



Japan's COVID-19 Response (2020/6/1)

Shigeru OMI, M.D., Ph.D - Regional Director Emeritus, World Health Organization (Office of Western Pacific); chairman of government advisory panel on COVID-19

Hitoshi OSHITANI, M.D. Ph.D, M.P.H. - Professor, Department of Virology, Tohoku University Graduate School of Medicine; member of government advisory panel on COVID-19

Shigeru Omi, M.D., Ph.D.

(Born June 11, 1949)

Current positions

- Chairman of the COVID-19 Advisory Committee on Basic Action Policies
- Regional Director Emeritus, World Health Organization (WHO Regional Office for the Western Pacific)
- President of the Japan Community Healthcare Organization

Main achievements

Dr. Omi served as Director of the Division of Communicable Disease Prevention and Control at the WHO Regional Office for the Western Pacific (Manila, Philippines). He led an initiative that successfully eradicated acute poliomyelitis (polio) from the Western Pacific Region. Based on these achievements, he was appointed WHO Regional Director for the Western Pacific in 1999. During his tenure, he spearheaded the response to severe acute respiratory syndrome (SARS), advanced measures against tuberculosis in Asia, and communicated the threat of bird flu to the world.

Biography

- 1967 - American Field Services (AFS) Exchange Program
- 1978 - Graduated from Jichi Medical University, School of Medicine
- 1987 - Assistant Professor, Jichi Medical University, School of Medicine
- 1990 - Director, Division of Communicable Disease Prevention and Control, WHO Regional Office for the Western Pacific
- 1990 - Ph.D. in Molecular Biology of Hepatitis B Virus
- 1999 - WHO Regional Director for the Western Pacific
- 2009 - Professor, Jichi Medical University, Center for Community Medicine
- 2009 - Executive Director, WHO
- 2012 - President, Readjustment of Facilities for Insured Persons and Beneficiaries Organization
- 2012 - Chairman, Advisory Council on Countermeasures against Novel Influenza and Other Diseases
- 2013 - President of the World Health Assembly, the United Nations
- 2014 - President, Japan Community Healthcare Organization
- 2016 - Member of United Nations Global Health Crisis Task Force
- 2020 - Deputy Chairman, Novel Coronavirus Expert Meeting, New Coronavirus Infectious Disease Control Headquarters

Hitoshi Oshitani, M.D., Ph.D., M.P.H.

(Born April 29, 1959)

Current positions

- Professor, Department of Virology, Tohoku University Graduate School of Medicine
- Member of Novel Coronavirus Expert Meeting, New Coronavirus Infectious Disease Control Headquarters
- Member of the COVID-19 Advisory Committee on Basic Action Policies
- Member of the Covid-19 Cluster Response Taskforce, Ministry of Health, Labour and Welfare

Main achievements

From 1991 to 1994, Dr. Oshitani taught virology in Zambia as a specialist of the Japan International Cooperation Agency (JICA). From August 1999 to 2006, he served as an Infectious Diseases Control Advisor at the World Health Organization's (WHO) Regional Office for the Western Pacific in Manila, the Philippines. In 2002, he coordinated the response to severe acute respiratory syndrome (SARS).

Biography

- 1987 - Graduated from Tohoku University School of Medicine
- 1987 - Medical intern at the National Sendai Hospital
- 1991 - Expert at Japan International Cooperation Agency (JICA) (Zambia)
- 1997 - Graduated from University of Texas School of Public Health with a Master of Public Health
- 1998 - Assistant Professor of Public Health, Niigata University School of Medicine
- 1999 - Lecturer of Public Health, Niigata University School of Medicine
- 1999 - Infectious Diseases Control Advisor, WHO Regional Office for the Western Pacific
- 2005 - Professor, Department of Virology, Tohoku University Graduate School of Medicine

COVID-19 in Japan

- Relative to the United States and Europe, the number of infections and deaths in Japan has been small
- At the same time, the number of deaths in many other parts of East Asia has also been low. Taiwan, in particular, has succeeded in keeping the number of fatal cases to a minimum

