

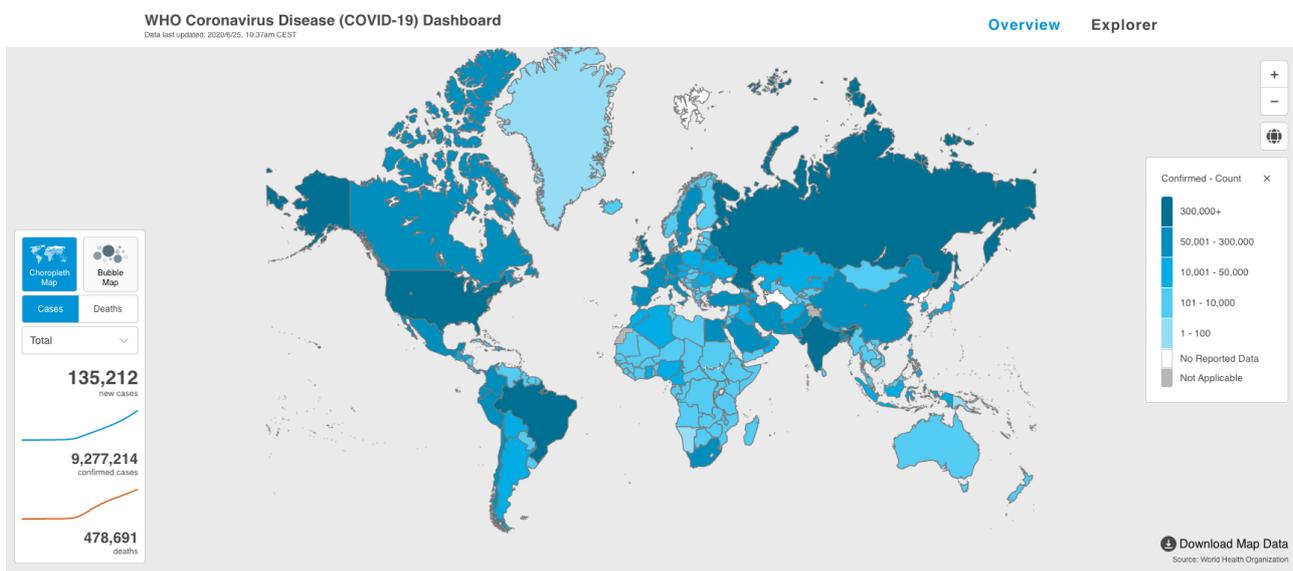
## COVID-19 Global Trends & Analyses: June Update 4

June 12- 26

### Summary

On June 19, Dr Tedros Adhanom Ghebreyesus, the WHO director general stated that the “pandemic is accelerating”

- The **global total number** of reported cases surpassed **9 million** on June 22 just **seven days after the number reached 8 million** and 15 days after it reached 7 million. The average number of daily new global cases for the past seven days was 148,631 and reached an all-time high of 181,000 on 18 June. **77 countries** have seen a growth in new cases over the past two weeks, while only 43 have seen declines.



- **Brazil** has now reported more than **one million** cases, only the second country to do so. On 19 June, the country reported more than 55,000 new cases, by far the highest number ever.
- **India** has reported more than 440,000 cases, the fourth highest in the world. New cases are also rapidly rising in Pakistan, Bangladesh, Indonesia and Afghanistan.
- In **Africa** the virus took 98 days to reach 100,000 cases, but only **18 days to double** that figure. Just 11 days later, 306,567 cases and 8,115 deaths had been reported in 45 countries. The number of cases in South Africa has surpassed 100,000.
  - A study in Western Cape Province of South Africa analysed outcomes for 12,987 patients with COVID-19. After adjusting for other risk factors, they found **HIV co-infection increased a patient’s risk of death** by a factor of 2.75, and co-infection with **active TB** by a factor of 2.58. The risk in diabetics in the same study was 4 to 13 times higher than non-diabetics.
- The **United States** surpassed **2.3 million cases (28% of the world total)** and this week reported 22% more new cases than last week. Cases are rising in 24 states across the South, West and Midwest. Florida has doubled its number of cases during the past month.
- **Analysis of case trends following the easing of restrictions** in countries that had responded effectively to their initial outbreaks found that **persistent clusters were almost inevitable**.



