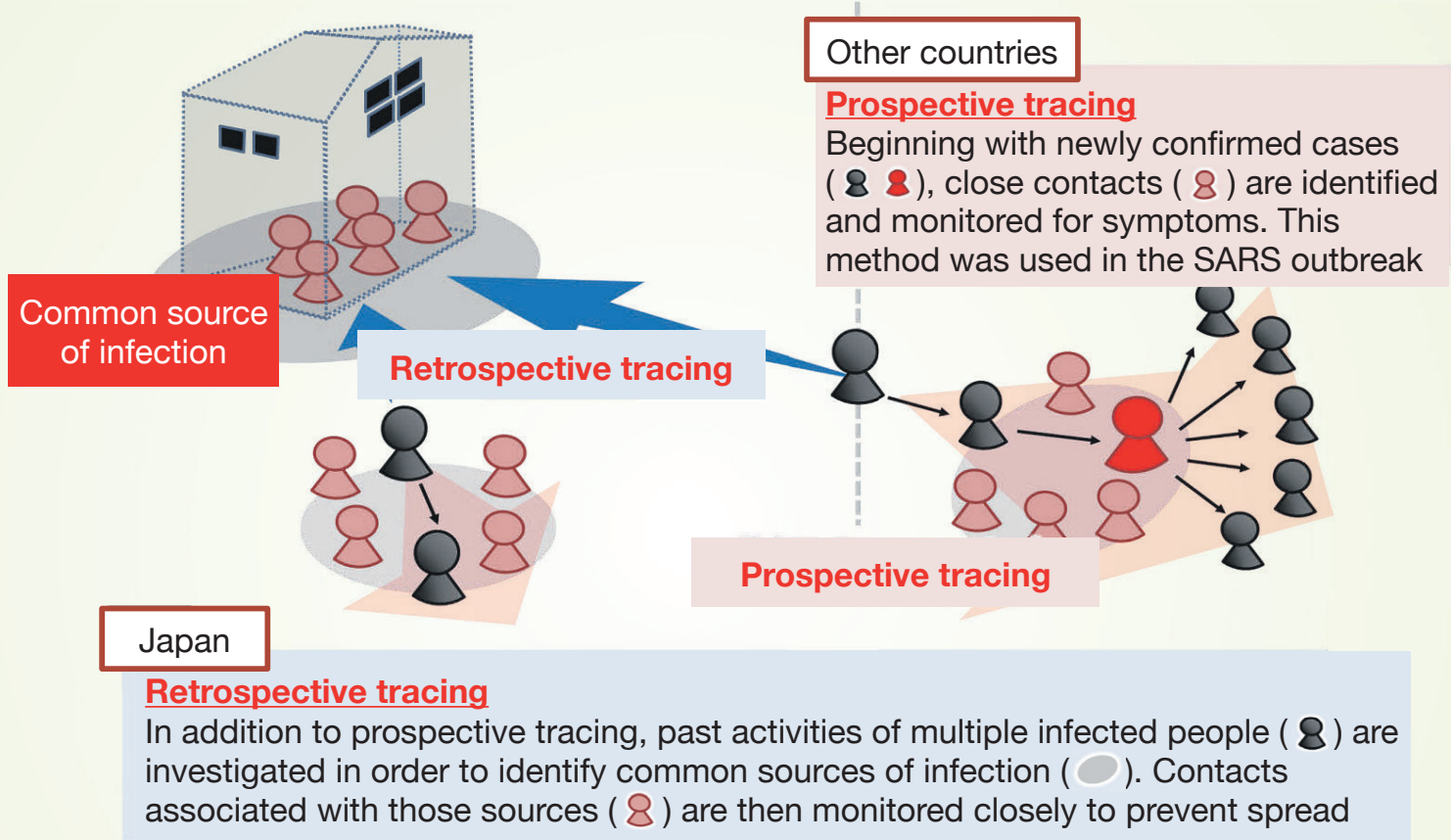


Japan's cluster-based approach



Identifying cluster sources

The cluster-based approach uses thorough, retrospective contact tracing to identify common sources of infection, which helps suppress further spread

Retrospective tracing can identify infections more efficiently than a strictly prospective approach, enabling more effective control

Photo courtesy of Courtesy of Government of Japan.

THE 'JAPAN MODEL' GOES GLOBAL

JAPAN'S COVID-19 RESPONSE TRANSCENDS ITS BORDERS

Japan's response to the COVID-19 pandemic has contrasted sharply with that of many other countries, including the U.S. Intent on minimizing the social and economic impact of COVID-19, Japan has not implemented mandatory lockdowns. Yet this country of over 126 million has recorded remarkably low numbers of COVID-19 cases and deaths.

