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Determinants of Public Trust in Vaccines in the Aftermath of a Global Health Emergency

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ABSTRACT

Public trust in medicines and vaccines is a critical determinant of public health outcomes, particularly in the aftermath of global health crises such as the COVID-19 pandemic. Trust influences vaccine uptake, adherence to medical treatments, and acceptance of health recommendations from authorities. However, evidence suggests that confidence in vaccines and routine medical interventions fluctuated significantly during and after the COVID-19 crisis, with booster uptake decreasing in many countries and skepticism rising due to misinformation and institutional distrust. This scientific analysis synthesizes findings from recent studies to analyze the determinants of public trust, the impact of crisis communication, and the challenges associated with restoring trust after a global health emergency. The review highlights the need for transparent communication, strong institutional credibility, and culturally contextualized trust-building strategies.

Keywords: public trust, vaccines, medicines, vaccine hesitancy, global health crisis, COVID-19, institutional trust, health communication.

INTRODUCTION

Public trust in medicines and vaccines has long been recognised as a cornerstone of resilient health systems and successful public health interventions. Trust determines not only whether individuals accept recommended treatments and prevention strategies, but also whether communities collectively mobilize to respond to emerging health threats. During global health emergencies such as infectious disease outbreaks, pandemics, and large scale contamination events this trust becomes especially critical. In such contexts, populations are asked to accept rapidly

developed medical technologies, adhere to stringent public health measures, and rely on guidance from scientific and governmental authorities under conditions of heightened uncertainty. The COVID-19 pandemic provided a vivid illustration of how essential public trust is and how fragile it can become when societal pressures intensify.

The unprecedented speed of scientific discovery during COVID-19, particularly the rapid development and authorization of new vaccines and therapeutics, showcased the remarkable capacities of modern biomedicine. Yet it also revealed deep and persistent gaps between scientific advancement and public confidence. While millions embraced the new vaccines soon after their introduction, distrust, hesitancy, and skepticism persisted in many settings. These reactions were not uniform across countries or communities; instead, they reflected diverse histories, political climates, and social realities. As the crisis evolved, willingness to accept subsequent booster doses declined in several populations, and participation in routine immunization programmes previously considered stable and predictable faltered. These patterns highlighted that trust is not static: it fluctuates with lived experiences, perceived risks, social narratives, political decisions, and the ways institutions communicate uncertainty (Tang et al., 2025).

The erosion or reinforcement of trust does not occur in a vacuum. Public attitudes toward medicines and vaccines are shaped by a complex interplay of individual beliefs, social identities, cultural norms, and structural forces. Trust depends on confidence in scientific processes, the integrity and transparency of regulatory agencies, the competence and compassion of healthcare providers, and the ethical conduct of pharmaceutical companies. Historical injustices, such as unethical medical experiments and inequitable access to care, continue to influence the perceptions of many communities, especially those marginalized or underserved. In these groups, mistrust may be rooted not in misinformation alone but in lived experiences of systemic inequity and exclusion (Nahum et al., 2021).

At the same time, the digital information environment has transformed how people form opinions about health interventions. The rapid spread of misinformation, politicized discourse around scientific recommendations, and fragmented media landscapes can amplify uncertainty and weaken trust. During global crises, when information changes quickly and scientific consensus evolves, inconsistent or poorly communicated messaging can deepen confusion and fuel suspicion. Conversely, transparent communication, community engagement, and culturally sensitive strategies can play powerful roles in strengthening credibility and restoring public confidence (Ramaekers et al., 2025).

Understanding the determinants of trust how it is cultivated, eroded, and rebuilt—is therefore essential for improving future emergency responses. Lessons from COVID-19 and other global crises underscore the need for coordinated, equity-focused strategies that reinforce institutional integrity, enhance communication, and address structural barriers to trust. This review synthesizes current evidence on the evolving dynamics of trust in the aftermath of global health emergencies. It explores how social, scientific, political, and cultural factors intersect to shape public perceptions of medicines and vaccines, and outlines approaches that can support resilient, trust-based health systems capable of responding effectively to future global threats.

Aim of the Study

The aim of this study is to comprehensively assess the level of public trust in vaccines following a global health crisis and to identify the key factors influencing this trust. Specifically, the study seeks to examine how crisis communication, institutional credibility, and sociocultural determinants shape public confidence in medical interventions, and to explore strategies that can effectively restore and strengthen trust in the post-crisis period.

MATERIALS AND METHODS

This review utilized a structured literature analysis to identify peer-reviewed studies focused on public trust in medicines and vaccines after global health crises. The methodology included:

- Systematic identification of studies published from 2020 until 2025.
- Review of cross-sectional surveys, longitudinal studies, scoping reviews, and meta-analyses.
- Inclusion of global, regional, and country-specific studies from diverse sociocultural contexts.
- Evaluation of methodological rigor, thematic relevance, and focus on trust determinants.