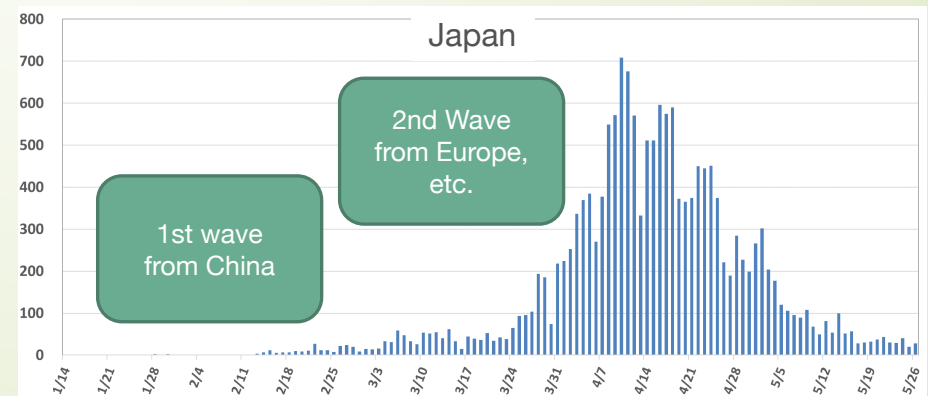
Reasons for Taiwan's success:

- As a consequence of its experience with SARS and other contagious disease outbreaks, Taiwan's level of preparedness was higher than Japan's
- Taiwan has fewer visitors from the United States and Europe than Japan does, and it was quicker to restrict inbound travel in response to the pandemic. (Feb. 6: banned visitors from mainland China. March 19: banned entry of all foreign travelers)

*Japan began restricting visitors from Hubei Province, China, on Feb. 1, but it remained open to travelers from Italy, Germany, France and most other parts of Europe until March 27. It banned entry from the United States, Britain and the rest of China on April 3

Timeline

- 1/16 First COVID-19 case confirmed in Japan
- 1/28 First case in a patient who had not traveled abroad
- 2/24 Panel of experts alerts community about risk of potential explosive spread
- 2/26 Large-scale gatherings suspended
- 2/27 Schools closed
- 4/7 State of emergency declared in seven prefectures
- 4/16 State of emergency expanded nationwide
- 5/14 State of emergency lifted in 39 prefectures
- 5/21 State of emergency lifted in Osaka and three other prefectures
- 5/25 State of emergency lifted in remaining areas, including Tokyo

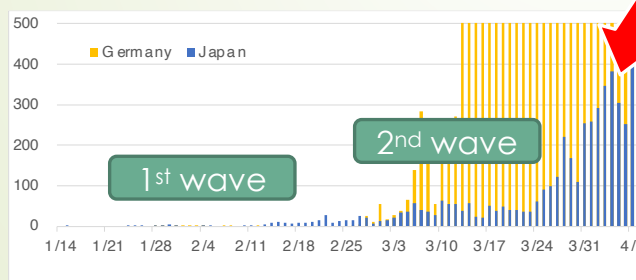
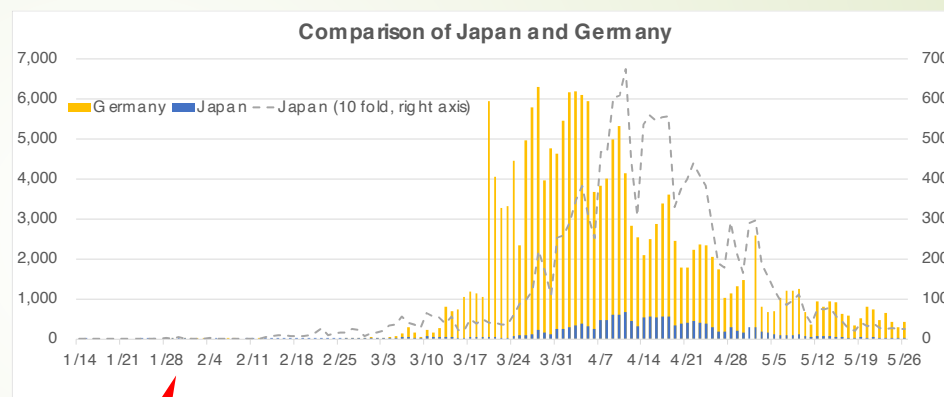


Why has the number of COVID-19 cases and deaths been comparatively low in Japan?

