

## EVIDENCE BRIEF

# Risk Communication and Trust in Public Health during the COVID-19 Pandemic



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## Key Messages

- The COVID-19 pandemic presented challenges for risk communication, such as the spread of misinformation and disinformation and growing distrust of scientific evidence, expertise, and governments, leading to a decline in the uptake of public health measures.
- Trust can be influenced by individual factors, such as personal beliefs, and external factors, which include political beliefs, the institution delivering information, and delivery platforms like social media to communicate risk.
- Maintaining trust in times of prolonged public health crises, includes good risk communication practices such as transparency; evidence-based and action-oriented messaging; leveraging and engaging in two-way communication.
- The COVID-19 pandemic provided a unique opportunity to study risk communication and public trust on a global scale and results showed that main themes identified within this brief are aligned with well-established principles of risk communication and confirmed their importance.

## Issue and Research Question

Effective risk communication is critical for informing the public about risks to their health and provide guidance to address those risks.<sup>1</sup> Risk communication is the timely exchange of information and advice from practitioners or spokespeople to the public regarding threats to their health and well-being.<sup>2,3</sup> Providing information, when and where it is needed and using an effective approach, is essential to promote recommended prevention behaviours to the public, including during disasters and emergencies.<sup>2,4</sup>

When the Coronavirus Disease 2019 (COVID-19) pandemic first emerged in Canada, there was little to no information about the novel virus, the period of communicability or its transmission. Therefore, initial public health messaging focused on actions such as physical distancing and staying home to reduce the spread of the disease.<sup>2</sup> Over time, communication about COVID-19 risk and behaviours needed to convey evolving scientific evidence and guidance on measures such as setting-specific closures, masking and vaccination. However, the uncertainties of the COVID-19 pandemic were accompanied by misinformation (sharing of false information without intentional harm) and disinformation (sharing of false information knowingly to cause harm) that have been described as undermining public health risk communication and increasing distrust among the public.<sup>5</sup> A decrease in public trust can create barriers for risk communication and reduce the likelihood of adherence with public health measures.<sup>6</sup> In Ontario, public perception on the importance and uptake of public health guidelines significantly decreased over the time of the pandemic.<sup>7</sup> Effective risk communication with the public continues to be important during this prolonged public health emergency to reduce morbidity, mortality and the impacts on higher risk groups. As we learn from the experience of COVID-19, it is important to consider emerging evidence on risk communication during the COVID-19 pandemic to inform preparedness for future large-scale and potentially longer-term infectious disease emergencies and pandemics.<sup>8</sup>

To examine risk communication evidence from the COVID-19 pandemic, this brief explores risk communication strategies that aim to foster trust in public health messaging and improve uptake of recommended prevention behaviours. In this brief, 'trust' is examined as the expectation from the public that a message is true and reliable, and the communicator demonstrates competence by honestly conveying accurate, objective, and complete information.<sup>9</sup> The purpose of this evidence brief is thus to provide a summary of the recent literature as it relates to trust, risk communication and public health message uptake during the COVID-19 pandemic.

## Methods

To explore the evidence base, grey literature and indexed literature searches were conducted by Public Health Ontario (PHO) Library Services. Custom Google search engines for Canadian, United States (US) and international public health organization websites were searched on October 11 to October 18, 2022, with search strings developed by a PHO library information specialist. PHO Library Services conducted database searches in MEDLINE September 12, 2022 and PsychINFO and Scopus, September 19, 2022. The search was limited to English language resources published during the COVID-19 pandemic (2020 to search date). Search terms included: COVID-19, government or institutional trust, trust, risk communication or risk communication strategies, to trust or fatigue or compliance or confidence or consistency or behaviour change. The search strategy is available upon request. The body of included studies was augmented by seminal articles or reports provided by subject matter experts that provided Ontario or Canadian context.

