



*Misinformation, Disinformation, and Vaccine Hesitancy in the Asia Pacific*

# Vaccine Hesitancy and Misinformation/Disinformation in Taiwan

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## Abstract

Taiwan has a history of battling pandemics. From the bubonic plague in the Japanese colonial era to the initial severe acute respiratory syndrome (SARS) outbreak in the 2000s, Taiwan's central location has made it vulnerable to imported diseases. Despite a strong National Health Insurance scheme and generally high levels of governmental trust, the Taiwanese government struggled during the COVID-19 pandemic with vaccination: their locally developed vaccine, Medigen, was a target of foreign disinformation and local misinformation—likely due to its late and rapid development—while their efforts to procure foreign vaccines were stymied. Beyond this, the population engaged in strategic vaccine shopping, at least in part due to both disinformation and misinformation, creating further challenges for the government and the medical system. Despite these setbacks, the island has reached a 91.7% vaccination rate as of April 2024, although the rate of booster uptake is in decline. While the government succeeded during the pandemic in regular communication and investment in local scientists for vaccine development, it lacked targeted media campaigns surrounding vaccination and was unclear about vaccine rollouts when they started. Concerns about vaccine safety remained unaddressed, and non-Mandarin-speakers were largely left out of governmental communication. Policy recommendations include (1) investing in social science research before the next pandemic, (2) ensuring that information presented is both simple and available in multiple languages, (3) enforcing medical transparency in government communication, and (4) making use of credible third-party communicators to reduce perceived political bias in vaccine messaging.

## Context of Public Health and Vaccine Hesitancy

To understand the current landscape of vaccine hesitancy and uptake in Taiwan, we first need to understand the history of both the island itself, and more specifically, healthcare and vaccination in Taiwan. Taiwan's central location in the Asia Pacific has always made it a place where foreign and local populations interact, and it has therefore always been susceptible to imported diseases.<sup>1</sup> The first colonists were the Dutch in 1624, followed by the Spanish in 1626, then two groups of Chinese from 1662 to 1895, the Japanese in 1895, and then finally the Chinese Nationalists (Kuomintang, or KMT) in 1945, with their authoritarian rule ending with the nation's democratization in 1988.<sup>2</sup> Taiwan experienced two major outbreak events prior to the creation of its National Health Insurance (NHI) system: the bubonic plague outbreak of 1896 in Anping, a commercial center at the time, which was extremely mismanaged, and the cholera outbreak of 1919 in Taipei, another major center for international trade.<sup>3</sup> Both occurred during Japanese rule. Immunization efforts during the bubonic plague outbreak failed because of a few key factors: the poor medical practices of the era, mistrust of colonial authorities, and the spread of misinformation among locals. Locals believed that the Japanese hospitals were death

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camps designed to exterminate the Taiwanese. This meant that when a vaccine was developed for the bubonic plague in 1901, local Taiwanese refused it for fear that it was a Japanese tactic to remove them from the island. During the cholera outbreak, however, Taiwanese “[lined] up outside of vaccine stations waiting for their shots.”<sup>4</sup> The major change was the cultural integration of Taiwanese “elites” into modern Japanese medicine, creating what we would call “influencers” today.<sup>5</sup> Since adopting modern medicine, Taiwan has been able to effectively manage many pandemics, including severe acute respiratory syndrome (SARS), well into the present day.<sup>6</sup> During the SARS epidemic of 2003, the government, through the NHI system, developed the surveillance and contact tracing techniques that would become critical to Taiwan’s successes in the COVID-19 pandemic.<sup>7</sup>

When the KMT government—the successors of the original Chinese Nationalists who escaped the mainland and set up their government in Taiwan—ended martial law in 1987, the country democratized the following year with the establishment of the Democratic Progressive Party (DPP): an opposition, more liberal party aiming to achieve Taiwanese independence. This remains a major political issue today in Taiwan, with the KMT being perceived as favoring closer ties with China.<sup>8</sup> The NHI system was implemented in 1995 against the backdrop of these relatively recent political shifts and the mass vaccination efforts of the past but minimal services for treating nonacute illnesses.<sup>9</sup> Essentially, Taiwan has an excellent history of dealing with pandemics, but most of the population remained uninsured and was split between private and public care for everyday illnesses.<sup>10</sup> Today, over 98% of the population is covered by the NHI, and its implementation is connected to a significant reduction in mortality across the population.<sup>11</sup> The NHI is a universal insurance system provided largely through employers. The insured pay only a small copayment for most treatments. The NHI system is also the main distributor of vaccines, unifying previously separate healthcare plans. Even before its inception, the design of the NHI was a political issue, with the DPP proposing it as an alternative to the KMT’s universal healthcare plan, which would have resembled the UK’s National Health Service model.<sup>12</sup> The pre-democratic KMT’s model was comparable in terms of vaccination coverage, with great emphasis placed on public and veteran hospitals but little on other forms of healthcare (e.g., traditional Chinese medicine was only included in the NHI budget starting in 2000).<sup>8</sup>

