

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

Week of May 1-8

*Professor Mike Toole AM, Dr Suman Majumdar, Dr Ben Coghlan (Burnet Institute)*

### Findings with policy implications for Australia

#### Lessons from the relaxation of restrictions in Europe

Most of the restrictions being eased around the world (with the exception of some states in the US) are restrictions that were never imposed in Australia.

There are several lessons worth considering:

- Phased easing of restrictions based on the incidence of new cases in different regions (France is classifying regions as red or green).
- Require people to wear face masks on public transport, taxis and school buses to mitigate risk of asymptomatic / pre-symptomatic spread (not advised by WHO, although consider depending on epidemiology and social acceptance).
- When opening restaurants, begin with confining customers to outdoor terraces (with heaters in the southern states).
- As physical distancing rules are relaxed, require people over the age of 65 to adhere to more rigorous distancing than younger people.
- Some countries are reopening schools (but not Italy, Spain and the UK) by prioritising age groups, ie students in Years 1 and 2 and exam years (the equivalent of Year 12 in Australia).
- Playgrounds, museums, libraries, and zoos could be among the first public spaces to reopen with strict physical distancing.
- Learn from the experiences of other countries introducing tracing apps, such as Singapore, Norway and France. Uptake has been low (<30%) in all three countries.
- The Nobel Laureate economist Paul Romer has suggested that the only way to ensure that the economy reopens safely is to test all adults bimonthly<sup>1</sup>. This would require a multi-billion dollar investment in the U.S. It is probably not appropriate in a country like Australia that has a low background prevalence compared with the US, but could be considered in areas with ongoing community transmission.

It is worth noting California's criteria for easing restrictions, which are more comprehensive than those announced in Australia<sup>2</sup>. Critically, they include being able to prevent infection among the most vulnerable communities.

1. The ability to monitor and protect communities through testing, contact tracing, isolating, and supporting those who are positive or exposed.
2. The ability to prevent infection in people who are at risk for more severe COVID-19.
3. The ability of the hospital and health systems to handle surges.
4. The ability to develop therapeutics to meet the demand.
5. The ability for businesses, schools, and child care facilities to support physical distancing.
6. The ability to determine when to reinstitute certain measures, such as the stay-at-home orders, if necessary.

<sup>1</sup> <https://www.newyorker.com/news/q-and-a/paul-romer-on-how-to-survive-the-chaos-of-the-coronavirus>

<sup>2</sup> <https://www.gov.ca.gov/wp-content/uploads/2020/04/California-Roadmap-to-Modify-the-Stay-at-Home-Order.pdf>



### Global trends<sup>3 4</sup>

- As the global total of reported cases nears 4 million, the 7-day running average of daily new cases has remained remarkably steady since April 1 at around 85,000.
- This is because, as countries like Italy, Spain, France and Germany report declining numbers of new cases, there have been new hotspots, such as Russia and Brazil. Russia has reported more than 10,000 new cases daily for the last five days and has now reported the fifth highest number of cases in the world after the US, Spain, Italy and the UK.
- Other countries reporting high rates of new infections include the US, UK, Peru, India, Belarus, Pakistan and Bangladesh.
- Singapore, Saudi Arabia, Qatar, UAE and Kuwait, all of which have high numbers of migrant workers, continue to have rapidly escalating epidemics.
- The global case-fatality ratio is 6.9% compared with the estimated CFR of 3.4% announced by the WHO on March 3, based on Chinese data<sup>5</sup>.
- The highest CFRs in the world are in Belgium (16.4%), UK (15%), and France (14.8%). The lowest CFRs are in Qatar and Singapore (0.1%) and UAE (0.6%).

