Public Responses to Policy Reversals: The Case of Mask Usage in Canada during COVID-19

ANWAR SHELUCHIN, REGAN M. JOHNSTON, AND CLIFTON VAN DER LINDEN
Department of Political Science, McMaster University, Hamilton, Ontario

Introduction
Coronavirus disease 2019 (COVID-19) has produced substantial policy changes as public health agencies and government officials react to rapidly changing information. Nowhere is this more apparent in the Canadian context than in the revised guidance on the utility of masks. Before April, the Public Health Agency of Canada (PHAC), on the advice of the World Health Organization (WHO), actively discouraged asymptomatic members of the general public from wearing masks. The motivation for this guidance was threefold. First and foremost, a spike in demand for masks could prompt a run on personal protective equipment, further imperiling the already limited supplies available to frontline health care workers. Second, the scientific evidence for masks as an effective mitigation measure against COVID-19 was contested. Third, wearing masks may in fact increase the risk to a wearer. Ill-fitting masks could cause wearers to touch their faces more than they normally would, which could lead to infection. Moreover, wearing a mask may lead to a false sense of security, potentially reducing adherence to more effective preventive measures such as physical distancing and hand hygiene.

Nevertheless, in a rather dramatic policy reversal in early April, both WHO and PHAC issued revised guidance that permitted the use of non-medical masks. Prompted by an interview in Science in which the director-general of the Chinese Center for Disease Control and Prevention stated that asymptomatic transmission was unlikely, both agencies reversed course. In Canada, the Public Health Agency of Canada (PHAC) and the Canadian Stroke Network (CSN) both issued policy changes, allowing non-medical masks. This change in policy was not without controversy, as some health officials expressed concern about the potential for the new policy to undermine earlier messaging and confuse the public.

Mots clés : changement de politiques, confiance dans les institutions, COVID-19, masques, opinion publique

Keywords: COVID-19, policy change, public opinion, masks, institutional trust
Prevention suggested that “the big mistake in the U.S. and Europe . . . is that people aren’t wearing masks” (Cohen 2020), the US Centers for Disease Control and Prevention issued new recommendations that called for cloth face coverings to be worn in public settings in which other social distancing measures are difficult to maintain (Adams 2020). Three days later, WHO released updated guidance on the use of masks, recommending that persons with suspected COVID-19 or mild symptoms wear them as often as possible (WHO 2020). PHAC quickly followed suit, stipulating that non-medical masks or face coverings may be worn when out in public—particularly in cases in which physical distancing may not be feasible—but only as optional secondary protection to be exercised as a complement to precautions such as physical distancing and hand hygiene.

Guidance from public health and government officials on mask wearing gradually shifted from permitted to suggested to recommended to mandated. On 6 May 2020, Prime Minister Justin Trudeau began wearing a mask to public events. Two weeks later, PHAC formally recommended that Canadians wear masks in public as an added layer of protection when physical distancing poses difficulty. At the time of writing, neither federal nor provincial government officials have made mask usage mandatory in public spaces, although certain municipalities have already done so.

Rapidly changing guidance on mask usage may serve to inform a more general understanding of how Canadians respond to substantial reversals in public policy. A public health emergency such as COVID-19 provides a context in which policy-makers are forced to make policy decisions with less time and information than they normally have available to them. These conditions allow us to interrogate the dynamics of public reactions to policy reversals in crisis situations.

In this article, we examine whether policy reversals have potential implications for public trust in governments and, ostensibly related to that, in public compliance with revised policy guidelines. In particular, we investigate how Canadians have responded to changing guidance on mask usage from public health officials. We use survey data from a rolling public opinion study to examine how attitudes toward mask usage have changed since the onset of the COVID-19 pandemic in Canada. Our findings indicate that, despite a reversal of its earlier position on masks and a negation of aspects of its rationale, trust in public health officials is consistent across time, and compliance with public health guidance—even when it changes—remains relatively robust.

**Accelerated Social Learning**

Peter Hall (1993, 278) argues that policy change is the result of a process of social learning, which he defines as “a deliberate attempt to adjust the goals or techniques of policy in response to past experience and new information.” Crises such as the COVID-19 pandemic demand an immediate response from government officials and thus result in an accelerated process of social learning in which first-order changes in policy occur more rapidly. As in the case of policies pertaining to mask usage during the pandemic, accelerated social learning can produce seemingly contradictory policy positions given the limited duration between the original and revised policies, both of which are justified on the basis of expert advice and scientific consensus. Although evidence-based policy-making ostensibly operates on the basis of theories being refined in light of new information and policies being revised accordingly, policy reversals carry the risk of undermining public confidence in government officials, which may in turn reduce public compliance with revised policy measures.