Taiwan’s history of pandemics has featured governmental mistrust, misinformation, and the politicization of vaccines. During the COVID-19 outbreaks in 2020 and 2021, these trends continued. Risk factors for vaccine hesitancy during the pandemic included a lack of understanding of the COVID-19 vaccine,<sup>13</sup> holding negative beliefs about the COVID-19 vaccine,<sup>14</sup> exposure to misinformation,<sup>15</sup> and a perceived lack of governmental communication regarding the vaccine.<sup>16</sup> By contrast, perceived knowledge of SARS-CoV-2 and the COVID-19 vaccine as well as increased governmental trust were protective factors against vaccine hesitancy during the pandemic.<sup>17</sup> Tan and colleagues (2022) also identified several demographic risk factors for vaccine hesitancy, including being a woman and living with children, while they found that being married and having a higher education level were protective factors.<sup>18</sup> Wu and colleagues (2022) reported that the more families communicate with each other, the higher the risk of vaccine hesitancy in Taiwan.<sup>19</sup>

Although the Japanese are no longer in charge, the choice between using foreign or locally produced vaccines remained a political issue during the COVID-19 pandemic.<sup>20</sup> In addition, Taiwan experienced the pandemic differently from many other nations, largely containing it through strict quarantine and border control measures at the outset, meaning that people were living in Taiwan normally well into 2021.<sup>21</sup> Only when the first local outbreak occurred in April 2021 did people begin to clamor for vaccines.<sup>22</sup> People were far more hesitant to be vaccinated at the beginning of the pandemic, when the sense of urgency was low because the pandemic was far away rather than at home.<sup>23</sup> Indeed, as the pandemic’s influence wanes in the media and in governmental action, vaccination against COVID-19 is again in decline.<sup>24</sup> That said, vaccine hesitancy during the pandemic was less an issue of Taiwanese refusing vaccination outright at the peak of the pandemic, but rather a phenomenon of vaccine shopping.<sup>25</sup> Preference for vaccines developed by foreign brands such as Moderna and Pfizer was associated with lower governmental trust, whereas preference for the locally produced Medigen vaccine was associated with higher governmental trust. Essentially, the more a person trusted the Taiwanese government, the more likely they were to seek the Medigen vaccine. A possible cause for this discrepancy

could have been dedicated disinformation campaigns from both foreign powers and local politically motivated actors.<sup>26</sup>

## Misinformation, Disinformation, and the Media Environment in Vaccine Hesitancy

Taiwan ranks high in the power of misinformation on COVID-19 practices—13<sup>th</sup> of 138 countries studied—and most of this misinformation is found on social media.<sup>27</sup> This social media-based misinformation has had a negative impact on vaccine uptake in the region.<sup>28</sup> The figure below presents a common piece of misinformation debunked by the Taiwan FactCheck Center, the leading fact-checking group on the island.

**Figure.** A false report of multiple countries refusing US-made vaccines.



*Note.* Translation: “There is a big problem with the US vaccine... 29 countries have just urgently canceled US orders! They will all use Chinese vaccines instead!”

An interview with a representative of the Taiwan FactCheck Center revealed that much of the misinformation that was spreading concerned (1) the unknown long-term side effects of the new mRNA vaccines, (2) the side effects of the AstraZeneca vaccine, and (3) the rapid development of new vaccine

technology. The example in the above figure covers aspects of all three with a political motivation. The representative also stated that the lack of transparency around the development of the local Medigen vaccine and its politicization led to difficulties in determining which claims about the vaccine were truthful. The Medigen vaccine was developed locally well after AstraZeneca, Moderna, and Pfizer's vaccines were introduced in Taiwan;<sup>29</sup> this may have contributed to a perceived lack of transparency during its development, as the other vaccination options had been widely covered globally in media and academic research. More generally, people heard anecdotes of herd immunity (natural immunization through exposure) and that the vaccines available were developed too quickly without undergoing typical verifications and safety procedures, and they were equating that anecdotal evidence with scientific evidence. The representative was clear that transparency in government communication and the political affiliation of the audience were critical factors in determining which "truths" people believed or rejected.

