# The COVID-19 pandemic, misinformation, trust, and inequities: the case for embracing a community resilience approach in pandemic preparedness and response efforts

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Analysis

# The COVID-19 pandemic, misinformation, trust, and inequities: the case for embracing a community resilience approach in pandemic preparedness and response efforts

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**Key messages**

- The pandemic was marked by unprecedented ability and speed to share information globally, eroding trust in institutions, and grave socioeconomic inequities that exacerbated the impact of the pandemic. These enabled an environment of misinformation and erosion of trust.
- The spread of misinformation and its impact on people's psyche are manifestations of deeper issues around trust in governments and institutions
- Despite ample evidence of their importance, communication and community engagement efforts are often not institutionalized or provided the needed resources in pandemic response efforts.
- Embracing a community resilience approach to pandemic preparedness and response requires a paradigm shift from the traditional efforts that mainly focus on immediate top-down actions during pandemics to investment in communities prior to, during, and after pandemics.

## Contributors and sources

SMA, SFK, and MJ conceived and designed the manuscript. SMA, SFK, MJ and MV drafted the manuscript with inputs from all authors. All authors contributed to revising the manuscript and approved the final version. This analysis was part of the work commissioned by the Independent Panel for Pandemic Preparedness & Response, which reviewed the national responses of 28 countries. Data used for the analysis was collected through three complementary methods: 1) literature review of peer-reviewed papers, policy documents, public reports, and articles that examined national and sub-national policy responses, 2) semi-structured interviews with country experts and national government written submission of selected countries about their own account of the measures implemented to contain COVID-19, 3) validation of country specific data by experts through written consultation and round table discussion.

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## Patient involvement

No patients were involved in this analysis.

## Conflicts of Interest

We have read and understood BMJ policy on declaration of interests and have the following interests to declare: All authors declare no conflict of interest. The Secretariat of the Independent Panel for Pandemic Preparedness and Response is independent.

# The COVID-19 pandemic, misinformation, trust, and inequities: the case for embracing a community resilience approach in pandemic preparedness and response efforts

**Standfirst**: Salma M Abdalla and colleagues examine the contextual factors that shaped communication and community engagement during COVID-19. They argue that the COVID-19 highlights shortcomings in the current approach to communication and community engagement. The authors propose that adopting a community resilience approach is required in pandemic preparedness and response efforts.

## Introduction

The COVID-19 pandemic has yet again showcased the significance of centring communities in disease outbreaks preparedness and response efforts. Throughout the pandemic, many communities across the world organized to tackle the virus as well as help those most affected by the social and economic impact of the pandemic. However, the pandemic also highlighted the challenging contextual barriers to community engagement efforts during a rapidly spreading disease outbreak. This analysis aims to highlight the need for a paradigm shift to centre communities in future preparedness and response efforts.

## COVID-19 in context: the first digital pandemic, misinformation, and erosion of trust

Communication and community engagement are often challenging during disease outbreaks of a known pathogen. They require: ensuring people have the information needed to protect themselves; managing anxieties; and relaying consistent, transparent updates to the public, community institutions and leaders, and to health workers on the front lines. Even when confined to small geographic areas, community engagement and communication efforts often face challenges, such as communicating through different languages and dialects, and engaging different groups that potentially have varying levels of trust in health workers and governments, and often experience disparities in access to resources and information. These challenges peaked during COVID-19, a period marked by an unprecedented ability and speed to share information globally. The impact of the pandemic was exacerbated by an erosion of trust in institutions and grave socioeconomic inequities.

Information about what was later identified as SARS-CoV-2 spread faster globally than the virus itself. On December 31st, 2019, an online Chinese news outlet published Wuhan Municipal Health Commission's concern about cases of pneumonia of unknown origin. Within three hours, ProMed-mail—an internet-based infectious diseases outbreaks reporting service

managed by fewer than 50 part-time employees—translated and published the article online, 40 minutes before the Wuhan Municipal Health Commission issued a public bulletin.(1) By January 1st, 2020 mainstream outlets were reporting on the outbreak, prompting the World Health Organization (WHO) to take the unprecedented move of reporting a new outbreak through Twitter on January 4th, 2020. Within five days, knowledge of the cluster of cases of pneumonia of unknown origin that became known as the now-ubiquitous COVID-19 emerged into the digital world. The demands for information were justifiable, unrelenting, and unsatiable. Meanwhile, what was known about the virus, the damage it could do. and the measures people should take to protect themselves, all splintered through a prism of languages, social media feeds, biases, geopolitical tensions, fears, and divergent levels of health literacy. Digital platforms have been inundated with COVID-19-related information since the pandemic began in late 2019. For example, between February and November 2020, information about the virus has been shared and viewed over 270 billion times online with almost 40 million Twitter and web-based news sites mentions in the 47 countries of the WHO African Region.(2)

