



NORTHEAST
BUSINESS GROUP ON HEALTH

COVID-19 Update

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Medical Director, NEBGH

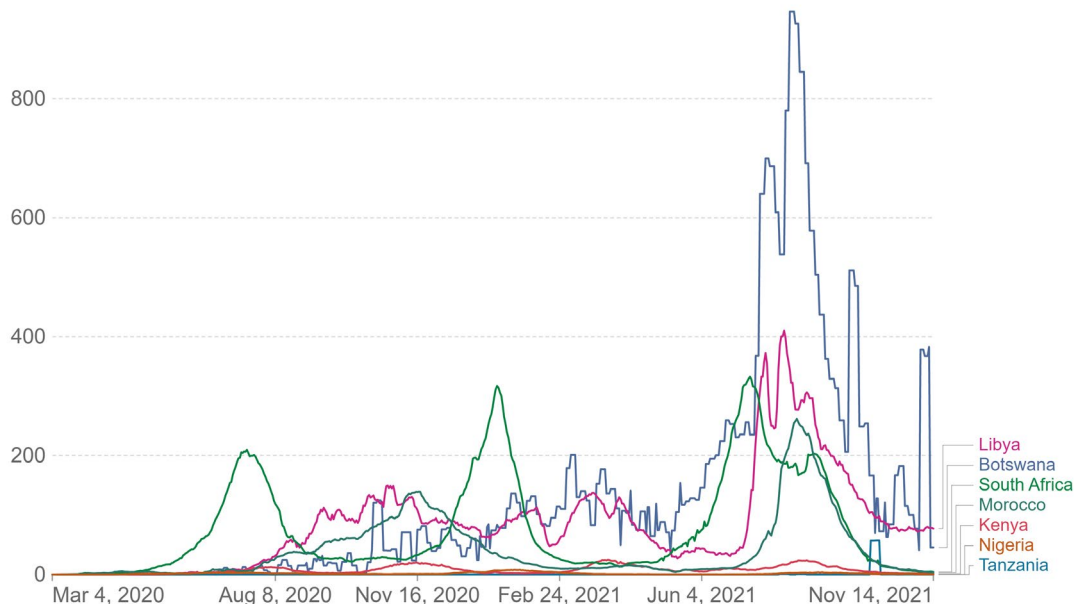
Monday, November 15th 2021



Africa

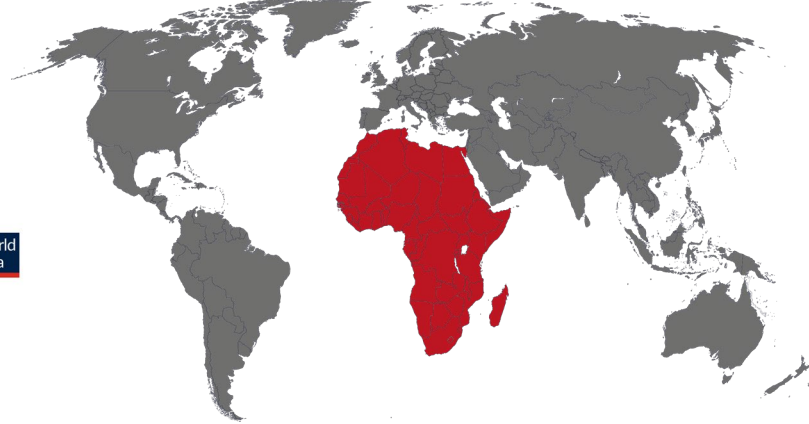
Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