Notably, Taiwan's population generally accepts the government as the leading authority on the truth, contrary to historical mistrust.<sup>30</sup> In terms of why this trust exists, academic research is scant; in short, while high trust has been observed, far less research has uncovered the political or sociodemographic mechanisms of this trust. The fact that most fact-checking agencies in Taiwan are fully or partially funded by the government is evidence of the public's general trust in their government's communication.<sup>31</sup> Elstein (2022) attributed this inherent trust to Taiwan's Confucianist history, an important element to consider when developing vaccine policy in countries with different ideologies behind their government.<sup>32</sup> Despite this, the Taiwanese still use social media to seek information,<sup>33</sup> and the influx of differing information is gradually eroding governmental trust,<sup>34</sup> alongside the general deterioration of trust in journalism and media both in Taiwan and globally.<sup>35</sup>

One final point of interest is that, contrary to many nations, Taiwan has representatives of a world power actively spreading vaccine disinformation: China's citizen trolls.<sup>36</sup> The Chinese Communist Party (CCP) has been clear about its view of the current ruling party of Taiwan, the DPP, and its status as an enemy of the state.<sup>37</sup> Scholars have claimed that to further their reunification agenda, the CCP was motivated to make COVID-19 vaccination a political issue in Taiwan by enabling citizen trolls to claim that choosing a specific vaccine was showing loyalty to a specific political party,<sup>38</sup> thereby destabilizing trust in the DPP over vaccination.<sup>39</sup> Indeed, local politically motivated activists were also aiding this effort. In some cases, these actors were simply paid, presumably by the CCP and its affiliates, to domestically astroturf (fake grassroots political movements) on social media, whereas others, such as the Want Want Group, which owns *China Times*, are motivated to ensure deeper ties with China for business purposes.<sup>40</sup>

The academic consensus is that the Taiwanese government acted well in the face of these disinformation campaigns,<sup>41</sup> particularly as Taiwan's vaccination rate for the first dose is at 91.7%.<sup>42</sup>

## Government Vaccine Communication During the COVID-19 Pandemic

Because of its proximity to China and its experience with the SARS epidemic in 2003,<sup>43</sup> Taiwan was uniquely prepared legislatively to deal with pandemics successfully.<sup>44</sup> Its nonpharmaceutical policy responses to the pandemic were almost universally lauded at the outset, with three particular approaches standing out as unique or particularly successful:

1. A "whole nation" approach to policy<sup>45</sup>
2. Rapid and consistent government messaging in the form of daily reports disseminated on multiple media channels<sup>46</sup>
3. Strong integration of technological solutions to both disease tracking and patient care<sup>47</sup>

Regarding the government's vaccine communication, several strengths and weaknesses have been identified. Taiwan did an excellent job encouraging digital literacy by creating their public-private fact-

checking organizations,<sup>48</sup> as well as promoting the Medigen vaccine<sup>49</sup>—although whether the vaccine itself was a success is debatable—and enacting punitive action for those who a) did not comply with pandemic policies (including entering spaces where vaccination was mandatory without a vaccination certificate), and b) spread misinformation about the pandemic or its related policies.<sup>50</sup> However, vaccine procurement was slow due to a false sense of security in Taiwan’s border control measures, and the government inadequately addressed fears surrounding the AstraZeneca vaccine in particular, both in terms of speed and amount of media coverage<sup>51</sup> although both of these issues were likely exacerbated by political interference from across the strait.<sup>52</sup> In addition, media campaigns on vaccination were limited, leading to unclear information about vaccine rollout when doses were available.<sup>53</sup>

Local anthropological research has found possible unintended consequences of the government’s regular messaging. Many Taiwanese felt high social and governmental pressure to decide whether to vaccinate themselves against COVID-19.<sup>54</sup> In addition to global concerns about the speed at which the vaccines were developed, the Taiwanese population also felt unable to effectively communicate with each other for fear of being socially labeled as pro- or anti-vaccination, pro-DPP, pro-KMT, or simply being misunderstood.<sup>55</sup> With constant messaging from all sides and deep-rooted political pressure, Taiwan became an emotional pressure cooker on issues of vaccination, which Lin and colleagues (2023) argued was not considered in governmental communication.<sup>56</sup>

## Identifying Ways Forward: Learnings, Best Practices, and Policy Recommendations

Several practices that were successful in Taiwan could be applied in other countries, the first of which is **consistent governmental messaging**. The Taiwanese government held daily briefings, which allowed for rapid and consistent governmental messaging, something that is associated with governmental trust in general. Second, the Taiwanese government enabled high levels of **technological integration**. The integration of technology in government messaging, vaccination rollouts, and pandemic tracking was critical to Taiwan’s early (and ultimate) success in pandemic management.<sup>57</sup> This can include contact tracing using QR codes, online booking systems for vaccination appointments, and reporting across social media platforms. The Taiwanese government also provided information about mask mandates and where to find personal protective gear, as well as used mobile tracking on its citizens and visitors to directly monitor their movements.