- Greece, Denmark, Czech Republic, Germany, Portugal and South Korea have all experienced such clusters.
- **The epidemic curve in South Korea currently looks very much like that of Victoria.**
- Portugal has reimposed lockdowns and curfews in 15 neighbourhoods of the capital Lisbon after successive spikes of new cases.
- Both South Korea and Israel report that **contact tracing is much more difficult** after restrictions have been eased because each case has far more contacts than during the lockdown phase.
- **Israel** has reported a surge of 4,205 new cases since 27 May. Initially, this **second wave** was fuelled by infections among school students in Jerusalem and Tel Aviv but has now spread to more than 100 cities and towns throughout the country.
- **Bangladesh: Cox's Bazar**, the world's largest refugee camp, has so far officially reported 38 cases and 2 deaths but the testing rate in Bangladesh is extremely low. However, a modelling study has estimated that 70%–98% of refugees could be infected and 2,000- 3,000 deaths would occur during the first 12 months of the epidemic based on three scenarios.
- **Indonesia** continues to report more than 1,000 cases every day and has overtaken Singapore to have the highest number of cases in South-East Asia. A high case-fatality rate in children has been reported.
- **PNG** reported its ninth and tenth cases this week after almost two months of zero cases. The new cases were a member of the Australian Defence Force who has been based in PNG since January and a member of the PNG Defence Force based in Port Moresby.

## Recommendations

- **Australia:** Given the second wave of cases in Israel fueled by infections among older school students and the increase in infections recently identified in schools in Melbourne, health communications should include targeted messaging and interventions towards school students (in particular adolescents) about the need for physical distancing when socialising outside school. These communications need to employ innovative social media approaches that adolescents are likely to access.
- **Global:** Consider the implementation of integrated models of detection, management, care and prevention of COVID-19, HIV and TB in high-transmission settings for HIV and TB, given the potential increased risk of death from co-infection. There should be a strong focus on prevention of COVID-19 transmission and epidemic growth in such settings.



## Global trends<sup>1 2</sup>

- The global total number of reported cases surpassed **9 million** on 22 June just seven days after the number reached 8 million and 15 days after it reached 7 million. The average number of daily new global cases for the past seven days was 148,631 and reached an **all-time high** of 181,000 on 18 June.
- Reported new cases continue to be focused in **four geographic regions**: the Americas, South Asia, the former Soviet Union, and the Middle East.
- **The most rapidly growing outbreaks** are in Brazil, the United States, India, Russia, Peru, Chile, Pakistan, Saudi Arabia, Bangladesh and Mexico.
- **Brazil** has now reported more than one million cases, only the second country to do so. On 19 June, the country reported more than 55,000 new cases, by far the highest number ever.
- In the **United States**, the number of reported cases has surpassed 2.4 million (28% of the world total) and last week reported 22% more new cases than the previous week. Cases are rising in 24 states across the South, West and Midwest. Seven states hit single-day case records on 20 June, and five others hit a record earlier in the week. Florida has doubled its reported cases in the space of one month.
- Seventy-seven nations have seen a growth in new cases over the past two weeks, while only 43 have seen declines.
- **India** has reported more than 10,000 new cases per day since 10 June, reaching a new high of 15,915 new cases on 20 June.
- **Indonesia** continues to report more than 1,000 cases every day and has overtaken Singapore to have the highest number of cases in South-East Asia.
- **PNG** reported its ninth and tenth cases this week after almost two months of zero cases. The new cases were a member of the Australian Defence Force who has been based in PNG since January and a member of the PNG Defence Force based in Port Moresby.
- **New Zealand** has reported nine new cases in the past week after 30 days of reporting no new cases. All cases were recently arrived overseas travellers; however, two women had been in the community for some time after being released from quarantine before they tested positive.
- **The highest cumulative death rates** per 100,000 are in Belgium (800), the UK (623), Spain (580), Italy (571), and Sweden (500). Australia's death rate is 40 per 100,000.

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<sup>1</sup> <https://coronavirus.jhu.edu/data/new-cases>

<sup>2</sup> <https://www.worldometers.info/coronavirus/#countries>

## Case Studies

### India

In India, which initially placed all 1.3 billion of its citizens under a lockdown — then moved to reopen even as new cases continued to increase and with its strained public health system near the breaking point — cases have been increasing exponentially. The country now has the fourth highest number of cases in the world at 440,450. More than 10,000 daily new cases have been reported for 14 consecutive days, with the highest single day spike occurring on 20 June of 15,915 new cases. A majority of cases are being reported in large cities, especially New Delhi, Mumbai, Chennai and Kolkata. Hospitals in those cities are overwhelmed and hundreds of train carriages are being converted into makeshift wards.

