**Author memo: Misinformation, disinformation, and vaccine hesitancy in the Asia Pacific**

**January 2024**

**Introduction**

The COVID-19 pandemic has magnified many governance challenges that predated the health crisis. From the necessity of swiftly formulating responses to combat an unknown virus to the development of economic relief packages to support affected families and businesses, governments were confronted with amplified challenges to health, economic, and social resilience. The emphasis on promoting vaccination, which has been a long-standing public health strategy, gained heightened importance during the COVID-19 pandemic. This period highlighted the dynamics of the dissemination of health information—both accurate and misleading—and how the media landscape influences health behaviors.

Historical and contemporary studies in the West have identified misinformation and disinformation as factors that reduce people’s confidence in vaccines and in government messaging on health. Recent experiences from the Asia-Pacific region in vaccine rollout have also highlighted the importance of cultural values, personal privacy, and communication in the design and implementation of public health policy. As this health emergency wanes and future crises loom on the horizon, the issue of vaccine hesitancy will become more crucial, amplified by the ever-expanding array of information and media channels. **How can governments understand public attitudes toward vaccines and leverage communication strategies to protect population health?** With distinctive cultural, political, and social systems, Asia-Pacific societies can offer compelling lessons for the world in navigating misinformation and disinformation to promote public health.

**About the series**

This series of memos will examine how different countries in the Asia-Pacific experience vaccine hesitancy, both historically and during the COVID-19 pandemic, and the role of misinformation and disinformation in government and civil society efforts to promote vaccination. The planned table of contents for the first phase of the series is as follows:

* Introduction by CAPRI
* Japan by Shuhei Nomura
* Taiwan by Chrissy Cook
* Vietnam by Yen Pottinger

Each brief should be approximately 3,000 words long (plus an abstract of 300–400 words) and include the headings outlined below. We expect this series to reach health policymakers, academics, and members of the public interested in public health, communication and media, and public policy. The memo you contribute to this series can form the basis of a longer (~10,000-word) future research piece. Memos covering additional countries in the region will be added in future iterations of this series.

**Project timeline**

February 7, 2024: Outline/abstracts are submitted

March 2024: Draft briefs are submitted and reviewed, CAPRI drafts series’ introduction and returns comments to authors

April 2024: Final drafts are submitted and edited

May 6, 2024: Series is published online and launched at CAPRI’s second Annual Forum

**Framing questions for each chapter**

The questions under each heading should guide your exploration and analysis of vaccine hesitancy, the media environment, and prevailing concerns about vaccine misinformation and disinformation in the country. This context and background should provide sufficient information to inform a robust discussion and understanding of policy recommendations, best practices, and learnings from the country going forward.

**1. Context of public health and vaccine hesitancy**

How and when did the country’s public health system develop? How are community and primary health delivered in the country? Are health services widely accessible and affordable? Is a universal health coverage system in place or being developed? How do cultural factors such as family structure, religion, and social values affect health-seeking behavior? How do traditional health and medical philosophies interact with Western medicine in the country? What role does the government have in promoting public health? Which authorities do the public trust the most with their health? Do global or regional geopolitics affect health policy? How and when were vaccines introduced in the country? Does the country have a history of vaccine hesitancy? What cultural, demographic, psychological, or economic factors affect vaccine hesitancy? Have public perceptions of vaccines changed over the course of the COVID-19 pandemic?

**2: Misinformation, disinformation, and the media environment in vaccine hesitancy**

Through which channels or on which platforms do people access health information? How do legal or regulatory frameworks govern health information in the media? How does the government use traditional and/or new media to communicate health policies? On what platforms do health dis/misinformation spread? Is there an understanding of who the major actors behind health disinformation are and what motivates them? Which leaders in society are the most trusted to deliver health information? What types of dis/misinformation fuel vaccine hesitancy (e.g., medical, scientific, political, religious, technological)? Which myths about vaccines have been the most pervasive or the most difficult for public health authorities to dispel?