Source: Johns Hopkins University CSSE COVID-19 Data

Our World
in Data



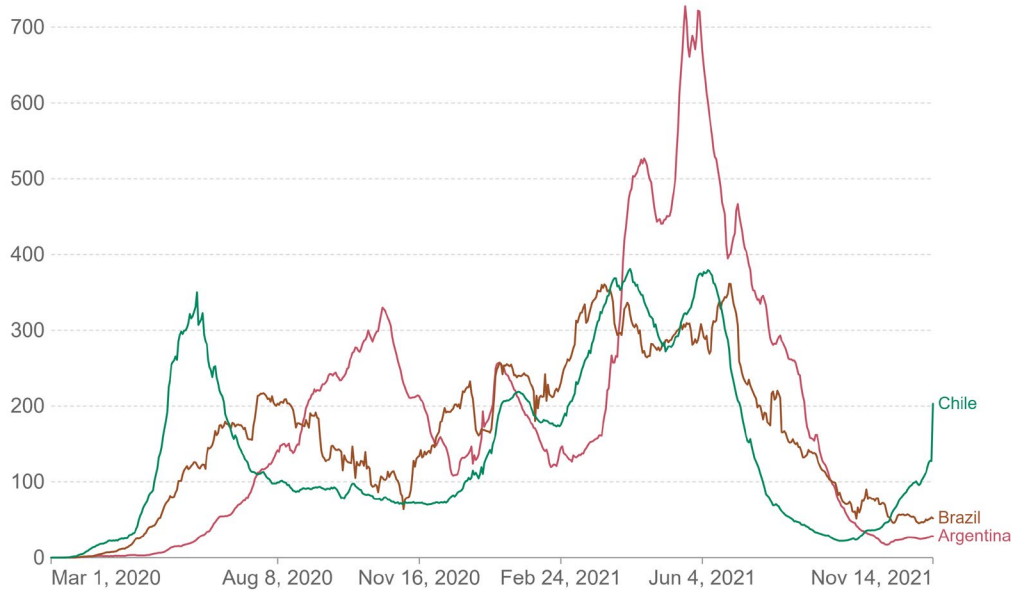
- South Africa and parts of North Africa had a similar experience to Europe and Americas
- Rest of Africa less so.. Why:
 - Young population
 - Quick response
 - Compliant with basics
 - Rural communities .. But ..
 - Climate?
- Recent surge in Botswana

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South America

Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



Source: Johns Hopkins University CSSE COVID-19 Data

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- 2-3 waves
- Multiple variants – Gamma, Lambda, Mu – delta becoming dominant
- Political issues
- Vaccines from many sources
- Mixed vaccination rates

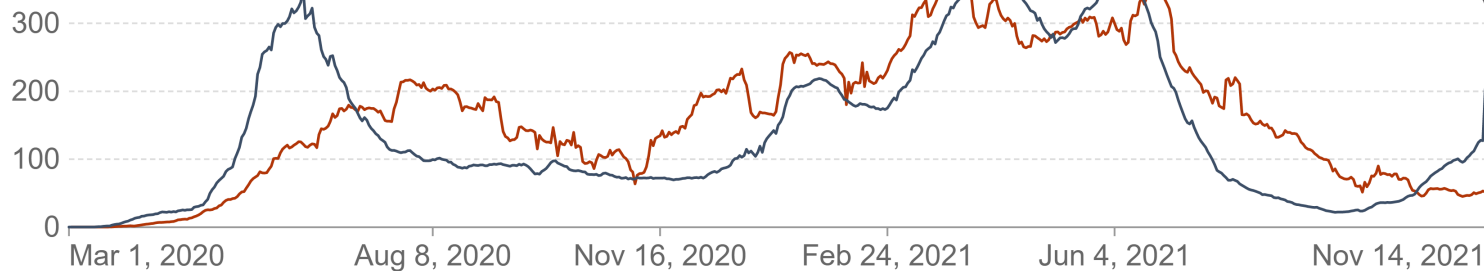
Daily new confirmed COVID-19 cases & deaths per million people

7-day rolling average. Limited testing and challenges in the attribution of cause of death means the cases and deaths counts may not be accurate.