What long-term lessons does Japan's COVID-19 strategy hold for other countries? And how is the so-called "Japan model" now contributing to international efforts to fight the virus?

Contrasting Statistics

As of Dec. 9, Japan had reported over 182,000 confirmed cases of COVID-19 resulting in around 2,500 deaths, according to the Johns Hopkins Coronavirus Resource

Center. That equates to 1.84 deaths per 100,000 people. The United States had reported more than 16.5 million cases, with over 300,000 deaths. That equates to over 90 COVID-19 deaths per 100,000 people in the U.S. — more than 47 times the death rate reported in Japan.

"From the beginning, we realized that containment is not a feasible option for this virus ... So we've been trying to balance between suppression of the virus and



Dr. Hitoshi Oshitani. Photo courtesy of Dr. Oshitani

maintaining social and economic activities" said Dr. Hitoshi Oshitani, Professor of Virology at Japan's Tohoku University Graduate School of Medicine and a member of Japan's Government Advisory Panel on COVID-19.

"So far, we've managed to minimize the negative impact of COVID-19 in Japan by implementing several control measures."

A Different Approach

While its government declared a state of emergency on April 7, Japanese law, with its emphasis on protecting personal rights, does not permit enforced lockdowns.

"We just asked people to stay at home," explained Oshitani, who was regional advisor for Communicable Disease Surveillance and Response at the World Health Organization Western Pacific Regional Office during the 2002-2004 SARS outbreak. "We also just asked restaurants and bars to close."

The Japan model is a cluster-based approach derived from an epidemiological study of a coronavirus outbreak aboard the Diamond Princess cruise ship, which was quarantined in Yokohama, Japan in February. It includes conducting active epidemiological investigations to quickly ascertain the origin of clusters of COVID-19 infections, and then promptly taking measures to suppress their spread.

"We noticed that the majority of infected individuals do not pass the virus to anybody else ... [So] we were wondering why these large outbreaks in Wuhan [China] and other places?" Oshitani recalled. "Then we noticed that a small proportion of infected individuals infect many others, and therefore mean the large cluster, or the 'super-spreading' event."

Contact Tracing and the "Three Cs"

Japan's public health system was well placed to investigate COVID-19 clusters and to identify their common characteristics. Around 8,000 nurses are employed at more than 400 public health centers spread across the nation. They routinely conduct outbreak investigations of diseases such as measles and norovirus. Using this experience, nurses performed both

prospective COVID-19 tracing (identifying close contacts of an infected person and monitoring them for symptoms), and retrospective tracing (investigating the past activities of multiple infected people to identify common sources of infection). Retrospective tracing can identify infections more efficiently than a strictly prospective approach, enabling more effective control.

"They do meticulous investigations of each one of these [COVID-19] cases," Oshitani continued. "By asking the infected people [about] their past activities in the past 14 days or so, they managed to identify the cluster, or the source of the infection."

Based upon commonalities noted between COVID-19 clusters, the Japanese government launched its "Three Cs" campaign in April. This encouraged citizens to avoid closed spaces with poor ventilation; crowded places; and close-contact settings, such as close-up conversations. These situations increase the risk of droplet infection. Another successful preventive measure has been the custom among Japanese people, even prior to the COVID-19 pandemic, of wearing masks during illness or allergy season as a common courtesy to protect oneself and others.

Japan's International Outlook

As well as its headline-making approach to combating COVID-19 at home, Japan is proactively leading international efforts to better understand and fight the pandemic, both in collaboration with overseas partners and by providing assistance to developing countries.

Japan has provided over \$1.54 billion in medical and health assistance bilaterally, and through international organizations such as UNICEF and the UNHCR. It has also committed up to \$4.5 billion over the next two years for its COVID-19 Crisis Response Emergency Support Loans, including \$450-million loans to the Philippines, Indonesia, and India.

Japan has announced it will contribute more than \$130 million for the COVAX Advance Market Commitment (AMC), in order to enable lower income countries to realize equitable access to COVID-19 vaccines.

"Different countries are using different approaches, and we need to learn lessons from different countries," Oshitani concluded. "Sharing information between countries is extremely important."

— Paul Rogers, Brand Publishing Writer

Stop the Spread of COVID-19

Avoid Closed Spaces, Crowded Places, and Close-Contact Settings!

● We need to aim for "Zero Cs." Even in open spaces, be mindful of crowded places and close-contact settings!

Make enough space with others.

2 meters

Open doors and windows. Ventilate rooms frequently!

Avoid exercise with many people, even outdoors!

Walking or running in a small group is fine.

Make space in restaurants!

- Avoid dining in a large group
- Leave one empty seat between you
- Sit diagonally across the table

Wear a mask when talking!

A 5-minute conversation is the same as one cough

Refrain from talking inside the train or elevator!