However, Taiwan also faced challenges in vaccination during the COVID-19 pandemic that other countries may also face. The first of these was a **lack of targeted communication**. Despite Taiwan’s rapid and consistent communication, they lacked *targeted* communication for specific groups (i.e., migrant workers) and against specific fears (i.e., concerns regarding the AstraZeneca vaccine).<sup>58</sup> Taiwan also struggled with the **politicization of vaccines**—an obstacle to successful vaccine procurement and timely rollout as well as a contributor to hesitancy.<sup>59</sup> Finally, many of Taiwan’s successes came with significant **privacy risks**, rendering several of its most effective systems difficult to implement in North American and European societies.<sup>60</sup> Specifically, an integration of the National Immigration Agency and NHI systems focused on contact tracing specifically among foreigners, something that may not be accepted in more personal freedom-focused countries in the West.<sup>61</sup> In fact, FJ Tsai (2022) argued that having the NHI’s database so freely accessible to whatever person or agency applies for that access may violate Taiwanese citizens’ own constitutional rights to privacy.<sup>62</sup> The government having access to people’s movements by tracking their phones is also an invasion of privacy at best, and unconstitutional at worst. Though the Taiwanese seem to have accepted the privacy risks, the same cannot be guaranteed around the world.

On the basis of Taiwan’s pandemic experience with vaccination, vaccine hesitancy, misinformation, and disinformation, the following policy recommendations are proposed for both Taiwanese legislators and those abroad who face similar challenges:

1. **Develop Social Science Pandemic-focused Research Programs:** Lin and colleagues' (2023) results, among those of many other studies conducted since the pandemic, have given valuable insight into public opinion and concerns that could have been applied earlier in pandemic communication. Government grant programs should be developed now, before the next pandemic, to complement the hard science research being done in immunology and public health. Humanities and social science research can keep track of public opinion and document sentiment toward hard science and government policy, allowing for additional targeted information campaigns—something Taiwan was lacking during the COVID-19 pandemic. The addition of interdisciplinary grants requiring collaboration among different specialties would provide the highest-quality information for policymakers when they need it.
2. **Provide Simple and Multilingual Information:** A multicultural nation like Taiwan needs information that people can understand. The interviewed Taiwan FactCheck Center representative also insisted that clear, simple information is necessary, irrespective of language, to combat misinformation. Developing dedicated multilingual science communication curricula for Taiwan's many universities could be an effective strategy to have experts on hand for future crises. Having dedicated translation staff at the governmental level would also be ideal. Important languages to cover beyond Mandarin Chinese would be Hakka and Taiwanese Hokkien, as these are spoken widely throughout the island, but particularly in the south.<sup>63</sup> Indonesian (Bahasa), Tagalog, and Vietnamese are also critical, as many of the migrant workers speaking these languages are directly taking care of older adults, who are particularly vulnerable to illness.<sup>64</sup> Although English and Indigenous languages would also be beneficial in the future, these tend to be second languages in Taiwan, and are therefore not as critical as the other languages mentioned.<sup>65</sup>
3. **Enforce Medical Science Transparency:** Although experimental research suggests that total governmental transparency does not necessarily increase governmental trust, as people seem to begin to question the government's decisions when presented with all the evidence behind those decisions, in a pandemic, transparency about the science behind policy is critical.<sup>66</sup> When it came to issues of health data usage and governmental decision-making during the pandemic, transparency was beneficial to enhancing cooperation of Taiwanese with mandates and policies.<sup>67</sup> Most misinformation and disinformation around vaccination in Taiwan were unsubstantiated anecdotes on social media about vaccine development and side effects. By presenting the actual science regularly, governments can combat this major source of vaccine hesitancy.
4. **Develop and Use Third-party Communicators:** The politicization of vaccines was a major issue in Taiwan.<sup>68</sup> Therefore, provided information about vaccines must appear unbiased. Professional science communicators could be one way to deal with this issue, although alternatives could include inviting third-party watchdog organizations to present findings or providing media training for researchers who will directly address the population themselves.

