Where Are the Most Effective Anti-COVID-19 Strategies?

The majority of countries [have introduced](#) at least some nation-wide measures aimed at containing the spread of the novel coronavirus pandemic. The measures include stopping/limiting international and domestic movement, closing educational facilities, banning public gatherings or announcing quarantine, to name a few.

You may also like: [COVID-19: Quarantine Measures, Laws and Limits](#)

As ISGlobal [puts](#) it, "each country has responded – or is responding – to the same threat with different measures and/or with different timing." This results in differences in the epidemiological curve and in the societal and economic costs. At the same time some experts warn that nations have different reporting standards, different approaches to testing, and different approaches to tracing cases, all of which makes comparisons between them dangerously misleading. "Data is useful, but I think the most important thing is looking at the experience in other countries," said Nick Chater, a professor of behavioural science at Warwick Business School, in an [interview](#).

In any case, proper assessment of the effectiveness of introduced measures needs time, so for now the best examples would be places with early outbreaks – China, Taiwan, Singapore and such.

China

81,961 confirmed cases, 3,293 deaths

China's approach included early lockdown and strict quarantine; severe restrictions on international and domestic travel; use of [health QR codes](#) for permissions to move around a city; frequent building and street sterilisation; testing, admitting and treatment of all patients; and isolating suspected cases. The [advantages](#) of these were cooperation (even if enforced), unburdening and rapid increase in the capacity of the health system (eg with '[panic building](#)' of hospitals). These early and drastic measures helped to delay the spread of the virus from Hubei to other provinces.

This is confirmed, for example, in an [analysis](#) by a global consortium of researchers, led by the University of Oxford and Northeastern University, which showed that human mobility played its role in the COVID-19 spread in China, especially at the early stage. The implementation of travel restrictions resulted in the decrease in this correlation and a much flatter epidemiological curve in most locations.   At that point, the authors say, public health response to curtail local transmission (eg through testing, tracing and isolation) was most effective. The study emphasises that social distancing works – if not immediately.

South Korea

9,241 confirmed cases, 131 deaths

Here the strategy has relied on active, free and massive screening (including drive-through tests) for symptomatic individuals, case contacts and travellers. Schools have been closed, working remotely is recommended, and large gatherings are banned. Mask wearing, sanitiser use and thermal screening in buildings are widespread. Notably, there have been neither lockdowns nor restriction to movement.

The UNDP Seoul Policy Centre has [reviewed](#) some outbreak-related practices in South Korea. Among these are disclosure of real-time information on COVID-19 by the government via dedicated [websites](#)**,** mass media, phone messages and mobile apps. Also, as of 19 March there were approximately 85 drive-through testing stations, and [nearly 20,000 people are tested every day](#) – more tests per head of population than

anywhere else.

People under compulsory self-quarantine (eg those awaiting the test results) are monitored through an app by government and police, and violators are punished. Only people with severe symptoms are hospitalised, the rest being sent home.

Private sector companies actively participate in disseminating and collecting virus-related information, which includes data on confirmed coronavirus patients, along with the patient's nationality, gender, age, which places the patient has visited, and how close citizens are to these patients.

Telecom companies are providing the government with mobile data to monitor the movement of COVID-19 patients.

All of the above allow for more accurate estimations and efficient misinformation and panic management. This strategy also facilitates cluster identification and rapid self-quarantine, notes ISGlobal in their analysis.

Hong Kong, Singapore, Japan

Hong Kong: 454 confirmed cases, 4 deaths

Singapore: 631 confirmed cases, 2 deaths

Japan: 1,291 confirmed cases, 45 deaths

A study on resilience of systems in Hong Kong, Singapore and Japan has shown that containment strategies there seem so far to have prevented widespread community transmission. In these three countries surveillance systems were readjusted to identify potential cases and their contacts, diagnostic tests were developed early on, and laboratory testing capacity was increased.

Different strategies were used to selectively control travellers entering these locations, from partial entry restrictions (Singapore, Japan) to mandatory 14-day quarantine (Hong Kong) of non-local visitors. Intragovernmental coordination was improved based on the previous experiences during SARS and H5N1 outbreaks.

In all locations, all direct costs for treating patients are covered by the governments, appropriate training and adherence to infection prevention and control measures are practiced in hospitals.

