

Lessons Learned: A Global Perspective



COVID-19 Overview

International Response & Current
Status of the Pandemic



Kevin T. Kavanagh, MD, MS

Health Watch USAsm June 15, 2021

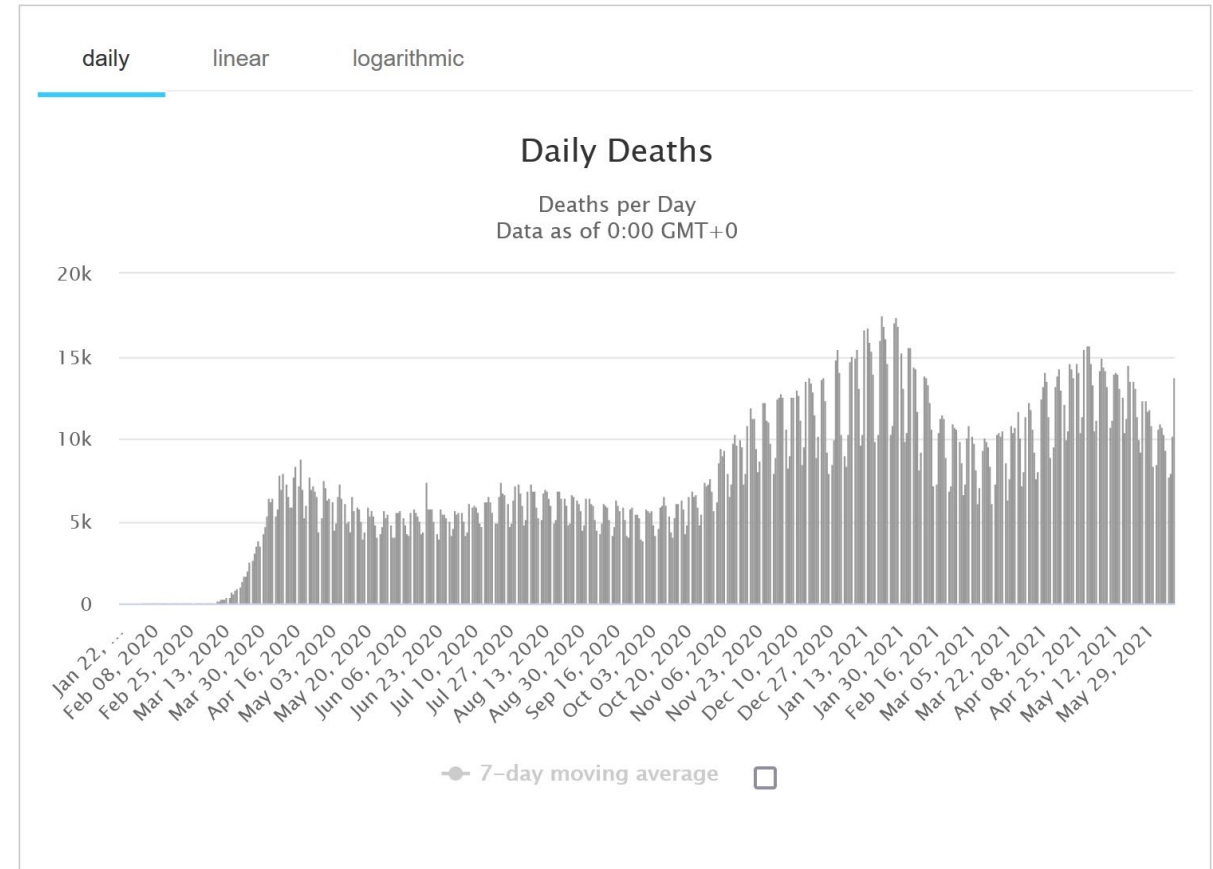
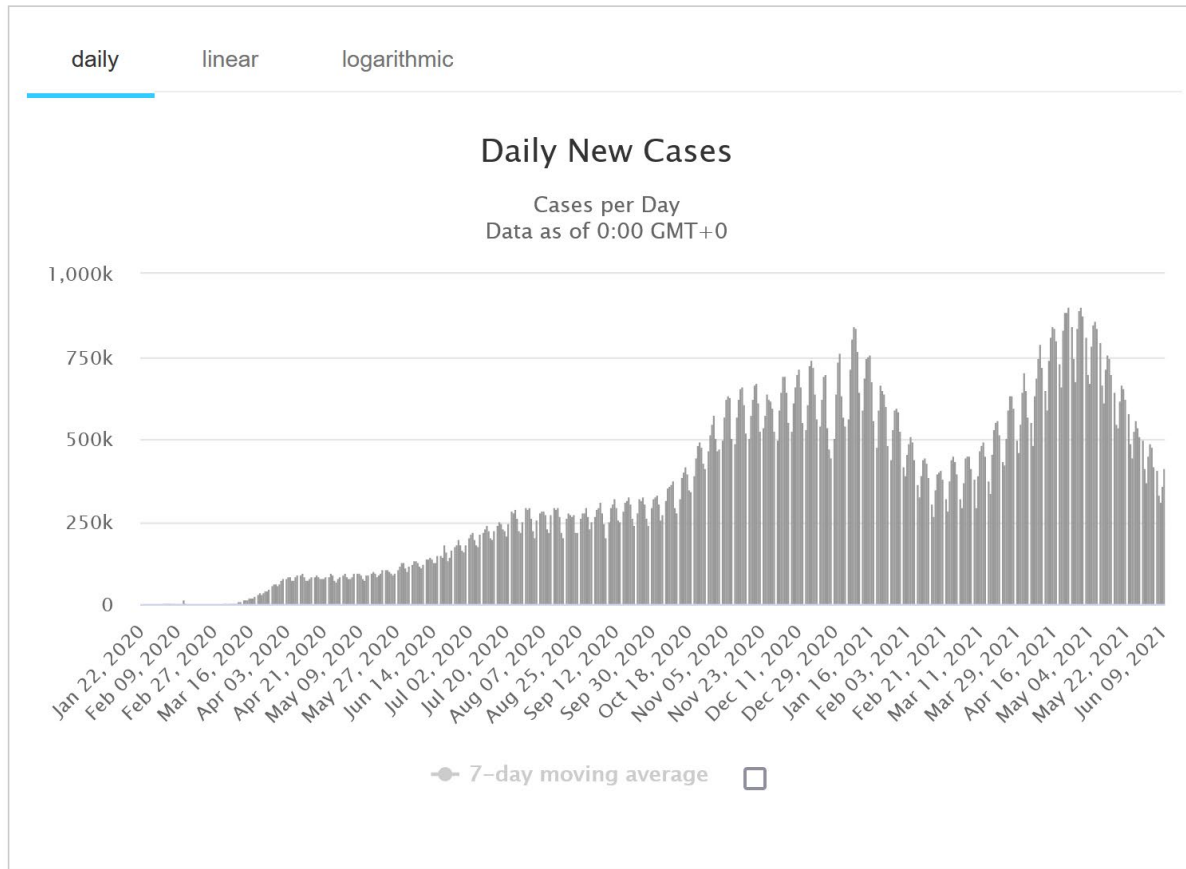


LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

Cases & Deaths World-Wide

Total Cases: 176,400,316; Deaths: 3,8106,514; Recovered: 160,359,997



LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

This Is Almost Assuredly an Undercount

1. In India with a healthcare system which is under enormous stress the reported deaths are 346,772 (John Hopkins). But there is reduced access and a reluctance to utilize healthcare.

Dr Manas Gumta, General Secretary of the Association of Health Service Doctors in West Bengal, told the Observer. "I believe the actual number of people dying of Covid is two to three times higher than what the government is reporting." (The Guardian: Apr. 24, 2021)

<https://www.theguardian.com/world/2021/apr/24/indias-covid-death-toll-hides-stark-truth-for-the-poor-its-even-worse>

In many cases, only confirmed COVID-19 cases, with a positive COVID-19 test, are counted. However, many patients are not able to obtain a test.

Deaths in patients with co-morbidities are often not counted, lowering the total of those reported by 50% to 80%.

Pulla P. India Is Undercounting Its COVID-19 Deaths. This Is How. Science The Wire, Apr. 8, 2021.
<https://science.thewire.in/health/india-mccd-comorbidities-covid-19-deaths-undercounting/>



Just How Big Could India's True Covid Toll Be?

By [Lazaro Gamio](#) and [James Glanz](#) May 25, 2021

Official counts

26.9 million
Reported cases

307,231
Reported deaths

Data as of May 24

A conservative scenario

404.2 million
Estimated infections

600,000
Estimated deaths

15 infections per reported case with an infection fatality rate of 0.15%

A more likely scenario

539.0 million
Estimated infections

1.6 million
Estimated deaths

20 infections per reported case with an infection fatality rate of 0.30%

A worse scenario

700.7 million
Estimated infections

4.2 million
Estimated deaths

26 infections per reported case with an infection fatality rate of 0.60%

Each Number Has A

- **Story**
- **Life**
- **Family**
- **Community**

Behind it

This Is Almost Assuredly an Undercount

2. In The United States With A Highly Developed Health Care System. As of June 12, 2021 deaths from COVID-19 were reported as:

- John Hopkins University Estimates there are 599,664 deaths based upon COVID-19 Reported Deaths.
- HIME (Institute for Health Metrics and Evaluation) calculated 950,337 deaths based upon Excess Death Data.

This Is Almost Assuredly an Undercount

Recovered: 158,674,741 BUT Survival does not Equate With Recovery

The Difference in the USA Death Toll May Be Due to The Devastating Effects of Long COVID.

A Veterans Health Administration Study of 73,435 non-hospitalized survivors of COVID-19 reported deaths and morbidity from 30 days to 6 months after initial diagnosis.

Compared to controls they found that during this convalescent phase, survivors had:

- A 59% increase chance of dying.
- Translates to an additional 8 extra deaths per 1000.

“Al-Aly and his colleagues documented the cascade of debilitating effects that plague survivors months after diagnosis, from blood clots, stroke, diabetes and breathing difficulties to heart, liver and kidney damage, depression, anxiety and memory loss. They also found the risk of complications was far higher than with the flu.” (Gale, F. ‘Long Hauler’ Study Shows Covid Can Kill Months After Infection Bloomberg. Apr. 22, 2021 <https://www.bloomberg.com/news/articles/2021-04-22/-long-hauler-study-shows-covid-can-kill-months-after-infection>)

Under-reporting

Under-reporting paints a false picture of COVID-19's true impact making it harder to mobilize resources and easier to politically mitigate or even deny the devastation of the pandemic.

We have been unable to learn from the mistakes of others.

Lessons learned during the Ebola Epidemic: “In the [Ebola epidemic of 2014](#), the government of Guinea, a country with very limited health resources, initially insisted that only laboratory-confirmed cases be counted, this led to a drop in reported cases and a false sense of security, delaying the mobilization of resources and fueling the spread of the virus.”

Kavanagh K. Op-Ed: Collective ignorance and government timidity are public health threats. Los Angeles Times. May 16, 2019.
<https://www.latimes.com/opinion/op-ed/la-oe-kavanagh-epidemics-health-public-policy-20190516-story.html>

Response Strategies

➤ **Exclusion Strategy – Some Pacific Islands**

Maximum Action to Exclude Disease

➤ **Elimination Strategy – Singapore, Australia**

Maximum Action to Exclude Disease & Eliminate Community Transmission

➤ **Suppression Strategy – UK, EU**

Stepwise Targeted Measures to Lower Cases Numbers and Outbreaks Until Treatment or Vaccine Is available.

➤ **Mitigation Strategy – USA, Brazil, India**

Use of “Herd Immunity” & Try To Flatten Peak Until A Vaccine Is Available.