Records identified were eligible for inclusion if they discussed COVID-19 and included risk communication strategies to support trust. Records focused on special populations (e.g., cancer patients, immunocompromised individuals) were excluded during screening. For the purpose of this brief, search results related to vaccine uptake as a behaviour impacted by trust were excluded from the search, as vaccine uptake and related behaviour was out of scope for this review. Four reviewers were involved in the screening process. All results were divided randomly between the reviewers, each acting as a primary screener for their section, with 20% of all articles being cross-screened independently by a second reviewer to resolve any conflicts and discuss any perceived differences in inclusion/exclusion criteria.<sup>10</sup> Full text articles were retrieved and followed the same screening process as the title and abstracts with the same three reviewers. Discussion was used to reach agreement on the final set of articles.<sup>10</sup>

The final list of included articles was divided amongst the four reviewers to complete data extraction. Detailed data extraction findings are available upon request. Relevant information was collected and then summarized in an extraction table. Thematic analysis was used where the data was analyzed and grouped into themes by three of the four researchers.<sup>11</sup> The themes were compared and finalized between the researchers. Relationships were drawn between the themes, re-grouped into sections, defined and presented in our findings.

## Main Findings

### Search Results

A total of 1,097 records were obtained from indexed literature database searches. After title and abstract screening, 306 were included for full-text review. After assessing for eligibility, 33 indexed literature studies were included in this evidence brief. Grey literature records were obtained from searching custom Google search engines for Canadian, US and international public health websites and returned seven eligible articles. A further seven records were provided by subject matter experts.

The grey literature search results included risk communication strategy guidelines, standards, toolkits, and journal articles. The grey literature articles were produced by government organizations at various levels as well as public health agencies globally such as the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), Pan American Health Organization (PAHO), the Government of New South of Wales Australia, the Ontario Hospital Association and educational institutions such as Harvard University and the University of Guelph.

All included evidence that demonstrated effectiveness or evaluation results are presented below. The resources selected only provided risk communication strategies or tactics based on findings from the COVID-19 pandemic.

### Thematic Analysis

Five themes were identified from the literature, with some studies spanning multiple themes, which is described in the findings. The themes provide insights and recommendations for risk communication during public health emergencies such as external and structural factors (n=13);<sup>2,12-23</sup> individual factors (n=17);<sup>2,7,15,19,24-36</sup> equity and socio-demographic factors (n=3);<sup>26,27,33</sup> communication strategies (n=21);<sup>3,6,12,14,15,18,20,22,26,31,35,37-46</sup> and characteristic of effective risk communication messaging (n=11).<sup>32,43,47-55</sup>

## EXTERNAL AND STRUCTURAL FACTORS

The findings suggest that trust is influenced by both individual factors, such as personal beliefs, and external factors, which include political beliefs, the institution delivering information, and the delivery platforms used to communicate risk communication. The findings highlighting external and structural factors are described below.

### ORGANIZATIONAL TRUST

How the public perceives an institution or organization affects trust.<sup>20</sup> Individuals' level of institutional trust is shown to be influenced by their political ideology.<sup>18,21</sup> Scandurra et al. (2021) used an online survey (n=948) in Italy and found that higher trust in Italian government organizations lead to more people following the public health messaging. They further found that lower trust in Italian government organizations increased anxiety about the future and pandemic fatigue, resulting in reduced uptake of protective behaviours.<sup>21</sup>

The connection between government messengers and trust was shown across jurisdictions and levels of government identified in the literature. Several studies examined the difference in uptake of public health messaging depending on the level of government delivering the messages (local versus federal).<sup>14,18,21</sup> Bickham and Francis (2021) used survey research methods (n=285, gathered through Facebook from participants in the US) to examine the relationship between public trust in government, credibility and adherence to government messaging about COVID-19.<sup>14</sup> Approximately 80% of respondents found both their local and state level government officials were more trustworthy in regard to guidance about stay-at-home orders, social distancing and COVID-19 testing, whereas 55% considered federal government officials less trustworthy.<sup>14,18</sup>