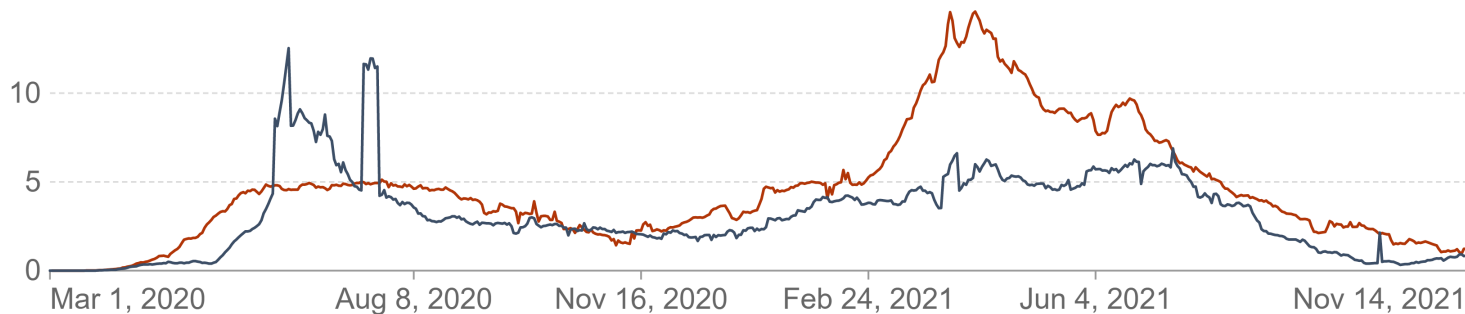
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■ Chile ■ Brazil

New cases (per 1M)



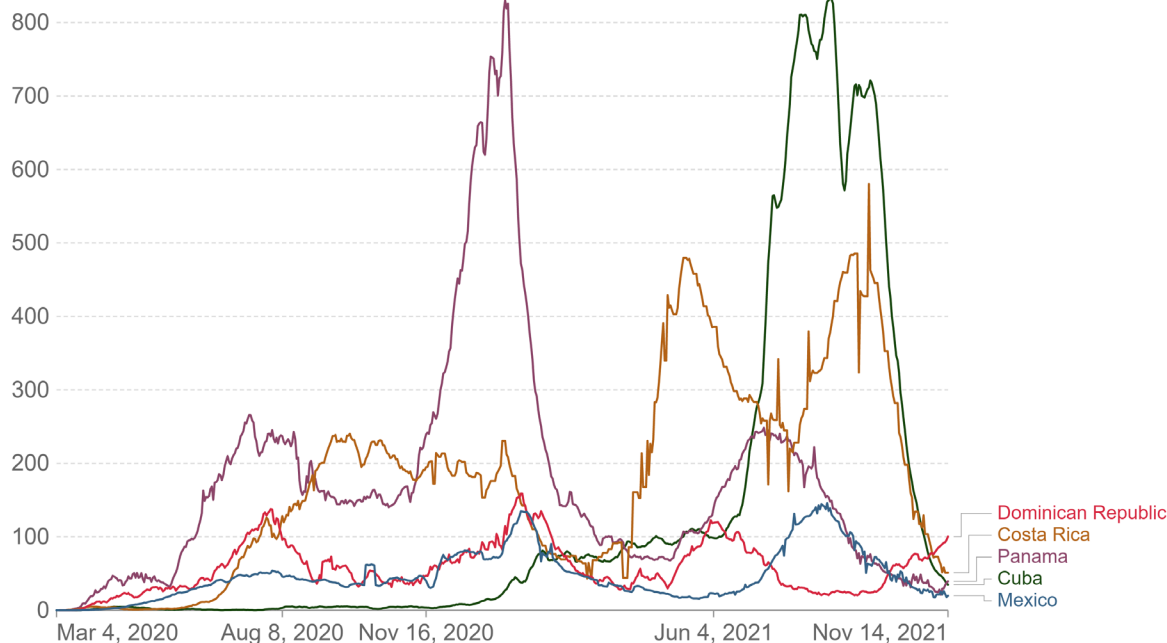
New deaths (per 1M)



