how they are presented individually, and totals may not add up to 100%.

Key sub-groups analyzed throughout the report are: demographics (e.g., age, gender, geographic location), at-risk status, and vaccination status. The full breakdown of the results is included in the accompanying data tables under separate cover.

Differences between subgroups were first identified using cell comparisons at the p-value <0.05 level. Differences that highlight meaningful patterns within the survey sample or address a hypothesis within the results were highlighted throughout the report. While inferential statistics were first used to support the identification of these differences, they only serve to highlight trends within the existing data set as they cannot be extrapolated to a broader audience.

A regression and segmentation analysis were conducted to further understand the results and meet the project objectives. Further details on the segmentation is available in [section 4.6](#) and the regression methodology is outlined in the [Appendix](#).

A note on tracking from previous surveys. In 2023, Abacus Data undertook a similar survey on PHMs and some of those questions were repeated in the current survey. The 2023 survey was only conducted among adults, therefore, comparisons to 2023 only use the adult completions from 2024.

Those at high risk of severe illness and negative health outcomes include those who haven't received all of their recommended vaccine doses as well as those with a number of other age and health factors. For

the purposes of this report, those at-risk due to age and health factors will be differentiated from those at-risk due to their vaccination status as these groups vary significantly in their perceptions of risk, attitudes and behaviours relating to respiratory infectious diseases.

Within the report when discussing those at-risk due to age and health factors, they will be identified as 'at-risk' and are based on the following characteristics<sup>1</sup>:

- being immune compromised.
- living with obesity.
- having a chronic medical condition.
- being pregnant.
- being over the age of 60.

#### 1.4 Contract value

The total contract value for the project was \$247,799.40 including applicable taxes.

#### 1.5 Statement of Political Neutrality

I hereby certify as a representative of Abacus Data that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Communications Policy of the Government of Canada and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate or ratings of the performance of a political party or its leaders.

Richard Jenkins, Ph.D., CAIP

#### 1.6 Summary of Findings

##### 1.6.1 *Current Environment – Perceived Risk and Circulation*

Public health guidance for respiratory infectious diseases (RIDs) continues to be relevant for the adoption of PPMs against RIDs but the public perceptions of the risks have evolved slightly over time. Compared with a 2023 survey, perceived risks relating to COVID-19 have declined (though not its perceived seriousness), while perceived risks and concerns related to respiratory syncytial virus (RSV), and influenza (the flu) have declined.

- Respondents view influenza as the most probable illness to contract (mean score of 4.0 on a scale of 1 to 10), slightly down from 4.2 in the previous year. The perceived risk of contracting COVID-19 has dropped from 4.1 to 3.6, and RSV from 3.4 to 3.2).

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<sup>1</sup> Youth (12-17 years of age) will be identified by a single question asking them to self-report their at-risk status.

- The mean perceived risk associated with getting COVID-19 has dropped from 4.1 in 2023 to 3.6 this year. The perceived risk of contracting RSV has also declined from 3.4 to 3.2.

Both COVID-19 and RSV are perceived with equal levels of risk for severe consequences, each scoring 3.6 (mean on a 10-point scale), followed by the flu at 3.4. Perceptions have shifted slightly from the previous year, with COVID-19 showing a decline in perceived personal risk of severe consequences from 3.8 to 3.6, while perceptions for RSV and the flu have mostly remained steady.

While perceived individual risk of a severe outcome has declined for COVID-19, it continues to be viewed as a serious illness (30% say it is “life threatening” or “requires hospitalization”) among adults. RSV is viewed as more serious (37% believe it would at least necessitate hospitalization) while the flu is viewed as the least serious.

On average, people are most concerned about contracting COVID-19, rating concern with COVID-19 at 4.6 out of 10 (down from 4.7 last year), closely followed by RSV (4.5 up from 4.3) and influenza (4.4 up from 4.2). Overall, the stated level of concern about an illness is a reflection of the perceived likelihood, susceptibility, and severity of the illnesses. People are generally more concerned if they think they are likely to get ill from the disease and/or think they could suffer severe consequences from the illness.