### SOURCE AND DELIVERY PLATFORMS

Risk communication during the COVID-19 pandemic was delivered through a variety of different sources, including: all levels of government, non-governmental organizations, traditional and social media, blogs, and word-of-mouth. How, when and where communities access their information is described as information-seeking behaviour. Information-seeking behaviours can change during a public health emergency, with most of the public initially looking to government or other health institutions for information.<sup>17,22</sup> The literature suggests that the degree of trust in public health information is related to the dissemination platform, and where individuals choose to get their information is influenced by their political beliefs.<sup>13,15,16,18</sup> Ali et al. (2020) examined the use of different COVID-19 information sources and the connection to trust and information.<sup>12</sup> Utilizing an online survey of 11,242 US participants from across the country, the authors found that government websites were the most trusted source of information (43.3%), though the levels decreased among participants who were male, aged 18-59 years or ≥60 years; not working, unemployed, or retired; or had a Republican political (right on the political spectrum) party affiliation.<sup>12</sup> They also found that individuals with children and higher educational attainment were likely to use more sources. Overall, where individuals found their information differed based on demographic variables such as sex, age, race, religion, employment, education and political affiliation whereas trust in sources was associated with knowledge and beliefs surrounding COVID-19.<sup>12</sup> The authors suggest that public health professionals communicating information on COVID-19 should acknowledge and adapt to disparities in public trust and information source preferences to address the differences in knowledge and beliefs.<sup>12</sup>

## MISINFORMATION

Based on a report published by Statistics Canada, many people turned to online sources, using social media and the internet to obtain information on COVID-19.<sup>23</sup> The report explains that while online resources can be an important source of information, the pandemic created what is described as an ‘infodemic’ or, the overabundance of information that may be true or not, making it difficult for the public to find important information. The report utilized data from the Canadian Perspectives Survey Series (CPSS) in July 2020 which showed that 90% of Canadians were using online sources to find COVID-19 information, with 96% feeling that there was inaccurate COVID-19 information online. However, 36% stated that they did not always check the accuracy of the information and 53% stated that they share the information without checking its accuracy.<sup>23</sup>

Misinformation can impede the delivery of important information from public health authorities. In a Canadian study on misinformation, 46% of participants (n=2,000) believed in one of four COVID-19 conspiracy theories and myths, while 58% believed they could distinguish between truthful information and a conspiracy theory.<sup>19,56</sup> Distrust in scientific expertise and the spread of disinformation has been considered detrimental to risk communication in the context of a prolonged public health emergency, such as COVID-19.<sup>2</sup>

## INDIVIDUAL FACTORS

Though there are many strategies and tactics for risk communication to improve trust, there are individual factors that affect public trust, such as socioeconomic conditions and personal beliefs.<sup>15,25,26,29,30,34</sup> The findings are summarized below.

### RISK PERCEPTION AND PERSONAL BELIEFS

Risk perception influences preventative health behaviours. A high level of risk awareness is connected to higher uptake rates of government public health measures.<sup>34</sup> A survey of Ontarians with data collected at four time points between April 2020 and April 2021 (n=1,435) showed changing trends in risk perception and public health measure uptake.<sup>7</sup> Over the study period there was a decrease in perceived importance and uptake with public health measures as well as perceived government effectiveness.<sup>7</sup>

Similar to individual risk perception, one’s personal beliefs can influence their trust and uptake of public health measures. Those who believed more in individual freedoms over collective action had decreased trust, while those receiving information from scientists compared to political institutions, and information from traditional media over online sources, increased trust.<sup>15,29</sup> Bronfman et al. (2021) surveyed Chilean university students (n=1,136) and found that influential factors that lead people to comply with public health measures was worry or fear, and to conform with social norms, in a society where there is low trust in Chilean government.<sup>28</sup>