The determinants of public trust in government institutions have shifted over time from the perceived intentions of government officials to the outcomes they are able to demonstrate. Easton (1965) argues that trust is animated by the polity’s confidence in the virtue of government actions. However, Bouckaert and Van de Walle (2003) contend that public trust has become an evaluative measure of government effectiveness. In the case of the policy reversal on mask usage, trust may be a function of the suspected intentions of government officials or the perceived efficacy of the policy change (van der Linden and Savoie forthcoming). In either instance, public compliance with revised policy measures may turn on the impact of said measures on public confidence in government officials.

**Data and Method**

To examine how mask usage by Canadians changed in the months since the onset of the pandemic in Canada, we use data from the Vox Pop Labs (2020) COVID-19 Monitor initiative, a rolling public opinion survey that has been fielded weekly since mid-March. The surveys are conducted online, and participants are recruited from Vox Pop Labs’ online respondent panel of more than 650,000 Canadians. We analyze the first 12 waves of the study, which were conducted between 20 March and 3 June and involved 27,040 respondents.

The sample for each wave of the study has been pre-stratified on the basis of sex, age, education, region, income, and partisanship and then post-stratified by modeling raking weights independently for each wave using marginal distributions from the 2010 Canadian Census. Raking weights were modelled on the basis of the joint distributions of self-reported sex, age, education, region, income, and partisanship of each observation and the corresponding marginal distributions in the census.

Our primary variable of interest was mask usage, captured as part of the following survey item: “What changes, if any, have you made to your normal routine in response
to the COVID-19 pandemic?” “Wearing a mask” was included among other fixed response options. Respondents had the option to indicate yes or no to each option.

Findings
Despite the policy reversal on masks by Canadian public health officials, the survey data collected from the COVID-19 Monitor indicate that Canadians were responsive to changing guidance. As shown in Figure 1, self-reported usage rises from 5 percent in late March to 63 percent by early June. Notably, the inflection point appears to take place in early April and corresponds with the issuance of revised guidance on masks by PHAC. The trend is gradual across time as opposed to a spike at the point of policy change, but this may well reflect the gradual shift in importance attributed to mask usage by public health officials. For reference, we also include comparable data from the Australian version of the Vox Pop Labs COVID-19 Monitor that demonstrate a clear departure in mask usage between Canadians and Australians. We observe that Australian mask usage remains consistent across time at levels similar to those in Canada before the revised guidance from Canadian public health officials. Australian public health officials continue to maintain that the routine use of face masks in the community is not recommended. As such, we can infer that the rise in mask usage among Canadians is not necessarily part of a broader global response. The variance between the Australian and Canadian cases suggests that mask adoption is a response to domestic policy change.

We observe further evidence of the association between policy change and public compliance when examining regional variation in mask usage. In particular, we note that the differences in mask adoption rates between Quebec and the rest of Canada (ROC) are correlated with differing guidance from federal and Quebec provincial government officials. Figure 2 shows that a significantly lower proportion of Quebecers wore masks in the weeks after PHAC’s about-face on mask usage. Quebec Premier François Legault and national public health director Horacio Arruda initially discounted the revised guidance from PHAC only to encourage Quebecers to wear masks in public settings several weeks later. Quebec’s political culture involves a deference to provincial over federal authority in general, and it thus seems reasonable to assume that Quebecers would generally follow the public health advice of provincial government officials when it contradicts that of their federal counterparts. By May, the gap in mask usage between Quebecers and those in the ROC appears to close.

To further demonstrate this relationship, we use a linear regression model. The results of the model are provided in Table 1. The dependent variable is a dummy coded as 1 if respondents indicate that they have started wearing a mask since the onset of the pandemic. Independent variables include (a) the wave of the study, (b) the ROC (vs. Quebec) dummy, and (c) the interaction between the ROC and each wave. The results can be interpreted as follows: for each wave, the constant + wave-specific dummy is the Quebec value, and the constant + wave-specific

![Figure 1: Mask Adoption among Canadians and Australians over Time](image)

Note: Error bars represent 95 percent confidence intervals calculated using the survey package in R and consider the weighting structure.
Source: Vox Pop Labs (2020).
**Figure 2**: Mask Adoption among Quebecers versus the Rest of Canada over Time

Note: Error bars represent 95 percent confidence intervals calculated using the survey package in R and consider the weighting structure.

