



# COVID-19 Global Trends and Analyses

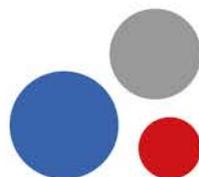
Volume 1:  
Global Epidemiology  
and Trends

January 2021 | Update 1 | Vol 1

Professor Mike Toole AM, Scott Umali,  
Dr Suman Majumdar



**Burnet Institute**  
Medical Research. Practical Action.



**Know-C19**

# CONTENTS

<b>European Region</b> .....	<b>1</b>
• United Kingdom .....	2
• Ireland .....	2
• Slovakia .....	3
<b>The United States and Canada</b> .....	<b>3</b>
• Excess deaths in the U.S. in 2020.....	3
<b>Latin America</b> .....	<b>4</b>
• Brazil’s Amazonas Region.....	4
• Uruguay.....	4
<b>African Region</b> .....	<b>5</b>
<b>Middle East</b> .....	<b>5</b>
• Lebanon .....	5
• United Arab Emirates.....	6
<b>Asia-Pacific Region</b> .....	<b>6</b>
• Malaysia.....	6
• Thailand .....	7
<b>Australia</b> .....	<b>7</b>
• New South Wales .....	7
• Victoria.....	7
• Queensland .....	7

# SUMMARY

## COVID-19 GLOBAL TRENDS AND ANALYSES | 18 Dec 2020 - 26 Jan 2021

- The **global** number of reported cases has surpassed 100 million -- an increase of 19 million in the past four weeks -- and more than 2.15 million deaths as of 26 January.
- **Europe** has now reported more than 29 million cases of COVID-19 and 670,000 deaths (both 30 per cent of the global totals). While trends in new cases were declining in December, they have rebounded since Christmas and the New Year in many countries in the region. **Portugal** currently has the highest incidence rate in the region.
- The **United States** has reported almost 26 million cases (25 per cent of the global total) and 431,000 deaths (20 per cent of the global total). The third surge may have reached its peak. Over the past two weeks, new cases have declined by 21 per cent. However, deaths have increased by 11 per cent.
- There are mixed trends in the **Asia-Pacific Region**. Cases are declining in India, Bangladesh, the Philippines, South Korea, Nepal and Myanmar, stable in Pakistan, but increasing in Indonesia, Sri Lanka, Japan, Malaysia, Hong Kong and Thailand. **Indonesia** has become the second Asian country to report one million cases, after India.
- **Japan, South Korea and Hong Kong** are each experiencing third waves of cases.
- **Papua New Guinea** has recorded 835 cases and nine deaths. 75 cases have been reported in the past month. The most recent peak was on 11 December when 36 new cases were reported in four provinces: West New Britain (23), East New Britain (9), New Ireland (3) and Western Highlands (1). In early January, a nightly curfew was introduced in West New Britain and travel in and out of the province was restricted.
- The Australian state of **New South Wales** experienced an outbreak beginning in mid-December in the Northern Beaches Municipality. Although stay-at-home restrictions were imposed in the municipality, subsequent linked clusters were detected in other areas of Sydney. In total, 151 cases were reported. The source case in this outbreak has not been identified; however, genomic sequencing linked it to a US strain. A second cluster of 30 cases occurred when a contact of an infected airport transport worker attended a liquor outlet in the southwestern suburb of Berala. The state introduced mandatory mask wearing in public transport and indoor venues, and limited the size of household gatherings. There had been no new local cases for nine days as of 26 January.
- The Northern Beaches outbreak spilled into Melbourne, **Victoria**. A total of 27 people were infected via a suburban Thai restaurant where patrons at four different tables and a staff member were infected and spread it to their close contacts. Rules on indoor gatherings and mask wearing were tightened. By 26 January, the state had gone 20 days with no local community transmission.
- A separate situation emerged in **Queensland** where a quarantine hotel worker was infected with the viral variant B.1.1.7 and was out in the community for five days while infectious. A short, strict lockdown was imposed and masks mandated. In the end, only one other case was reported -- the worker's partner.

