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Covid-19 Control:
Looking East Again

KRI VIEWS 8/20 | 22 March 2020 | Nazihah Muhamad Noor with Prof. Wan Abdul Manan Wan Muda

Views are short opinion pieces by the authors to encourage the exchange of ideas on current issues. They may not necessarily represent the official views of KRI. All errors remain the authors' own.

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Introduction

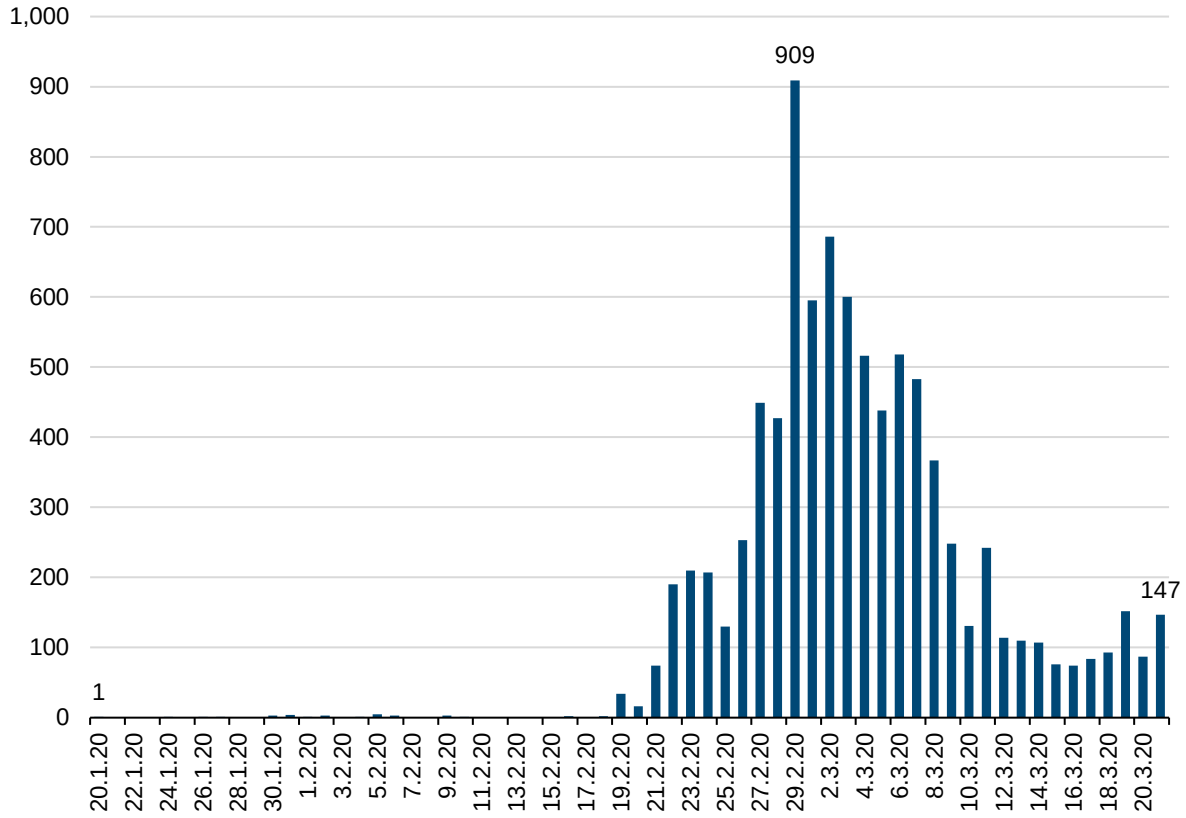
On 18 March 2020 Malaysian authorities issued a Movement Control Order restricting the movement of people nationwide. In doing this, Malaysia joins the running list of countries restricting movement of its people as part of efforts to control the spread of Covid-19.

Lockdowns will inevitably have adverse economic impacts, especially for small businesses relying on cash flow. As more governments are benchmarking their responses on the very worst outbreaks in Wuhan and northern Italy, could there be another way to bring the virus under control without lockdowns or travel bans?

South Korea's success story

At the moment, the Republic of Korea, or South Korea, is one of a handful of countries that has seen a dramatic reduction in the number of new cases (see **Figure 1**).

Figure 1: Number of confirmed new cases in South Korea, 20 January – 21 March 2020



Source: KCDC (2020a)

On 29 February 2020, the country saw 909 newly confirmed cases. By 21 March, the number of newly confirmed cases fell to 147. It has gone from having the second highest rate of infection globally to eighth place, behind China, Italy, Iran, Spain, Germany, France and the United States[1].

For now, it appears South Korea is effectively controlling the spread of infections, although recent spikes suggest that they are still at risk. It has managed to slow down the spread Covid-19 without imposing a lockdown, even in its most affected city, Daegu. How have they responded to this public health crisis?