Source: Vox Pop Labs (2020).

**Table 1**: Mask Usage in Quebec versus the Rest of Canada

| Independent Variable | Dependent Variable: Mask Usage |
|----------------------|--------------------------------|
| ROC                  | 0.012 (0.019)                  |
| Wave 2 (24–26 March) | 0.0005 (0.023)                 |
| Wave 3 (27–31 March) | −0.00003 (0.023)               |
| Wave 4 (3–7 April)   | 0.045*** (0.023)               |
| Wave 5 (9–14 April)  | 0.094*** (0.023)               |
| Wave 6 (17–21 April) | 0.114*** (0.024)               |
| Wave 7 (24–28 April) | 0.167*** (0.023)               |
| Wave 8 (1–5 May)     | 0.325*** (0.024)               |
| Wave 9 (7–12 May)    | 0.353*** (0.025)               |
| Wave 10 (15–19 May)  | 0.441*** (0.024)               |
| Wave 11 (22–25 May)  | 0.582*** (0.026)               |
| Wave 12 (29 May–3 June) | 0.634*** (0.026)          |
| ROC × Wave 2 (24–26 March) | 0.026 (0.027)   |
| ROC × Wave 3 (27–31 March) | 0.035 (0.027)   |
| ROC × Wave 4 (3–7 April) | 0.104*** (0.026)  |
| ROC × Wave 5 (9–14 April) | 0.132*** (0.027) |
| ROC × Wave 6 (17–21 April) | 0.225*** (0.027)  |
| ROC × Wave 7 (24–28 April) | 0.181*** (0.027)  |
| ROC × Wave 8 (1–5 May) | 0.048 (0.028)          |
| ROC × Wave 9 (7–12 May) | 0.126*** (0.029)          |
| ROC × Wave 10 (15–19 May) | 0.080*** (0.028) |
| ROC × Wave 11 (22–25 May) | −0.026 (0.030)          |
| ROC × Wave 12 (29 May–3 June) | −0.083*** (0.030) |

Constant (Quebec; Wave 1): 0.042*** (0.016)

No. of observations: 27,264

R²: 0.198

Adjusted R²: 0.198

Residual SE (df = 27240): 0.002

F(23, 27240): 293.264***

Note: ROC = rest of Canada

*p < 0.1; ** p < 0.05; *** p < 0.01.

Source: Authors’ calculations from Vox Pop Labs (2020) data.
dummy + interaction term is the ROC value. For each wave, the interaction term is the difference between the predicted value for the ROC and Quebec. This allows us to compare the percentage of the population wearing masks in Quebec versus the ROC for each wave. We note that the increase in mask usage in both Quebec and the ROC is statistically significant from Wave 4 through Wave 10 and then again in Wave 12 onward. The most substantive differences occur in Waves 6 and 7, where Quebecers lag behind the ROC in mask usage by 22.5 percent and 18.1 percent, respectively. The gap closes by Wave 10, which corresponds with the timing of François Legault’s endorsement (and public adoption) of masks, and the effects are insubstantial or insignificant thereafter.

International comparisons with Australia and domestic comparisons between Quebec and the ROC indicate public responsiveness to policy change, even when such change ostensibly contradicts earlier positions. In Figure 3, we explore how compliance with revised guidance on mask usage compares with that of other policy measures that have remained relatively consistent since the outset of the pandemic—that is, where policy change has been largely absent. In particular, we examine public compliance over time with physical distancing (i.e., keeping a distance of 2 m from other people when possible), avoiding non-essential in-person contact outside the home, and avoiding gatherings of more than ten people. As illustrated in Figure 3, we observe high levels of compliance with each of these measures from the outset of their introduction in mid-March. Compliance is consistent across time with the exception of avoiding gatherings, which decreases as restrictions on gatherings begin to relax. These findings indicate that public responsiveness to and compliance with new policies related to COVID-19 has been quite high throughout the pandemic.