The easing of restrictions, which began on 8 June, was driven by economic factors, as migrant labourers out of work were unable to feed their families. Restaurants, shopping malls and places of worship gradually reopened; however, subways, schools and movie theatres remain closed.

Indian states are mounting separate and largely uncoordinated measures to combat the rising tide of COVID-19 cases across the country<sup>3</sup>. In Tamil Nadu, the state with the second-highest number of cases (over 50,000), authorities in Chennai reinstated a strict lockdown on June 19. On the other hand, Delhi, which has the third-highest number of cases (over 47,000), remains open. Delhi's neighbour Uttar Pradesh is fighting in the Supreme Court to keep its border with Delhi sealed, while Haryana is allowing movement to and from the capital.

**Positive news:** Maharashtra, the worst-affected state with 116,000 cases, saw the COVID-19 response in Dharavi, Asia's largest slum, emerge as a surprisingly successful model<sup>4</sup>. Accepting that social distancing was impossible in the slum, where as many as 80 residents share one toilet, authorities rolled out aggressive testing and screening measures. Authorities have knocked on 47,500 doors since April to measure temperatures and oxygen levels, screened almost 700,000 people in the slum cluster, and set up fever clinics. As a result, the rate of daily new infections in Dharavi has been reduced to a third since early May.

### Refugees in Bangladesh

Bangladesh has reported 115,786 cases and 1,502 deaths. Like Pakistan, Bangladesh has a low testing rate (383 per 100,000) and a persistently high test positivity rate of 20%.

The notion of physical distancing is almost impossible in the world's biggest refugee camp, **Cox's Bazar**, on Bangladesh's South-East coast. Up to 90,000 people live per one square kilometre of land, making it one of the most densely populated areas on the planet. While Bangladesh begins to ease COVID-19 restrictions, infections are only now slowly starting to spread inside the camp. Two people have died and 38 cases have been confirmed as of 16 June<sup>5</sup>. As the virus spreads, families living in tents and shacks are put into lockdown. There are not enough face masks available to provide to even a fraction of the Rohingya refugee population. Water and soap — the most basic defence against spreading the illness — is also in short supply. Large families live together in cramped, makeshift shelters.

A modelling study was conducted to estimate the number of people infected, hospitalisations, and deaths that might occur in the Kutupalong-Balukhali Expansion Site in Cox's Bazar, which has a population of 600,000 to inform ongoing preparedness and response activities by the Bangladesh government, the United Nations

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<sup>3</sup> <https://www.cfr.org/blog/coronavirus-south-asia-june-2020-cases-india-bangladesh-and-pakistan-spike>

<sup>4</sup> <https://www.bloomberg.com/news/articles/2020-06-13/how-asia-s-densest-slum-chased-the-virus-has-lessons-for-others>

<sup>5</sup> <https://www.abc.net.au/news/2020-06-16/rohingya-refugees-coxs-bazar-coronavirus/12356046>



agencies, and other national and international actors<sup>6</sup>. While the study was published on 16 June in PLOS Medicine, it was conducted in late March before any coronavirus cases had been detected in the camp.

Using a dynamic model of SARS-CoV-2 transmission they simulated how a COVID-19 outbreak could spread within the expansion site according to three possible transmission scenarios (high, moderate, and low).

Their results suggest that a large-scale outbreak is very likely in this setting after a single infectious person enters the camp, with over 70%–98% of people infected during the first year, depending on the transmission scenario, should no effective interventions be put into place. Hospitalisation needs may exceed the existing hospitalisation capacity of 340 beds around 55–136 days after introduction, depending on the scenario. They estimated 2,040, 2,650, and 2,880 deaths in the low, moderate, and high transmission scenarios, respectively.

The authors suggest that, as many of the approaches used to prevent and respond to COVID-19 in the most affected areas so far will not be practical in humanitarian settings, novel and untested strategies to protect the most vulnerable population groups should be considered, as well as innovative solutions to fill health workforce gaps.

## Indonesia

While the world's attention is focused on the United States, India, Russia and Brazil, which are recording daily infection rates in the tens of thousands, Indonesia is currently flying under the radar. The country has reported 46,845 cases and 2,500 deaths and now has the **highest number of cases in South-East Asia** ahead of Singapore. However, Indonesia's cumulative testing rate is only 238 per 100,000 compared with Singapore's 9,851 per 100,000. More than 1,000 new cases have been reported on all but one day since 9 June and reached an all-time peak of 1,331 on 18 June. **Papua province**, bordering PNG, has reported 1,429 cases with a cumulative attack rate of 41 per 100,000, the second highest province in the country.

