Building public trust in preparation for future health shocks: a research agenda

Trust is fundamental to cooperation, essential in times of crisis. Researching and understanding trust networks and perceptions of trustworthiness is therefore crucial in preparing for future health shocks, write **Heidi Larson and colleagues**

The next health shock might not be a respiratory infection, but trust will be vital to the response. From the onset of the covid-19 pandemic, public trust was recognised as a crucial factor in enabling public health efforts to motivate populations to cooperate and adopt behaviours to curb the spread of the virus and its negative effects.[1-3] One study of 177 countries found that measures of trust—in government as well as between people—were identified as powerful influencers after analysing covid-19 infection and fatality rates alongside pandemic preparedness measures.[4] High levels of trust correlated with lower standardised infection rates and higher covid-19 vaccine coverage.[4 5]

Another study found a strong correlation between high trust levels and country level resilience across 150 countries during the pandemic.[6] In a more specific measure of the importance of trust to public cooperation, a study of 32 countries found that—above all other sociodemographic factors considered—trust in governments' handling of the pandemic response was the most important predictor of acceptance of covid-19 vaccine.[7]

Multiple factors determine trust and cooperation, including political, cultural, and economic contexts and histories.[8] Because of this, trust has been researched and investigated across disciplinary perspectives from philosophy, psychology, and ethics to biological and social sciences, risk science, business, and communication.[9-11]

KEY MESSAGES

- Although the longstanding public trust in healthcare professionals still holds, trust is waning among healthcare professionals themselves and needs further research
- Implementation science that evaluates setting specific approaches to building trust both before and in the context of crises is needed
- Beyond studies on dyadic trust relations, networks of trust need investigation to inform strategies for different settings as a key part of preparedness for future health shocks
- To make progress in research on trust, we need a dynamic systems approach, particularly crucial in the context of a health shock with its evolving uncertainties and multiple effects across the system and over time

Defining trust

Two key dimensions are widely acknowledged as determining trust. One is believing in the ability or competence of an individual, product, or institution to deliver what it is expected to deliver, and the second is believing that the intentions of the individuals or institution are well meaning and fair.[12] The neurologist Michael Swash opens his 2022 article on trust in healthcare with a quote from Samuel Johnson's 1755 dictionary: "Trust: a firm belief in the reliability, truth, or ability of someone or something (confidence, faith, belief)."[13] Some refer to the different dimensions of trust as being cognitive (assessment of competence) and affective (trust in motive and good intention).[13] In times of crisis and heightened uncertainty, when people have especially limited information and put themselves in the vulnerable position of deferring to others for guidance, trust is key.

Studies investigating trust in the context of health focus on different interactions—trust in a particular health intervention, in health professionals, in health services and institutions, in local or national government, in business, or in media or other information sources.[14-17] But one systematic review of research on trust in vaccination found that 19 of 35 studies reviewed referred to trust without any clear definition or reference to relevant literature.[18]

Studies have also considered generalised trust, considering those who are more trusting in general—having a kind of faith driven by moral values. As noted by the political scientist Eric M Uslaner, "Moralistic trust is faith in people we don't know and that does not depend upon our life experiences."[19] In other words, trust involves letting oneself become vulnerable to others' decisions or actions, to achieve a greater good. In a related article on the role of evolutionary behavioural science in understanding pandemic behaviour, Arnot and colleagues write: "We respond to crises not only just as individuals, but also as members of a series of nested communities. Often we have to entrust institutions with devising and enforcing health related policies on behalf of the whole group."[20]

Trust is relational. Along with contextual and historical influences, trust is determined by who or what is being trusted and their trustworthiness. As the political scientist Russell Hardin writes: "Trust by itself constitutes nothing. The best device for creating trust is to establish and support trustworthiness. As before, without the latter, there is no value in trust."[21] Trustworthiness is built over time but is often mediated by emotion, real or perceived experience, and other contextual factors. When, for example, politicians were found to be breaking lockdown rules by travelling or hosting social gatherings, the public lost trust, and the trustworthiness of the government's advice was undermined.[22]

