The U.S.-Japan Pandemic Preparedness Cooperation

A Discussion with Dr. Matthew Donahue, Ms. Catherine Evans, and Ms. Natalie de Graaf

Abstract

On Thursday, September 15, 2022, Sasakawa Peace Foundation USA (Sasakawa USA) hosted the virtual policy briefing, “The U.S.-Japan Pandemic Preparedness Cooperation.” In this event, Dr. Matthew Donahue, Internal Medicine Physician and State Epidemiologist, Nebraska Department of Health and Human Services; Ms. Catherine Evans, Interdisciplinary Scientist, Division of Requirements, Administration for Strategic Preparedness and Response, U.S. Department of Health and Human Services; and Ms. Natalie de Graaf, Bio-lead and Program Analyst, Division of Strategy at Administration for Strategic Preparedness and Response, U.S. Department of Health and Human Services shared their key findings and recommendations for future U.S.-Japan cooperation based on their recent study trip to Tokyo, Japan, taking part in the Sasakawa USA Emerging Experts Delegation (SEED) program. Dr. Haruka Sakamoto, Associate Professor, Global Health Section, Department of Hygiene and Public Health, Tokyo Women’s Medical University and (Non-Resident) Senior Fellow at Sasakawa USA, provided commentary following delegate remarks. Their presentations were followed by a Q&A session with the audience.
This discussion was presented by Sasakawa USA’s Policy Briefing Series and was held virtually via Zoom. Attendees included distinguished guests from the Washington, D.C. policy community along with members of academia, think tanks, and media, as well as current and retired members of the U.S. military and Japanese public health and pandemic experts. Dr. Satohiro Akimoto, Chairman and President of Sasakawa USA, provided introductory remarks, facilitated this event, and moderated the Q&A discussion.

Dr. Matthew Donahue’s Key Takeaways and Recommendations

Dr. Donahue began by reflecting on his intentions in participating in the Sasakawa USA Emerging Experts Delegation (SEED) study trip. Having studied Japan’s response to COVID-19 in his role as State Epidemiologist, his objectives were to carefully analyze Japan’s effective countermeasures, communication methods, and modern surveillance tools and then implement them in his home state of Nebraska. From his perspective, Japan crafted one of the best communication methods in the world. Additionally, he wanted to build connections with his Japanese counterparts for rapid international communication and knowledge sharing both during and between public health crises.

Prior to the study trip, he highlighted four major points about Japan’s success in pandemic response.

1. **Diamond Princess Cruise Ship Outbreak:** Japan was already implementing an active monitoring system for contact tracing that could monitor healthcare workers treating COVID-19 patients when the outbreak happened on the Diamond Princess cruise ship. When 13 patients on Diamond Princess were transferred to Nebraska, the state implemented Japan’s monitoring system and successfully treated these patients. Nebraska further replicated this system statewide bolstering Nebraska’s readiness.

2. **“3Cs” Education Campaign:** While the United States government was debating on mask wearing guidance and “close contact” definition, Japan presented a simple and clever evidence-based communication campaign response called “3Cs,” altering the public to avoid closed environment, crowded condition, and close contact settings to limit COVID-
19 transmission. Through summer and fall 2020, Nebraska implemented the 3Cs as a tool through all levels of public health institutions, closing the gap when the transmission was high in Nebraska with no clear health guidance in place.

3. Retrospective or Reverse Contact Tracing: Contact tracing serves to identify others who were exposed and warn them of the exposure. Unlike the United States, which tried to identify all of those who were exposed, interview patients, and predict future outbreaks, Japan’s retrospective or reverse contact tracing looked backward in time and sought to identify the source of infection or in some cases super spreader events such as weddings. Retrospective or reverse contact tracing states that if people can be warned of the large exposure, then significant amounts of transmission chains can be broken and prevent others from transmitting the disease to another. Nebraska made good use of this approach at times.

4. Vaccination and Low Mortality Rate: Prior to the SEED visit, the proportion of vaccinations in Nebraska compared to Japan was 40% vaccinated by April 2021, while Japan did not cross this milestone until approximately four months later. Despite the early velocity in the early days, Japan now has 30% more vaccinated and 82% more boosted than Nebraska. Additionally, Japan sought a 2.5 times lower case rate and an 8 times lower mortality rate. Over the duration of the pandemic, Japan seems to have been successful in responding to the pandemic.