The COVID-19 pandemic also led to a cosmic increase in scientific publication—including both peer reviewed and non-peer reviewed pre-prints. While the internet and social media helped in rapid dissemination of information on preventive measures as the science evolved, it also produced unprecedented volumes of misinformation. Social media discussions spread confusion around many areas including the use of masks and SARS-CoV-2 mode of transmission.(3) The spread of misinformation on social media became an even larger issue when prominent political leaders including some heads of governments and other 'influencers' used their social media accounts to question the prevailing science, as well as introduce and support unverified treatments to the virus.(4) Prominent social media platforms took initiatives to curb misinformation—for example, YouTube removed around 800,000 videos containing COVID misinformation including 30,000 on vaccines.(5) However, managing information about an unknown pathogen with pandemic potential became arguably as challenging as managing the virus itself. By February 2nd, 2020, the global flow of information – including factual, misinformation and disinformation – was so voluminous the WHO stated the world was not only experiencing a pandemic, but an infodemic that made it difficult for people to find trustworthy guidance and sources.

Accounting for the trends of local media consumption and widespread social media uptake, several countries adopted a multi-pronged communication strategy deploying both traditional media and new media channels to tackle COVID-19. Countries including China, Singapore, South Korea, and Japan heavily relied on digital communication channels such as government websites, social media, and messaging apps for communication efforts.(6) Unfortunately, the use of these channels inadvertently led to the emergence of misinformation and

disinformation. To tackle these issues, many countries including Brazil, Russia, Singapore, Thailand, and Vietnam passed legislations against online misinformation in 2020, threatening monetary fines and imprisonment. Governments were not the only entities that struggled to tackle misinformation. Social media companies were not as prepared as they could have been for a crisis of this magnitude. While there have been improvements, their efforts to combat misinformation remain deficient, for example, social media companies only banned sharing anti-vaccination information in February 2021. Moreover, “End-to-end" encrypted applications, such as WhatsApp, which is a popular application in many LMICs, are a significant source of misinformation, and are particularly challenging to monitor and control.

Another contextual factor that shaped the COVID-19 pandemic is the level of trust that communities have in their institutions. A key pillar of engaging with communities is establishing trust and maintaining effective channels of communication. In an emergency such as a disease outbreak, trust in three types of actors is often relevant to required behavioral change: the government which imposes the required changes and requests people’s compliance, fellow citizens whose cooperation is needed for individual efforts to be effective, and science as the source of information arguing that these changes are needed. The role of trust was in the spotlight during the 2014-2015 Ebola outbreak in west Africa. A large representative survey in Liberia at the time showed that people who expressed a lack of trust in government ignored precautions against Ebola in their homes—including hand washing, and social distancing, and were reluctant to follow Ebola control policies like safe burial. The study found that the lack of compliance was not due to lack of understanding of Ebola symptoms, means of spread, or precautions, but rather because people did not trust the capacity or integrity of the government to recommend precautions and implement policies.(7) Maintaining communities’ trust during pandemics relies both on pre-pandemic efforts to build the credibility of governments and institutions and on investment in resources as well as clarity and transparency in communication by both international and national authorities. The pre-existence of lack of trust in authorities is a consistent reason for inadequate community engagement, and this is often triggered by lack of proper, understandable, and consistent communication by authorities or political instability and violence. Several factors potentially contributed to the erosion of trust during the pandemic.

The COVID-19 pandemic demonstrated again that people who have little trust in government and scientific leaders are more reluctant to follow public health messages, particularly communities that are marginalized.(8) For example, at the outset of 2020, a survey of 34,000 people in 28 countries showed that only 42% of participants had confidence that government leaders could address the challenges of the day. However, trust in science, while decreasing, continued to be at comparably high levels. By 2021, trust in governments decreased even further.(9) Two factors potentially contributed to the erosion of trust during the COVID-19

pandemic. First, the COVID-19 pandemic presented a new and complex challenge in the need to communicate rapidly changing scientific understanding with increasing access to information. There were early errors in communication efforts, which failed to provide a clear indication that the science would evolve, and these errors later contributed to resistance to proposed public health interventions. Second, the geopolitical tensions with leaders of countries criticizing the handling of the UN, especially WHO, early communication and guidance around the outbreak in China impacted the public's trust in these institutions. This created challenges for international institutions in navigating the politics while communicating in ways that maintain credibility.