### INTERPERSONAL TRUST

Several studies described interpersonal trust, the perception that most people are generally trustworthy, in relation to communication and adherence with measures. Siegrist and Bearth (2021) found that individuals with low interpersonal trust and higher individualistic worldviews had a low level of perceived risk and thus were more likely not to comply with interventions.<sup>34</sup> The authors found that in the COVID-19 pandemic, interpersonal trust decreased as the rate of infections declined. The authors conclude that interpersonal trust not only declines over time but is affected by individual perceptions of risk.<sup>34</sup> The findings suggest that interpersonal trust is important to following public health direction, but in times of prolonged crisis, interpersonal trust can wane.<sup>25,34</sup>

Utilizing narrative-based communication, where messaging is used to evoke emotions from the public using stories to connect messaging with empathy, increasing sense of community, and uptake of public health interventions can also increase interpersonal trust. Different narrative-based communications may connect the audience member with the messages and may improve the connection between individual action and implications on greater society.<sup>25,31,32,35</sup> Arora et al. (2022) explained how utilizing persuasive narrative-based communication can be a key component for strategic leadership and increasing trust with the public.<sup>24</sup> The authors analyzed Facebook posts of Norway's Prime Minister, Erna Solberg, who had used social media as a platform to convey COVID-19-related information and connect with the public throughout the pandemic. They identified that the use of persuasive narrative-based communication delivered through praising the public's efforts, promoting togetherness, caring about the public's well-being, demonstrating optimism and confidence in government measures and humour, increased trust with the general public and allowed for better adherence to public health measures.

## **EQUITY AND SOCIO-DEMOGRAPHIC FACTORS**

Public health measures and recommendations were important to reduce the spread of COVID-19 and protect high-risk populations. COVID-19 did not affect all Canadians equally and existing health inequities meant that some groups and populations were disproportionately impacted by public health measures.<sup>2</sup> Societal inequalities (e.g., differential access and use of public services such as healthcare or education) and population groups with lower socioeconomic conditions (e.g., economic insecurity, educational background) were shown to have lower institutional trust.<sup>26,33</sup> Specific groups were identified as having additional challenges following COVID-19 public health measures. Socio-demographic factors such as being male, younger age (34 years old or younger), living in rural areas, and being in the paid workforce were shown to be associated with lower risk perception and had less confidence in their ability to comply with public health measures.<sup>27,36</sup>

Levels of educational background is associated with levels of COVID-19 knowledge, which affected uptake of public health measures.<sup>33,57</sup> Shafiq et al. (2021) found in their surveys of US adults (n=718 in the first survey, and n=672 in the second survey) that participants with some college education background reported a lower COVID-19 knowledge score compared to participants with a college degree.<sup>33</sup> Similar findings were shown in a Canadian survey where having high school education or less was associated with being less adherent in following public health measures and precautions.<sup>36</sup> Furthermore, participants with no high school education were less likely to adopt public health preventative behaviours and measures compared to participants with college education. Overall those with a higher level of COVID-19 knowledge score showed a greater uptake with public health measures and behaviours.

Targeting high-risk and marginalized groups require a unique and tailored response as many members of these communities have significant distrust in public institutions.<sup>26</sup> The historical systemic racism, colonization, and social injustices can contribute to individual and collective experiences of institutional distrust and exacerbated COVID-19 inequities (e.g., inequitable access to protective equipment such as masks or tests, not feeling prepared, or lack of perceived severity).<sup>2,26</sup> The tailoring of messaging is further explored in the communication strategies and approaches section below.



## COMMUNICATION STRATEGIES AND APPROACHES

The findings suggest that ‘how’ risk communication is delivered is as important as the messages themselves when it comes to influencing public trust uptake. The following is a summary of the findings on communication strategies and approaches.