### Australian trends<sup>6</sup>

- After 12 consecutive days reporting 20 or fewer new daily cases, Australia reported more than 20 new daily cases for four consecutive days and then 19 today. These increases are largely due to expanded testing and the cluster of cases at a Melbourne abattoir.
- Of the 121 new cases reported in the past five days, 84 (70%) have been in Victoria.
- In Victoria, there has been an increase (blip) in locally acquired cases with an unknown source (no known contact and no travel) – with 18 in this period (total of 158)
- After a five-day decline in testing, the number of daily tests has significantly increased to a record 33,893 (135 per 100,000) on 7 May.
- Australia has so far conducted 688,656 tests with a positivity of 1%.
- This translates to a testing rate of 2,834 per 100,000, which ranks as #17 in the world among countries that have reported more than 5,000 cases.

### COVID-19 in Low and Middle Income Countries (LMICs)

- The situation in LMICs countries varies widely between regions. The most highly affected are all in Latin America.
- Brazil (classified as a middle-income country by the World Bank), reported 114,715 cases and 7,921 deaths and is the only LMIC in the ten most affected countries in the world,.
- After Brazil, the LMICs with the highest numbers of reported cases are Peru (51,189), India (49,400), Ecuador (31,881), Mexico (24,905), Pakistan (22,049), Chile (22,016), Indonesia (12,071), Bangladesh (10,929), Philippines (9,684), Colombia (8,613) and the Dominican Republic (8,480).
- Among those countries, the highest attack rates per 100,000 are all in Latin America: Ecuador (181), Peru (155), Chile (115) and Dominican Republic (78). Brazil's attack rate is 54 per 100,000.

<sup>3</sup> <https://coronavirus.jhu.edu/data/new-cases>

<sup>4</sup> <https://www.worldometers.info/coronavirus/#countries>

<sup>5</sup> <https://www.worldometers.info/coronavirus/coronavirus-death-rate/#who-03-03-20>

<sup>6</sup> <https://www.covid19data.com.au/>



## Latin America

- A number of Latin American countries have suffered from poor leadership. This is most evident in Brazil, where President Jair Bolsonaro has repeatedly described COVID-19 as a "little flu" and has opposed social distancing measures<sup>7</sup>. Fortunately for the country, health care is the responsibility of municipalities, limiting the president's influence. According to an article in The Lancet, Mexico's president Andrés Manuel López Obrado described COVID-19 as "not even as bad as the flu". He subsequently urged Mexicans to visit restaurants and diners. Mexico has one of the lowest testing rates among countries reporting more than 5,000 cases.
- An ongoing dengue outbreak, which infected more than 3 million people in the Americas last year, further complicates matters. It is too early to tell how SARS-CoV-2 and dengue virus infection will interact with one another. In any case, addressing two epidemics is a major task even in Brazil, which has a reasonably strong healthcare system.
- In addition to these problems, Latin America has some of the most overcrowded prisons in the world. Thousands of prisoners have yet to face trial. Brazil alone has incarcerated 773,000 people, one-third of who are in pretrial detention. Rates of tuberculosis among prisoners in the country are 35 times higher than in the general population.

## Africa

- South Africa (8,232) and Egypt (7,981) have the highest number of reported cases followed by Morocco (5,548) and Algeria (5,182). Other countries with more than 1,000 cases are Cameroon, Ghana, Nigeria, Guinea, Côte d'Ivoire, Djibouti, and Tunisia.
- Djibouti has the highest testing rate on the continent at 1,314 per 100,000 followed by South Africa and Ghana both at 324 per 100,000, and Kenya (335). Several sub-Saharan countries have testing rates below 100 per 100,000 including Senegal (28) and Nigeria (62). Many more have not reported the number of tests that they have conducted.
- Other than low testing rates, there may be two reasons for Africa's apparently low levels of transmission. First, it is familiar with the ravages of infectious diseases. Some 15 million Africans have died of AIDS, against which there was little defence before cheap antiretroviral drugs became available 15 years ago. More recently, the Ebola outbreak in West Africa, which killed 11,300 people from 2013 to 2016, imparted indelible lessons in both the cost of epidemics and the strategies required to end them.
- Second, Africa had an early warning. Its leaders watched awestruck as health systems in China, and then Italy, Spain, the UK and the US crumpled. They understood that, if the virus slipped out of control in Africa, their own weak health systems could not cope. Countries had little choice but to act early. In the absence of money, ingenuity rushed in: solar-powered oxygen units in Uganda, rapid tests in Senegal, mask-making textile factories in Kenya.