Ultimately, COVID-19 misinformation and trust are interconnected. The spread of misinformation is one manifestation of deeper issues around trust in governments and institutions. Misinformation in this context translated to resistance to public health measures such as mask wearing as well as vaccine hesitancy. In a way, that was a manifestation of people's expressed desire to be informed, consulted, included, and activated in the response plans and actions.

**Communication and Community engagement efforts during the COVID-19 pandemic**

There is ample evidence supporting the importance of sustained community engagement. Integration of good community engagement strategies into pandemic preparedness and response creates a sense of autonomy and confidence, fosters trust, facilitates an environment of sustainable behaviors, and improves compliance with precautionary measures, all of which lead to improved health outcomes.(10) With support from the community, governments can tailor solutions for the specific needs of the communities in general and marginalized groups in particular. The ongoing pandemic has demonstrated the need to center communities in preparedness and response efforts more than ever before, especially in a context of misinformation and eroding trust. Throughout the pandemic, many communities across the world organized to tackle both the virus as well as help those most affected by the social and economic impact of the pandemic. While many occurred organically, these efforts provide lessons that can be learned to improve communication and community engagement efforts in the future.

Community involvement during the pandemic ranged from passive actions to active engagement, either as per government directives or voluntarily through civil society organizations or under local community leadership. Overall, communities played a critical role in supporting the clinical response to the pandemic, particularly through helping in surveillance, testing, and contact tracing efforts. Communities also took on the responsibilities of developing and distributing essential medical equipment such as masks. Finally, many

communities supported members in need and linked people to services that address the larger societal aspects of pandemic management (box 1). These efforts were especially useful when governments did not provide basic services or when these services were suspended due to the reallocation of resources to COVID-19 efforts.

**Box 1: Emerging themes from successful community engagement efforts during COVID-19**

***Success factors***

- Effective **mobilization** of existing community structures, resources, trusted organizations, and knowledge bases e.g.,
  - *local health authorities in northwest Syria adopted a decade old polio vaccination mobilization system of local volunteers and a medical network in Turkey to raise COVID awareness, refer patients, and to train health workers,*
  - *women self-help groups in India entrusted to run community kitchens for quarantined people,*
  - *Yemen used local women association and international agencies to train women in a rural district to produce masks and PPE*
- **Institutionalizing** risk communication and community engagement in preparedness and response e.g.,
  - *Thailand had a well-designed risk communication plan with a clear command structure and clearly defined responsibilities; an all hazards risk communication plan; and a focused budget, which they used to roll out a 'stay home, stop the virus, for our nation' campaign across the national level and 76 provinces using the existing trusted network of Village Health Volunteers.*
  - *South Korea's Korea Centre for Disease Control and Prevention has an Office of Communication that is mandated to "perform communication in the emergence of infectious diseases". The office acted as a single focal point of communication of all technical and scientific information, and began sending messages on COVID-19 through multiple channels, even before the first case was reported in the country.*
- Developing **innovative** uses of technology and social media channels for engagement and communication e.g.,
  - *"route maps" in India for contact tracing*
  - *testing site locator mobile app in the US*
- **Promoting** cultures of civic mindedness e.g.,
  - *Japan, Taiwan, and China emphasized "consideration of others" in public health messages to promote mask use*
- Clear, consistent, and effective **messaging** e.g.,
  - *Thailand, Vietnam, and South Korea not only prioritized the communication of information to their populations, but also clearly outlined methods through which community members can manage risks within their own communities such as staying at home.*

There are also continuous challenges to this area and the COVID-19 pandemic highlighted some gaps in the current approach to communication and community engagement (box 2).