## Endnotes

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- <sup>1</sup> J. Bruce Jacobs, “Whither Taiwanization? The Colonization, Democratization and Taiwanization of Taiwan,” *Japanese Journal of Political Science* 14, no. 4 (2013): 567–86, <https://doi.org/10.1017/S1468109913000273>; Hungyin Tsai, “The History of Vaccine Uptake in Taiwan,” *American Scientist* (2022), <https://www.americanscientist.org/article/the-history-of-vaccine-uptake-in-taiwan>.
- <sup>2</sup> Jacobs, “Whither Taiwanization?”
- <sup>3</sup> Institute of Taiwan History, “Bubonic plague,” Academia Sinica, 2010, [https://www.ith.sinica.edu.tw/archives/collections\\_con2\\_en.php?no=322](https://www.ith.sinica.edu.tw/archives/collections_con2_en.php?no=322); Institute of Taiwan History, “Cholera,” Academia Sinica, 2010, [https://archives.ith.sinica.edu.tw/collections\\_con2\\_en.php?no=324](https://archives.ith.sinica.edu.tw/collections_con2_en.php?no=324).
- <sup>4</sup> Tsai, “History of Vaccine Uptake,” p. 4.
- <sup>5</sup> Tsai, “History of Vaccine Uptake,” p. 5.
- <sup>6</sup> Yu-Jang Su, “COVID-19 Outbreak in Taiwan: Spring 2022,” *Asia Pacific Journal of Public Health* 35, no.8 (2023) 561–3, <https://doi.org/10.1177/10105395231203117>.
- <sup>7</sup> Know-Tong Chen et al., “SARS in Taiwan: An overview and lessons learned,” *International Journal of Infectious Diseases* 9 (2005), 77-85, <https://doi.org/10.1016/j.ijid.2004.04.015>. , Chia-Chien Chang, Wei-Ting Yen, and Li-Yin Liu, “Fighting the Pandemic with ‘Shields’: Successful COVID-19 Securization and Mask Policy in Taiwan,” *Journal of Asian and African Studies* 58, no.2 (2023): 214–231, <https://doi.org/10.1177/00219096221137684>; Chia-Wei Chao et al., “Universal Masking to Prevent SARS-CoV-2 Transmission from Taiwan’s Practices,” *Global Health Promotion* 29, no. 1 (2022): 53–7, <https://doi.org/10.1177/17579759211033831>; Chih-Wei Hsieh et al., “A Whole-of-Nation Approach to COVID-19: Taiwan’s National Epidemic Prevention Team,” *International Political Science Review* 42, no. 3 (2021): 300–15, <https://doi.org/10.1177/01925121211012291>.
- <sup>8</sup> Dennis Lu Chung Weng, “From Dove to Hawk: KMT’s Transformation and the Quest for New Guardrails in Cross-Strait Relations,” *Brookings*. Retrieved from <https://www.brookings.edu/articles/from-dove-to-hawk-kmts-transformation-and-the-quest-for-new-guardrails-in-cross-strait-relations/>.
- <sup>9</sup> Tung-liang Chiang, “Taiwan’s 1995 Health Care Reform,” *Health Policy* 39, (1997): 225–39.
- <sup>10</sup> Tsai, “History of Vaccine Uptake.” Chiang, “Taiwan’s 1995 Health Care Reform.”
- <sup>11</sup> Yue-Chune Lee et al., “The Impact of Universal National Health Insurance on Population Health: The Experience of Taiwan,” *BMC Health Services Research* 10, No. 225 (2010).
- <sup>12</sup> Chiang, “Taiwan’s 1995 Health Care Reform”; Sang-Yi Lee et al., “The National Health Insurance System as One Type of New Typology: The case of South Korea and Taiwan,” *Health Policy* 85, (2008): 105–13, <https://doi.org/10.1016/j.healthpol.2007.07.006>.
- <sup>13</sup> Jing-Shan Deng et al., “Parental Hesitancy Against COVID-19 Vaccination for Children and Associated Factors in Taiwan,” *BMC Public Health* 23, (2023): 571, <https://doi.org/10.1186/s12889-023-15158-0>; Chun-Ji Lin et al., “Rapid Qualitative Research in Public Health Emergencies: COVID-19 Vaccine Hesitancy in Taiwan,” (2023); <https://www.rchss.sinica.edu.tw/srma/journals/3595>; Chia-Wen Wang et al., “A Matter of Trust: A Qualitative Comparison of the Determinants of COVID-19 Vaccine

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Hesitancy in Taiwan, the United States, The Netherlands, and Haiti,” *Human Vaccines & Immunotherapeutics* 18, no. 5 (2022): <https://doi.org/10.1080/21645515.2022.2050121>.

<sup>14</sup> Deng et al., “Parental Hesitancy”; Lin et al., “Rapid Qualitative Research.”

<sup>15</sup> Wang et al., “Matter of Trust.”

<sup>16</sup> Chen-I Kuan, “Vaccine Hesitancy and Emerging Parental Norms: A Qualitative Study in Taiwan,” *Sociology of Health & Illness* 44, (2022): 692–709, <https://doi.org/10.1111/1467-9566.13446>; Wang et al., “Matter of Trust.”