Since 4 June, mosques, churches and other houses of worship have reopened, shops and shopping centres in some cities have opened their doors, domestic flights are resuming and public transport is moving again.

### High case-fatality ratio in children

Nobody under the age of 18 has died in Malaysia, Vietnam and Singapore. The youngest person to die from COVID-19 in Australia was a 42-year-old Filipino man. But in Indonesia, senior doctors have warned that more than 100 children may have died from the coronavirus<sup>7</sup>.

Some 715 Indonesian children were confirmed to have COVID-19 as of May 22, and more than 17,000 were under observation or suspected to have the disease, according to data released by the Indonesian Child Protection Commission. Of those confirmed cases in children, official figures show 28 children have died. But the Indonesian Paediatrics Association independently calculated COVID-19 data for children, finding that at least 160 children suspected to have been infected with COVID-19 had died as of the 1st of June. This implies a CFR of 22%. There has been speculation that this high CFR is due to the high rate of stunting in Indonesia (37%); however, clinical data on the children who died from COVID-19 are not yet available.

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<sup>6</sup> <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003144>

<sup>7</sup> <https://www.abc.net.au/news/2020-06-18/why-are-so-many-indonesian-children-dying-from-coronavirus/12356444>

## Papua New Guinea

PNG has reported 11 cases in all. After almost 2 months without reporting a case, a new case was detected on 20 June -- a 44 year-old member of the Australian Defence Force who has been in the country since January. The National Department of Health has not yet announced whether contact tracing has detected the source of the infection. On 24 June, another case was reported, a female member of the PNG Defence Force at Murray Barracks in Port Moresby. These two cases imply that there is still community transmission of the virus in PNG.

The State of Emergency was lifted on 17 June; however, the country remains vulnerable due to the porous border with Papua province in Indonesia. The PNG Public Health Emergency Bill 2020 was passed in Parliament on 12 June. The Act has two purposes: The first is to have a legal framework to respond to public health emergencies, defined as 'an extraordinary event which is determined to constitute a public health risk of international concern'. Second is 'to enable the delivery of a national response to a public health emergency'.

On the Indonesian side of PNG's land border, Papua Province added a further 14 per cent during the past week to its confirmed tally of cases, bringing it to 1,440<sup>8</sup>. While this is not as striking as the previous week's growth of 50 per cent (from 725 to 1090), the border with PNG remains the most likely source of a substantial outbreak. But PNG officials appear to be doing what they can to mitigate risks from across the border.

While the border is officially closed, it is porous and there is high risk of importation of COVID-19 cases. There is still much movement of the population due to trade, traditional family ties, school, work and health care. While East and West Sepik provinces are submitting 100% of expected surveillance reports, Western province has not submitted any reports since the end of May<sup>10</sup>.

There have been high numbers of cases reported in areas of Papua province in Indonesia that are adjacent to North Fly District of Western Province. Western Province is one of the provinces where operational research is being conducted by the National Department of Health, using Rapid Diagnostic (Antibody) Tests to better understand the COVID-19 pandemic in the country. East New Britain was the first province to complete the research. The other provinces still doing it are National Capital District, East Sepik, Morobe and Eastern Highlands. The target is to conduct a total of 12,000 rapid tests over three to four weeks in these provinces.

## Africa

The spread of the new coronavirus is now accelerating in many countries in Africa, where medical resources are stretched and efforts to stop the pandemic are sometimes haphazard. The virus took 98 days to reach 100,000 cases in Africa — but only 18 days to double that figure, WHO announced on 11 June<sup>11</sup>. Only 11 days later, 306,567 cases had been reported in 45 countries and 8,115 deaths<sup>12</sup>. The highest numbers of cases have been reported in South Africa (101,590), Egypt (56,809), Nigeria (20,919), Ghana (14,154), Algeria (11,920), and Cameroon (12,041).

While the numbers may have risen so significantly in part because of increased testing, WHO said in a statement that more than half of the 54 countries on the continent were experiencing community transmission. Ten countries were driving the rise in numbers and accounted for nearly 80 percent of all cases. South Africa has a

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<sup>8</sup> <https://www.policyforum.net/covid-19-the-pacific-response-17-june/>

<sup>9</sup> <https://www.thejakartapost.com/news/2020/03/23/indonesias-latest-covid-19-figures.html>

<sup>10</sup> Papua New Guinea. Coronavirus Disease 2019 (COVID-19) Health Situation Report #24. WHO, 07 June 2020.