The gradual uptake of mask usage among Canadians does not align with the general trend of public responsiveness to policy change during the COVID-19 pandemic. Whereas we observe immediate and consistent compliance with other policy measures as they are introduced, the adoption of masks substantially lags these other measures and remains lower in terms of overall compliance. The initial response to masks may in fact suggest that Canadians have been responsive to guidance from

![Figure 3: Canadians’ Compliance with Policy Measures Introduced to Prevent the Transmission of COVID-19](image-url)

Notes: COVID-19 = coronavirus disease 2019. Error bars represent 95 per cent confidence intervals calculated using the survey package in R and consider the weighting structure.

Source: Vox Pop Labs (2020).
public health officials since the outset of the pandemic. Low levels of mask adoption in the first weeks of the pandemic may indicate mass compliance with official guidance that actively discouraged their use. The policy reversal on masks was likely to have slowed their mass adoption and may also be responsible for persistent deficits in compliance.

Next, we turn to the role of public trust in government institutions in determining public responsiveness to policy change on mask usage. Despite the policy reversals, public trust in government institutions in general, and in public health officials in particular, does not appear to have been greatly affected as a consequence. Figure 4 indicates the proportion of respondents who indicated a moderate or great deal of trust in the federal government, public health officials, and WHO. Trust remains consistent over the course of the pandemic for both public health officials and the federal government, although the differences in trust levels between the two are statistically significant. Only WHO sees a significant (if not substantive) decline in trust, which is likely a product of the blame attributed to the global health agency by US President Donald Trump and by Conservative Party leader Andrew Scheer. Although public health officials effectively emulated advice from WHO on masks, they seem to largely have avoided the same lapse in public trust.

We examine the effect of institutional trust on compliance with policy change by regressing mask usage on a trust index constructed by running a one-dimensional factor analysis on trust in the federal government, public health officials, and WHO. We run a linear regression model in which the dependent variable is whether respondents wear a mask (i.e., a dummy variable coded as 1). The independent variables are the wave, the trust index (continuous), and the interaction between the two. The results are shown in Table 2. The model has an interaction between the continuous trust index and the categorical wave. Hence, it can be interpreted as a model

Figure 4: Trust in Government Institutions over Time
Notes: Plots represent proportion of respondents who indicated a moderate or great deal of trust in the specified institution. COVID-19 = coronavirus disease 2019. Error bars represent 95 percent confidence intervals calculated using the survey package in R and consider the weighting structure.
Source: Vox Pop Labs (2020).
Contrary to prevailing perspectives on the erosion of trust in government institutions, to date we find that Canadians have closely adhered to the guidance provided by public health officials in relation to the COVID-19 pandemic. Even in cases of overt policy reversals subject to heavy public scrutiny, such as the changing guidance on mask usage, Canadians have demonstrated consistent levels of trust in and compliance with public health officials. Despite the criticism that PHAC has received for its about-face on mask usage, we find no evidence to indicate that the policy reversal may have reduced public trust in public health officials and thus reduced the rate of mask adoption in Canada—in fact, quite the opposite. Notwithstanding the significance of the policy reversal on masks, trust in public health officials remains undiminished, and substantive evidence suggests that Canadians largely continue to follow changing directives on mask usage. Public trust in government institutions has remained high throughout the pandemic to date and is a predictor of mask usage.

This is not to say that policy reversals have no effect on public compliance. Although mask usage has increased dramatically since initial public guidance was issued, mask usage still lags all other preventive measures included in the survey data used in this research. We are unable to say what the rate of mask adoption would have been had it been advised or made mandatory at the outset of the COVID-19 pandemic. However, the findings presented here consistently demonstrate that public health officials were able to maintain the trust and adherence of Canadians even as their guidance on masks changed significantly and that this trust mattered for public responsiveness to policy change on masks.

We acknowledge that reactions to policy change in a state of crisis may operate differently than during normal times. The COVID-19 pandemic may in part have shaped public responses to the policy reversal on mask usage as well as the public’s willingness to trust government officials, but we cannot make such a determination on the basis of a single case. Further research is required before we can make a general theoretical claim about public compliance with policy change in conditions of crisis.

**Acknowledgements**

We are grateful to Justin Savoie, an anonymous guest editor, and the staff of Canadian Public Policy/Analyse de politiques for their respective contributions to this article. The authors also acknowledge funding support for this research in the form of the COVID-19 Catalyst Grant from the Faculty of Social Sciences at McMaster University. Any errors or omissions remain those of the authors alone.