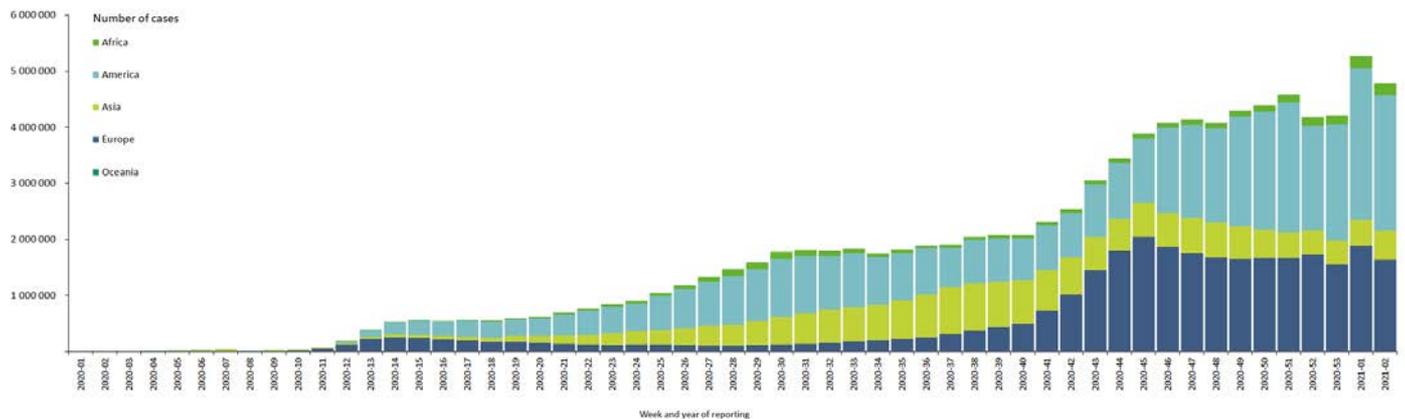
# GLOBAL EPIDEMIOLOGY AND TRENDS

The **global** total number of reported cases has surpassed the historic milestones of 100 million and 2.15 million deaths as of 26 January<sup>1</sup>.

The number of new daily cases globally has been trending between 700,000 and 800,000.

- It took more than six months for the first 500,000 global deaths to occur.
- The last 500,000 deaths occurred over a period of just six weeks.

## Distribution of COVID-19 cases worldwide, as of 22 January 2021 (source European CDC)<sup>2</sup>



## European Region

- Europe has now reported more than 29 million cases of COVID-19 and more than 670,000 deaths (both 30 per cent of the global totals).
- While trends in new cases were declining in December, they have rebounded since Christmas and the New Year in many countries in the region, **Belgium** being the main exception. Surging second waves and third waves are the norm across Europe, but the most severe surges are in Ireland, the UK, Portugal, Spain, Sweden and Slovakia.
- The countries that have experienced sustained declines during January include Russia, Netherlands, Romania, Denmark, Austria and Greece.

<sup>1</sup> <https://www.worldometers.info/coronavirus/#countries>

<sup>2</sup> <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>

## United Kingdom | European Region

The UK has reported more than 3.7 million cases and 98,000 deaths. Between 29 December and 16 January, the nation reported more than one million new cases, an average of more than 55,000 cases per day. On 8 January, an all-time high of 68,000 cases were recorded, compared with the first wave peak of just 7,860 on 10 April. New daily cases have steadily declined since that day to 30,000 on 24 January.

However, hospitalisations and deaths continue an upward trajectory. Since 6 January, the UK has reported more than 1,000 daily deaths on all but one day, reaching a record of 1,820 on 20 January. **The seven-day average of deaths in the UK between 14 and 21 January was 1.83 per 100,000, the highest in the world.** During the week beginning 17 January, 37,000 patients were in UK hospitals with COVID-19 and more than one-quarter were people under the age of 55. According to research by Leicester University, of 47,780 COVID-19 patients discharged from British hospitals between January and September 2020, **29.4 per cent were re-admitted** within five months and 12.3 per cent died<sup>3</sup>.

The surge in cases across the UK has been attributed to a combination of delaying the imposition of restrictions in early December, low compliance with recommendations to wear masks, and the emergence of a variant virus in Southeast England that appears to be more highly transmissible than the previous strain. The UK is now in a strict national lockdown at least until mid-February.