**Box 2: Inequities and human rights violations as emerging challenges to successful RCCE during the COVID-19 pandemic**

There have been multiple challenges to successful RCCE efforts during the COVID-19 pandemic. However, two areas standout. First, communities are not equal in their access to resources, and the biggest casualties from the pandemic have been marginalized groups and youths. In the United States, for example, there were no systematic efforts to engage Africans Americans in vaccine trials—only 3% of people enrolled in COVID-19 vaccine trials were African American although they represent 13 percent of the population and account for 21 percent of deaths due to COVID-19.(17) A key pillar of engaging with communities and with the public in general is establishing trust and maintaining effective channels of communication. The pandemic demonstrated that people who have little trust in government and scientific leaders are more reluctant to follow public health messages, particularly communities who are marginalized and have been isolated from the engagement process. The proliferation of misinformation, compounded by the erosion of trust in scientific leaders led to significant challenges in risk communication during the pandemic. An important constituent affected by the pandemic is youth. While young people are less likely to be physically affected by the virus, the COVID-19 pandemic has had a great impact on youth including interruptions in their education, employment opportunities, increasing domestic violence, and strain on mental health. For example, among Organisation for Economic Co-operation and Development (OECD) countries, the low-paying jobs that were most affected by the pandemic were mainly held by young people. About 35% of those aged 15-29 are employed in these jobs compared to 15% among middle aged employees. Moreover, the long-term social and economic consequences of the pandemic will most likely disproportionally affect young people and potentially exacerbate intergenerational inequities. However, gaps remain in efforts to engage young people and address their issues. (18)

Second, a significant challenge during the pandemic has been balancing efforts to tackle the virus without decaying human rights. International human rights law permits restrictions on civil liberties to protect public health so long as those restrictions are applied in certain ways.(19) Without attention to these limitations, public health responses can exceed constraints under human rights law, with digital surveillance and criminal law approaches to compliance raising particular concerns.(20,21) Further, increasingly authoritarian governments have exploited emergency laws to clamp down on civil liberties and attack political opponents.(22)

Historically, both communication and community engagement are often perceived as additions to response efforts during emergencies rather than core components of preparedness and response. As a result, neither area typically receives adequate resources and funding in the overall preparedness and response budget. Moreover, community engagement is often viewed as parallel to, or even a sub-component of, risk communication effort, rather than an overarching goal.

COVID-19 was no different. On the international level, there was a clear need for more commitment of resources to communication and community engagement efforts. This area is often dependent on waves of unsustainable project-based funding that cycle in and out during emergencies. For example, the WHO had sustained funding for capacity building for the first time in 2020, and about $1 million per year divided between headquarters and regions under the Pandemic Influenza Preparedness (PIP) framework. In fact, about 75% of risk communication and community engagement (RCCE) and 'infodemiology' staffing at the WHO are on project funding. When the Collective Service was established in June 2020 to advance RCCE around COVID-19, it was funded by a six-months grant by the Gates foundation, which was later extended for another six months. Even with these efforts, international guidance on RCCE mainly focused on risk communication (box 3).

**Box 3: RCCE efforts during COVID-19 pandemic at the international level**

Most of the efforts during the COVID-19 pandemic focused on the risk communication. The exchange of information and coordination globally was organised by the WHO to regularly report specific epidemiological indicators as relayed by the member states, the frequency of which depended on the reporting by countries. To manage the vast flow of information on the novel virus and facilitate availability of trustworthy and timely information, the WHO also established Information Network for Epidemics (EPI-WIN)(23).

To enable governments to effectively respond to COVID-19, the WHO released guidance on risk communication in January 2020. (24) In December 2020, in collaboration with GOARN (the Global Outbreak and Alert Response Network), United Nations Children's Emergency Fund (UNICEF), and International Federation of Red Cross and Red Crescent Societies (IFRC), WHO released a strategy document titled COVID 19 Global Risk Communication and Community Engagement Strategy. Between December 2020 and May 2021, global efforts aimed at ensuring people-centered and community led approaches to increase trust and social cohesion and reduce COVID-19 burden.(25)

On the national level, prior to the COVID-19 pandemic, WHO joint external evaluation of the International Health Regulations (IHR) core capacities of a sample of member states highlighted limitations in how countries approached RCCE efforts as part of their preparedness efforts. In particular, indicator 5.4 ("community engagement with the effected communities") had the second lowest average score out of the 5 indicators relevant to RCCE.(11) This is consistent with the lack of systematic efforts to sustain community engagement during "peacetime" and locating community engagement as part of risk communication efforts. Such an approach, while critical to successful community engagement, limits communities' capacity to be empowered or to be active participants in pandemic preparedness and response. Further, despite increasing political and operational commitment to community engagement, funding for community engagement is often limited, supporting ad hoc reactionary interventions rather than sustained action.(12)