<sup>11</sup> <https://www.nytimes.com/2020/06/11/world/coronavirus-live-updates.html#link-71825d5d>

<sup>12</sup> <https://africacdc.org/covid-19/>



quarter of the total cases. Of the 8,115 deaths recorded, a majority were in just five countries: Algeria, Egypt, Nigeria, South Africa and Sudan.

According to Dr John Nkengasong, the director of the Africa CDC, the swift action by many African leaders to close down their economies should get significant credit for slowing community spread in the early months<sup>13</sup>. South Africa led the way by closing its borders to high risk travellers and shutting its schools in mid-March before reaching 100 confirmed cases. A strict lockdown swiftly followed. However, since some restrictions were eased in late May there has been a surge of new cases, the total reaching more than 101,000. The number of new daily cases has been more than 3,000 for the past 12 days reaching an all-time peak of 4,966 on 20 June. Public health officials in South Africa predict that the peak is coming in July or August. Most of the increase is coming from just three of the country's eight provinces: Gauteng, the Eastern Cape and the Western Cape. Right now, Cape Town appears to be sub-Saharan Africa's current epicentre.

Researchers now believe that socio-ecological factors, the complex way that humans and their environment interact, could be playing an important role. "We are expecting that the rate of transmission in Africa is lower. It could take a longer time to reach people who are susceptible. And the deaths, the severity of the outbreak will be less severe than we have seen in other countries," said Dr Karamagi, one of the authors of a study published in late May in *BMJ Global Health*<sup>14</sup>.

Their modelling assumes no significant health measures by governments and plugs in the known characteristics of the SARS-CoV-2 virus and multiple factors known to affect respiratory viral transmission. One key factor, say the authors, is the relative population movements across the continent. With sparse road networks and largely rural populations in some regions, the virus may have fewer opportunities to travel.

One clear advantage across the continent, say public health experts, is based on the demographic makeup of the population. More than 70% of people living in sub-Saharan Africa are under 30, and on other continents, Covid-19 has had more severe effects on the elderly. However, in the country with the highest number of cases and Africa's most advanced economy, **South Africa** has a large and mobile population with higher rates of conditions, such as diabetes and high blood pressure that lead to more severe infections.

### Impact of concurrent HIV and TB infection

South Africa has the world's highest rates of HIV and TB infection. To gauge their impact on COVID-19, scientists in Western Cape Province analysed outcomes for 12,987 patients with the disease. After adjusting for other risk factors, they found **HIV increased a COVID-19 patient's death risk by a factor of 2.75, and active TB by a factor of 2.58**. The study did not yield data for people who have both HIV and TB<sup>15</sup>. Those relative risks were lower than other known COVID-19 mortality risk factors. In the same analysis, for example, people in their 50s were nearly 10 times more likely to die than those below age 40. And **diabetics were between four and 13 times more likely to die than nondiabetics**, depending on how well their blood sugar was controlled.

### Problems with testing capability

In South Africa, state-run laboratories suggested they could do 36,000 tests per day by the end of April. Since April 5th they have managed to do just one-fifth of that. Results have also taken too long. As of June 6th the

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<sup>13</sup> <https://edition.cnn.com/2020/06/16/africa/africa-coronavirus-cases-prevention-intl/index.html>

<sup>14</sup> <https://gh.bmj.com/content/5/5/e002647.info>

<sup>15</sup> <https://www.sciencemag.org/news/2020/06/hiv-and-tb-increase-death-risk-covid-19-study-finds-not-much>

average turnaround time was 12 days<sup>16</sup>. If South Africa—which with Ghana accounts for about half of all tests in sub-Saharan Africa—is not testing enough, then nor are most other countries in the region. At the start of June African countries had tested, on average, fewer than 170 people per 100,000, a tiny fraction of the number in rich countries (Australia has tested 8,261 per 100,000).

The challenge of testing has long been recognised. In February, WHO and Africa CDC upgraded African labs. Today 43 of the 47 countries in the WHO Africa region can do molecular testing for COVID-19, up from just two at the start of the year. Nevertheless, most countries still lack resources. Nigeria has the capacity to do at least 10,000 tests per day but has averaged fewer than 900 since announcing its first case on February 27th. Some countries have had to wait more than two months for orders of test kits to be delivered.