- A number of reasons have been suggested for Japan's relatively small number of infections and deaths. The most widely discussed include:
 - Easy access to medical care under the national health insurance system
 - Generally high quality of medical care, even in rural areas, with hospitals supported by a national network of local public health centers (*hokenjo*)
 - The Japanese public's high standard of hygiene, willingness to comply with government requests, and other cultural traits and lifestyle habits
- At the same time, **two important factors have not received due attention**. They are:
 1. Early detection of transmission waves
 2. Cluster-based approach

Early detection and delay of outbreak peak

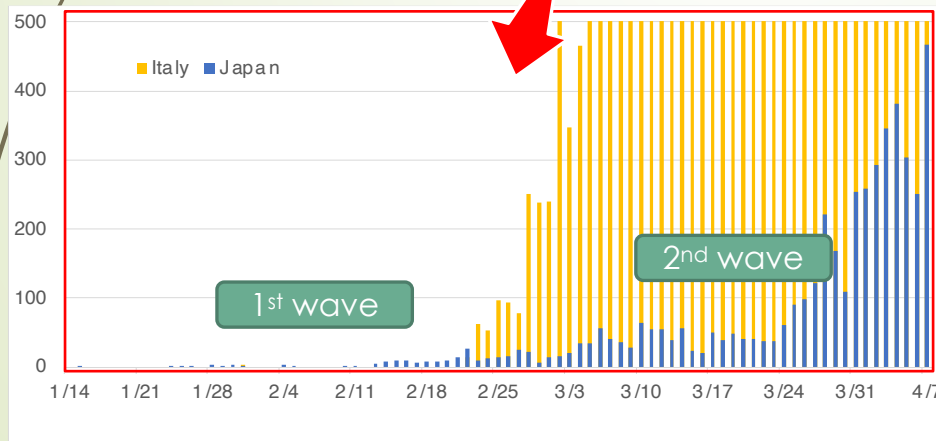
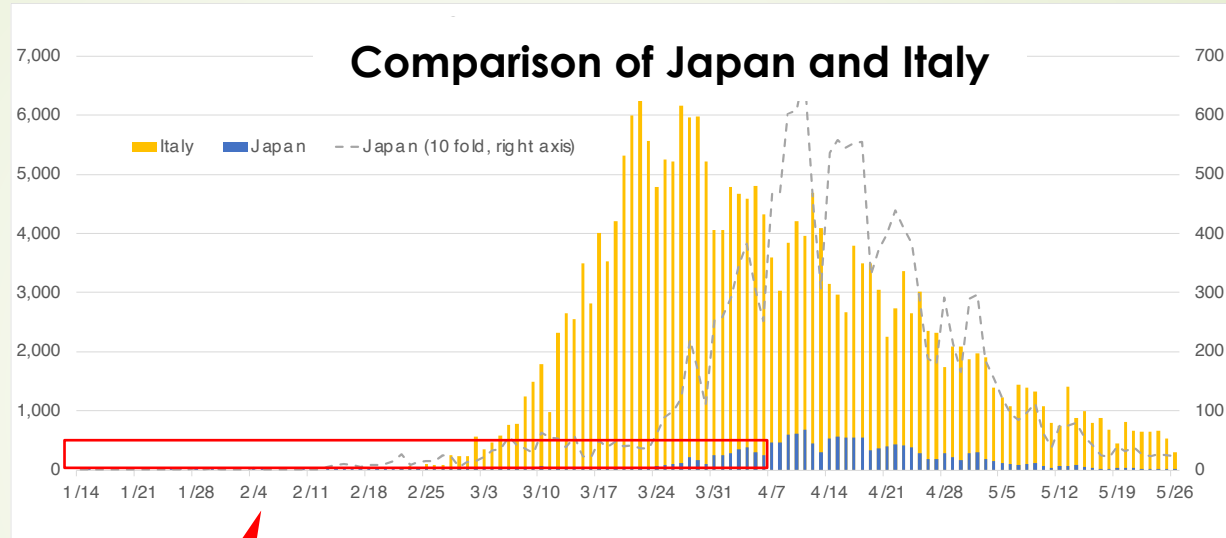
- Japan detected the first wave of COVID-19 infections from China at an early stage, leading to a more gradual transmission curve that allowed Japan to delay the peak of the outbreak and to buy time to prepare. The US and Europe, by contrast, suffered rapid early surges



COVID-19 was detected earlier in Japan and spread less rapidly

Cumulative cases	Japan	Germany	France	UK	US	Italy	Taiwan	S.Korea
As of Feb. 18	60	15	12	9	15	3	31	22
As of Feb. 25	149	15	12	13	53	229	892	30

Early detection and delay of outbreak peak ②

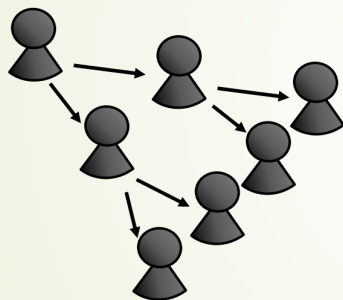


Japan's cluster-based approach ①

- At an early stage, Japanese public health experts identified the virus' characteristic mode of transmission