These trends did not change much as the COVID-19 pandemic progressed, governments began prioritizing RCCE efforts as part of their pandemic response. In April 2020, only about 36% of countries reported having a plan to the WHO, but that number increased to 90% by October 2020. However, these numbers do not fully reflect the reality of RCCE efforts within countries, as the definition of RCCE efforts vary greatly by country.(12)

In a review of the COVID-19 responses among 28 countries as part of the Independent Panel for Pandemic Preparedness and Response, countries varied greatly in how they implemented RCCE efforts.(13) Overall, countries lacked formal community engagement plans as part of their response efforts, except a few countries that attempted to centre communities in their response efforts. Pakistan for example established an RCCE taskforce to develop messages and strategies and coordinate all related interventions. With its strength in rapid mass mobilization, Vietnam has been touted as an exemplar of 'whole of society' approach where the mass organizations, military, and police personnel came together to provide support for the community, particularly those undergoing targeted lockdowns.(14)

**Lessons to improve communication and community engagement emerging from the COVID-19 pandemic**

Three important lessons are emerging so far from COVID-19 pandemic around communication and community engagement, both from the successful efforts as well as from the challenges to official efforts by governments. These lessons are First, communities need to be early partners in all stages of the design, planning, implementation, and assessment of preparedness and response efforts. Community sense of ownership and involvement, especially marginalized groups, in the design and planning of interventions is an important factor in successful community engagement. This requires transparency from governments and appreciation and recognition of the importance of community engagement by the authorities. Second, community engagement is not a one-time effort. Successful community engagement efforts have to be ongoing prior to, during, and after disease outbreaks, which requires clear structures and sustained funding. This fosters trust in governments during times of vulnerability and uncertainty such as seen during the COVID-19 pandemic. Third, risk communication is necessary but insufficient on its own if it is unidirectional and not combined with other community engagement efforts. Effective risk communication includes opening communication channels with communities to understand their concerns and incorporate their feedback into government communication strategies, as well as providing communities with actionable, timely, and honest information online and offline to maintaining trust. Flow of communication between different stakeholders during a disease outbreak is critical and if the communication system between authorities and communities is broken, there will be confusion among teams in the field and in the community involved. Importantly, cyclical dissemination

of information is essential for sustained interest among communities to engage in prevention and response efforts.

**Embracing a community resilience approach in preparedness and response efforts**

A paradigm shift in communication and community engagement efforts can be realized through a community resilience approach to pandemic preparedness and response efforts. COVID-19 now provides a clear case for adopting such a community resilience approach.(15) Community resilience refers to the ability of a community to both mitigate adverse effects and recover from a disaster. Adopting a community resilience approach has been helpful for addressing large disruptions, e.g., natural disasters, affecting societies.(16)

Importantly, without sustained investment in communities, any form of engagement is likely to serve only as a band-aid rather than as a sustainable framework for future community empowerment and recovery. The pandemic has shown the role inequities in access to resources, pre-existing health conditions, economic investment, and human rights violations, in shaping health outcomes. The pandemic also brought into focus the grave socio-economic inequities that fueled the pandemic in many countries and were then exacerbated by the pandemic. Embracing a community resilience approach to pandemic preparedness and response requires a paradigm shift from the traditional efforts that mainly focus on immediate actions during pandemics to investment in communities prior to, during, and after pandemics.(15) Adapting a community resilience approach to pandemic preparedness and response can be achieved through developing a multi-pronged approach including effective risk communication through the ongoing provision of information on preparedness, risks, and relevant resources to the public before, during, and after an outbreak. This area is increasingly important in the age of social media and mass misinformation. A community resilience approach also requires fostering a culture of social connectedness and investment in civic mindedness. The empowerment of individuals and communities to be part of preparedness and response is vital and will also require promoting participatory decision-making in response and recovery efforts. In addition, a community resilience approach means integration and involvement of communities in planning and leadership through strong partnerships between governments and community-based entities to co-design interventions that address the specific needs of the local community. Finally, to enable resilience, governments need investments in social and economic well-being, and in physical and psychological health. Community resilience is strongly impacted by existing levels of social protections as well as access and utilizations of health services. The COVID-19 pandemic in particular highlighted the need to invest in people's mental health. Resilient communities are more prepared to mitigate the adverse effects and recover from large societal disruptions such as the COVID-19 pandemic.

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