On June 3rd Dr Nkengasong (Africa CDC director) said Africa needed at least 20 million new test kits within 100 days. To try to meet that goal, countries are pooling their resources and placing large joint orders. Africa CDC has agreed with manufacturers that 90 million kits will be bought over the next six months through the **Partnership to Accelerate Covid-19 Testing (PACT)** scheme.

## Outcomes of easing restrictions

### Summary

1. Over the past month, a steady decline in cases has followed the easing of restrictions in most European Union countries, with the exception of **Germany**, which has recently experienced a **significant spike** in new cases. Countries that effectively controlled their outbreaks early, such as **Greece, Austria, Denmark, the Czech Republic and Norway**, and have implemented a phased easing of restrictions since early to mid-May have **not experienced any sustained resurgence**.

However, **Denmark** and the **Czech Republic** continue to see new **clusters** of more than 100 daily cases and Greece has seen several clusters of over 50 cases. **Portugal** has experienced a plateau of 300-400 new daily cases since late May. After persistent spikes in Lisbon, restrictions are being re-imposed in 15 neighbourhoods. In these areas, the limit on gatherings will be halved to just 10 people, and commercial spaces with the exception of restaurants will close by 8pm. Restaurants will no longer be allowed to serve drinks after the 8pm curfew, and drinking in public spaces outside of licensed esplanades will also be prohibited.

2. A clear **second wave** of cases has developed in **Iran** and is almost certain in **Israel and the West Bank**. **South Korea** is experiencing a persistent month-long series of clusters centred in Seoul. In the **United States**, new cases are steadily increasing in 24 states, mainly in the South and West. These situations are described in some detail below.

### Israel

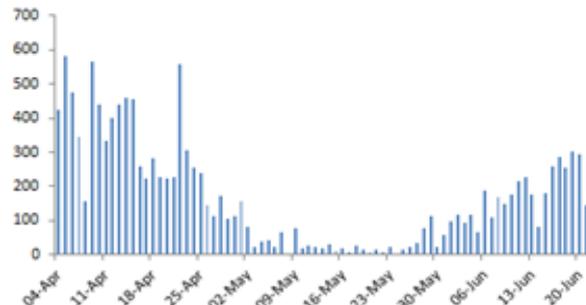
As reported previously, Israel has experienced a surge of infections; the country has reported 4,205 new cases since 27 May. From May 15 to 21, the average number of new infections per day was around 16. Last week – four weeks later – the average was around 200. On 22 June, the country reported 304 new cases, the highest daily count since 23 April.

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<sup>16</sup> <https://www.economist.com/middle-east-and-africa/2020/06/20/african-countries-are-struggling-to-keep-track-of-covid-19>



Daily new coronavirus cases, Israel, April 5 – June 22, 2020



Source: Israel Ministry of Health

A report by the Coronavirus National Information and Knowledge Centre said Israel is experiencing a second wave of coronavirus and that hundreds of people could die from COVID-19 in the next few months<sup>17</sup>.

The report suggests that recent steps to reopen the economy should be re-evaluated both in terms of their impact on the spread of the virus and in terms of the message that relaxing restrictions sends to the public. While the surge began in a cluster of schools in Jerusalem and Tel Aviv, the virus has spread to a range of sites in more than 100 cities and towns throughout the country, including more than 30 members of the Israeli Defence Force. Eighty-seven schools have been closed because teachers and students were infected.

### West Bank and Gaza

After reporting zero new daily cases throughout May, since the 1st of June, 378 new cases have been reported, most of them in the West Bank<sup>18</sup>. On 20 June, the West Bank reported an all-time high of 109 cases; the previous high was 33 cases on 3 April. Many new cases originate from Palestinian workers or medical patients who went into Israel and then returned to the West Bank during a spike of COVID-19 cases in Israel.

The Palestinian Authority has brought back a number of restrictions imposed at the beginning of the outbreak, including banning mass gatherings for weddings, graduation parties, conferences and funerals. Businesses, mainly factories, restaurants and cafes, must follow coronavirus guidelines and Palestinians are obligated to wear masks and physically distance. The Palestinian Authority announced on 20 June the temporary isolation and lockdown of the cities of Hebron and Nablus in the West Bank.