In an interview with Al Jazeera, the editor of *The Lancet* Richard Horton criticised the UK government for not learning the lessons of the first wave of the pandemic in 2020 and not following the science<sup>4</sup>. “The lessons from the science have been that when there is a rise in infections, you need to clamp down immediately to suppress transmission to reduce the prevalence of infection in the community. But at every stage, the government has delayed and delayed locking down, with the result that the virus has got out of control.”

## Ireland | European Region

With a population of just five million, Ireland has reported more than 188,000 cases and almost 3,000 deaths. As its second wave emerged in September 2020, it was among the first countries in the EU to impose a national lockdown, largely based on Melbourne's experience<sup>5</sup>. Peaking at around 1,200 cases a day, the second wave subsided but in early December around 200 cases were still being reported daily. The Irish Government relaxed restrictions prior to Christmas and this was followed by a third wave, which is far worse than the previous two, reaching an all-time peak of 8,277 on 8 January. During that week, Ireland had the highest incidence in the world. The seven-day rolling average was 1,394 cases per million – outstripping the UK on 810, Portugal on 735, the US on 653 and Germany on 248<sup>6</sup>. In the same week the new B.1.1.7 variant accounted for 45 per cent of the most recent virus samples versus 25 per cent of those tested in the week to 3 January and 9 per cent tested two weeks earlier. Hospital admission numbers are doubling every week, driving the system to breaking point, according to the Irish Hospital Consultants' Association. Ireland is now in as strict a lockdown as it was back in April, with schools closed until at least 1 February. Since the 8 January peak, daily cases have been declining; however, 1,370 cases were reported on 24 January.

---

<sup>3</sup> <https://www.theage.com.au/world/europe/one-in-three-covid-patients-in-uk-readmitted-within-five-months-20210118-p56v33.html?btis>

<sup>4</sup> [https://www.aljazeera.com/amp/news/2021/1/11/uk-covid-crisis-qa-with-the-lancets-richard-horton?\\_\\_twitter\\_impression=true&s=03](https://www.aljazeera.com/amp/news/2021/1/11/uk-covid-crisis-qa-with-the-lancets-richard-horton?__twitter_impression=true&s=03)

<sup>5</sup> [https://www.burnet.edu.au/news/1316\\_melbourne\\_success\\_is\\_inspiring\\_ireland\\_covid\\_19](https://www.burnet.edu.au/news/1316_melbourne_success_is_inspiring_ireland_covid_19)

<sup>6</sup> [https://www.theguardian.com/world/2021/jan/11/reckless-christmas-rule-relaxation-blamed-for-irelands-dire-covid-surge?CMP=Share\\_AndroidApp\\_Other](https://www.theguardian.com/world/2021/jan/11/reckless-christmas-rule-relaxation-blamed-for-irelands-dire-covid-surge?CMP=Share_AndroidApp_Other)