Central America

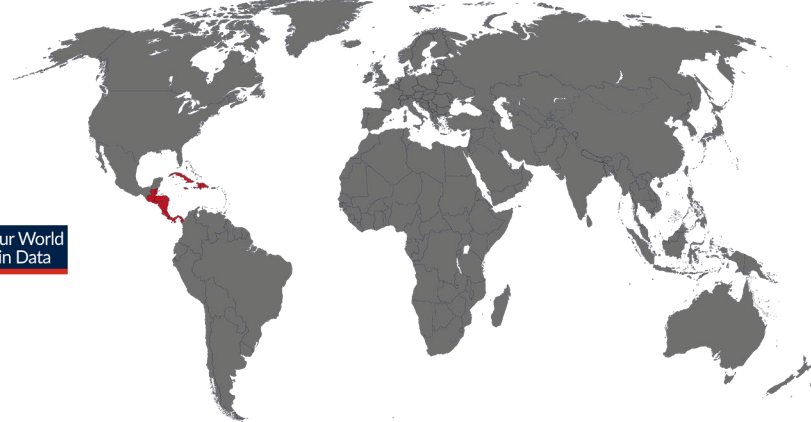
Daily new confirmed COVID-19 cases per million people

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Source: Johns Hopkins University CSSE COVID-19 Data

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in Data



- Early lockdowns
- Tourism stopped but when opened up cases came back
- Panama canal
- Vaccination slow
- Cuba – developed own vaccine
- Delta dominant
- Mexico ?

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Mexico

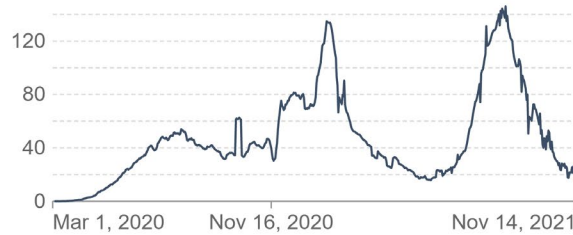
COVID-19 cases, tests, positive rate, and reproduction rate

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

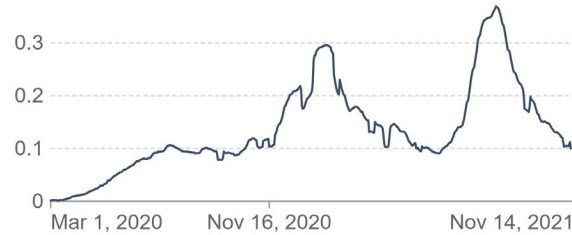


■ Mexico

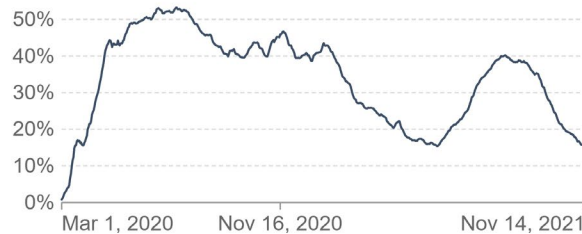
New cases (per 1M)



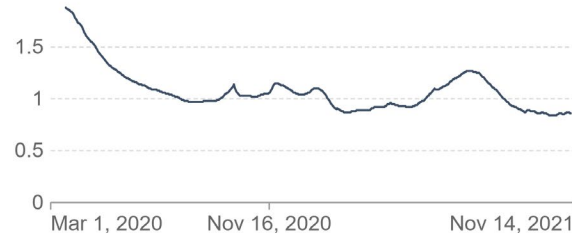
New tests (per 1,000)



Positive test rate



Reproduction rate



- Case fatality rate 8-9% - one of the highest globally
- Positivity rate high
- Unreported cases