### SELECTING AN APPROPRIATE SPOKESPERSON

The literature shows that the person, or organization, that delivers the message can affect trust in the information and uptake of public health messaging.<sup>14,20,21</sup> The following highlights findings regarding the risk communication messenger, trust, and uptake of public health messaging.

#### Government as the Spokesperson

The connection between government messengers and trust was shown across the literature. Several studies examined if there was a difference in uptake of public health messaging depending on the level of government delivering the messages (local versus federal).<sup>14</sup> Two studies outlining this connection are summarized below.

Bickham and Francis (2021) used survey research methods (n=285, gathered through Facebook from participants in the US) to examine the relationship between public trust at different levels of government, credibility, and adherence to government messaging about COVID-19.<sup>14</sup> Approximately 80% of respondents found COVID-19-related information more trustworthy when delivered at a local level, whereas only 55% found federal government COVID-19-related information trustworthy.<sup>14,18</sup> In contrast, Favero et al. (2021) found that in an environment saturated with public health messaging from various sources, the level of government providing the messaging does not affect message efficacy. Using a US survey of 1,545 participants, they determined that socioeconomic factors and political partisanship had greater effect on message efficacy and trust.<sup>18</sup>

#### Practitioners as the Spokesperson

In the literature, the use of practitioners to deliver public health messaging was recommended to increase trust and uptake of public health measures.<sup>15,31,35,44</sup> Clinicians (doctors and nurses) were highlighted as trustworthy practitioners to the public and recommended to be used to deliver risk communication.<sup>12,35,43</sup> Solnick et al. (2020) determined that emergency physicians delivering messages are more likely to elicit public uptake over messaging delivered by politicians.<sup>35</sup> Through using physicians or practitioners to deliver public health messaging, the information comes from trusted health professionals<sup>43</sup> and is less likely to be considered political, eliciting a greater response by the public.<sup>41</sup>

### USING TWO-WAY COMMUNICATION

In times of crisis, communicating risk information is important to help build awareness, generate warnings, or govern public actions. In crisis communication, when there is a high level of concern among the public, a top-down approach is often used, where government or agencies pass information down to local communities. This information is often delivered in a unidirectional way due to the urgency, without feedback from or engagement with the target audience.<sup>3,22</sup> During emerging public health incidents and emergencies, crisis communication may be necessary to provide the right information quickly to the public. In these situations, there may not be time for engaged stakeholder communication where both entities work together to plan, develop and implement a response, as emergency information must be delivered quickly due to safety concerns. However, when organizations are not in a time of crisis and there is less urgency impacting the nature of communication, risk communication

benefits from a dynamic two-way process, where information is exchanged back and forth between the spokesperson and the target audience to build the capacity to collaborate effectively.<sup>3</sup> The use of two-way communication, and engaging target audiences, has been recommended to facilitate trust and create messaging that the public is more likely to follow.<sup>31,38,39,42,43,45</sup> This strategy is also recommended to reduce misinformation and engage with target audiences. Having two-way communication allows for professionals to respond to information gaps and misinformation, answering questions and commenting in real time. Murthy et al. (2021) suggest that this two-way dialogue creates transparency, reduces rumours, and acts as a way to actively inform a population of risk.<sup>40</sup>

According to the National Academies of Sciences, Engineering, and Medicine conference (2021), the top-down approach of COVID-19 risk communication, without engaging the target communities, was a missed opportunity to improve risk communication. Without two-way communication, local communities' needs in both message framing and communication tactics were not understood.<sup>42</sup>

Ritter et al. (2022) examined the Dear Pandemic program, a campaign launched on Instagram and Facebook in 2020 that used two-way communication to combat misinformation and guide individual risk-reduction behaviour.<sup>43</sup> With over 97,000 followers, a multidisciplinary group of female scientists (nurses, epidemiology, behavioural science, immunology, family medicine, public policy, demography) provided vetted scientific information on COVID-19 on social media in a conversational format, allowing the public to discuss the complex nature of COVID-19 topics, such as masking and family dynamics. Authors suggest that this form of communication demonstrates how scientific content published outside academic venues can provide high value, increase trust, create behaviour change, and offer resources for community providers that are navigating the changing landscape of COVID-19.<sup>43</sup>