## Slovakia | European Region -- Recap

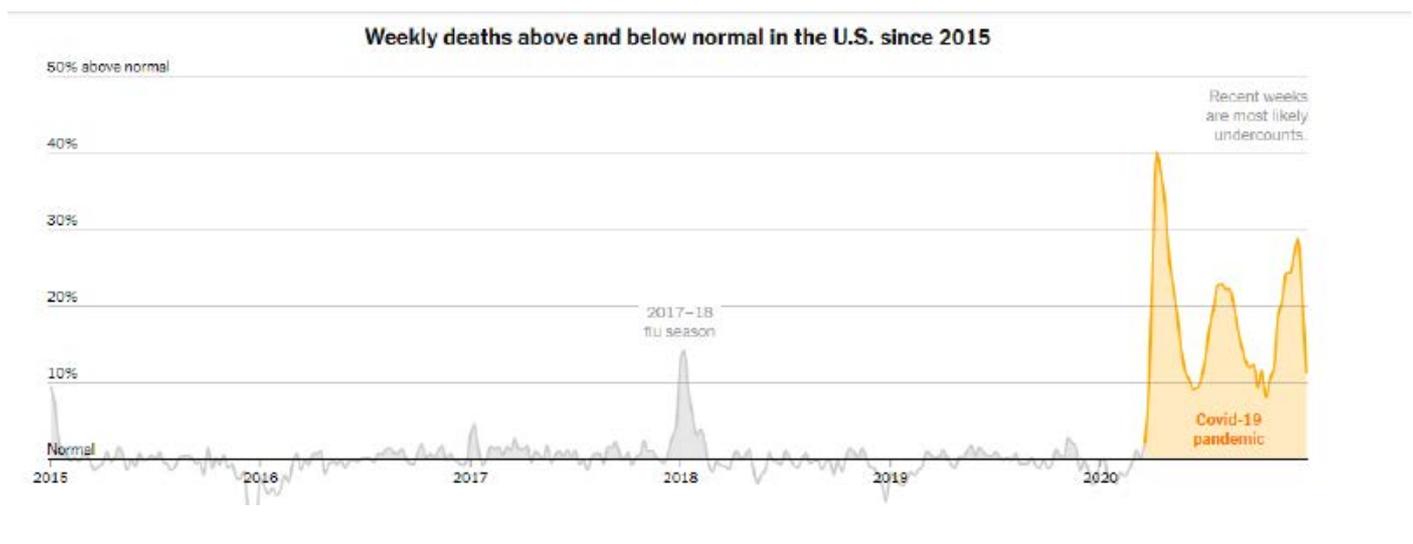
In the previous global analysis in late December, a paper described a 60 per cent fall in incidence one week after two rounds of testing almost the entire population and the resultant isolation of positive cases<sup>7</sup>. The lull was short-lived and the country of 5.5 million experienced a new surge reaching a record peak of 6,315 cases on 31 December. As a result, a strict lockdown was imposed just before Christmas. Once again, Slovakia is launching an effort to test almost all citizens for the coronavirus in nine days. The nationwide testing started on 18 January and will be completed on 26 January. It's not mandatory, but all people who want to go to work will need to have a negative test for the coronavirus beginning the following day. The government hopes the nationwide testing will speed up a recovery from the latest wave of infections, make it possible for students to return to school in February, help the health system and ease restrictions that harm the economy.

## The United States and Canada

- The **US** has now reported almost 26 million cases (25 per cent of the global total) and 431,000 deaths (20 per cent of the global total). The US population is around four per cent of the world's total. The third surge may have reached its peak. Over the past two weeks, **new cases have declined by 21 per cent**. However, deaths have increased by 11 per cent.
- **Canada** has reported more than 750,000 cases and 19,000 deaths. The country's second wave has been much more severe than the first wave, with daily cases reaching a record high of more than 10,000 on 2 January. While it was originally focused in populous Ontario and Quebec provinces, the epicentre of the epidemic is now the three Prairie Provinces. The infection rate per capita is highest in Alberta, followed by Manitoba and Saskatchewan.

## Excess deaths in the U.S. in 2020 | United States

Between March and December 2020, at least 400,000 more Americans died than would have in a normal year, a sign of the broad impact of the coronavirus pandemic. According to an analysis of 2020 all-cause mortality by the US CDC, deaths nationwide were 18 per cent higher than normal from 15 March 2020 to 26 December 2020<sup>8</sup>.



<sup>7</sup> <https://www.bmj.com/content/371/bmj.m4761>

<sup>8</sup> [https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess\\_deaths.htm](https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm)

Another analysis, published in *JAMA*, found that by October 2020 COVID-19 had become the third leading cause of death in the US for persons aged 45 through 84 years and the second leading cause of death for those aged 85 years or older<sup>9</sup>. Adults 45 years or older were more likely to die from COVID-19 during those months than from chronic lower respiratory disease, transport accidents, drug overdoses, suicide, or homicide.

## Latin America

- Countries in South America have reported more than 15 million cases, and Mexico and Central America have reported a further 2.7 million cases. The combined total of 17.7 million in Latin America represents more than 18 per cent of the global total.
- There have been more than 552,000 deaths in Latin American countries comprising 27 per cent of the world's total.
- Mexico, Panama, Brazil, Colombia, Argentina, Chile and even previously spared Uruguay are reporting severe second surges.