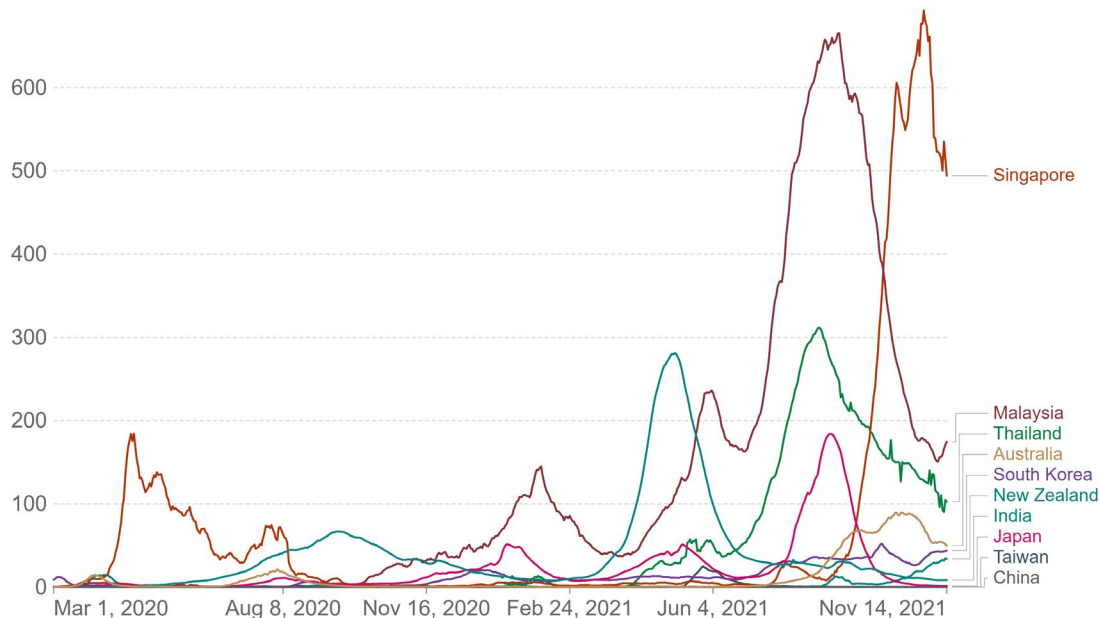
Source: Johns Hopkins University CSSE COVID-19 Data, Official data collated by Our World in Data, Arroyo-Marioli F, Bullano F, Kucinskas S, Rondón-Moreno C (2021) Tracking R of COVID-19: A new real-time estimation using the Kalman filter.
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Asia Pacific

Daily new confirmed COVID-19 cases per million people

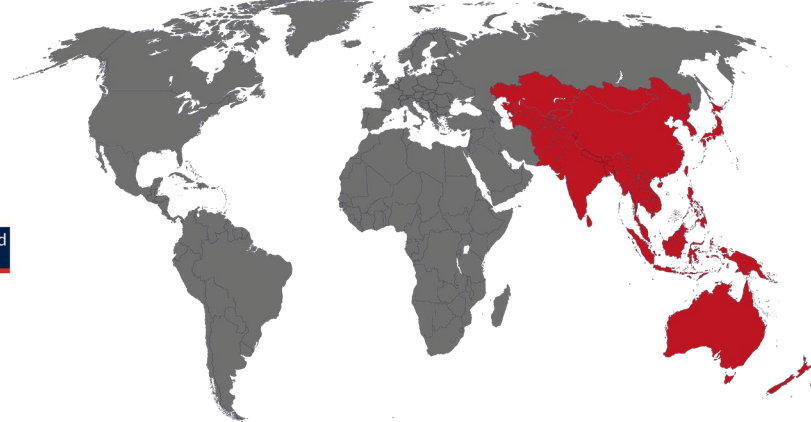
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

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Source: Johns Hopkins University CSSE COVID-19 Data

