## Japan's COVID-19 Response (2020/7/02)

1

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## Epidemiological characteristics of COVID-19 and SARS ① COVID-19

### SARS

2





Nishiura H et al. MedRxiv https://doi.org/10.1101/2020.02.28.20029272





FIGURE 3. Number of direct secondary cases from probable cases of severe acute respiratory syndrome — Singapore, February 25–April 30, 2003

Leo YS et al. MMWR, 52(18); 405-411, 2003

## Japan's cluster-based approach ①

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

#### Influenza

3

• One infected person infects one or more people



#### COVID-19

- Regardless of illness severity, four out of five infected people ( **2**) do not infect anyone else
- Only one in five infects someone else, and an even smaller minority infects multiple people ( ), eading 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

4

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

## 5 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
- Further analysis of many clusters identified additional risk factors such as exercise, talking in loud voice, singing and nightlife-setting

#### 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.



# Epidemiology of COVID-19 in Japan, January – June 2020



6

# COVID-19 deaths and deaths per 100,000 in G20 countries

7