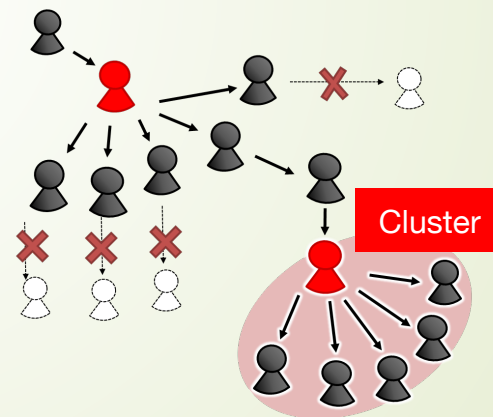
Influenza

- One infected person infects one or more people



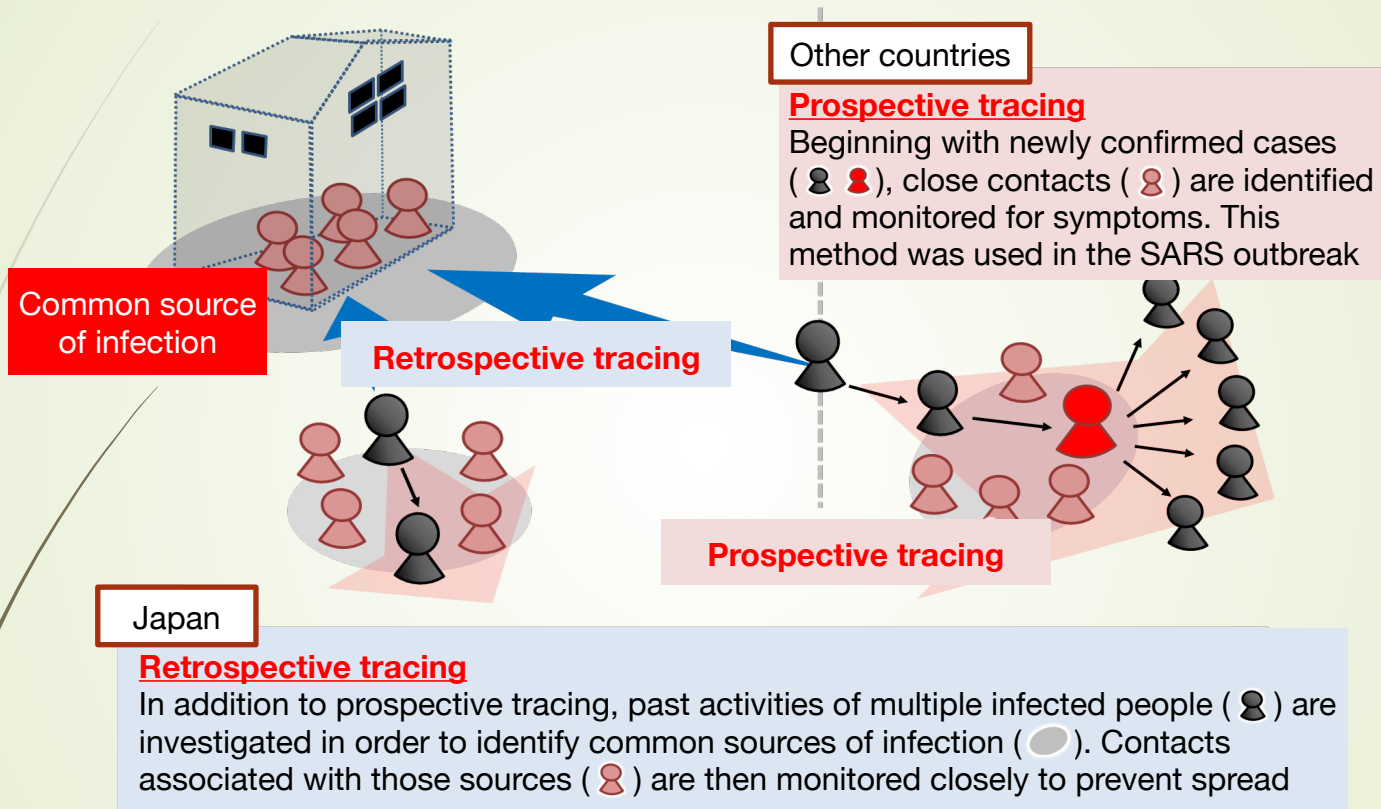
COVID-19

- Regardless of illness severity, four out of five infected people (⚫) do not infect anyone else
- Only one in five infects someone else, and an even smaller minority infects multiple people (⚫), leading to the formation of clusters



