# A Comprehensive Approach to the COVID-19 Pandemic in Japan: Telemanagement

## When did it start?

The first case of COVID-19 in Japan was reported on 3rd January 2020. With a population of 125.5 million, the country has seen a relatively low number of confirmed cases, with 23,178,710 from January 3rd, 2020.[1] Throughout all six Covid waves, the number of deaths totals 47,579.[1] Many developed countries faced a high number of cases with waves that led to rationed resources and health authorities under strain – a situation seen in even greater magnitude in some developing nations. Japan controlled the pandemic by following its healthcare laws within five months when the disease was declared a worldwide emergency. By categorising infectious diseases from most to least infectious, COVID-19 was quickly labeled a "designated disease" requiring urgent action. This paper discusses Japan's approach to the COVID-19 pandemic.[2]

## Which organisations were involved?

Japan's National Epidemiological Surveillance of Infectious Diseases (NESID) uses passive and active surveillance to recognise disease outbreak trends. Passive surveillance allows public health centers and prefectures to report data to the Ministry of Health, Labor, and Welfare (MHLW). Prefectures and public health centers (PHC) conduct active surveillance by surveying hospitals where the diseased are admitted.[2]

Isolation measures were put in place for immigrants and passengers planning to enter the country, and PCR testing was advised for symptomatic patients.[2] In contrast to Korea, China, Vietnam, and the UK, asymptomatic people were not mass-screened. Health centers and prefectures provided hospital beds, oversaw patient care and managed quarantine institutions.

## How are cases handled?

The Ministry of Health, Labor, and Welfare set COVID-19 control guidelines. The following is a PHC telephonic interview flowchart. (As of 19 July 2022) (Figure 1).

1) A symptomatic person calls for a consultation. PHC staff interviews the patient and recommends the next steps based on symptoms and suggests isolation from other family members. During isolation, the PHC checks the patient's daily symptoms through HER-SYS (an online software where all the pandemic-related information is readily accessible).

2) The call center refers the patient to a clinic that offers PCR testing, or the patient self-administers an at-home rapid test.[3]

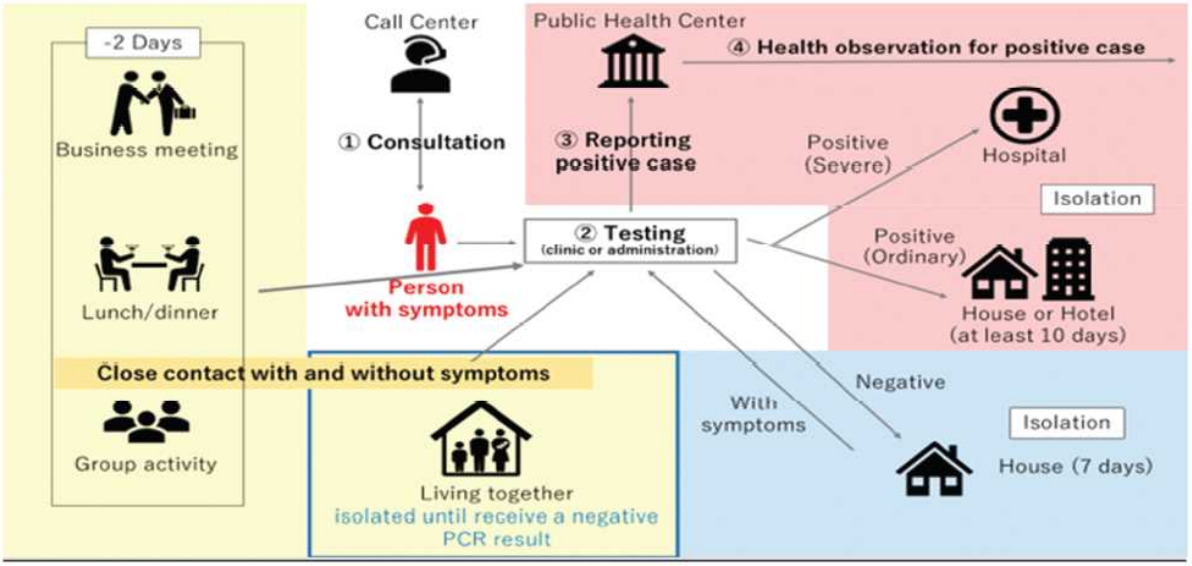


Figure 1. Telephonic interview flowchart.

3) When the disease is confirmed, HER-SYS notifies the PHC. Patients with severe symptoms are hospitalised, while mild and moderate severity cases are isolated, usually at home or in a hotel.

4) The patient is interviewed further about activities and locations visited in the two days before symptoms began, and the PHC identifies close contacts. Close contacts must take the administrative PCR test or self-test once notified. When the result is negative, they isolate at home for a specific period.

Day 0 is test day (not the day they received positive test results). The new onset of symptoms requires retesting. Signs within 10 days of testing reset the clock to day 0. Negative patients track symptoms via HER-SYS until isolation is lifted. In asymptomatic positive cases, isolation is shorter compared to positive cases. This flowchart is frequently updated based on new information.

What is a cluster?

PHC nurses tele-interviewed patients about their past activities to identify clusters. The interview focused on the patient's symptoms and recent activities.[4] A cluster is defined as a group of >5 infected individuals. Asymptomatic cases contributed largely to viral transmission. The cluster-focused approach and avoidance of sanmitsu (the three Cs – closed environments, close contacts, and crowded areas) are among Japan's few effective disease containment strategies.

Health officials divert mild and moderate cases to hotels or patients' homes when a hospital is a cluster location. During the first wave, only 17.1% of hospital beds were occupied, leaving plenty of resources for those who needed them most. The Japanese people followed the government's efforts to limit the three Cs, which made Japan stand out amongst other developed nations with its low mortality rates.[5]

What is the Role of PHCs?

Japan has 469 PHCs with over 28,000 officers, according to 2020 statistics. When the pandemic hit Japan, PHCs repositioned prefectural officers, rehired former officers, and hired health specialists from various departments.[6] PHCs adapted their approach to include new goals when the pandemic occurred in waves/peaks. PHCs managed patient interviews and outpatient clinics during the outbreak's early stages. First-wave PHC staff traced contacts, identified clusters, monitored cases, and managed contacts. After the first wave, they reviewed and adapted their policies for various organisations while making new changes to keep the caseload to a minimum.[7]

Workplaces and schools are educated about hand sanitisation and masks while preserving business and human rights. Public health centers provide infection control to restaurants. Immigrants and visitors were screened and educated in their native language. Health promotion staff work together to avoid illness. Those with chronic illnesses were kept away from COVID-19 patients, and tracking work hours prevented burnout and fatigue.

Are these measures enough?

Japan's COVID-19 response relied on telephonic interviews to cut the financial load, cluster tracing, and self-restraint, however, vaccination is the key to reducing mortality. A total of 331,947,789 doses were administered with a population of 82.5% receiving at least 1 dose. This national emergency is handled with expertise and preparedness, setting a good example for other countries.

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