**Note**

1 Factor loadings are 0.754 for public health officials, 0.722 for the federal government, and 0.722 for WHO.

---

**Table 2: Effect of Institutional Trust on Mask Usage**

| Independent Variable | Dependent Variable: Mask Usage |
|----------------------|--------------------------------|
| Trust index          | −0.015 (0.010) |
| Wave 2 (24-26 March) | 0.020* (0.012) |
| Wave 3 (27-31 March) | 0.024* (0.012) |
| Wave 4 (3-7 April)   | 0.119*** (0.012) |
| Wave 5 (9-14 April)  | 0.201*** (0.012) |
| Wave 6 (17-21 April) | 0.286*** (0.012) |
| Wave 7 (24-28 April) | 0.306*** (0.012) |
| Wave 8 (1-5 May)     | 0.373*** (0.013) |
| Wave 9 (7-12 May)    | 0.458*** (0.013) |
| Wave 10 (15-19 May)  | 0.521*** (0.012) |
| Wave 11 (22-25 May)  | 0.587*** (0.013) |
| Wave 12 (29 May-3 June) | 0.585*** (0.012) |
| Trust index × Wave 2 | −0.008 (0.013) |
| Trust index × Wave 3 | 0.008 (0.013) |
| Trust index × Wave 4 | 0.023* (0.013) |
| Trust index × Wave 5 | −0.046*** (0.013) |
| Trust index × Wave 6 | 0.019 (0.013) |
| Trust index × Wave 7 | 0.025* (0.013) |
| Trust index × Wave 8 | 0.070*** (0.013) |
| Trust index × Wave 9 | 0.050*** (0.013) |
| Trust index × Wave 10 | 0.093*** (0.013) |
| Trust index × Wave 11 | 0.114*** (0.013) |
| Trust index × Wave 12 | 0.097*** (0.013) |
| Constant (Trust index = 0; Wave 1) | 0.050*** (0.008) |

Observations 27,489

R² 0.197

Adjusted R² 0.196

Residual SE (df = 27465) 0.092

F(23,27465) 293.267***

* p < 0.1; ** p < 0.05; *** p < 0.01.

Source: Authors’ calculations from Vox Pop Labs (2020) data.

with a different coefficient on trust for each wave. An increase in one point in the trust index leads to an increase in the probability of wearing a mask of 7 percent in Wave 8, 5 percent in Wave 9, 9 percent in Wave 10, and a (non-significant) decrease of 1.5 percent in Wave 1. The results are largely significant and substantive, suggesting that public trust has an evident effect on mask usage.

**Discussion**

In this article, we draw on the case of the policy change regarding mask usage in Canada during the COVID-19 pandemic to explore the effect of policy reversals on public compliance. We find that, despite changing guidance on the utility of masks for preventing the transmission of COVID-19, the Canadian public has been responsive to and compliant with changing guidance on the issue.

---

doi:10.3138/cpp.2020-089
References

Adams, J. 2020. Recommendation Regarding the Use of Cloth Face Coverings. Atlanta: Centers for Disease Control and Prevention.

Bouckaert, G., and S. Van de Walle. 2003. “Comparing Measures of Citizen Trust and User Satisfaction as Indicators of ‘Good Governance’: Difficulties in Linking Trust and Satisfaction Indicators.” International Review of Administrative Sciences 69(3):329–43. https://doi.org/10.1177/0020852303693003.

Cohen, J. 2020. “Not Wearing Masks to Protect against Coronavirus Is a ‘Big Mistake,’ Top Chinese Scientist Says.” Science, 27 March. At https://www.sciencemag.org/news/2020/03/not-wearing-masks-protect-against-coronavirus-big-mistake-top-chinese-scientist-says.

Easton, D. 1965. A Systems Analysis of Political Life. New York: Wiley.

Hall, P.A. 1993. “Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain.” Comparative Politics 25(3):275–96. https://doi.org/10.2307/422246.

van der Linden, C., and J. Savoie. forthcoming. “Does Collective Interest or Self-Interest Motivate Mask Usage as a Preventive Measure against COVID-19?” Canadian Journal of Political Science. https://doi.org/10.1017/S0008423920000475.

Vox Pop Labs Inc. 2020. “COVID-19 Monitor.” At https://www.covid19monitor.org.

World Health Organization. 2020. “Advice on the Use of Masks in the Context of COVID-19: Interim Guidance.” At https://apps.who.int/iris/handle/10665/331693.