## **TAILORING MESSAGING TO TARGET AUDIENCES**

Tailoring messaging is the crafting of risk communication messages that are relevant to a specific target audience. Customizing risk communications can help to ensure that the information reaches the target audience and thereby positively influence its effectiveness.<sup>40,46</sup> Best et al. (2021) suggest that tailoring messaging is particularly useful for communicating to marginalized communities that have significant distrust in public institutions.<sup>26</sup> There are several studies that describe the use of tailored messages to communities to improve trust and public health uptake.<sup>37,40,45,46</sup>

Slavik et al. (2021) conducted a scoping review of Canadian provincial government websites, identifying the Twitter interface of 128 Canadian public health institutions, agencies, and leaders.<sup>45</sup> Through analyzing 501 Tweets, the authors found a disconnect between the messages communicated by public health accounts and information that would benefit the communities that the messages were intended for. They found that many of the tweets were not relevant for the target audience, making it difficult for them to determine what information to follow. Slavik et al. (2021) suggest that Twitter communications, with the goal of increasing behaviour change and disseminating information, should be crafted directly to specific audience members, with a focus on community to increase information relevancy (Slavik et al. 2021).<sup>45</sup>



## CHARACTERISTICS OF EFFECTIVE RISK COMMUNICATION MESSAGING

### TRANSPARENT

Transparent messaging is an integral component of risk communication and supports developing trust between the general public and public health institutions.<sup>32,47,48,50,52,53</sup> Porat et al. (2020) propose guidelines for risk communication to facilitate trust.<sup>52</sup> To better support accessible, reliable and inclusive communication, they suggest that transparency and acknowledging uncertainty can support behaviour changes during times of information uncertainty, increasing uptake to public health measures. The authors explain that the lack of transparency can give rise to misinformation and mistrust which can lead individuals to seek unreliable information from other sources such as social media.<sup>52</sup>

Beattie and Priestley (2021) examined New Zealand's approach in COVID-19 response with their implementation of public health policies (e.g., masking, lockdowns, vaccination rollout).<sup>47</sup> Utilizing regular briefings and straightforward, clear, open and transparent communication resulted in increased public trust in their government agencies. Their Director General of Health's delivery of information was apolitical and free of journalistic editorializing and sensationalism, which was perceived as not withholding information during a crisis.

A prolonged public health crisis such as COVID-19 includes periods of uncertainty and lack of information. Over time, public health recommendations may change as more information becomes available. Changing public health recommendations throughout the pandemic, or recommendations that are publicly contested or debated, can lead to decreasing trust, fear, and panic.<sup>49,54</sup> Noted in the literature is the importance of addressing uncertainty that can lead to misinformation. The WHO put forward five recommendations to combat uncertainty: 1) be transparent; 2) explicitly communicate information about uncertainty; 3) maintain consistency over time; 4) maintain consistency in communication among partners; 5) communicate action.<sup>54</sup> Similar to the recommendations by Igoe (2021), spokespersons should be transparent about uncertainty and tailor messages specifically to communities so they know how the information applies to them directly.<sup>49</sup>

### EVIDENCE-BASED

Messaging that is perceived to be based on credible evidence increases trust and thus uptake of public health recommendations. It allows for sharing of information that is based on scientific research and provides individuals with transparency as well as the tools necessary to make an informed decision.<sup>43,51,53</sup> Oxman et al. (2022) explain how to utilize evidence-based messaging in health communication, aimed to either inform or persuade people.<sup>51</sup> The authors define persuasion as influencing by reason and argument, such as when encouraging people to wear facemasks to reduce the spread of COVID-19 based on what is known. They found that persuasion methods were mostly used to maximize public health uptake but can limit a person's ability to make an informed choice of their own. On the other hand, seeking to inform people means providing an individual with options along with their respective pros and cons, enabling them to make an informed choice, but this can negatively affect rates of uptake. The authors conclude that both methods of either persuading or informing people are reasonable approaches for health communication as long as the message is transparent, evidence-based and honest, as to not undermine public health goals, manipulate people or distort the evidence. Key messages should be upfront and include evidence to justify approaches being taken.