Another advantage is the comprehensive management of information systems, especially in Singapore, where regular meetings between regional health system managers, hospital leaders, and the Ministry of Health are held and information is disseminated via mainstream media, online messengers and websites.

A study conducted in a simulated Singapore setting has shown that efforts to contain the spread of COVID-19, such as quarantining infected people and their family members, closing schools plus quarantine and adopting workplace distancing plus quarantine, "in that order," can facilitate the reduction in the number of cases.

Taiwan

252 confirmed cases, 2 deaths

Taiwan has been another example of an efficient coronavirus strategy. Home to nearly 23 million people, it was expected to have the second highest number of COVID-19 cases due to its proximity to and close ties with China.

But it had learned from the SARS outbreak, when the National Health Command Centre (NHCC) was created as part of a disaster management centre. The Central Epidemic Command Centre (part of NHCC) introduced a number of immediate measures, eg inspecting plane passengers coming from Wuhan starting from 31 December (when pneumonia cases were announced) and banning entry for Wuhan residents on 23 January (when the province was locked out).

Other measures included case identification (using new data and technology), quarantine of suspicious cases, proactive case finding and resource allocation, among others. Taiwan's government stopped exports of surgical face masks on 24 January and took charge over pricing and distribution. Local companies were asked to step up production. The government also claimed a stockpile of surgical and N95 masks (which have been divided between the public, medical and industrial sectors) and 1,100 negative-pressure isolation rooms.

Patients with severe respiratory symptoms were proactively identified (based on information from the National Health Insurance database), citizens were asked to report suspicious symptoms or cases via a hotline number. The authorities track down infected persons and map the cases while residents' 14-day travel history is integrated with their health insurance card data. Educating the public about the coronavirus-associated risks and precautions has also been instrumental.

Third Wave

Despite their successes in containing the outbreaks, all these countries are now facing the 'third wave' of mostly imported cases and introducing new restrictions.

In Hong Kong the number of confirmed cases has almost doubled in the past week, which has led to new entry and transit bans, compulsory quarantine, renewal of remote work in the public sector (with private companies following suit), with a possibility of a comprehensive shutdown of businesses.

In Singapore almost 80% of new COVID-19 cases over the past days were imported. The country has banned entry and transit for all short-term visitors and there is compulsory two-week quarantine for residents returning from abroad. Similar measures have been introduced in Taiwan.

When it comes to the pandemic, all these countries are said to be weeks, if not months, ahead of Europe and North America. The latter two have been slow to introduce restrictions, which first seemed to have lower societal and economic cost, but now are left vulnerable to the rapidly worsening crises. With lockdowns in place from mid-March, it is still too early to tell if their strategies prove to be efficient.

At a media briefing on 25 March, the World Health Organization's Director General T edros Adhanom Ghebreyesus indirectly expressed similar concerns. He called the "unprecedented measures" introduced around the world in the context of the novel coronavirus outbreak, "buying time," and urged all the countries "to attack the virus," enabling "the more precise and targeted measures that are needed to stop transmission and save lives."

In this context, WHO recommends six key actions:

- Expanding, training and deploying healthcare and public health workforce.
- Implementing a system to find every suspected case at community level.
- Ramping up the production, capacity and availability of testing.
- Identifying, adapting and equipping facilities to treat and isolate patients.
- Developing a clear plan and process to quarantine contacts.
- Refocusing on suppressing and controlling COVID-19.

According to the Director General, these will help to suppress and stop transmission, "so that when restrictions are lifted, the virus doesn't resurge."

At the same time, Matthew Jackson, the William D. Eberle Professor of Economics in Stanford's School of Humanities of Sciences, said in an interview that the current efforts, both on national and global levels, lack coordination, which "may end up being very costly for the world." He noted that while one area was slowing the virus down and getting it under control, it was growing somewhere else. "Once it is under control in the first area, it can return from another area."

As of 26 March, there were 462,684 confirmed COVID-19 cases in the world, with 20,834 deaths.

Note: all data (except for Hong Kong and Taiwan) on the number of confirmed cases and fatalities come from the WHO Situation Report #66 (26 March). The latest reports can be found here.

If you want to share your experience and perspective on COVID-19, please do.

If your company is interested in engaging with our COVID-19 community, please send us an email.

Image credit: Mx. Granger – Own work, CC0, Wikimedia Commons

Published on : Fri, 27 Mar 2020