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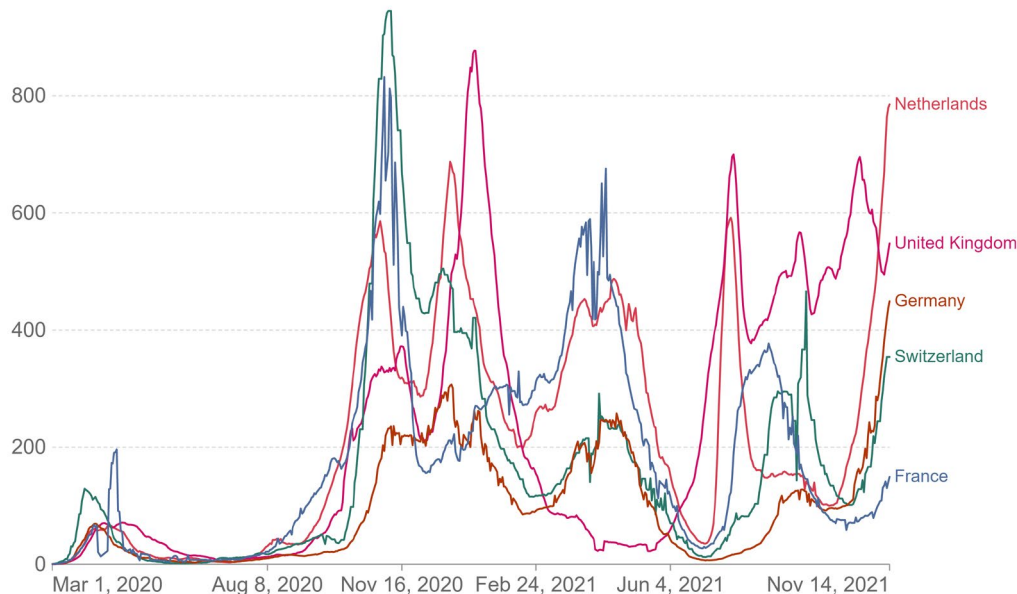
- Lockdown and closed borders
- Compliant societies
- Did well until delta
- Vaccination rates varied
 - High China, Singapore
 - NZ and Australia – hesitant
- Challenge is how to open countries back up

Europe

Daily new confirmed COVID-19 cases per million people

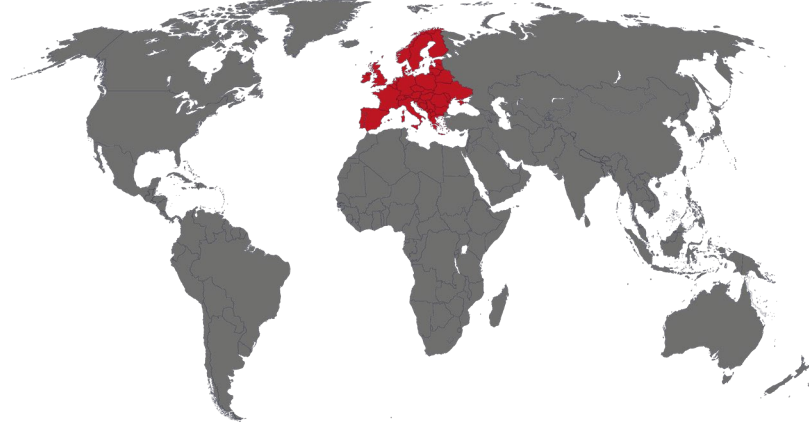
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Our World
in Data