The lower concern and perceived risks associated with COVID-19 are also reflected in the focus group discussions in which COVID-19 is still top of mind whereas influenza and RSV are less frequently discussed and are viewed as not being as infectious or severe as COVID-19.

In the survey, a small percentage (14%) think the level of circulation of RIDs in the community in their area is high or very high whereas almost four in ten (37%) think the level is low or very low.

These findings align with the focus groups which found the risk environment has changed and that there is less media attention on the risks.

In addition, the online communities highlight that perceptions of risk are nuanced – with those feeling the most risk when in crowded situations with strangers (i.e., in public transit) than in more intimate gatherings with trusted individuals, such as dinner parties with family and friends. The size of crowds or the number of people present significantly influences their decision to attend an event and/or use PPMs. Most prefer attending events with less crowded environments. The ability to maintain a 'safe' distance is a key consideration for PPM use, highlighting the importance of spatial awareness in their risk assessment and mitigation strategies.

### *1.6.2 Decision-making and Information Sources for PPMs*

Overall, there is widespread confidence when it comes to personal capacity to safeguard oneself and others from RIDs (84% at least somewhat agree) and 79% feel adequately informed. Nevertheless, about a quarter (27%) report feeling confused about where to obtain reliable information about PPMs. While they express confidence in their own abilities, 65% are concerned that people around them are not taking sufficient steps to prevent the transmission of RIDs.

Traditional news outlets (39%), the Public Health Agency of Canada (39%), and local public health authorities (38%) are the top three sources for information on COVID-19 and other RIDs – all three of

which are authoritative sources in public health communication. Friends and family (33%), however, rank as a more common source for information than primary healthcare providers (30%) and government social media accounts (16%). Notably, this is an area where youth and younger respondents differ from adults in relying less on official sources and traditional news outlets and relying more on family and teachers.

Overall, there is a high level of trust in public health information from both the Government of Canada and healthcare providers. Trust is slightly higher for healthcare providers, with 83% of respondents expressing trust or partial trust in healthcare providers, compared to 77% for the Government of Canada. Two in three (64%) think there is a significant amount of misinformation circulating in Canadian society regarding how to protect oneself from respiratory infectious diseases.

### *1.6.3 Attitudes about the Use of PPMs*

Perceptions of risk and the current circulation of RIDs are consistent with how respondents currently behave and think more broadly of PPMs.

General attitudes about PPMs are supportive but not unanimous. A large majority (81%) think that adhering to public health advice regarding these measures is an effective way to protect the vulnerable people in their community. Seven in ten (71%) at least somewhat agree that using PPMs is important to them and over half of respondents (59%) report using PPMs to protect themselves from getting sick.

More than half (52%) find it harder to implement PPMs now compared to during the pandemic and 44% report feeling judged when wearing masks or using other protective measures. The influence of social norms on behaviour is further reflected by the fact that 60% say they are more likely to use a mask when they observe others doing the same.

Some attitudes among adults have changed since the 2023 survey. Much fewer adults say that they use PPMs because they are concerned with getting sick (59% in 2024 compared with 72% in 2023). Fewer also say that using PPMs is important to them (71% vs. 78%) and that they are more likely to wear a mask when they see others using one (60% vs. 64%).

In the qualitative research, focus group participants did mention using PPMs to protect oneself (particularly if one was at-risk). Some were very fearful of the risks to their health and isolated themselves as much as possible. Protecting others is also mentioned as a key motivation by focus group participants. Many of these participants said they (and others) should use “common sense”, which could be interpreted to mean staying at home when sick to protect others or using PPMs to protect vulnerable individuals.

Consistent with the survey findings, the main motivation cited in the focus groups for using PPMs is to limit the risk of contracting or spreading an RID in a crowded setting or closed quarters (most low adopter participants said they would only use PPMs to protect others).

The online communities also demonstrate how attitudes about masking have changed. In general, people respect others' decisions about wearing masks and other protective measures. Some feel safer and more comfortable when everyone follows these measures but for others, whether or not those around them are wearing a mask has no impact on their decision. Nevertheless, some feel judged or



uncomfortable when wearing a mask, while others feel guilty, uncomfortable or judged if they're not wearing a mask in a crowd of mask-wearers.