Data were synthesized thematically to identify consistent patterns, major determinants of trust, and challenges in communication and policy implementation.

Search Criteria

Searches were conducted in PubMed, Embase, Scopus, Web of Science, and Google Scholar using the following keywords:

1. “public trust” AND “vaccines”

2. "trust in medicines" AND "global health crisis"
3. "COVID-19" AND "vaccine confidence"
4. "risk communication" AND "public trust"
5. "post-pandemic" AND "vaccine hesitancy"

Inclusion Criteria

1. Recent articles published until 2025.
2. English-language, peer-reviewed research.
3. Focus on trust or hesitancy related to vaccines or medicines after a global health crisis.
4. Empirical data or structured thematic analysis.

Exclusion Criteria

1. Non-peer-reviewed sources (excluding systematic reviews).
2. Articles focused solely on pre-pandemic trust.
3. Studies unrelated to human health (e.g., veterinary vaccines).

DISCUSSION

Public trust in medicines and vaccines is a multidimensional construct that encompasses cognitive, emotional, and relational elements shaped by interactions between individuals, communities, and institutions. After a global health crisis such as COVID-19, these dimensions often undergo substantial recalibration as societies attempt to reconcile scientific information with personal experiences and social narratives. Recent studies demonstrate that trust is not static; it is a dynamic response to evolving public health messaging, perceived competence of authorities, and the social climates in which individuals interpret risk. The COVID-19 crisis highlighted this complexity by exposing the tension between rapid scientific advancements and public apprehension, particularly as new pharmaceutical interventions were introduced under emergency conditions.

A significant finding across global surveys is that public trust rose sharply during the initial crisis due to heightened perceived vulnerability but declined as the pandemic progressed. (Lazarus et al. 2024) reported that willingness to receive booster doses dropped markedly in 2023 compared with earlier phases, despite robust evidence supporting vaccine safety and effectiveness. Similar trends were observed in routine immunization programs for children, with several countries experiencing lower participation in standard vaccination schedules (Basu et al., 2023). These shifts underscore the influence of risk perception: when the threat feels immediate, the public tends to rely more on medical authorities, but as perceived risk diminishes, scrutiny, skepticism, and fatigue reemerge. This phenomenon often referred to as "vaccine complacency" is amplified in post-crisis periods where misinformation and inconsistent policies heighten public uncertainty.

Misinformation, particularly through digital and social media platforms, has emerged as one of the most powerful factors eroding trust. False claims regarding vaccine safety, the role of pharmaceutical companies, or the motivations of global health agencies rapidly circulated during and after COVID-19, often outpacing accurate scientific communication. Research shows that exposure to misinformation not only reduces vaccine willingness but also heightens distrust in broader medical interventions, including antiviral drugs and new therapeutics developed during emergencies (Roozenbeek et al., 2020). Even when individuals encounter corrective information, psychological factors such as confirmation bias, identity protection, and perceived group norms limit the effectiveness of factual rebuttals. As Krastev et al. (2023) argue, misinformation creates parallel narratives of distrust that endure long after the crisis subsides.

Institutional credibility is another core determinant of trust. Trust in government, health authorities, and scientific agencies strongly predicts vaccine acceptance across countries (Toshkov et al., 2022). In nations with strong governance, transparent communication, and coordinated public health strategies, vaccination uptake remained high throughout the crisis. Conversely, inconsistent policies such as sudden shifts in mask guidelines or conflicting statements about vaccine eligibility contributed to distrust, particularly in politically polarized societies. Studies from North America and parts of Europe demonstrate that political identity became a significant predictor of vaccine refusal, reflecting a broader pattern where trust in institutions is mediated by ideological beliefs. Perceptions of conflicts of interest between governments and pharmaceutical companies also intensified skepticism, underscoring the need for transparent regulatory processes during crises (Ugrak et al., 2025, Lamot et al., 2024) .

Socioeconomic and cultural factors further influence trust in vaccines and medicines. Communities with long histories of discrimination or limited access to healthcare often express heightened skepticism toward public health interventions (Keselmen et al., 2022). Structural inequalities such as inconsistent access to healthcare services,

language barriers, and economic insecurity intersect with cultural beliefs to shape health decision making. For example, minority communities in the United States and parts of Europe exhibited higher hesitancy rates during COVID-19 due to historical medical injustices, including unethical research practices and inadequate public health outreach . Similarly, studies from South Asia and Africa highlight how traditional beliefs, mistrust in government, and limited healthcare infrastructure contribute to lower vaccine confidence (Shah et al., 2025). These findings emphasize that trust-building must go beyond biomedical messaging and instead address deep-rooted social determinants of health.