Additionally, Dr. Donahue identified major themes pertaining to successes and challenges in Japan’s response to COVID. Successes include:

1. The ability for the Japanese government to include public and private academic subject matter experts to form public health policy and guidance. Japan’s Governmental COVID-19 Advisory Board included economists, journalists, and private academic experts, in addition to qualified public health governmental staff. The robust 3Cs communication was possible through greater cooperation between public governmental and private academic professionals, bringing everyone to the table and to stick. This is something that he would like to see more of in Nebraska.
2. The consistent communication and guidance from the beginning to the end. The United States changed guidance on mask wearing, quarantine, and vaccination twice, but Japan’s guidance on mask and exposure seemed consistent. Dr. Donahue explained that it is appropriate to continue updating the guidance when the update is required. Nonetheless, taking this into account, this guidance should stay consistent as possible for simplicity, perceived integrity, and effectiveness. Therefore, Dr. Donahue described Japan’s 3Cs is just as good tool since its inception and applicable for other respiratory diseases as with COVID-19. While U.S. guidance might sometimes be lost in complexity, individuals in Nebraska still remember the 3Cs.

3. Low mortality rate. Despite the absence of restrictive government intervention, Japan’s mortality rate remained low, which may indicate that clear and consistent guidance when adapted by the critical mass population can be effective, even without strict government lockdowns. When the United States and other nations of the world forcefully shut down their cities, Dr. Donahue analyzed that Japanese law precluded a similar approach. More than two years into the pandemic, mask wearing was seen everywhere in Japan and the vaccination rate is some of the highest in the world. Dr. Donahue concluded that bending the curve is possible when the people buy in and when they know what to buy into a winning combination in a producing uniquely low mortality during a respiratory virus pandemic.

Dr. Donohue then identified challenges that still exist in operationalizing some of Japan’s responses:

1. Testing capabilities were delayed, and overall testing throughout Japan remains lower than in other nations.

2. Faxes were frequently used to report test results and to track vaccination administration, in lieu of electronic report.
3. Antigen tests still require PCR test confirmation. Additionally, public health centers were unable to administer vaccination themselves, which fell to clinics and hospitals and tied up valuable clinical resources.

Dr. Donahue summarized that the SEED study trip provided a great opportunity to build direct relationships with local and national level experts in Japan, which could further nurture long-lasting connections and understand the diversity in pandemic response. By learning from each other’s successes and failures, the United States and Japan can build stronger and more resilient emergency response system as there is a need for global solidarity in refocusing and supporting public health.

*If you would like to learn more about Dr. Donahue’s findings and key takeaways, please read his publication on the Sasakawa USA website, “[Personal Reflection on Sasakawa Peace Foundation USA’s SEED Public Health Delegation.](#)”*

**Ms. Catherine Evans’ Key Takeaways and Recommendations**

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Ms. Evans’ observations focused on major policy topics, which were reoccurring themes that the United States also experienced during the pandemic:

1. **Research on Emergency Response**: While evidence research is vital to improving health outcomes and disasters, it is ethically and simply difficult to conduct such research during the disaster situations. Ms. Evans explained funding, personnel, materials, and other resources are by definition, “overwhelmed” during response operations. Allocating these overwhelmed resources to research can improve outcomes for future operations but may not necessarily support public health and medical outcomes of the current disaster victims. Research is vital to improving emergency response outcomes in the long term.
2. **Data Collection and Analysis:** Disaster situations do provide retrospective data collection on changes and health status because of the disaster. Even if medical providers cannot share chart information, billing codes can be used to assess how health care needs change or stay the same during and after disasters. This could potentially provide data and analysis that compares population similar but differ to the extent which they were exposed to that cluster or countermeasures. More specifically, data collection creates opportunity to retrospectively analyze how different interventions work in different areas and different populations. Ms. Evans emphasized that this retrospective analysis reduces the burden on response operations and can be done concurrently with drawn out disasters like COVID-19; it could be done potentially remotely. Strict data standards will be needed to protect patients’ privacy.

Additionally, Ms. Evans stressed that data collection will need to be standardized across patients care sites in a way that does not burden medical care providers or supporting staff. Data collection would be easier if it was routine in patient care and if it was automated in the charting or billing process. Considerations will be needed for instances of severe power outages that inhibit electronic medical record keeping. However, this research planning should be part of a larger disaster response planning.

1. **Utilization of Billing Codes:** The U.S. healthcare structure primarily uses a multi-payer system that has some elements of single payer health insurance. During the pandemic, the U.S. added more single payer element particularly around COVID-19 related payment. Meanwhile, Japan had been utilizing single payer system, which Ms. Evans’ would like to see more cooperation between the United States and Japan to understand what policies could improve data collection and retrospective research during disasters based on the Japanese system.