<sup>17</sup> Po-Ching Huang et al., “Expanding Protection Motivation Theory to Explain Willingness of COVID-19 Vaccination Uptake among Taiwanese University Students,” *Vaccines* 9, (2021):1046, <https://doi.org/10.3390/vaccines9091046>; Tuan-he Lee, Weerachaya Jarupreechachan, and Tuan-Chi Tseng, “Exploring Low-Income Migrant Workers’ Health Information-Seeking Behavior During COVID-19 in Taiwan: A Qualitative Study,” *Digital Health* 8, (2022): 1–11, <https://doi.org/10.1177/20552076221133764>.

<sup>18</sup> Jasmine Tan et al., “Gender Differences in Health Protective Behaviours and its Implications for COVID-19 Pandemic in Taiwan: A Population-Based Study,” *BMC Public Health* 22 (2022), <https://doi.org/10.1186/s12889-022-14288-1>.

<sup>19</sup> Ching-Fang Wu, Shih-Chieh Fang, and Ching Ying Huang, “Impact of Family Participation on Vaccination Decisions During the Outbreak: An Online Questionnaire Survey of Taiwanese People,” *Journal of Business and Management Sciences* 10, no. 1 (2022): 39–45, <https://doi.org/10.12691/jbms-10-1-5>.

<sup>20</sup> David Elstein, “Confucian Free Expression and the Threat of Disinformation,” *Philosophy and Social Criticism* 48, no. 4 (2022): 568–79, <https://doi.org/10.1177/01914537211073774>; Chun-Tung Kuo, and Ruoh-Rong Yu, “Association of National Identity and Trust in Government with COVID-19 Vaccination and Brand Choice in Taiwan,” *Journal of Community Health*, (2024), <https://doi.org/10.1007/s10900-024-01347-4>.

<sup>21</sup> Brian Y. An, and Shui-Yan Tang, “Lessons from COVID-19 Responses in East Asia: Institutional Infrastructure and Enduring Policy Instruments,” *The American Review of Public Administration* 50, no. 6–7 (2020): 790–800, <https://doi.org/10.1177/0275074020943707>.

<sup>22</sup> Lee et al., “Exploring Low-Income Migrant Workers’ Health Seeking Behavior.”

<sup>23</sup> Chien-jen Chen, “The Strategy Behind Taiwan’s COVID-19 Immunization Program: National Security and Global Solidarity,” *Taiwan Strategists* 11 (2021), <https://www.pf.org.tw/en/pfen/38-8190.html>.

<sup>24</sup> Our World in Data. (2024). Taiwan: Coronavirus pandemic country profile. *Our World in Data*. Retrieved from <https://ourworldindata.org/coronavirus/country/taiwan#what-share-of-the-population-has-received-at-least-one-dose-of-the-covid-19-vaccine> on February 7, 2024.

<sup>25</sup> Kuo and Yu, “Association of National Identity and Trust.”

<sup>26</sup> Elstein, “Confucian Free Expression”; Adrian Rauchfleisch et al., “Taiwan’s public discourse about disinformation: The role of journalism, academia, and politics,” *Journalism Practice* 17(10) (2023), 2197–2217, <https://doi.org/10.1080/17512786.2022.2110928>.

<sup>27</sup> Sayeed Al-Zaman, “Prevalence and Source Analysis of COVID-19 Misinformation in 138 Countries,” *International Federation of Library Associations and Institutions* 48, no. 1 (2021): 189–204, <https://doi.org/10.1177/03400352211041135>.