➤ **No Substantive Strategy**

Baker GM, Wilson N, Blakely T. Elimination could be the optimal response strategy for covid-19 and other emerging pandemic diseases. BMJ. Dec. 22, 2020. [2020;371:m4907](https://doi.org/10.1136/bmj.m4907) <http://dx.doi.org/10.1136/bmj.m4907>

India, Brazil and USA

These are arguably the three worst countries in the pandemic's response and share the following characterizes:

- Inundated with misinformation regarding the lethality and severity of the pandemic which led to the continuation of holding large rallies for political, religious and other events.
- A large segment of the population and leadership embraced the “Herd Immunity” strategy.
- Unable to formulate an effective uniform national strategy and resolve disagreements between the scientific community and policymakers.
- Underdeveloped or Non-Coordinated Public Health Systems.

#	Country, Other	Total Cases	New Cases	Total Deaths
	World	175,158,750	+415,536	3,776,327
1	USA	34,264,727	+14,201	613,494
2	India	29,182,072	+93,896	359,695
3	Brazil	17,125,357	+87,097	479,791

Warning From India

Washington Post OpEd: Dr. Madhukar Pai and Dr. Manu Prakash: The devastating second wave in India is the result of a perfect storm: a failure to plan for a second wave; premature relaxation of public health measures; large gatherings; insufficient vaccination coverage; and newer variants such as B.1.1.7 and B.1.617 that are highly transmissible and potentially more severe.

<https://www.washingtonpost.com/opinions/2021/04/30/indias-covid-19-crisis-is-dire-warning-all-countries/>

Misinformation

THE
NEW YORKER

By Rahul Bhatia

May 10, 2021

INDIA'S EPIDEMIC OF FALSE COVID-19 INFORMATION

As patients and families frantically seek treatment, elected officials—and some physicians—have fuelled denialism and specious talk of miracle cures.

“As the virus’s second wave washed over India, and hospital beds and oxygen grew scarce, visitors to the site frantically hunted for medicines rumored to treat the disease: Fabiflu, remdesivir, azithromycin, ivermectin, doxycycline. Then, on April 28th, those search terms were all overshadowed—by a factor of three—by queries for an obscure homeopathic nasal spray.”

<https://www.newyorker.com/news/dispatch/indias-epidemic-of-false-covid-19-information>

Misinformation



The misinformation bubble threatening Brazil's indigenous people

May 8, 2021

False information from the mouths of politicians and preachers is reaching remote villages in the Amazon via WhatsApp, reports BBC News Brasil's Juliana Gragnani. <https://www.bbc.com/news/blogs-trending-56919424>



“Despite all evidence, a strong rhetoric undermining risks associated to COVID-19 has been endorsed at the highest levels of the Brazilian government...”

Ricard J, Medeiros J. April 17, 2021

<https://misinforeview.hks.harvard.edu/article/using-misinformation-as-a-political-weapon-covid-19-and-bolsonaro-in-brazil/>



Bows and arrows greet healthcare workers delivering Covid vaccine in Amazon

Chiara Giordano 05/05/2021

Healthcare workers have reportedly been confronted by crowds armed with bows and arrows while attempting to deliver the Covid-19 vaccine to indigenous communities in Brazil's Amazon. A wave of vaccine misinformation spread through chat apps like WhatsApp is thought to be to blame for people's opposition to the jab.

LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

Misinformation



US denounces Russian 'disinformation' over Covid vaccines

AFP · 3/9/2021

The United States on Monday denounced what it called a Russian disinformation campaign against US-made Covid-19 vaccines, saying Moscow was putting lives at risk. The Global Engagement Center, an arm of the State Department whose activities include monitoring foreign propaganda, said that Russian intelligence was behind four online platforms involved in a campaign.

<https://www.msn.com/en-us/news/world/us-denounces-russian-disinformation-over-covid-vaccines/ar-BB1enW0A>

Public Rallies & Events

Ramanan Laxminarayan (CEO of the CDEPP): "I think there was a premature sense of optimism among many that was probably unwarranted and in hindsight has ended up being quite deadly,"



Janata Party continue to hold rallies despite a devastating second wave of coronavirus gripping the country.