2. **Branding of Federal Agencies:** Japanese experts talked about their desire to function and create a Japanese version of Centers for Disease Control and Prevention (CDC). Ms. Evans shares how her federal agency in August 2022 underwent a name-change from Office of Assistant Secretary for Preparedness and Response to Administration for Strategic
Preparedness and Response (ASPR). She noticed a common concern in branding federal agencies of how to detangle what the agency legally requires with what the agency is expected to do by the public with what its operations and how it fits into their response activities. The discussion centered around a need to organize agencies in an easily recognized information stream and to have a clear organization chart that outlines the mission and scope of each agency. This chart would explain how agencies can coordinate and communicate among departments. This information on how the agencies work together needs to be communicated to all levels of government and with community stakeholders to effectively disseminate strategy. It is only then that Ms. Evans believes that local actors and response operations can know where to find their touch points both for information and for resource sharing.

3. **Initiating and Ending Disaster Response Policies:** The disaster response ends when resources are no longer overwhelmed in theory. However, this is much less simple in practice. The United States dealt with questions around what to do when the community starts in an overwhelmed state before the disaster strikes. Should response end when the community reaches its overwhelmed baseline or should response continue until the community could withstand that disaster occurring in future? On contrary, Ms. Evans learned from Japanese counterparts about the infectious disease law in Japan dictated when response activities would start along with exit strategies. Many countries are now shifting from COVID-19 pandemic to COVID-19 endemic phase. That shift has been a struggle in some places in figuring out how to pivot towards endemic phase and setting up similar structures for non-infectious disease disasters. As a result, the United States needs more funding and programs for transition of resources from emergency response to endemic or prolonged program to care for these recurring disasters.

For future U.S.-Japan collaboration, Ms. Evans suggested more joint research projects on public health and patient outcomes related to disaster events to better understand how medical countermeasures and other emergency preparedness interventions impact health outcomes. She also would like continuation of personnel exchanges to facilitate building and exposing staff to new ideas and preparedness options. She further emphasized that study abroad for professionals is
a major program to build stronger U.S.-Japan cooperation. Finally, Ms. Evans’ mentioned collaborative capability-based analysis of gaps and joint U.S.-Japan preparedness mission space. COVID-19 has shown how a cascade of effects turns global quickly; thus, analyzing local and international mission gaps could make the United States and Japan to better aide their global neighbors.

Ms. Evan’s publication on her findings and key takeaways will be on our website soon.

Ms. Natalie de Graaf’s Key Takeaways and Recommendation

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Ms. de Graaf first underscored commonalities of the two nations’ public health threats. A couple of commonalities were reappearing themes which highlighted several overarching policy areas, where the United States and Japan share a common interest:

1. **Economic Security**: Economic security within rules-based economic order and countering economic statecraft. Building security to counter emerging threats through cybersecurity or public health supply chain resilience or emerging technology and intellectual property. A stronger U.S.-Japan relationship can build stability and security while upholding the universal values that both nations share. Like Japan, the United States is focusing more on building bilateral and multilateral relationships to ensure visibility and sharing global intelligence, supply chains, and information gathering capability related to disease spread. Early knowledge of disease is underpinning of pandemic preparedness.

2. **Decision Making**: Ms. de Graaf compared Japan and the United States’ approaches as both nations were forced to make decisions during a period of uncertainty, with imperfect information. She indicated that Japan’s ability to relate its population’s values and speak to those through the public health response was something unique which was unseen in the United States. Moreover, Japan first focused on making major changes within its healthcare
system to keep the elderly population safe and converted certain hospitals for the elderly by working with the private sector hospitals. Then, Japan successfully reevaluated its healthcare system to ensure what the Japanese people valued the most. In return, the Japanese population was willing to wear masks, unlike the population in the United States. The Japanese government understood its population and their values and were able to speak to that through public health. Ms. de Graaf described that this is a textbook example of success from the public health perspective.

3. **Existing U.S.-Japan Cooperation:** Ms. de Graaf listed several examples of existing U.S.-Japan cooperation seen through ASPR and Japan’s Ministry of Health, Labour and Welfare (MHLW) partnerships which include the U.S.-Japan Disaster Medical Assistance Team (DMAT), the National Emergency Pathogen Training and Education Center (NETEC), the Diamond Princess cruise ship incident, multiple engagements between ASPR’s Biomedical Advanced Research and Development Authority (BARDA) and the Japan Agency for Medical Research and Development’s (AMED) Strategic Center of Biomedical Advanced Vaccine Research and Development for Preparedness and Response (SCARDA), and continuous exchange of liaison officers.