[1] WHO (2020b)

Pandemic management, Korean style

One cornerstone of South Korea's outbreak response is mass testing. As of 20 March 2020, South Korea tops the list of most Covid-19 tests performed by country, with over 300,000 tests carried out so far[2], equivalent to over 6,000 tests per million inhabitants. Germany, in second place, had performed 167,000 tests as of 15 March 2020[3], or 2,000 tests per million inhabitants.

Mass testing can prevent the spread of the virus by identifying and breaking the chain of transmission. Based on current evidence, undetected cases are likely a significant means of spreading infection[4]. Those who are infected, but showing no symptoms (asymptomatic), or only mild symptoms are more likely to transmit the virus to others[5]. The median incubation period (amount of time between infection and first symptoms appearing) is estimated to be five days[6], during which time asymptomatic individuals may unknowingly spread the infection to others. Mass testing enables infections to be detected early, so that individuals can effectively self-isolate and seek treatment instead of waiting for symptoms to develop.

South Korea ramped up its testing capabilities following its experience with the Middle East Respiratory Syndrome (MERS) outbreak in 2015, preparing test kits and facilities for rapid development, approval and deployment in case of future outbreaks[7]. After South Korea confirmed its first case of Covid-19 on 20 January 2020, hundreds of test sites, ranging from drive-through kiosks to hospitals to local clinics soon became available across the country[8].

The tests are also mainly free. For those who medical professionals suspect need to be tested, for example if they have recently returned from China, is a secondary contact of a person known to be infected or belong to an at-risk group, the tests are free of charge. Others who do not belong to these categories but wish to be tested are charged KRW160,00 (approx. RM560) and reimbursed if the result is positive, with any treatments they need paid by the government[9].

Another legacy of the MERS outbreak is that the government has the legal authority to collect mobile phone, credit card and other data from those who test positive for contact tracing efforts[10]. Although this has sparked debates over privacy concerns, South Korea's aggressive testing and contact tracing methods have been praised by the World Health Organization (WHO), which is encouraging other countries to apply lessons learned in Korea[11].

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[2] Our World in Data (2020)
[3] Ibid.
[4] Li et al. (2020)
[5] Zou et al. (2020)
[6] Lauer et al. (2020)
[7] Normile (2020)
[8] Kim and Denyer (2020) and Salmon (2020)
[9] Kim (2020)
[10] Normile (2020)
[11] WHO (2020a)

Path not taken

Although Koreans are banned from entry into more than 80 countries around the world, South Korea itself has only restricted incoming travellers from Hubei province, where Wuhan is, and Japan, the latter in a "tit-for-tat" retaliatory political move[12]. Special entry procedures for visitors from China and Iran require them to sign up using smartphone application to track whether they have any symptoms such as fever[13]. More recently, as Europe has become a new epicentre of the pandemic, all visitors from Europe will be tested for Covid-19, with those intending to stay long term required to be quarantined[14].

Within its borders, for the time being, South Korea has not imposed nationwide restrictions on the movements of people. The Korean Centers for Disease Control and Prevention (KCDC) continues to urge people to practice social distancing and personal hygiene. Mass gatherings are discouraged and workplaces are encouraged to allow their employees to use remote working options[15]. No lockdown has been imposed. Kim Woo-Joo, an infectious disease specialist at Korea University, says, "South Korea is a democratic republic, we feel a lockdown is not a reasonable choice."[16]

Learning the right lessons

Besides South Korea, the WHO has also praised China for its Covid-19 response which has also resulted in the rapid slowdown of infections, encouraging other countries to follow its lead[17]. Indeed, an increasing number of countries are resorting to restrictions on freedom of movement through lockdowns and cordon sanitaires[18], supposedly emulating China's response.

However, Bruce Aylward, who led the WHO's fact-finding mission to China earlier this year, suggests that governments may be learning the wrong lesson from China. He says,

> *"I think people aren't paying close enough attention. The majority of the response in China, in 30 provinces, was about case finding, contact tracing, and suspension of public gatherings—all common measures used anywhere in the world to manage [the spread of] diseases.*
>
> *The lockdowns people are referring to…usually reflect the situation in places like Wuhan. [The lockdown] was concentrated in Wuhan and two or three other cities that also exploded [with Covid-19 cases]. These are places that got out of control in the beginning [of the outbreak], and China made this decision to protect China and the rest of the world."*[19]

[12] Shin (2020)
[13] Ibid.
[14] KCDC (2020b)
[15] Ibid.
[16] Normile (2020)
[17] WHO (2020c)
[18] Irish et al. (2020)
[19] Belluz (2020)

Aylward adds, "I think the key learning from China is speed—it's all about the speed. The faster you can find the cases, isolate the cases, and track their close contacts, the more successful you're going to be."[20]

Concluding remarks

Although China and South Korea are currently seeing success in their control efforts, authorities remain on high alert. However, the two countries are now primed to detect and respond rapidly, which may make all the difference in preventing a potential new wave of infections occurring uncontrollably.