<https://www.cnn.com/2021/04/30/india/covid-second-wave-narendra-modi-intl-hnk-dst/index.html>



Thousands in Brazil rally for Bolsonaro, ignoring COVID-19

<https://www.channelnewsasia.com/news/world/thousands-in-brazil-rally-for-bolsonaro-ignoring-covid-19-14728646>



Stanford University study Concluded Political Rallies Led to Over 30,000 COVID-10 Cases.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3722299

Sarah Phillips, The Oklahoman-USA TODAY NETWORK

LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

Herd Immunity

ThePrint

Indians must have no confusion about how we reached impressive Covid herd immunity

SANJIV AGARWAL 25 January, 2021 12:39 pm IST

India

It must be also understood that the herd immunity India seems to be approaching fast is due to natural immunity response in a large number of infected persons and not something that is naturally in-built in our blood. <https://theprint.in/opinion/indians-must-have-no-confusion-about-how-we-reached-impressive-covid-herd-immunity/591489/>

POPULAR SCIENCE

A Brazilian city may have achieved herd immunity to COVID-19—but not without a cost

Kate Baggaley · 9/23/2020

Brazil

“Antibody tests indicate that up to two thirds of the population of Manaus may have caught the virus, a team of researchers from Brazil, the United Kingdom, and the United States reported September 21 on the preprint server medRxiv. The scientists argue this could explain the city’s sustained decline in new cases.” <https://www.msn.com/en-us/news/technology/a-brazilian-city-may-have-achieved-herd-immunity-to-covid-19%e2%80%94but-not-without-a-cost/ar-BB19kKgZ>

INSIDER

Some states have 'unintentionally' pursued a herd-immunity strategy to control the coronavirus, experts say — and it's kind of working

Aylin Woodward and Morgan McFall-Johnsen Sep 12, 2020, 8:46 AM

USA

“Arizona, Florida, and Texas — which had huge coronavirus outbreaks following early reopenings — may have reached low levels of herd immunity that have helped slow the virus's spread in the last month.” <https://www.businessinsider.com/us-states-unintentional-herd-immunity-strategy-curbed-covid-spread-2020-8>

LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

Herd Immunity

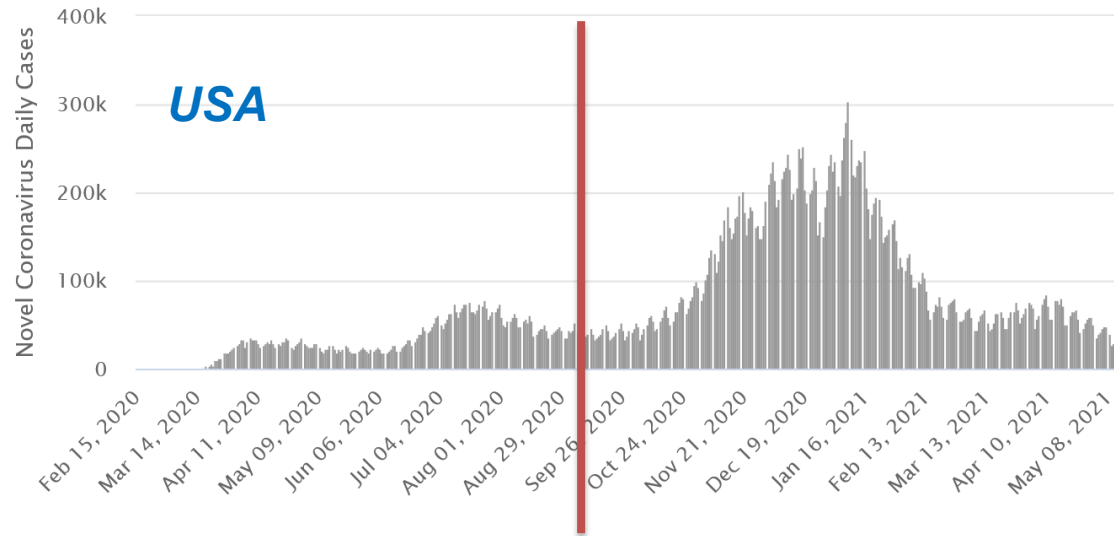
Bloomberg

Infect Everyone: How Herd Immunity Could Work for Poor Countries

Ari Altstedter April 22 2020,

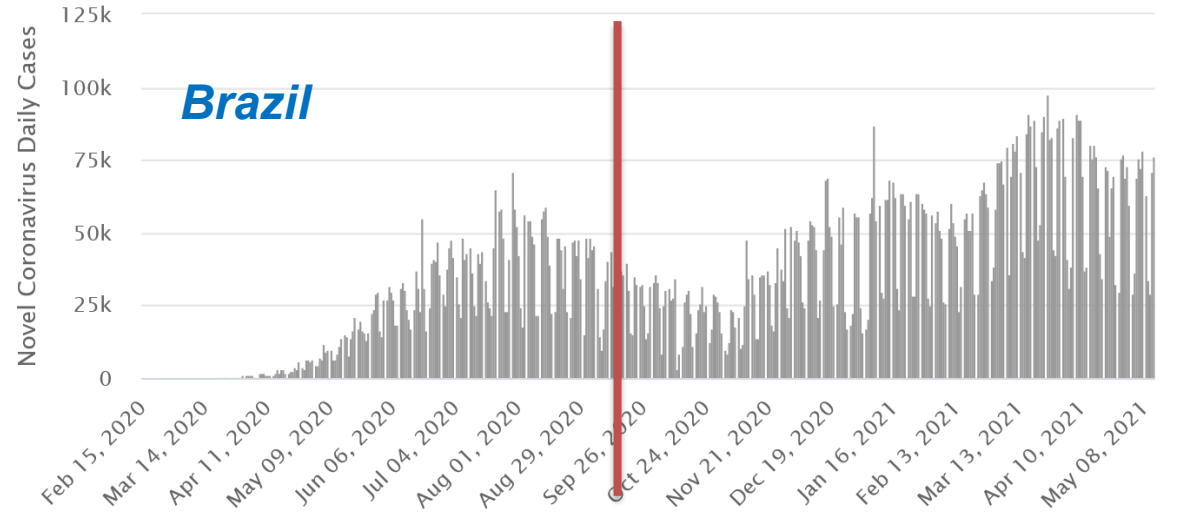
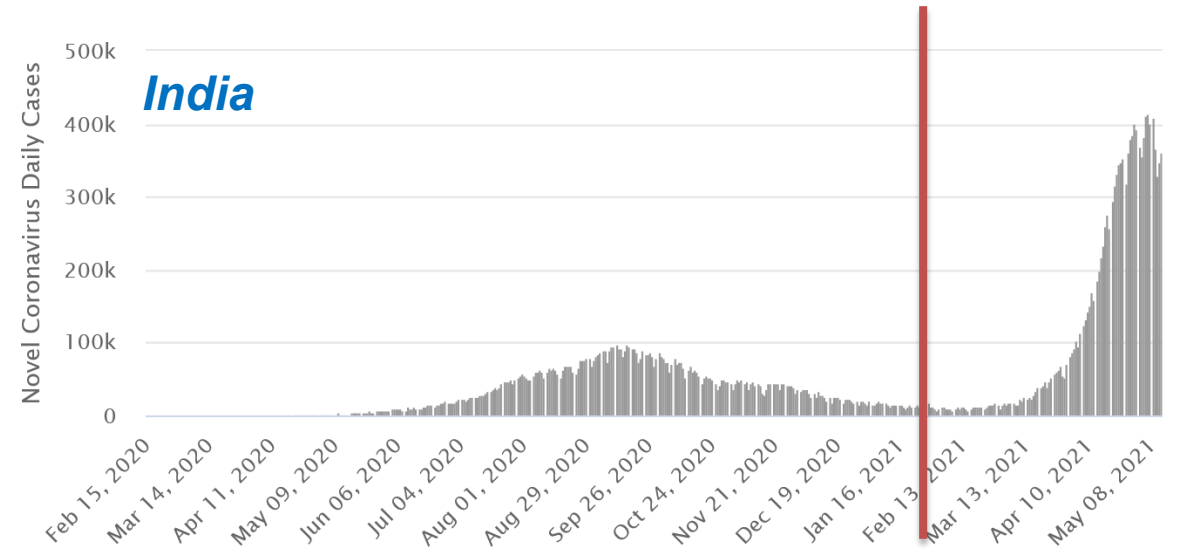
“No country can afford a prolonged period of lockdowns, and least of all a country like India,” said Jayaprakash Muliyil, a prominent Indian epidemiologist. “You may be able to reach a point of herd immunity without infection really catching up with the elderly. And when the herd immunity reaches a sufficient number the outbreak will stop, and the elderly are also safe.”