#### 1.6.4 Use of PPMs

There is considerable variation in the use of PPMs with four main categories:

- The most frequently consistently self-reported adopted practices are covering coughs and sneezes with an elbow or a tissue (84% always/often) and regular hand cleaning (83%). These PPMs are reported to be almost universally adopted at least often, which is less true for other PPM behaviours.
- A majority (62% always or often) report staying home when sick but only 35% always do. Only those who report a recent illness were asked about staying home behaviour.
- Approximately half report engaging in cleaning and disinfecting high-touch surfaces and objects (54% always or often) and improving indoor ventilation (50%).
- The least reported adopted PPM is mask wearing in indoor public settings with only about 1 in 4 individuals (24%) reporting that they always or often wear masks in an indoor public setting.

A regression analysis (Section **Error! Reference source not found.**) was undertaken to understand the drivers of PPM use. Each PPM was assessed in terms of attitudes, demographics, behaviours and the perceived effectiveness of the PPM. The most important driver in most of the regression models is the belief that the PPM in question is effective. For all PPMs, those who think that the PPM is effective in reducing the spread of RIDs are more likely to use that PPMs compared to those who tend to think that the PPM is less effective.

There are also several variables that are positively associated with using all or most of the PPMs.

- Respondents who are worried other people are not taking steps to avoid getting or spreading RIDs are more likely to use all of the PPMs compared with those who are not worried.
- Compared to those who do not report that they use PPMs because they are concerned with getting sick, those who report that they use PPMs because they are concerned with getting sick are more likely to use all forms of PPMs except covering coughs and sneezes. The impact is the highest for wearing a mask, cleaning and disinfecting as well as improving ventilation.
- Males are less likely to use PPMs than females, except for wearing a mask where there is no difference between males and females.

Overall, the results point to the fact that drivers of PPM use vary by the measure (adj-r<sup>2</sup> varies from 0.216 for Stay home when sick to 0.407 for wearing a mask). We can explain mask wearing more than we can explain other PPM use.

The focus groups found that use of PPMs tend to be situational as people evaluate factors such as the number of people (crowds), who they might be seeing, their understanding of infection rates in the community, the ability to maintain safe distances, especially in crowded, public situations; and whether

or not they are exhibiting symptoms themselves. Those in the high-risk<sup>2</sup> category tend to take a more cautious approach, plan ahead, and are more likely to see situations as posing a greater risk compared to those in the general population.

As participants in the online community have continued practicing the initial precautions/guidelines which were adopted at the outset of the pandemic, some have adjusted their daily routines slightly with precautionary measures such as regular handwashing, changing shopping habits, distancing or masking in some scenarios, while for others, “normal life” has fully resumed.

When respondents in the survey were asked why they do not adhere to a specific PPM, a mix of barriers that reflect challenges in using the PPM or attitudes and perceptions are raised that suggest taking these actions are not necessary.

Only one in five (18%) report frequently (always or often) observing others wearing masks in indoor settings. A larger portion, 37%, note occasional masking by others, while 45% indicate rarely or never witnessing individuals wearing masks indoors. As such there is a potential for the normalized lack of mask wearing in indoor settings to act as a barrier for others when it comes to wearing a mask.

Focus group participants agree that the use of PPMs has been normalized and has become habit for many. By normalized, they explain that it is not surprising to observe mask usage, sanitizing surfaces or hand washing. However, it does not mean that it is normal for everyone to do it as consistently as during the pandemic.

Overall, all PPMs are overwhelmingly perceived as at least somewhat effective in reducing the spread of RIDs. Staying home when sick is deemed the most effective measure, with 95% considering it at least somewhat effective, followed closely by regular handwashing (95%) and covering coughs and sneezes (93%).