### South Korea

South Korea continues to report between 30 and 50 new cases every day, a pattern that began towards the end of May. On 20 June, the country reported 67 new cases, which was the highest since 27 May; however, 31 were imported cases with 36 acquired locally. In the past week, 229 new cases have been reported and the R0 has reached 1.8. **This does not yet represent a second wave but rather a persistent series of clusters, mainly in metropolitan Seoul; this is not dissimilar to the current trend in Melbourne.** After a cluster of 300 cases in mid-May linked to nightclubs and bars, South Korea created an electronic entry and exit registration system for high-risk establishments such as nightclubs and gyms. People who want to visit such places need to get a QR code on

<sup>17</sup> <https://www.jpost.com/health-science/israel-is-in-coronavirus-second-wave-dead-could-reach-hundreds-report-632147>

<sup>18</sup> <http://www.emro.who.int/pse/palestine-news/landing-page-for-covid19.html>



their mobile phone and show it to the facility manager, who will scan the code into an encrypted file. To address privacy concerns, health officials said the system would only be used when the country is at its highest — red — alert, and the information would be destroyed after four weeks.

To prevent the potential spread domestically, airport officials require all passengers arriving from overseas to download an app that tracks their whereabouts and keeps tabs on their health. The users get a text message at 10 a.m. every day for 14 days, with a reminder to input their health condition. The data is relayed to health officials who also call to check on the people personally.

South Korea plans to stay open even if there is a second wave. The country has been reopening schools and public facilities and has replaced its social distancing with a more relaxed “distancing in daily life” slogan. However, the government acknowledges that it may need to resort to stricter measures such as lockdowns if the second wave does hit. The country has been stockpiling supplies and medical equipment as experts predict a much larger surge of infections in the northern autumn.

## Beijing, China

Beijing had gone 56 days with zero community transmission but has now reported a total of 247 new cases since 11 June. The new cases are linked to the Xinfadi wholesale fresh food market, which provides around 80% of the fresh food in the city<sup>19</sup>. Traces of the virus were found on chopping boards used for imported salmon and other seafood. The Chinese Centre for Disease Control and Prevention reported that low temperatures and high humidity in the seafood and meat areas of the market may have contributed to the spread of the virus. An epidemiologist with the Beijing city government stated genome sequencing indicated that it's most likely that the virus came from Europe, though the immediate source of the virus has yet to be determined<sup>20</sup>.

After weeks of relaxed measures, a spokesperson for the Beijing city government announced "resolute and decisive measures" as 21 residential communities were closed off for quarantine and testing. Most flights in and out of Beijing Airport have been cancelled. All outbound taxi and car-hailing services have also been suspended. Some long-distance bus routes between Beijing and nearby Hebei and Shandong provinces were suspended. The reopening of elementary schools has been suspended, and temperature checks at shopping centres has resumed. Increased testing has also been rolled out, with 193 sampling booths setup up across the city. Officials are also testing the tens of thousands of delivery workers who regularly traverse the city, where fleets of motorised pedicabs and scooters ridden by couriers deliver parcels and food. By 23 June, the number of new reported cases was in steep decline.

## Germany

Germany reported 1,122 new cases on 17 June, the highest number since 8 May. The coronavirus reproduction rate (R0) jumped to 2.88 on 21 June, up from 1.79 a day earlier, the Robert Koch Institute (RKI) for public health reported, taking infections above the level needed to contain it over the longer term<sup>21</sup>. The number, a sharp increase from 1.06 on 19 June, is based on RKI's moving four-day average data, which reflects infection rates one to two weeks ago. Based on a seven-day average, the R0 jumped to 2.03, RKI data on 21 June showed.

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<sup>19</sup> <https://www.9news.com.au/world/coronavirus-china-beijing-outbreak-new-lockdown-military-war-time-style-measures-covid-19-world-health/595f4099-4d0e-4c44-af48-538f378ad5eb>

<sup>20</sup> <https://www.theguardian.com/world/2020/jun/15/beijing-lockdown-tightens-as-new-coronavirus-outbreak-spreads>

<sup>21</sup> <https://www.abc.net.au/news/2020-06-22/coronavirus-update-june-22/12378574#germany>