Ms. de Graaf lastly provided future projection of U.S.-Japan cooperation:

1. ASPR plans to continue holding the multi-agency hosted Biodefense symposium in-person meeting annually as well as at least one mini-virtual symposium a year. ASPR is also working to evolve some of its bilateral engagement with Japan into multilateral engagement with other liked-minded international partners, as well as the CDC and the Health Resources and Services Administration (HRSA), with particular interest in improving support for the Pacific Islands.

2. The Quad nations will continue to support the 100-Day Mission. The first Quad pandemic preparedness exercise will examine information sharing, targeted public health solutions, and intergovernmental relationships associated with an early warning signal and initial spread of a novel pathogen with pandemic potential. The tabletop exercise will examine
senior official decisions in the context of each Quad nation’s domestic policies and legal frameworks, regional relationships (e.g., the Association of Southeast Asian Nations (ASEAN)), and global frameworks (e.g., World Health Organization’s (WHO) International Health Regulations (IHR)). The exercise will look at the hypothetical emergence of a highly pathogenic, naturally occurring, novel biological threat.

Ms. de Graaf’s publication on her findings and key takeaways will be on our website soon.

Commentary by Dr. Haruka Sakamoto

Dr. Sakamoto agreed with Dr. Donahue’s remarks on the success of keeping a low mortality rate by population despite the larger elderly population in Japan and very high urban density. However, Japan lags in research and development (R&D) of medical countermeasures such as vaccines for COVID-19 which is key to countermeasures against infectious diseases. Dr. Sakamoto identified this is an area that needs to be strengthened to prepare for future pandemics. Both Japan and the United States had areas of success and future improvement to make.

Dr. Sakamoto then provided commentary to each featured speakers’ remarks:

1. For Dr. Donahue: Dr. Sakamoto believes Japan’s success in maintaining low mortality rate was due to a combination of several factors rather than a single factor. In Japan, the central government and MHLW determined the general framework of the infectious disease control and countermeasures, while detailed implementation was basically left to the local government. Not only did the infection situation differ from region to region, but also the available medical resources differed among the regions. Japan understood tailored countermeasures must be taken accordingly to the local conditions. Japanese local governments had to figure out (1) how to increase the number of hospital beds for the COVID-19 patients in the phase of rapid increase of the infected and (2) at the same time, how to continue medical treatment for other diseases other than COVID-19. Dr. Sakamoto explained that it is not easy for the Japanese public sector to reorganize available hospital beds with strong authority, especially since a majority of the medical institutions are
privately owned. In such a situation, each local government established medical care delivery system by making the full use of the medical institution network that they each have in the normal times. Therefore, it is very important from the perspective of future pandemic preparedness to build medical care delivery system for the entire region that includes reorganization of the hospital beds which would compensate necessarily human resources and the continuation of medical treatment other than COVID-19.

2. For Ms. Evans: Dr. Sakamoto listed several contributing factors to success seen in Japan.
   a. Japan’s ability to identify high risk situation from the very early stage: close-proximity, crowded, and poorly ventilated places posed high risk of infection. These scientific findings were promptly reflected while the public was educated about these potential risks in easily understood manner and preventive actions were encouraged at the very early stage.

   b. Public health centers throughout Japan which had been playing a central role in fighting against other infectious disease prior to COVID-19 became a significant player during the pandemic. Despite its challenges such as IT technology not being fully utilized, resulting in a considerable burden of inefficiency on staff at the public health centers, these centers played a major role during the COVID-19 pandemic, carrying out retrospective contact tracing system in Japan.

   c. Japan’s universal health insurance system from the normal time contributed to better response for the pandemic. This system was established in 1961 which allows anyone living in Japan to receive medical care at the local payment rate. During COVID-19, this universal health insurance system enabled people to visit medical facilities without the hesitation for the payment from the very early stage.

Dr. Sakamoto spoke on the important role of the central government in controlling the spread of COVID-19. To further improve its pandemic preparedness, it is not only important to be well equipped with response management to emergencies but also be prepared for such emergencies from the normal times. In Japan, the importance of infectious disease control and the budget
allocation has been declining in recent years due to the changes in structure of the diseases, which further resulting in reduction of the public health personnel. Looking back at the recent crisis, it is once again important to allocate budget during the normal times to have the ability to respond to a crisis flexibly and quickly.