In some cases, trustworthiness stands strong in times of uncertainty, such as when information given by an institution changes owing to changing circumstances, as in the covid-19 pandemic. A recent study by psychologist John Kerr and colleagues measured the effect of communicating uncertainty, both numerically and verbally, around covid-19 statistics, on participants' perceived trustworthiness of the information and its source. The study set out to test two opposing views—that communicating uncertainties might undermine audiences' perception of trustworthiness of the communicator or

source and of the quality of information and that given the trustworthiness of a communicator is associated with honesty and integrity, communicating uncertainty could contribute to trust building rather than undermining it, especially when information is changing. They found that sharing uncertainty in addition to the information led to little change in the perceived trustworthiness of the source.[23] Acknowledging uncertainty can build trust as it reflects honesty and transparency. In a trust building initiative introduced by the local council of Newham, east London, residents reported that hearing what was not known about the covid-19 vaccine helped build trust in the advice being given (box 1).

Characterising and measuring trust

Research on how to characterise and measure trust is highly varied in terms of methods, focus, and framing of trust.[26 27] Several studies have investigated trust in combination with other factors. One study looked at perceptions of covid-19 risk alongside trust in the health system, finding that fear of covid-19 and trust in the health system together motivated compliance with covid-19 interventions.[28] Another study found that believing that covid-19 was a serious risk combined with trust in science and scientists motivated adoption of covid-19 measures.[29]

Social scientists have also investigated trust, bringing different questions and research methods to the subject and settings where trust is at stake, particularly in crisis situations.[30] Political anthropologist Luisa Enria and colleagues considered trust in the context of conducting vaccine trials during the West Africa Ebola outbreak—a time of heightened fear, uncertainty, and distrust. Local qualitative research showed the importance of understanding the drivers of distrust, rather than assuming misinformation or misunderstanding. Enria and colleagues found that "a focus on listening to and understanding rumours revealed deeper concerns about health interventions stemming from histories of mistrust, rather than simply being 'misunderstandings.'"[31] History cannot be changed, but taking the time to listen and understand concerns builds trust.

Healthcare professionals remain one of the most trusted sources of information. But some healthcare professionals are losing their own sense of trust, increasingly disillusioned by under-resourced health systems and more demands on their time. Some of these health professionals had their own questions about vaccines[32] and resented having vaccine mandates in the workplace. These sentiments were on full display during the covid-19 pandemic and have continued in numerous strike actions since.[33] Understanding the waning confidence among healthcare professionals and its impact on confidence and trust among the general public requires immediate further research.

Other studies measure change in trust over time, recognising the volatility of sentiment[34] depending on external events or personal experiences. The Organisation for Economic Co-operation and Development's trust in government survey[35] and the Edelman trust barometer[36] are national level surveys repeated over time. Various country or setting specific analyses look at specific issues over time, which enables more actionable insights. A longitudinal study conducted with 601 randomly selected people in two waves in Switzerland during the H1N1 2009 vaccination campaign, for example, measured public trust in medical and political authorities as a predictor of compliance with recommended protection measures. In this example, trust in medical organisations predicted actual vaccination status six months later.[37]

Misinformation and trust

Lack of trust in government and official information sources and blind trust in less evidence based information are other areas of concern and trust research. Fast spreading "infodemics" are fuelled by social media and include a confusing mix of credible information, misinformation, and purposely disseminated disinformation.[38]

In addition to studying the content and spread of untrustworthy information to inform strategies, another important area of focus is on underlying environments that allow misinformation to thrive. One important study reported on the development and validation of a misinformation susceptibility test investigating underlying factors driving vulnerability to misinformation.[39] In a preprint study, Sahil Loomba and colleagues used this test in the UK and found that the ability to detect fake news strongly predicts covid-19 vaccination uptake, even when controlling for a large range of confounders that are known to have strong associations with covid-19 uptake.[40] These findings point to the limits

Box 1: Newham's Covid-19 Health Champions programme

Context

Newham in east London is a diverse borough with black, Asian, and ethnic minority communities constituting 75% of the population. Overcrowding, low wages, and high levels of ill health are among the many life challenges facing the population. These challenges and multiple health conditions were exacerbated in the covid-19 pandemic, contributing to Newham having among the highest per capita death rates in the UK.[24]

Response

Creating trusted collaborative relationships with communities across Newham to share information about covid-19 (including lockdown measures, ways to keep each other safe, and promoting vaccine uptake) was central to Newham's pandemic response. At the same time, hearing directly and regularly from communities was fundamental for health and public health officials to know what was and wasn't working so that more appropriate responses could be implemented rapidly. Building public trust was critical in the conversation and adoption of measures.