Additionally, cleaning and disinfecting high-touch surfaces and objects are viewed as effective by 90% of respondents, while improving indoor ventilation is seen as effective by 88%. Despite ranking the lowest for effectiveness of all PPMs listed, wearing masks in indoor public settings is still considered effective by a large majority (80%).

#### *1.6.5 Cancelling Plans if Sick*

Cancelling plans when one experiences symptoms of an illness represents an important protective measure to reduce the public’s exposure to one’s own illness.

- A majority of respondents are at least somewhat likely to cancel plans if they are sick, particularly when the scenario involves close contact with loved ones/someone close to them or those at risk of severe outcomes. For example, 59% are very likely to cancel plans when visiting someone vulnerable.

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<sup>2</sup> The at-risk category is defined by having a health condition that makes one more vulnerable to a severe outcome if they get a respiratory infectious disease or being 60 and older.

- Other situations which entail intimate settings with individuals one knows personally are also associated with a high likelihood of cancelling due to illness such as restaurant gatherings (53% very likely), gatherings with friends at pubs, bars, or coffee shops (52%), and meetings with friends or family from different households (50%).
- The likelihood of cancellation (% very likely to cancel) due to illness slightly decreases when it comes to larger gatherings with less familiar faces, such as attending work in person (46%), attending concerts or sporting events (45%), canceling travel plans (42%), or returning to school in person (42%).

Compared with a similar question in 2023, respondents are now more likely to not go to work (46% very likely to cancel in 2024 vs. 41% in 2023) when they are sick and less likely to cancel plans to attend a concert (45% vs 47% in 2023) when they are sick.

The role that health status plays in adopting PPMs is a theme in the online communities. If people feel unwell, they report opting to stay home, indicating a proactive approach to symptom management and prevention of community spread.

#### *1.6.6 Facilitators, barriers, and influences of PPMs*

In the online communities, participants identified a number of barriers that hinder their adoption of PPMs. These include COVID-19 fatigue, perceived cultural or societal norms, physical or mental health challenges and a perception that COVID-19, and other respiratory illnesses, are not significant risks.

The survey also included a number of questions that addressed overcoming the barriers to adopting PPMs. Touchless faucets, soap dispensers, and paper towel dispensers in public washrooms (88% very or somewhat helpful), along with readily available masks and hand sanitizer at indoor public space entrances (86%). Additionally, most find having outdoor gathering venues (78%) to be beneficial in supporting their use of PPMs. Adults were also asked about affordable portable air purifiers and 78% find them helpful for supporting their use of PPMs.

Currently, individuals have access to various health risk indices such as the UV index and air quality index, and 80% of respondents believe that having an index for the level of RIDs within the community would be helpful. Specifically, 37% think such an index would be very helpful.

#### *1.6.7 Motivators for Taking Precautions*

The most likely influences on taking precautions to protect oneself are a recommendation by a family member (77% very or somewhat likely) or a friend (73%). Seeing a trusted source like a government or health official taking precautions such as wearing a mask during a press briefing is also likely (71%) to lead a person to take precautions. In addition, 63% say they would be at least somewhat more likely to take precautions if there was less stigma about wearing masks in public.

Another way to understand motivators for taking precautions is to understand the context in which a public health authority has made a recommendation whether it is because of (a) a high risk of getting a RID in your community; or (b) a new RID being present. Testing the two options reveals that the

reasoning for a public health recommendation is less important than the fact that it is a public health recommendation in itself as the results are similar in both scenarios.

In both scenarios, the most likely actions are to adhere to regular hand hygiene practices (91% very or somewhat likely for the 1<sup>st</sup> scenario), covering their coughs and sneezes (91% likely), and staying home when sick (90%). Somewhat fewer are likely to clean and disinfect high-touch surfaces (86%), to improve indoor ventilation (81%) or wear a mask under either circumstance (80%). These findings suggest a strong willingness among individuals to adopt precautionary measures in response to public health recommendations of a serious threat.

In the focus groups, virtually everyone reported that they would adapt or be flexible about PPM use if circumstances warrant. There was consensus that a government mandate would be followed; but without mandates, there is not a high level of perceived risk, and participants make decisions based on the information available.