- COVID-19 spreads by forming clusters. **Preventing clusters, especially in the early phase of an outbreak, can result in suppression of the virus**

Japan's cluster-based approach ②



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


The “Three Cs”

- Based on analysis of the shared characteristics of clusters, Japan developed a concept called the “Three Cs” to denote high-risk places and situations
 - Closed spaces
 - Crowded places
 - Close-contact settings
- The public was asked to avoid the Three-Cs; awareness of the term became widespread
- The concept has been expanded to “Three Cs Plus,” which includes behaviors such as loud talking and singing

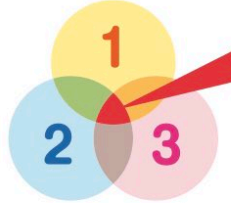
Important notice for preventing COVID-19 outbreaks.

Avoid the “Three Cs”!

1. **Closed spaces** with poor ventilation.
2. **Crowded places** with many people nearby.
3. **Close-contact settings** such as close-range conversations.





One of the key measures against COVID-19 is to prevent occurrence of clusters. Keep these “Three Cs” from overlapping in daily life.




The risk of occurrence of clusters is particularly high when the “Three Cs” overlap!

In addition to the “Three Cs,” items used by multiple people should be cleaned with disinfectant.

首相官邸  Prime Minister's Office of Japan

厚生労働省  Ministry of Health, Labour and Welfare

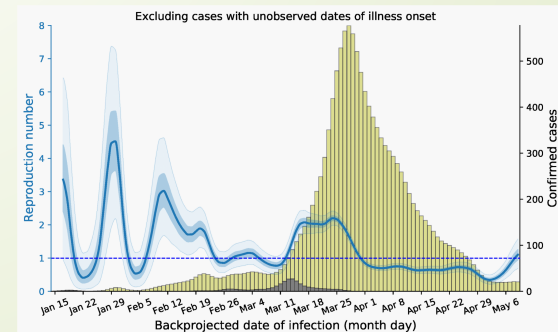
MHLW COVID-19



State of emergency

- ▶ A monitoring system using indicators such as the virus' reproduction number had been put in place to detect early signs of a surge in infections
- ▶ A state of emergency was declared on April 7 for three reasons
 - Early signs of a surge in infections were detected, through close monitoring
 - Strain on the health care system was growing
 - The cluster-based approach was reaching its limits (human resources, etc.) due to increased case volume
- ▶ **Public cooperation was vital.** Changes in behavior helped stem the tide of new cases
- ▶ **The effective reproduction number remained below 1** during the state of emergency

Estimate of changes in the effective reproduction number (R_t), as of May 28



Testing in Japan

- ▶ **Compared with other countries, Japan has performed fewer PCR tests for the virus.** Its testing has focused on high-risk groups and people associated with suspected clusters
- ▶ **At the peak of the outbreak in early April, timely testing was not always available to those who needed it, due to limited capacity.** This was an issue that Japan is now addressing
- ▶ **Despite such issues, Japan's testing infrastructure has been adequate from a public health perspective**
 - Japan's testing has been appropriate to the scale of the outbreak. It has conducted more tests per infection and per death than many other countries
 - With the exception of the peak period of the outbreak, the percentage of positive results has been lower than in other countries. Low positive rates are an indicator of sufficient testing, according to the WHO

Testing going forward

- ▶ As Japan eases restrictions and seeks to resume social and economic activity, while preparing for possible new outbreaks, the following goals should be considered in testing policy:
 - **Laboratory testing that identifies cases at an early stage** (prodrome and mild symptoms), to facilitate timely medical treatment and the prevention of further infections
 - **Faster laboratory testing** with shorter waits between consultations and tests
 - **Use of antigen-detecting rapid diagnostic tests** (RDTs). RDTs are less sensitive than PRC tests, but they are quicker, easier and can identify high viral loads, which may help detect especially infectious cases. RDTs could be particularly useful for preventing outbreaks in hospitals, nursing homes and other high-risk settings

Conclusion

- **Citizens' cooperation** has been vital to slowing the spread of the virus while preventing the healthcare system from becoming overwhelmed
- **A focused, cluster-based response and avoidance of the “Three Cs” helped control the spread of COVID-19**, especially in the early stage of the outbreak
- This is **no time for complacency**. Latent transmission chains can surface at any time, and new types of clusters could develop in the future
- The decline in the number of new cases should be taken as an opportunity to **prepare for a potential next wave**
- Japan has learned a lot, and while there is still much to understand, it should **share its experiences with the world** and actively participate in the global pandemic response