**3: Government vaccine communication during the COVID-19 pandemic**

What policies or practices have the government used to address vaccine mis/disinformation (e.g., vaccine education, digital literacy, or media campaigns, legal or punitive action for spreading misinformation, public-private collaboration, or engaging communication ambassadors)? How effective have these practices been? Is government messaging on vaccination consistent? How did local authorities or the national government learn and adjust policies and practices over the course of the COVID-19 pandemic? Does the government have a prerequisite level of public trust to effectively influence health behaviors? Has this level of trust changed throughout the COVID-19 pandemic?

**4: Identifying ways forward: Learnings, best practices, and policy recommendations**

How can the policies identified above be adjusted to better address challenges of vaccine hesitancy, misinformation, and disinformation? What policies or practices from the country can be considered best practices that policymakers in other countries can adopt? Moving forward, which lessons from vaccine communication in the country should policymakers pay the most attention to? Have there been lessons from the COVID-19 pandemic that governments and societies can apply to combat misinformation and disinformation on other topics?

**Background**

*Public health and vaccine hesitancy in Asia*

Asia’s public health institutions developed in various political, social, and economic contexts, especially in the 20th century. In some places, public health is tied to a history of colonialism, during which European ideas and systems related to public health, which developed during the industrial revolution from the hygiene and sanitation movements, were transplanted to Asian colonies. Places once under Japanese control also developed public health systems. As economic globalization accelerated and multilateral governance institutions, such as the World Health Organization (WHO) emerged, Asia-Pacific societies experienced economic growth that contributed to improved nutrition, disease eradication, and more robust public health systems that ultimately led to longer, healthier lives. [[1]](#footnote-1) Despite growing prosperity and improving health status, new challenges in health have developed in the Asia Pacific region. As longevity increases and birth rates fall, the region’s health systems must focus on preventive care and treating chronic diseases that become more prevalent as people age. Climate change is altering rainfall patterns, sea levels, and average temperatures in the region, increasing the risk of tropical and vector-borne diseases spreading from their endemic areas. Moreover, cultural and political shifts are changing how people receive and interpret health information, contributing to public perceptions and trust in medical authorities and governments. Over the last half century and especially since the COVID-19 pandemic, vaccine hesitancy has emerged as a multifaced challenge facing many societies in the Asia Pacific and the world.

The WHO’s Strategic Advisory Group of Experts on Immunization (SAGE) defines vaccine hesitancy as the “delay in acceptance or refusal of vaccines despite availability of vaccination services.”[[2]](#footnote-2) In 2019, the WHO listed vaccine hesitancy among ten key threats to global health, citing complacency, inconvenient access, and lack of confidence as key underlying reasons for vaccine hesitancy.[[3]](#footnote-3) The threat of vaccine hesitancy was highlighted during the COVID-19 pandemic, when several new vaccines were introduced to the world and achieving high vaccine coverage became a key component of national plans end the pandemic. Overall, the pandemic has shown that vaccine hesitancy has the potential to undermine the effectiveness of health policy interventions and threaten population health.[[4]](#footnote-4)

Attitudes toward vaccines vary substantially by geographical and historical context. Previous experiences and scandals related to vaccine efficacy and safety, cultural norms of individualism versus collective responsibility in public health, and attitudes toward medical institutions led to skepticism and complacency toward vaccination, in addition to individual demographic factors such as age, gender, income, education, and social class.[[5]](#footnote-5) Much of the literature on vaccine hesitancy has focused on the West—particularly the industrialized and democratic countries of North America and Europe. By contrast, vaccine hesitancy in the Asia Pacific is less researched but nonetheless remains a challenge. In both East Asian and western countries, distrust was identified as an antecedent of vaccine hesitancy. However, the object of distrust differed, with the target of distrust in Asia being the vaccines themselves, compared with distrust of medical institutions or a vague “establishment” in western countries.[[6]](#footnote-6)

The development and rollout of COVID-19 vaccines created a unique global environment in which vaccine hesitancy can be studied. Unlike other common vaccines, the COVID-19 vaccines were developed and rolled out rapidly and in the public eye, and achieving high vaccine coverage in populations was a key goal in government strategies to contain the virus’ spread. Worldwide, common concerns about the COVID-19 vaccines included their efficacy, safety, side effects, convenience, and price. In addition, hesitancy was affected by beliefs that the vaccines were unnecessary and that development and testing were rushed or insufficient before rollout, as well as doubts concerning the financial motivation of health authorities and pharmaceutical companies responsible for vaccine development.[[7]](#footnote-7)