3. **For Ms. de Graaf:** Dr. Sakamoto warned that even after COVID-19, there will surely be another pandemic on a global scale. To prepare for such a pandemic, it is important for both countries to cooperate and learn from each other. Dr. Sakamoto believes that the following four areas are key to strengthening U.S. and Japan collaboration on infectious diseases.

   a. **Intelligence Function on Infectious Diseases:** The possibility of new viruses emerging is increasing due to climate change and other factors and detecting new genes of new viruses is very important both for minimizing damages in the early stages and for the research and development of novel countermeasures. There are already global intelligence functions such as the WHO and IHR, but Dr. Sakamoto suggested that establishing more complimentary intelligence functions is essential. Considering that most of the recent pandemics have originated in the Asian region which Japan is part of. Thus, it is necessary for Japan and the U.S. to collaborate and work together to strengthen the functions around the world, especially in the Asian region.

   b. **R&D, Manufacturing and Distribution of Medical Countermeasures:** R&D, manufacturing, and distribution of medical countermeasures include vaccines, therapeutics, and diagnostics. At the U.K.’s G7 Summit in 2021, the 100-Day Mission was announced which aims to conduct R&D in medical countermeasures within 100-days during the next pandemic. This mission not only includes the basic research, but also includes clinical trials, regulatory approvals, appropriate manufacturing, and distribution of those measures to meet global demands. Rapid availability of medical countermeasures is a matter directly related to the livelihood
of the people of the country and is the most important component to ensure that those materials are available in the next pandemic.

c. Resilient Supply Chain: Various types of vaccines have been developed and manufactured for COVID-19 but none of them can be completed in a single country. For example, many of the raw materials for pharmaceuticals originate in China. In addition, Dr. Sakamoto reiterated that many countries conducting joint clinical trials and manufacturing to meet global demands are outsourcing manufacturing to other countries for large production. Unfortunately, Japan has not succeeded in developing effective domestic vaccines as of today, but Dr. Sakamoto believes there is still room for Japan to contribute to the supply chain of medical countermeasures including clinical trials and manufacturing. Since securing countermeasures is directly related to security and economic issues, the necessity of completing the supply chain of medical countermeasures among like-minded countries remains a critical topic for all countries.

d. Further Collaboration with Like-Minded Countries: Japan and the United States have been deepening their bilateral collaboration and cooperation, but also through other means like the Quad and G7, which Japan will chair next year. Dr. Sakamoto hopes that these meetings will also serve to further deepen collaboration between the two countries.

Q&A Session

A Q&A with the audience followed the presentation covering wide range of topics. A brief summary of their responses is below:

- Dr. Donahue responded to Dr. Sakamoto’s commentary that Japanese local governments were flexibility in responding to the pandemic. Ms. Evans reiterated data analysis and data collection are critical from the disaster planning phase by Japan and the United States. Ms.
de Graaf agreed that the 100-Days Mission is one framework through which Japan and the United States could work together in deepening their ties.

- Applying their key findings from the SEED study trip, Ms. de Graaf mentioned that sharing data is a critical element in building stronger relations with other countries. Dr. Donahue reemphasized consistency of messaging, and Ms. Evans announced that her organization implemented an employee professional training.

- Dr. Donahue’s takeaway from the meeting with the Kanagawa Prefectural government was identifying the successes and struggles that Japanese local government faced during the pandemic. Ms. de Graaf added that this meeting provided an opportunity to compare the central government’s objectives to what the local government could operate.

- Ms. Evans noticed various responses from Japanese counterparts when it came to Japanese experts being underappreciated for their role. Ms. de Graaf also noticed some concerning voices were coming from the Japanese counterparts. Dr. Sakamoto provided her view on this topic.

- Major cultural differences that delegates noticed during the SEED trip include Ms. Evans noticing that emergency plans could count on Japanese people following rules while the U.S. emergency plans cannot make that assumption. Dr. Donahue also pointed to the perception difference of Japanese people willing to follow public health guidance. Ms. de Graaf analyzed the challenges in conveying important messages to the people.

_Sasakawa USA is grateful to Dr. Donahue, Ms. Evans, and Ms. De Graaf for providing their key takeaways and suggestions for future U.S.-Japan cooperation. We are also appreciative for Dr. Sakamoto providing her commentary at this event. Sasakawa USA also thanks the Q&A participants and attendees for joining us in this engaging discussion._

_The summarized views of the speakers expressed herein are entirely the work of Sasakawa USA and do not represent the official positions of any of the speakers._

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