Source: Johns Hopkins University CSSE COVID-19 Data

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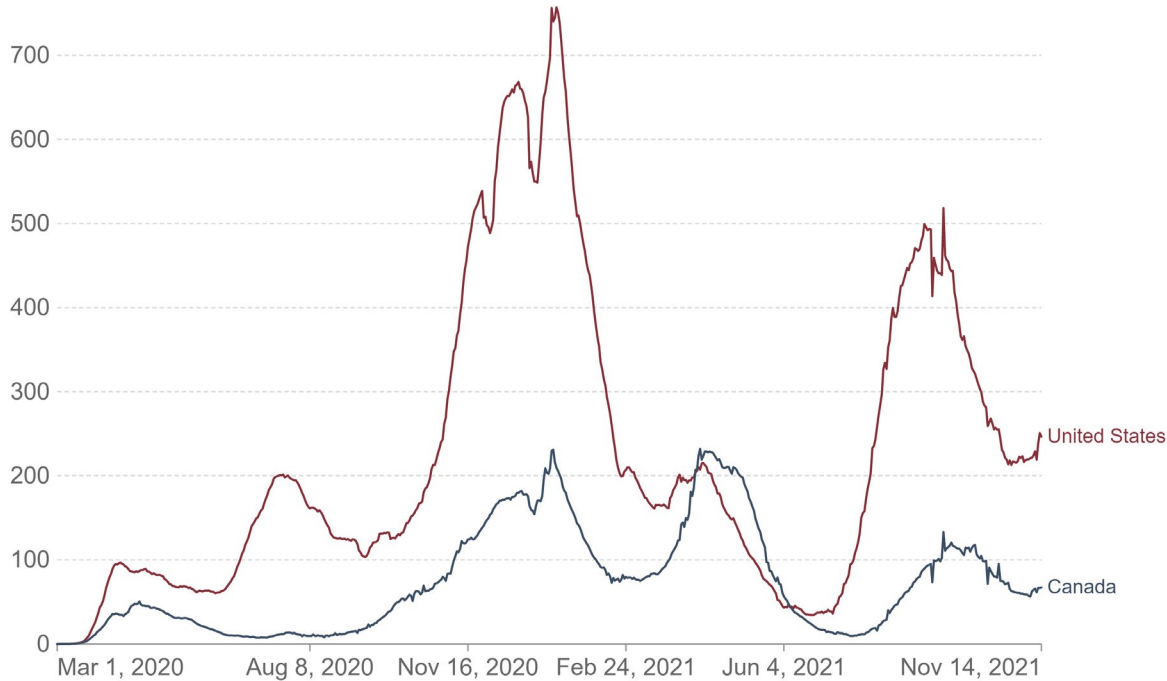


- Multiple waves
- Lockdowns and government controls
- Hit by alpha and delta waves
- Slow start on vaccinations but now high rates
- Currently cases surging but hospitalizations and deaths lower

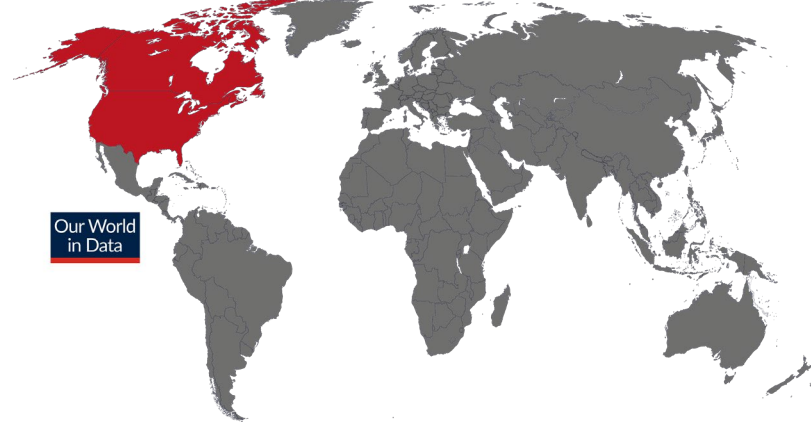
North America

Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



- Canada's experience significantly better than the USA
- Up tick in cases



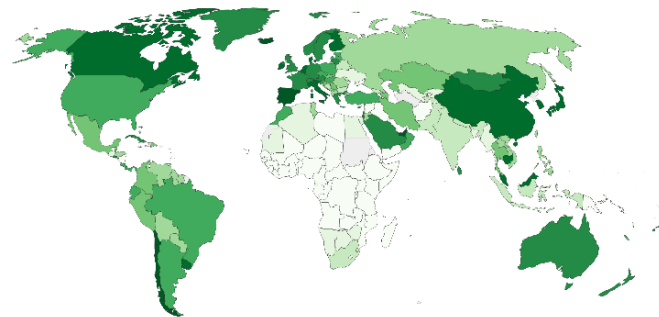
Influencers of future pandemic experience

- **The Virus** – while new variants are possible Delta is globally dominant and very **effective** variant – highly transmissible even in vaccinated populations
 - Virus seasonality may add to winter surges in Northern hemisphere
- **Vaccinations** – highly effective vaccines but:
 - Vaccine hesitancy (14-26%)
 - Waning effectiveness and need for 3rd dose/booster
 - Vaccination of children under 12
 - Global inequities in vaccination rates
- **Government/Human behavior** –
 - Lockdowns declining but may return for some EU countries
 - Desire to return to 'normal'
 - Increasing global travel will increase spread of the virus
- **Treatments** –
 - Monoclonal Antibody Rx – 70% ↓ hospitalization
 - New antiviral treatments – 50-89% ↓ hospitalization
 - MAB and antivirals slow spread & decrease poor outcomes but expensive and only in developed countries

Share of the population fully vaccinated against COVID-19

Total number of people who received all doses prescribed by the vaccination protocol, divided by the total population of the country.