*Role of communication, media, misinformation, and disinformation in vaccine hesitancy*

Misleading information has dire consequences for public health, eroding trust in vaccines and potentially increasing healthcare burdens. Misinformation is false or inaccurate information, whereas disinformation is false or misleading information deliberately spread to sow fear and suspicion in a population.[[8]](#footnote-8) During the COVID-19 pandemic, exposure to misinformation and disinformation has not only generated fear, panic, depression, stress, and anxiety but also had public health effects through the fueling of public panic, spreading of dangerous health information, and discrediting of scientific and regulatory authorities.[[9]](#footnote-9)

The WHO SAGE identified the communication and media environment as one category of contextual influences of vaccine hesitancy. Traditional and social media can foster both positive and negative sentiments about vaccines, and social media provides open platforms for diverse actors to influence others in favor of or opposition to vaccines.[[10]](#footnote-10) The wider media environment also affects governance, political participation and civil society, with UNESCO recommending media ecosystems that promote freedom of expression, pluralism, and diversity.[[11]](#footnote-11) However, these principles become challenging to promote as societies face growing concerns of misinformation and disinformation that threaten public safety and social cohesion.

Although concerns about misinformation and disinformation are hardly new, in the last six years, efforts have accelerated to regulate these types of information, especially in East and Southeast Asia. Several countries have implemented laws and other initiatives to reduce the pervasiveness of misinformation and disinformation. These initiatives include laws banning “fake news” and providing government authorities the power to obtain information about those spreading it (e.g., Singapore’s Online Falsehoods and Manipulation Act and Vietnam’s Cybersecurity Law). Governments (e.g., South Korea) have also established special units to combat disinformation and developed guidance for technology companies and social media platforms to moderate and remove false content in the name of mitigating harm and ensuring public safety and well-being.[[12]](#footnote-12) In addition, social media companies have introduced content moderation policies in cooperation with governments and health authorities to elevate authoritative information about COVID-19.

Such regulation raises concerns of freedom of the press and expression, personal privacy, and the appropriate level of government responsiveness in a media environment flooded with false information. Furthermore, appropriately classifying misinformation and disinformation is not necessarily objective or straightforward, requiring consensus on the definition of “harm” and how to formulate policies (or algorithms, in the case of social media platforms) to minimize harm, especially when scientific understanding about a public health threat is quickly changing.[[13]](#footnote-13) For governments aiming to increase vaccine coverage—in either emergency or nonemergency settings—achieving the right balance of regulation and transparency is crucial to maintain public trust and encourage vaccination.

*Identifying best communication practices to recognize and counter vaccine hesitancy*

As the third year of the COVID-19 pandemic concludes, learning from the pandemic and identifying best practices in governance and communication for the world are crucial. Coordinated and consistent government communication plays a pivotal role in promoting routine immunization, even for diseases that do not routinely make the news. In addition, as the SARS-CoV-2 virus continues to evolve and COVID-19 becomes perceived as less of a health threat over time, ensuring high vaccine coverage will become more difficult. These communication lessons are not limited to public health but extend to economic, environmental, and social challenges that are prone to the rapid spread of misinformation. Looking toward the future of generative artificial intelligence and deepfakes, maintaining public trust in institutions that can counter misinformation and disinformation will become more important than ever before.

**Additional recommended resources on public health, vaccine hesitancy, health communication, misinformation, and disinformation**

Anakpo, Godfred and Syden Mishi. “Hesitancy of COVID-19 Vaccines: Rapid systematic review of the measurement, predictors, and preventive strategies.” *Human Vaccines and Immunotherapeutics* 18 no. 5 (2022): <https://doi.org/10.1080/21645515.2022.2074716>.

Bussink-Voorend, Daphne, Jeannine L.A Hautvast, Lisa Vandeberg, Olga Visser, and Marlies E.J.L. Hulscher. “A systematic literature review to clarify the concept of vaccine hesitancy” *Nature Human Behavior* 6 (August 2022): 1634-1648. <https://doi.org/10.1038/s41562-022-01431-6>.