- <sup>28</sup> Yen-Pin Chen et al., “The Prevalence and Impact of Fake News on COVID-19 Vaccination in Taiwan: Retrospective Study of Digital Media,” *Journal of Medical Internet Research* 24, no.4 (2022), <https://doi.org/10.2196/36830>; Hsaing-Lian Cheng et al., “Using the ELM to Explore the Impact of Fake News on Panic Vaccination Intention: Taiwan’s COVID-19 Vaccination Phenomenon,” *Journal of Global Information Management* 32, no. 1 (2024): 1–39, <https://doi.org/10.4018/JGIM.335487>.
- <sup>29</sup> Kuo and Yu, “Association of National Identity and Trust.”
- <sup>30</sup> Elstein, “Confucian Free Expression”; Huai-Kuan Zeng, Shih-Yu Lo, and Shu-Chu Sarrina Li, “Credibility of Misinformation Source Moderates the Effectiveness of Corrective Messages on Social Media,” *Public Understanding of Science*, (2023): 1–18, <https://doi.org/10.1177/09636625231215979>; Tsai, “History of Vaccine Uptake.”
- <sup>31</sup> Cristina Flesher Fominaya, “Mobilizing During the Covid-19 Pandemic: From Democratic Innovation to the Political Weaponization of Disinformation,” *American Behavioral Scientist*, (2022): 1–24, <https://doi.org/10.1177/00027642221132178>.
- <sup>32</sup> Elstein, “Confucian Free Expression.”
- <sup>33</sup> Zeng et al., “Credibility of Misinformation Source.”
- <sup>34</sup> Wen-Hua Kuo, “Channeling Facts, Crouching Rumours: Taiwan’s Post-Truth Encounter with the Covid Pandemic,” *Science, Technology & Society* 27, no. 2 (2022): 274–86, <https://doi.org/10.1177/09717218211032894>.
- <sup>35</sup> Rauchfleisch et al., “Taiwan’s public discourse.”
- <sup>36</sup> Elstein, “Confucian Free Expression”; Rauchfleisch et al., “Taiwan’s public discourse.”; Max Tsung-Chi Yu, and Karl Ho, “COVID and Cognitive Warfare in Taiwan,” *Journal of Asian and African Studies* 58, no. 2 (2023): 249–73, <https://doi.org/10.1177/00219096221137665>.
- <sup>37</sup> Kenji Kawase, “China Says DPP ‘Cannot Represent’ Taiwan after Lai’s Election Win,” *Nikkei Asia* (January 14, 2024), <https://asia.nikkei.com/Politics/Taiwan-elections/China-says-DPP-cannot-represent-Taiwan-after-Lai-s-election-win>.
- <sup>38</sup> Jeroen de Kloet, “‘We are Doing Better’: Biopolitical Nationalism and the COVID-19 Virus in East Asia” *European Journal of Cultural Studies* 23, no. 4 (2020): 635–40, <https://doi.org/10.1177/1367549420928092>; Alex Min-Wei Lin, and Chung-li Wu, “Party Identification, Ambivalence, and the Issue of Vaccine Procurement in Taiwan,” *Journal of Asian and African Studies* 58, no. 2 (2023): 232–48, <https://doi.org/10.1177/00219096221137675>; Yu & Ho, “COVID and Cognitive Warfare.”
- <sup>39</sup> Yu and Ho, “COVID and Cognitive Warfare.”
- <sup>40</sup> Rauchfleisch et al., “Taiwan’s public discourse.”
- <sup>41</sup> Elstein, “Confucian Free Expression”; Fominaya, “Mobilizing During the Covid-19 Pandemic”; Pallikara Rameshan, “Crisis Leadership of COVID-19 Fightback: Exploratory Anecdotal Evidence on Selected World Leaders,” *BM Kozhikode Society & Management Review* 10, no. 2 (2021): 136–59, <https://doi.org/10.1177/2277975220986274>; Yu and Ho, “COVID and Cognitive Warfare.”
- <sup>42</sup> Our World in Data, *Taiwan country profile*.
- <sup>43</sup> Su, “COVID-19 Outbreak in Taiwan.”