Alternatively, transparency about the low quality of available evidence for certain non-pharmaceutical health interventions may result in a decrease of trust and public health uptake. Schneider et al. (2021) found that when the quality of evidence was not provided, individuals automatically perceived the health intervention as higher quality, positively affecting perceptions of efficacy and trust in the information. When individuals were told the quality of evidence was "low", they saw the intervention as less effective and were less likely to implement actions.<sup>53</sup>

## ACTION-ORIENTED COMMUNICATION

Messaging that focuses on what people should do, and the actions they can take themselves, in contrast to messaging that states what individuals should not do, is considered action-oriented communication.<sup>52</sup> Porat et al. (2020) proposed guidelines that can help support behaviour based on self-determination theory, a theory that suggests individuals need autonomy, feelings of competence, and relatedness to be motivated. Their proposed guidelines include applying a bottom-up approach and creating solidarity.<sup>52</sup> The authors explain that to foster public health uptake a bottom-up approach should be utilized compared to the conventional "top down" method where decision makers push information down to local communities. Instead, decision-makers should better understand the needs of the public, utilizing the communities themselves to tailor the messaging to better fit their need. Bottom-up messaging that is inclusive, actionable and better integrated for audiences and communities who are in different circumstances will enhance trust and build confidence in the decision maker's ability to manage a crisis. The authors noted of the included papers in their systematic review, the example from Taiwan demonstrated a human-centric approach. It involved trust and cooperation where the government actively engaged with various sectors of society to enhance public support, specifically engaging with local religious leaders to postpone mass religious gatherings rather than forcing laws to ban the gatherings.

The need for action-oriented communication is further supported by Trifiletti et al. (2022) explaining the importance of promoting intended behaviour.<sup>55</sup> The authors reviewed literature regarding different health behaviours and examined psychological predictors of protective behaviours during the COVID-19 pandemic. They found that adherence to protective behaviours was based on attitude, social norms and intention to complete the behaviour and suggest that to be effective, communication strategies should be aimed at encouraging preventative measures.<sup>55</sup>

## Discussion and Conclusions

The COVID-19 pandemic is a unique and important opportunity to study risk communication and public trust on a global scale. The studies reviewed in this evidence brief examined different factors of risk communication used during the COVID-19 pandemic, and the association with trust and uptake of public health measures. Through examining the COVID-19 pandemic and risk communication, the literature describes internal and external factors that affect trust in our recent context. The themes identified align with principles established in the field of risk communication; for example, recommendations in a previously published [PHO summary on risk communication](#).<sup>1</sup> Recent evidence from the COVID-19 pandemic furthers our understanding of risk communication in a prolonged public health crisis and illustrates that communication can be improved and trust can be fostered during such periods.

The findings suggest that individual factors can affect degrees of trust. Political ideology influences personal perception of whether the information or spokesperson is trustworthy, as individuals are more likely to trust the information coming from the political party that aligns with their beliefs.<sup>43,58</sup> When individuals feel that information is being pushed from a politician that is not aligned with their partisan

beliefs, they are less likely to trust the information.<sup>43,58</sup> Personal beliefs around perceived risk, personal liberties, the credibility of scientific evidence and interpersonal trust were shown to affect trust and uptake of public health messaging.<sup>25,30,34</sup>