The Covid-19 Health Champions programme convened dialogues with local communities, actively listening to the experiences and concerns in the community as well as sharing updates on the covid-19 situation in Newham and the most recent government guidance. These conversations and insights from the community informed the development of responsive policies, ensuring a collaborative rather than top-down approach. Rapid and accessible information sharing through relevant communication channels including WhatsApp was a key enabler of success.

Results

The context informed, collaborative, and community driven approach led to increased awareness and knowledge of how to stay safe in the covid-19 pandemic and shaped the way that health leaders shared information, including being transparent about what was known and what was not known, to build trust. Strengthening community champions networks was one of the UK Health Security Agency's top five policy ideas to improve the UK's resilience in the face of future health crises.[25]

of relying on fact checking: we need to understand not just the facts, but also the people and conditions that breed distrust by enabling misinformation to thrive.

There is conflicting evidence around the role of trust in covid-19 outcomes. One study found that higher levels of trust in a society—as measured through agreement to "most people can be trusted"—was correlated with resilience to covid-19, measured through an increased decay rate of covid-19 cases and deaths,[41] but another found that social trust—the confidence that people have with others in their society—was associated with more covid-19 deaths.[42] High levels of in-group trust can sometimes reinforce misinformation or other beliefs that undermine healthy behaviours.[43] This study indicates the importance of understanding trust dynamics in groups and identifying in-group members that can be positive champions to challenge misinformation.

Networks of trust

Investigating and investing in networks of trust, including the role of community organisations and the voluntary sector, can generate insights to guide and tailor strategies for different settings in preparation for future health shocks. The process of researching the determinants and channels of trust should be co-created by patients and caretakers and healthcare professionals.

As Renata Schiavo and Wen-Ying Sylvia Chou have called for, we need a "system driven approach to address trust by identifying the interaction between drivers of trust/mistrust across different levels, dimensions, and groups."[8] They reflect on the outcomes of an expert roundtable that aimed to map research needs when studying trust: "Analysing trust across social and organisational dimensions, contributing factors, and specific aspects of a health intervention; the relationship between 'trust' and 'trustworthiness' in interpersonal, community, and organisational settings; focus on behaviours that may predict or elicit trust; (and) how trust may be sustained over time."[8]

In a separate review examining research on trust in healthcare over 50 years, Taylor and colleagues identified areas where methodological innovation is needed. Like Schiavo and Chou, they cite the importance of longitudinal studies of trust. Additionally, they emphasise the importance of trust being studied not only as an "input" or influence, but as an "outcome." In other words, although many studies examine trust as a driver of health decisions and behaviours (such as vaccine acceptance, compliance with covid-19, or Ebola control measures), more studies are needed to examine the process of trust building, with trust being the outcome. Lastly, and importantly, they call on researchers to "assess the role of trust 'spillovers' among systems, organizations, teams, and individual[s]."[44]

Future priorities

There is no simple list of research gaps to better understand, measure, or predict the power of trust and how to nurture and sustain trust in the context of health shocks. If we are to make any quantum shift in research on trust, it will need a dynamic systems approach, particularly crucial in the context of a health shock with its evolving uncertainties and multiple effects across systems and over time.

Trust is situational and multidimensional. It is fluid beyond dyadic relations, temporal, and volatile. Research on trust—particularly as it pertains to preparedness for future shocks—needs to focus on not only who trusts what, where, and why, but also on how those trust insights inform the cooperation that is fundamental to any crisis response and recovery.

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