### Brazil's Amazonas Region | Latin America

Manaus is the capital of Amazonas state in northern Brazil. It's the largest city in the Amazon, with a population of more than 2 million. By May, the city had experienced four and a half times more deaths than the previous year. Hospitals were overwhelmed and mass graves were dug. Over 6,000 people died<sup>10</sup>. A study of blood donors suggests that by October, more than 70 per cent of the population of Manaus had been infected with COVID-19<sup>11</sup>. That's well above the predictions for the population immunity threshold.

Now in January 2021, Manaus and the Amazonas state are in the grips of a second surge of COVID-19. There have been more than 24,000 new cases over the last two weeks. Hospitals are filling up and running out of oxygen and ventilators, which is forcing relatives to purchase oxygen in the private sector<sup>12</sup>. So, is the new wave of cases in Manaus because infection doesn't lead to long lasting immunity? Or because new variants of the virus are emerging that can evade the immune system? Or might it be a combination of both? That is what scientists are now trying to find out.

### Uruguay | Latin America – Recap

In the last global analysis update, the very low rate of transmission in this small country of 3.5 million was highlighted as South America's greatest success. However, nine months after recording its first coronavirus case, Uruguay is seeing an outbreak in what President Luis Lacalle Pou has called the "first wave," threatening to undo the hard-fought gains throughout the pandemic. Since the beginning of December, this wave reached a peak of more than 1,500 cases on 14 January. Uruguay still boasts the lowest infection and mortality rates on the continent thanks to the initial success of a strategy that relied on voluntary prevention measures. Now infections are soaring as pandemic-weary Uruguayans welcome summer with parties and big family gatherings. The government has announced new border closures and tight restrictions on family and public gatherings.

---

<sup>9</sup>[https://jamanetwork.com/journals/jama/fullarticle/2774465?utm\\_source=silverchair&utm\\_campaign=jama\\_network&utm\\_content=covid\\_weekly\\_highlights&utm\\_medium=email](https://jamanetwork.com/journals/jama/fullarticle/2774465?utm_source=silverchair&utm_campaign=jama_network&utm_content=covid_weekly_highlights&utm_medium=email)

<sup>10</sup> [https://thespinoff.co.nz/society/18-01-2021/siouxie-wiles-the-plan-b-implosion-what-brazil-teaches-us-about-the-herd-immunity-hogwash/?amp=&\\_\\_twitter\\_impression=true&s=03](https://thespinoff.co.nz/society/18-01-2021/siouxie-wiles-the-plan-b-implosion-what-brazil-teaches-us-about-the-herd-immunity-hogwash/?amp=&__twitter_impression=true&s=03)

<sup>11</sup> <https://science.sciencemag.org/content/371/6526/288>

<sup>12</sup> <https://www.reuters.com/article/us-health-coronavirus-brazil/reeling-again-from-covid-19-amazonas-gets-respirators-oxygen-from-brazil-military-and-venezuela-idUSKBN29L0KD>

## African Region

- The African continent has reported almost 3.5 million cases and more than 85,000 deaths. **South Africa** has reported 1.4 million cases (42 per cent of cases on the continent) and 38,000 deaths (47 per cent). Morocco, Tunisia, Egypt and Ethiopia make up the rest of the five most affected countries. While cases are in decline in Morocco and Ethiopia, they are surging in **Egypt** and **Tunisia**.
- In terms of second waves, all Southern African countries and **Nigeria** are the most affected in Sub-Saharan Africa.

### Coronavirus resurges in Southern Africa | Sub-Saharan Africa

South Africa's second wave is much more severe than its first wave, reaching an all-time peak of 22,000 on 8 January compared with the first wave peak of 14,000 on 24 July. This surge is probably exacerbated by the emergence of a coronavirus variant first identified in the Eastern and Western Cape provinces. Other Southern African countries are reporting severe second waves, including Zambia, Namibia, Zimbabwe, Mozambique, Malawi, Eswatini (formerly Swaziland) and Lesotho.