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Kajimoto, Masato and Samantha Stanley (eds.). *Information Disorder in Asia and the Pacific*. Hong Kong: Journalism & Media Studies Centre, University of Hong Kong, 2019.

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United Nations Educational, Scientific and Cultural Organization. *Media Development Indicators: A framework for assessing media development.* Paris: UNESCO, 2008. <https://unesdoc.unesco.org/ark:/48223/pf0000163102/PDF/163102eng.pdf.multi>.

Kozyreva, Anastasia, Stefan M. Herzog, Stephan Lewandowsky, Ralph Hertwig, Philipp Lorenz-Spreen, Mark Leiser, and Jason Reifler. “Resolving content moderation dilemmas between free speech and harmful misinformation.” *PNAS* 120 no. 7 (2023): <https://doi.org/10.1073/pnas.221066612>.

1. Milton J. Lewis and Kerrie L. MacPherson, “Public Health in Asia and the Pacific: An Introduction,” *Public Health in Asia and the Pacific: Historical and Comparative Perspectives,* ed. Milton J. Lewis and Kerrie L. MacPherson(New York: Routledge, 2007), 1-9. [↑](#footnote-ref-1)
2. WHO, “Summary WHO SAGE conclusions and recommendations on Vaccine Hesitancy,” (2015), https://www.who.int/docs/default-source/immunization/demand/summary-of-sage-vaccinehesitancy-en.pdf?sfvrsn=abbfd5c8\_2. [↑](#footnote-ref-2)
3. WHO, “Ten threats to global health in 2019,” (2019), https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019. [↑](#footnote-ref-3)
4. Kerrie Wiley and Julie Leask, “The Drivers of COVID-19 Vaccine Uptake and Strategies to Increase Vaccination Rates,” Global Health Security Network: 2022. [↑](#footnote-ref-4)
5. Fidelia Cascinia, Ana Pantovicb, Yazan Al-Ajlounic, Giovanna Faillad, and Walter Ricciardia, “Attitudes, acceptance and hesitancy among the general population worldwide to receive the COVID-19 vaccines and their contributing factors: A systematic review,” *eClinicalMedicine* vol. 40 (2021), 8. [↑](#footnote-ref-5)
6. Daniel S. Courtney and Ana-Maria Bliuc, “Antecedents of Vaccine Hesitancy in WEIRD and East Asian Contexts,” *Frontiers in Psychology* vol. 12 (2021), 1. [↑](#footnote-ref-6)
7. Fidelia Cascinia, Ana Pantovicb, Yazan Al-Ajlounic, Giovanna Faillad, and Walter Ricciardia, “Attitudes, acceptance and hesitancy among the general population worldwide to receive the COVID-19 vaccines and their contributing factors: A systematic review,” *eClinicalMedicine* vol. 40 (2021), 8. [↑](#footnote-ref-7)
8. UNHCR, “Factsheet 4: Types of Misinformation and Disinformation,” *Using Social Media in Community-Based Protection: A Guide,”* (2021): 230-231. [↑](#footnote-ref-8)
9. [↑](#footnote-ref-9)
10. WHO, “Summary WHO SAGE conclusions.” [↑](#footnote-ref-10)
11. UNESCO, *Media Development Indicators: A framework for assessing media development*, 2008, https://unesdoc.unesco.org/ark:/48223/pf0000163102/PDF/163102eng.pdf.multi. [↑](#footnote-ref-11)
12. Roxana Radu, “Fighting the ‘Infodemic’: Legal responses to COVID-19 Disinformation,” *Social Media + Society* (July-September 2020): 1-2; Daniel Funke and Daniela Flamini, “A guide to anti-misinformation actions around the world,” Poytner (2019), https://www.poynter.org/ifcn/anti-misinformation-actions/. [↑](#footnote-ref-12)
13. Stephanie Alice Baker, Matthew Wade, and Michael James Walsh, “The challenges of responding to misinformation during a pandemic: content moderation and the limitations of the concept of harm,” *Media International Australia* (November 2020): 105. [↑](#footnote-ref-13)