This is not to say that lockdowns are definitively ineffective; only time will tell whether such measures in countries like Italy will succeed in curtailing the spread of the virus in the population. However, the evidence from South Korea and China suggests that resources may be more effectively concentrated on rapid detection, isolation and contact tracing, instead of deploying resources to ensure the entire population complies with strict lockdown measures. Perhaps doing so would reduce some of the enormous social and economic costs of this pandemic.

A version of this article appeared in MalayMail, MalaysiaKini and The Sun Daily on 19/20 March 2020.

[20] Ibid.

References

Belluz, Julia. 2020. *China's cases of Covid-19 are finally declining. A WHO expert explains why.* Vox. https://www.vox.com/2020/3/2/21161067/coronavirus-covid19-china.

Irish, John, Belén Carreño, Sonya Dowsett, Ingrid Melander, Brenda Goh, Judy Hua, Kate Lamb, David Shepardson, Tracy Rucinski, Paul Sandle, Philip Pullella, and Brenna Hughes Neghaiwi. 2020. *Lockdowns and entry bans imposed around the world to fight coronavirus.* Reuters. https://www.reuters.com/article/us-health-coronavirus/lockdowns-and-entry-bans-imposed-around-the-world-to-fight-coronavirus-idUSKBN21208S.

KCDC. 2020a. *147 additional cases have been confirmed*. Korea Centers for Disease Control and Prevention. https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030&act=view&list_no=366615&tag=&nPage=1#.

KCDC. 2020b. *The updates on COVID-19 in Korea as of 20 March*. Korean Centres for Disease Control and Prevention. https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030&act=view&list_no=366611&tag=&nPage=1.

Kim, Min Joo, and Simon Denyer. 2020. *South Korea is doing 10,000 coronavirus tests a day. The U.S. is struggling for even a small fraction of that.* The Washington Post. https://www.washingtonpost.com/world/asia_pacific/coronavirus-test-kits-south-korea-us/2020/03/13/007f14fc-64a1-11ea-8a8e-5c5336b32760_story.html.

Kim, Nemo. 2020. *Covid-19: South Koreans keep calm and carry on testing.* The Guardian. https://www.theguardian.com/world/2020/mar/18/covid-19-south-koreans-keep-calm-and-carry-on-testing.

Lauer, Stephen A., Kyra H. Grantz, Qifang Bi, Forrest K. Jones, Qulu Zheng, Hannah R. Meredith, Andrew S. Azman, Nicholas G. Reich, and Justin Lessler. 2020. *The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application.* Annals of Internal Medicine. doi: 10.7326/m20-0504. https://doi.org/10.7326/M20-0504.

Li, Ruiyun, Sen Pei, Bin Chen, Yimeng Song, Tao Zhang, Wan Yang, and Jeffrey Shaman. 2020. *Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV2).* Science. https://science.sciencemag.org/content/early/2020/03/13/science.abb3221.

Normile, Dennis. 2020. *Coronavirus cases have dropped sharply in South Korea. What's the secret to its success?* Science. https://www.sciencemag.org/news/2020/03/coronavirus-cases-have-dropped-sharply-south-korea-whats-secret-its-success.

Our World in Data. 2020. "How many tests for COVID-19 are being performed around the world?". https://ourworldindata.org/covid-testing.

Salmon, Andrew. 2020. *Why are Korea's Covid-19 death rates so low?* Asia Times. https://asiatimes.com/2020/03/why-are-koreas-covid-19-death-rates-so-low/.

Shin, Hyonhee. 2020. *South Korea discusses coronavirus with China, Japan; plans to quarantine Europe entries.* Reuters. https://www.reuters.com/article/us-health-coronavirus-southkorea-toll/south-korea-discusses-coronavirus-with-china-japan-plans-to-quarantine-europe-entries-idUSKBN217061.

WHO. 2020a. *COVID-19 – Virtual Press conference 18 March, 2020*. World Health Organization. https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-18mar2020b4d4018fc1904605831b6a08d31e0cbc.pdf.

WHO. 2020b. "Novel Coronavirus Covid-19 Situation." World Health Organization. https://experience.arcgis.com/experience/685d0ace521648f8a5beeeee1b9125cd.

WHO. 2020c. *Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)* World Health Organization. https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf.

Zou, Lirong, Feng Ruan, Mingxing Huang, Lijun Liang, Huitao Huang, Zhongsi Hong, Jianxiang Yu, Min Kang, Yingchao Song, Jinyu Xia, Qianfang Guo, Tie Song, Jianfeng He, Hui-Ling Yen, Malik Peiris, and Jie Wu. 2020. *SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients.* New England Journal of Medicine 382 (12):1177-1179. doi: 10.1056/NEJMc2001737. https://www.nejm.org/doi/full/10.1056/NEJMc2001737.