Rebuilding trust after a crisis requires long-term, multifaceted strategies rather than short-term information campaigns. Evidence suggests that trust is strengthened when authorities adopt transparent communication practices that acknowledge scientific uncertainty, explain decision-making processes, and avoid politicized messaging (Dries et al., 2025). Community engagement is equally crucial; trusted local leaders, health workers, and civil society organizations play vital roles in shaping public attitudes, especially in marginalized communities. Proactive health education programs, digital literacy initiatives, and open data sharing about vaccine development and adverse events have been shown to enhance perceived credibility and counteract misinformation (Wilson & Wiysonge, 2020). These strategies require sustained investment, as trust developed between crises strongly predicts public cooperation during future emergencies.

Despite significant research, notable gaps remain in understanding post-crisis trust dynamics. Few longitudinal studies track trust over time, limiting insights into how confidence evolves as crises abate. Additionally, qualitative research exploring emotional and cultural aspects of trust remains underrepresented compared to survey-based studies. Low- and middle-income countries, where trust dynamics differ substantially due to social and infrastructural factors, are often under-studied. Addressing these gaps is essential for building a comprehensive global understanding of trust and for informing effective crisis preparedness strategies.

CONCLUSION

Overall, the literature indicates that public trust in vaccines after global health crises is shaped by a combination of scientific, political, cultural, and psychological factors. Strengthening this trust requires a holistic approach that prioritizes transparency, community engagement, robust communication systems, and the mitigation of structural inequalities. As global health challenges continue to emerge, trust will remain a cornerstone of effective public health response and societal resilience.

REFERENCES

Basu, S., Ashok, G., Debroy, R., Ramaiah, S., Livingstone, P., & Anbarasu, A. (2023). *Impact of the COVID-19 pandemic on routine vaccine landscape: A global perspective*. Human Vaccines & Immunotherapeutics, 19(1), 2199656.

Dries, C., McDowell, M., Schneider, C. R., & Rebitschek, F. G. (2025). The effect of uncertainty communication on public trust depends on belief–evidence consistency. *PNAS nexus*, *4*(3), pgaf071.

Keselman, A., Arnott Smith, C., Wilson, A.J., Leroy, G. and Kaufman, D.R., 2022. Cognitive and cultural factors that affect general vaccination and COVID-19 vaccination attitudes. *Vaccines*, *11*(1), p.94.

Krastev, S., Krajden, O., Vang, Z. M., Juárez, F. P. G., Solomonova, E., Goldenberg, M. J., & Gold, I. (2023). Institutional trust is a distinct construct related to vaccine hesitancy and refusal. *BMC Public Health, 23*(1), 2481.

Lamot, M., Kerman, K. and Kirbiš, A., 2024. Ideological differences in COVID-19 vaccine intention: the effects of trust in the healthcare system, in complementary and alternative medicine, and perceived threat from the disease. *Frontiers in psychology*, *15*, p.1332697.

Lazarus, J. V., Wyka, K., White, T. M., Picchio, C. A., Gostin, L. O., Larson, H. J., & El-Mohandes, A. (2023). A survey of COVID-19 vaccine acceptance across 23 countries in 2022. *Nature Medicine, 29*(2), 366–375.

Nahum, A., Drekonja, D.M. and Alpern, J.D., 2021, February. The erosion of public trust and SARS-CoV-2 vaccines—more action is needed. In *Open forum infectious diseases* (Vol. 8, No. 2, p. ofaa657). US: Oxford University Press.

Ramaekers, Z., Van Espen, M., Dewachter, S. and Holvoet, N., 2025. Presidential perspectives: COVID-19 and vaccination willingness in Tanzania under Magufuli and Hassan. *SSM-Qualitative Research in Health*, p.100647.

Roozenbeek, J., Schneider, C. R., & van der Linden, S. (2020). Susceptibility to misinformation about COVID-19: Predictors and consequences. *Royal Society Open Science, 7*(10), 201199.

Shah, G. H., & Nguyen, T. H. (2025). Vaccine Hesitancy Through a Global Lens: Cross-Cultural Evidence from a Special Issue. *Vaccines, 13*(5), 529.

Tang, J., Amin, M.A. and Campian, J.L., 2025. Past, Present, and Future of Viral Vector Vaccine Platforms: A Comprehensive Review. *Vaccines*, *13*(5), p.524.

Toshkov, D., Carroll, B., & Yesilkagit, K. (2022). Government capacity, societal trust or party preferences: what accounts for the variety of national policy responses to the COVID-19 pandemic in Europe? *Journal of European Public Policy, 29*(7), 1009–1028.

Uğrak, U., Aksungur, A., Akyüz, S., Şen, H. and Seyhan, F., 2025. Understanding the rise of vaccine refusal: perceptions, fears, and influences. *BMC Public Health*, *25*(1), p.2574.

Wilson, S. L., & Wiysonge, C. (2020). Social media and vaccine hesitancy. *BMJ Global Health, 5*(10).