<https://www.bloombergquint.com/coronavirus-outbreak/a-herd-immunity-strategy-could-actually-work-in-youthful-india>



Graphs: Daily New COVID-19 Cases

Source www.worldometers.info



LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

Herd Immunity

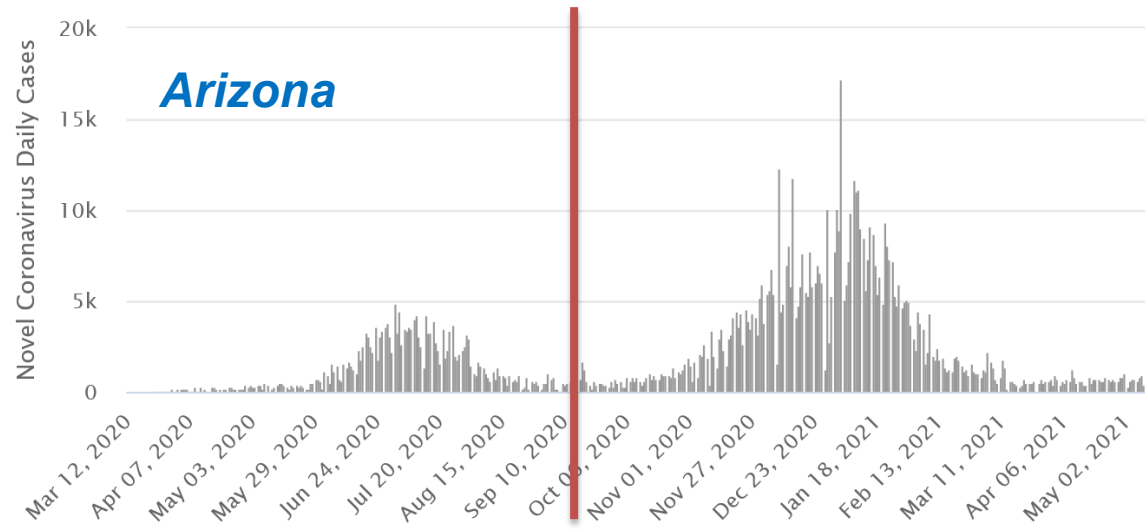
Bloomberg

Infect Everyone: How Herd Immunity Could Work for Poor Countries

Ari Altstedter April 22 2020,

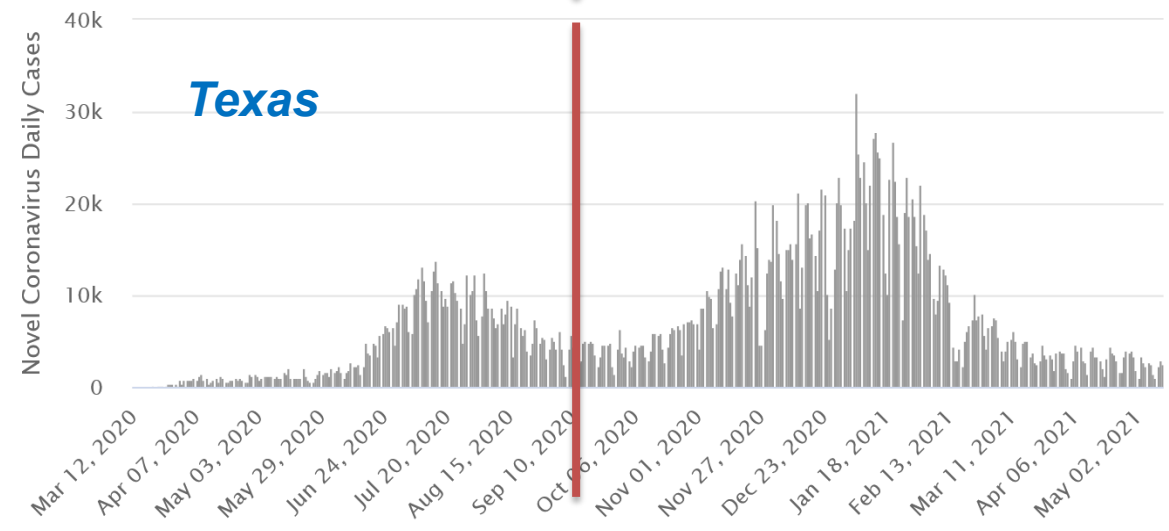
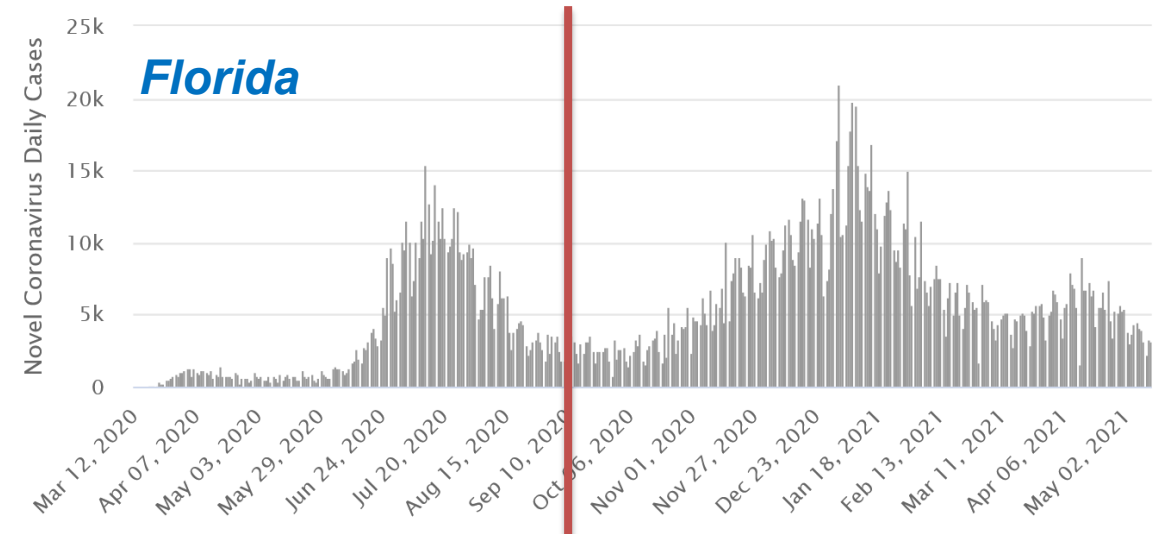
“No country can afford a prolonged period of lockdowns, and least of all a country like India,” said Jayaprakash Muliyil, a prominent Indian epidemiologist. “You may be able to reach a point of herd immunity without infection really catching up with the elderly. And when the herd immunity reaches a sufficient number the outbreak will stop, and the elderly are also safe.”

<https://www.bloombergquint.com/coronavirus-outbreak/a-herd-immunity-strategy-could-actually-work-in-youthful-india>



Graphs: Daily New COVID-19 Cases

Source www.worldometers.info



LESSONS LEARNED: A GLOBAL PERSPECTIVE

COVID-19

Other Barriers

Unable to formulate an effective uniform national strategy and resolve disagreements between the scientific community and policymakers.

Overwhelmed Public Health Systems and a Non-Coordinated National Strategy.