The findings suggest that there are external and structural factors that affect degrees of trust, such as who is delivering the message and the source of information. When information is delivered by individuals who are considered practitioners (e.g., clinicians, scientists, nurses), the public is more likely to see the information as being evidence-based, transparent and not politically-driven, deeming the information more trustworthy and more likely to be followed.<sup>12,13,43</sup> In contrast, when messaging is deemed to be overly politicized, or presented by a political spokesperson, individuals are less likely to trust the information.<sup>12,35,41,43</sup>

Risk communication best practices, such as transparency and tailored messaging, should be utilized in any public health emergency. When messaging is transparent, highlighting uncertainties and illustrating evidence, the public is more likely to find it trustworthy and implement that behaviour.<sup>47-54</sup> When communication is clear about missing or evolving information, it can minimize the erosion of trust in a changing public health landscape. Narrative-based communication delivered through praising the public's efforts, promoting togetherness and solidarity, caring about the public's well-being, demonstrating optimism and confidence in government measures can also increase trust and public health uptake.<sup>24,25,32,35</sup>

The evidence shows that messages should be tailored to target audiences as much as possible,<sup>37,40,45,46</sup> to ensure relevancy, and provide audiences with direction and action.<sup>52,55</sup> It shows that information-seeking behaviours increase during times of uncertainty and in order to improve implementation of public health measures, risk communication activities should increase using familiar mediums.<sup>17,22</sup> Individuals are often looking for information on how to protect themselves and reduce risk,<sup>17,22</sup> so messaging that provides actionable steps provides direction. To ensure the actions are relevant, the information should be tailored to specific audiences. Through tailoring public health information, the public feels like the information is directly relevant to their personal experience<sup>37,40,45,46</sup> and can help in reaching marginalized communities that may historically have distrust in large institutions.<sup>26</sup>

The results of this evidence brief illustrate the complexity of trust in times of crisis, and how specific communication strategies and tactics may support good risk communication to help build and maintain credibility with the public. Although each situation and audience may be quite different, this brief has highlighted strategies and tactics that can guide public health professionals as they design and deliver risk communication in prolonged public health emergencies.

## Public Health Implications

This Evidence Review provided insight into risk communications during the pandemic to support the building of public trust and uptake of public health recommendations.

The following are key considerations that can be useful to public health practitioners:

- **Transparency, even in times of uncertainty, is necessary to foster trust**

There may be times of uncertainty, limited information, and changing recommendations during prolonged public health emergencies. It is important to address uncertainty, be transparent about information and current evidence, and maintain consistency in messaging where possible.

- **Evidence-based information delivered by practitioners maintains trust**

The findings show that the public is more likely to trust information and adhere to recommendations when perceived to be based on credible evidence, whereas using persuasion techniques that limit individual choice may negatively affect uptake in public health measures. Information that is delivered by experts, such as doctors, Medical officers of Health (MOH) and nurses, rather than politicians, increases trust in the message.

- **Governments are considered a trusted source of information**

Governments have been illustrated as a trusted source of information by the public. Although individual factors, such as personal political alignment, may influence this trust, much of the research showed that messaging delivered by government was more likely to be followed by the public than information delivered by other sources.

- **Tailoring messages to at-risk target audiences can improve trust**

Tailored messages that are relevant to specific audiences engender greater trust. Further, persuasive narrative-based communication that speaks to the audience's efforts, promoting togetherness and interpersonal trust, can also increase trust in public health messaging.

- **Engaging with two-way communication can foster trust and combat misinformation and disinformation**

The use of two-way communication, even in times of crisis, is shown to improve trust and credibility in risk communication. Through engaging with the target audience, misinformation and disinformation can be mitigated. Two-way communication further highlights other important key considerations, as engaging with target audience's increases transparency, relevancy, and tailoring of messaging.

## Resources

- World Health Organization (WHO). Communicating for health: WHO strategic framework for effective communication [Internet]. Geneva: WHO; 2022. Available from: <https://www.who.int/about/communications>
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