## Asia-Pacific

- The Asian countries with the highest number of cases all have large populations and low attack rates per 100,000: Pakistan (10), Philippines (8.8), Bangladesh (6.6), Indonesia (4.4) and India (3.6).
- The Mekong sub-region nations of Vietnam (271 cases and no deaths), Cambodia (122 cases and no deaths), Myanmar (161 cases and 6 deaths) and Laos (19 cases and no deaths) have all reported relatively low case numbers.
- Pacific Island Countries and Territories (PICT) have among the lowest numbers of cases and attack rates in the world. The highest numbers of cases are in the US and French territories of Guam (145), French Polynesia (58), New Caledonia (18), and Northern Mariana Islands (14).
- Among independent PICTs, cases have been reported in Fiji (18) and Papua New Guinea (8).

<sup>7</sup> [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30303-0/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30303-0/fulltext)



- The reasons why LMICs in the region have reported relatively low numbers of cases may be due to the following five factors:
  1. Low rates of testing
    - Many low- and middle-income countries lack the capacity to test and identify infected people. The disease may well be spreading undetected. In Asia, testing rates have indeed been very low, including Indonesia (41 per 100,000), Bangladesh (49), India (76), Pakistan (100), and the Philippines (194).
    - The governor of Jakarta has suggested that the national government obstructed efforts to ramp up testing in March before the first official case was reported<sup>8</sup>. He reported that there had been 1500 more funerals than normal in Jakarta in each of March and April that were probably due to COVID-19. Extrapolating from the CFR, he estimates that there have been 30,000 cases (the official figure is 4,770).
  2. Fewer people at risk of symptomatic infection and severe disease
    - LMICs may be at a slight advantage because of their demographics. The elderly are hardest hit by COVID-19, and demographics skew much younger in LMICs. Just over 12% is 60 years and over in Asian LMICs. In Europe, by contrast, about 24% of the population is 60 and older, and in North America it's 21%.
  3. Low connectivity
    - The places where the coronavirus reached first are the places with the most connections to its country of origin, China, followed by Europe and North America. In LMICs a small proportion of the population is able to travel internationally and, other than migrant workers, is mainly confined to the middle and upper classes.
  4. Population density
    - LMICs are home to some densely populated megacities that may be highly vulnerable to viral transmission. But there are also large rural areas where social distancing is a way of life. That might be slowing down the epidemic in some LMICs.
    - On the other hand, individual households may have more people in them and a wider range of ages than in industrialised countries. That could exacerbate the impacts if and when the disease does arrive.
  5. Climate? Probably not
    - While the virus may spread more easily in the cold, dry air of temperate-zone winters, heat and humidity have not stopped it from spreading in places like Singapore, South Africa and Hong Kong. It has also spread rapidly in hot and dry countries like Saudi Arabia, Qatar, UAE and Kuwait.

## Conclusions

In Asia, the Mekong sub-region countries of Vietnam, Cambodia, Thailand, Laos and Myanmar have so far managed well in their response to COVID-19, although there are still doubts about Myanmar.

The countries that are probably most at risk are **Indonesia, Bangladesh, India and Pakistan** with their low testing rates, crowded cities, poor access to clean water and sanitation, and well-established community transmission.

---

<sup>8</sup> <https://www.theage.com.au/world/asia/not-allowed-to-do-testing-governor-says-jakarta-was-tracking-covid-19-cases-in-january-20200507-p54qnh.html>