Africa defied many dire predictions during the COVID-19 pandemic's first wave. The continent's success can be credited to a rapid, coordinated response among African leaders mediated by the Africa CDC<sup>13</sup>, extensive experience with infectious diseases, an aggressive campaign to combat misinformation, and community engagement in the response. Health ministers from across Africa convened early in 2020 to establish a unified strategy for combating the pandemic. The plan focused on 3 pillars: preventing SARS-CoV-2 transmission, averting deaths, and avoiding social and economic harm.

However, African countries face huge challenges in addressing second waves. Countries will need massive vaccination campaigns and other measures to prevent hospitals from becoming overwhelmed with patients. Leaders will also have to curb the unintended health and economic consequences of pandemic control measures. To help make more community-based testing available, Africa CDC recently joined a collaboration with WHO and several other organisations to make 120 million rapid diagnostic tests available<sup>14</sup>. To help secure access to COVID-19 vaccines, the Africa CDC has also partnered with Gavi, the Vaccine Alliance, and the WHO in the COVAX initiative<sup>15</sup>, which will supply enough vaccine for about 100 million people in Africa—around 8 per cent of the population.

## Middle East

- There has been a steady decline in new cases in **Iran** (from a very high peak), **Iraq**, and **Jordan**.
- New daily cases are stable in Saudi Arabia, Qatar, Bahrain, Oman and Kuwait.
- Cases continue to surge in **Israel, the Palestinian Territories, and the UAE**.

### Lebanon | Middle East

This small country, with a population of fewer than seven million, including 1.5 million Syrian refugees, has reported more than 282,000 COVID-19 cases and 2,374 deaths. The attack rate per million residents is the fourth highest in the

---

<sup>13</sup> <https://africacdc.org/covid-19/>

<sup>14</sup> <https://www.who.int/news/item/28-09-2020-global-partnership-to-make-available-120-million-affordable-quality-covid-19-rapid-tests-for-low--and-middle-income-countries>

<sup>15</sup> <https://www.gavi.org/covax-facility>

Middle East after Israel, Bahrain and Qatar. After a relatively mild first wave, despite a rise in the number of new cases, the government relaxed restrictions ahead of Christmas and New Year, hoping to bolster the country's ailing economy. Bars and nightclubs were allowed to open for the first time in months. Health officials said that the easing of restrictions had now led to a dramatic spike in infections. On 14 January, Lebanon imposed one of the strictest 24 hour curfews in the world for 11 days. People are forbidden from leaving their homes with few exemptions. They are unable to shop in supermarkets and will need to rely on deliveries.

## United Arab Emirates | Middle East

The UAE, with a population of just less than ten million, has reported more than 280,000 cases and 800 deaths (one of the lowest case-fatality ratios in the world at 0.3 per cent). The UAE had more or less suppressed its first wave by early August; however, it was still reporting more than 200 cases daily when restrictions were relaxed. New cases began to surge over 1,000 daily in late September. The second wave has seen daily cases exceed 3,000 every day in the second week of January; the wave has not yet peaked. The response in each of the emirates has been different. **Dubai**, population of two million, which depends on trade, transport and tourism for its economy, has resisted shutdowns, kept restaurants and bars open, and welcomed overseas visitors. Instead, the city-state is relying on a rapid rollout of the Pfizer and Sinopharm vaccines. More than 20 per cent of its population have received a first dose. **Abu Dhabi**, the oil and cash-rich capital of the UAE, has imposed severe restrictions on gatherings and banned travel to and from Dubai. Overall, the UAE has vaccinated more than one million residents, the second fastest rollout in the world after Israel.

## Asia-Pacific Region

- There are mixed trends in this region. Cases are declining in India, Bangladesh, the Philippines, South Korea, Nepal and **Myanmar**, stable in Pakistan, but increasing in Indonesia, Sri Lanka, Japan, Malaysia, Hong Kong and Thailand.
- **Indonesia** has become the second Asian country to report one million cases.
- **China** has reported 1,613 new cases in the first 25 days of this year making it the largest outbreak since the end of March 2020. Most of the new cases during the current wave have been found in Jilin, Heilongjiang and Hebei, **which surrounds Beijing**. All three provinces have rolled out some of the most stringent measures to date as a result. China reported a fall in new COVID-19 infections as the number of cases in two of the provinces - Jilin and Hebei --particularly hard hit by the latest coronavirus, wave fell to single digits on 26 January.
- **Papua New Guinea** has recorded 835 cases and nine deaths. 75 cases have been reported in the past month. The most recent peak was on 11 December when 36 new cases were reported in four provinces: West New Britain (23), East New Britain (9) New Ireland (3) and Western Highlands (1). In early January, a nightly curfew was introduced in West New Britain and travel in and out of the province was restricted.