- <sup>44</sup> An and Tang, “Lessons from COVID-19”; Elstein, “Confucian Free Expression”; Ming-Cheng M. Lo, “How Taiwan’s Precautionary Approach Contained COVID-19,” *Contexts* 9, no. 4 (2020): 19–21, <https://doi.org/10.1177/1536504220977929>; Yi-Chen Su, “Legislative Preparedness for the Control of Pandemics – Using Taiwan as an example,” *Medico-Legal Journal* 89, no. 1 (2021): 19–22, <https://doi.org/10.1177/0025817220965381>; Tsai, “History of Vaccine Uptake.”
- <sup>45</sup> Chang et al., “Fighting the Pandemic with ‘Shields’”; Chao et al., “Universal Masking”; Hsieh et al., “Whole-of-Nation Approach.”
- <sup>46</sup> Shih-Min Chou et al., “Effectiveness of Social Media Use for Digital Marketing Planning During the COVID-19 Pandemic in Taiwan,” *Asia Pacific Journal of Public Health* 34, no. 6–7 (2022): 712–5, <https://doi.org/10.1177/10105395221109526>; Sheng-Hsun Lee, “Crisis Classifications in Mobility: Reporting the First COVID Death in Taiwan,” *Discourse Studies* (2024): 1–20, <https://doi.org/10.1177/14614456231219741>; Chia Yu Lien, and Yun-Hsuan Wu, “Affective Communication: A mixed Method Investigation into COVID-19 Outbreak Communication Using the Taiwanese Government Facebook Page,” *Global Health Promotion* 28, no. 2 (2021): 56–66, <https://doi.org/10.1177/17579759211003539>; Yi-Chieh Jessica Lin, “Establishing Legitimacy Through the Media and Combatting Fake News on COVID-19: A Case Study of Taiwan,” *Chinese Journal of Communication* 15, no. 2 (2022): 250–70, <https://doi.org/10.1080/17544750.2021.2011343>.
- <sup>47</sup> Tsung-Mei Cheng, “Taiwan’s New National Health Insurance Program: Genesis and Experience So Far,” *Health Affairs* 22, no. 3 (2003): 61–76; Chou et al., “Effectiveness of Social Media”; Fominaya, “Mobilizing During the Covid-19 Pandemic”; Lien and Wu, “Affective Communication”; Sung-Yueh Perng, “Materialities of Digital Disease Control in Taiwan During COVID-19,” *Big Data & Society*, (2022): 1–12, <https://doi.org/10.1177/20539517221097315>.
- <sup>48</sup> Fominaya, “Mobilizing During the Covid-19 Pandemic.”
- <sup>49</sup> Chen, “Strategy Behind Taiwan’s COVID-19 Immunization”
- <sup>50</sup> Su, “Legislative Preparedness.”
- <sup>51</sup> Mei-Hui Li, and I-Hui Wu, “Analysis of 2021 COVID-19 Outbreak and Vaccination in Taiwan Using a Causal Loop Diagram Approach,” in *Coronavirus (COVID-19) Outbreaks, Vaccination, Politics and Society: The Continuing Challenge*, edited by Rais Akhtar 83–98. <https://doi.org/10.1007/978-3-031-09432-3>.
- <sup>52</sup> Chen, “Strategy Behind Taiwan’s COVID-19 Immunization”; Lin and Wu, “Party Identification”; Yu & Ho, “COVID and Cognitive Warfare.”
- <sup>53</sup> Lin et al., “Rapid Qualitative Research.”
- <sup>54</sup> Lin et al., “Rapid Qualitative Research.”
- <sup>55</sup> Lin et al., “Rapid Qualitative Research.”
- <sup>56</sup> Lin et al., “Rapid Qualitative Research.”
- <sup>57</sup> Syaru Shirley Lin, “Overview: Democracy and public health in Asia,” In *Democracy in Asia*, ed. Ryan Hass and Patricia Kim, Washington, DC: Brookings, 2022), 100–4, <https://caprifoundation.org/overview-democracy-and-public-health-in-asia/>.
- <sup>58</sup> Lee et al., “Exploring Low-Income Migrant Workers’ Health Information-Seeking,” Lin et al., “Rapid Qualitative Research”; Li and Wu, “Analysis of 2021 COVID-19.”

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- <sup>59</sup> Chen, "Strategy Behind Taiwan's COVID-19 Immunization"; Lin et al., "Rapid Qualitative Research"; Lin and Wu, "Party Identification"; Yu & Ho, "COVID and Cognitive Warfare."
- <sup>60</sup> Elstein, "Confucian Free Expression"; Wen Yude, 法官就警使用「簡訊實聯制」發聲 獲司改會肯定 [The judge's voice on the police's use of 'text messaging system' was affirmed by the Justice Reform Commission], *Liberty Times Net* (June 24, 2021), <https://news.ltn.com.tw/news/society/breakingnews/3581116>; Lin, "Overview."
- <sup>61</sup> Lin, "Overview."
- <sup>62</sup> Feng-Jen Tsai, "Using technology for public health purposes: Experience and lessons from Taiwan," in *Democracy in Asia*, ed. Ryan Hass and Patricia Kim, Washington, DC: Brookings, 2022), 134–8, <https://caprifoundation.org/overview-democracy-and-public-health-in-asia/>.
- <sup>63</sup> Kristina Temelkova, "What are the languages spoken in Taiwan?" *Milestone Localization*, July 5, 2023, from <https://www.milestoneloc.com/languages-spoken-in-taiwan/>.
- <sup>64</sup> Isabelle Cheng, "We want productive workers, not fertile women: The expediency of employing Southeast Asian caregivers in Taiwan." *Asia Pacific Viewpoint* 61(3) (2020): 453-465, <https://doi.org/10.1111/apv.12275>.
- <sup>65</sup> Temelkova, "Languages spoken in Taiwan."
- <sup>66</sup> Stephan Grimmelikhuijsen et al., "The Effect of Transparency on Trust in Government: A Cross-National Comparative Experiment," *Public Administration Review* 73, no. 4 (2013): 575–86, <https://doi.org/10.1111/puar.12047>.
- <sup>67</sup> Lin, "Overview"; Tsai, "Using technology."
- <sup>68</sup> Elstein, "Confucian Free Expression"; Kuo and Yu, "Association of National Identity and Trust"; Lin et al., "Rapid Qualitative Research."