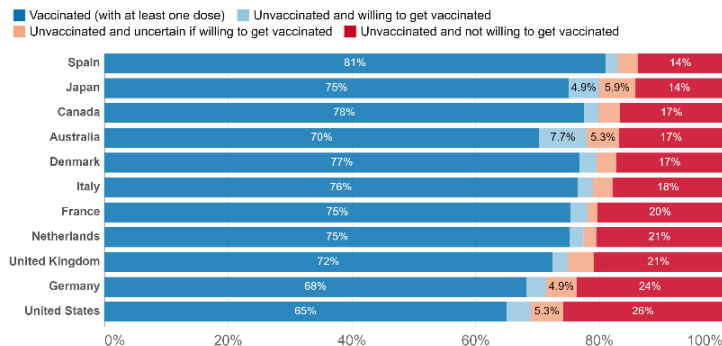
Our World
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Willingness to get vaccinated against COVID-19, Oct 15, 2021

Share of the total population who has not received a vaccine dose and who are willing vs. unwilling vs. uncertain if they would get a vaccine this week if it was available to them. Also shown is the share who have already received at least one dose.

Our World
in Data



Source: Imperial College London YouGov Covid 19 Behaviour Tracker Data Hub – Last updated 9 November 2021, 09:20 (London time)
 Note: Months containing fewer than 100 survey respondents are excluded. We infer willingness to get vaccinated in a country's population from survey responses of people aged 18 years and above, which may not be representative of the entire population. Nevertheless, we expect such differences to be small.
 OurWorldInData.org/coronavirus • CC BY

What is ahead?



- Expert predictions vary from gradual decline to further surges in some geographies.
My predictions:
 - **N. America** – current uptick in cases, mixed vaccination rates, increased travel, winter months suggest further surge in cases similar to what is currently happening in Europe
 - **S. America** – difficult to predict but low vaccination rates and Delta still spreading southwards increases potential for at least one more wave
 - **EMEA**
 - **Europe** – current surge in cases to spread across all Europe and then decline by end of January
 - **Middle East** - uncertain but potential for a Delta wave
 - **Africa** – uncertain – low vaccination rates pose a real risk of scattered outbreaks
 - **APAC** – As countries start to open borders then potential for waves especially in low vaccinated countries
- **Globally** –
 - Elimination of virus unlikely as highly infectious virus and animal reservoirs
 - Gradual transition to endemic state at different times over the next 2 years
 - Transition to living with COVID-19 with periodic outbreaks (cf. influenza)

Next Steps/living with SARS-CoV-2

- Illnesses versus cases
 - Targets that drive change (versus political desire)
- Protect the most vulnerable
 - Immunocompromised, elderly and pre-existing conditions

Two pandemics:

1. Unvaccinated – driving cases (adults and children), hospitalizations and deaths (adults)
2. Vaccinated – adding to spread but illnesses milder and less serious outcomes

- Vaccinations and boosters
- Cost vs Benefit vs Risk
- Baby steps!

The background of the slide features several large, detailed 3D renderings of coronavirus particles. These particles are spherical with a textured surface and are covered in numerous prominent, red, conical spike proteins. They are set against a dark red, slightly blurred background that also contains smaller, out-of-focus virus particles, creating a sense of depth and focus on the main title.

Questions

Upcoming NEBGH virtual events:

- **Nov. 18** – Annual Membership Meeting w/ Gian Power
- **Nov. 22** – Monday COVID-19 Update w/ Dr. Mark
- **Dec. 9** - Pharmacy Benefits Strategies for Now - and Later
- **Dec. 16** – 27th Annual Tribute to Leadership