## Malaysia | Asia-Pacific Region

With a population of 33 million, Malaysia has reported more than 186,000 cases and 689 deaths. After a modest first wave reaching a peak of 217 daily cases in mid-April, the country is experiencing a severe second wave, with a peak of more than 4,000 cases on 16 January. The fresh outbreak emerged in September linked to an election held in the state of Sabah. This second wave shows no signs of abating. On 12 January, Malaysia's king declared a national state of emergency until August, one day before a strict lockdown was imposed across the capital Kuala Lumpur and five states, including Penang. Residents in these areas are required to shelter in place and only leave their homes within a 10km radius to purchase food and necessities or for medical emergencies. Non-essential businesses have been shut, although places selling food can operate on a take-away basis.

## Thailand | Asia-Pacific Region

Thailand initially appeared to have escaped the worst of the pandemic, registering just under 4,000 cases by November, despite being the first country outside China to detect an infection in January 2020. Thailand has now reported 13,687 cases and 75 deaths. More than 7,000 (55 per cent) of those cases have been reported in the past month after a major outbreak linked to migrant workers in a seafood market in **Samut Sakhon**, a coastal province southwest of Bangkok. The country recorded a record of 745 new cases on 4 January. The government declared 28 provinces, including Bangkok, as high-risk zones and asked people to work from home and avoid gathering or travelling across provincial borders. In **Bangkok**, where more than 3,000 active cases have been detected, city authorities acted swiftly and announced a partial lockdown to go into effect on 4 January. Bars and nightclubs, boxing stadiums, cockfighting rings and massage parlours — as well as beauty salons and gyms — are among the businesses affected. Retail stores have been closed and restaurants may only provide take-away meals.

## Australia

Commencing in mid-December 2010, the state of **New South Wales** experienced its largest cluster of COVID-19 cases since a cluster connected to a Thai restaurant in July. The outbreak began in the Northern Beaches Municipality, linked to two superspreading events at social venues. Although stay-at-home restrictions were imposed in the municipality, subsequent linked clusters were detected in the CBD, Erskineville, Paddington, and Croydon. In total, 151 cases were reported. The source case in this outbreak has not been identified; however, genomic sequencing linked it to a US strain. A second cluster of 30 cases occurred when a contact of an infected airport transport worker attended a liquor outlet in the southwestern suburb of Berala. The state introduced mandatory mask wearing in public transport and indoor venues and limited the size of household gatherings. By 26 January, the state had gone nine days without local community cases.

The Northern Beaches strain was imported into **Victoria** and spread to 27 people via a suburban Thai restaurant in Melbourne where patrons at four different tables and a staff member were infected and spread it to their close contacts. Rules on indoor gatherings and mask wearing were tightened. By 26 January, the state had gone 20 days with no local community transmission.

A separate situation emerged in **Queensland** where a quarantine hotel worker was infected with the viral variant B.1.1.7 and was out in the community for five days while infectious. A short, strict lockdown was imposed and masks mandated. In the end, only one other case was reported -- the worker's partner.

# BURNET INSTITUTE

We are an Australian, unaligned, independent, not-for-profit organisation. Our mission is to achieve better health for vulnerable communities in Australia and internationally by accelerating the translation of research, discovery and evidence into sustainable health solutions.

85 Commercial Road  
Melbourne, Australia, 3004

t +61 3 9282 2111

e [knowc19@burnet.edu.au](mailto:knowc19@burnet.edu.au)

[burnet.edu.au](http://burnet.edu.au)

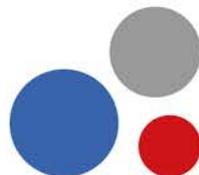
@BurnetInstitute

@KnowC19\_Burnet

**Medical Research.  
Practical Action.**



**Burnet Institute**  
Medical Research. Practical Action.



**Know-C19**