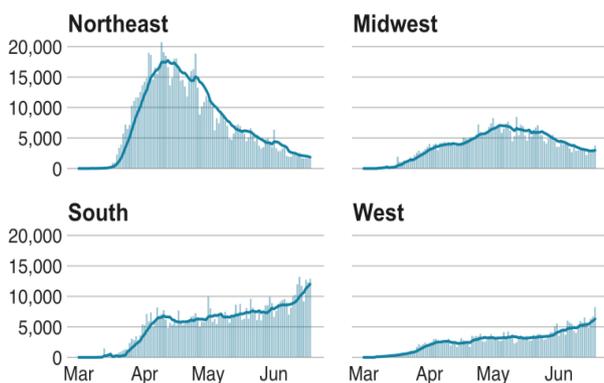
Outbreaks have been reported in nursing homes and hospitals, institutions for asylum seekers and refugees, in meat processing plants and logistics companies, among seasonal harvest workers and in connection with religious events and family gatherings. Regional officials said on 22 June that the number of new COVID-19 cases linked to a slaughterhouse in Rheda-Wiedenbrueck had risen to 1,331 (23% of employees)<sup>22</sup>. Meanwhile, in the capital Berlin, 369 households are back under lockdown after dozens of people tested positive for the virus in the southern district of Neukölln.

## United States

Nationwide, cases have risen 22 percent over the last two weeks. Cases are rising in 24 states across the South, West and Midwest. Seven states hit single-day case records on 20 June, and five others hit a record earlier in the week. The fastest growing outbreaks are in Florida, Texas, South Carolina, Arizona, Utah and Oklahoma, which all began to ease restrictions in early to mid-May. The number of people being hospitalised has also risen in a number of these states, including Texas and Arizona. While some state governors have argued that the increase in new cases in their states is due to increased testing, positivity rates indicate that this is not the case. While the national positivity rate is just below 5%, the threshold recommended by the WHO, 16 states are recording positivity rates higher than 5%, including Arizona (17.4%), Alabama (12.3%), Washington (10.9%), South Carolina (10%), Texas (9.1%), Florida (8.2%) and Georgia (7.5%)<sup>23</sup>.

### Outbreaks are growing in the South and West

Number of daily coronavirus cases by region



Source: COVID Tracking Project data, using Census Bureau regions



While the COVID-19 epidemic in the U.S. began in the states of the Northeast, especially New York, New Jersey and Massachusetts, the geographic focus has now moved to so-called "sunbelt states" as shown clearly in the figure below.

Texas is one of the hardest hit states with 23,474 new cases in the past week, up 10,431 (77%) from the previous week<sup>24</sup>. In Harris County, where Houston (the fourth largest city in the country) is located, the seven-day rolling average of daily new cases increased from 200 on the 1st of June to 500 three weeks later<sup>22</sup>. Florida had 15,425 new cases this week, up 6,169 (67%) from the previous week<sup>22</sup>. Arizona had 20,245 new cases this week, up 9,451 (87%) from the previous week<sup>22</sup>.

### Criteria for relaxing restrictions

Most states have at least partially reopened (or about to reopen), with just a few that are still under state-wide lockdowns: Delaware, Illinois, Michigan and New Jersey. States that have partially reopened in which new cases are decreasing include: New York, Illinois, Massachusetts, Pennsylvania, Maryland, Virginia, Connecticut, Ohio, Indiana, Minnesota, Colorado, Wisconsin, Nebraska, Rhode Island, Washington, D.C., and New Hampshire.

<sup>22</sup> <https://telanganatoday.com/germanys-meat-processing-company-outbreak-infected-1331>

<sup>23</sup> <https://www.bbc.com/news/world-us-canada-53088354>

<sup>24</sup> <https://www.nationalgeographic.com/science/2020/05/graphic-tracking-coronavirus-infections-us/>



**The Example of California:** In counties that have met certain state benchmarks for handling the pandemic, some businesses can open. These include: shopping centres (for in-person shopping); restaurants (for in-person dining); pet grooming establishments; and car washes. To get the green light for opening these businesses, counties in California must complete a risk assessment regarding COVID-19 spread and draw up protection plans to train employees on limiting virus spread, provide virus screenings of employees, disinfection protocols and social-distancing guidelines. California is using the metrics recommended by CDC to move to Phase 1 and Phase 2 of easing restrictions.

- **Decreases in newly identified COVID-19 cases** (To move to Phase 1, an area must show a downward trajectory of documented cases over a 14-day period.)
- **Decreases in emergency department and/or outpatient visits for COVID-like illness** (To move from Phase 1 to Phase 2, for instance, an area must show a downward trajectory of COVID-like cases reported for at least 14 days after entering Phase 1.)
- **Decreases in emergency department and/or outpatient visits for influenza-like illness**
- **Decreases in percentage of SARS-CoV-2 tests that are positive**
- **Treat all patients without crisis care**
- **Robust testing program** (For instance, to move to Phase 1, an area must have test availability such that the percentage of positive tests is <20% for 14 days. Median time from test order to result is <4 days.)

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