Informe de resultados de COVID-19

La Región de las Américas

21 de enero de 2022

Este documento contiene información resumida sobre las últimas proyecciones del modelo IHME sobre COVID-19 en la Región de las Américas. El modelo se ejecutó el 20 de enero de 2022, con datos hasta el 18 de enero de 2022.

La ola de Omicron ha alcanzado su punto máximo en la Región de las Américas, con una disminución de las infecciones diarias estimadas y los casos en toda la región. Múltiples países o estados/regiones dentro de los países ya alcanzaron su punto máximo y comenzaron a disminuir. Las infecciones diarias estimadas la semana pasada en Canadá, México, Perú, Argentina y Uruguay han disminuido drásticamente desde sus picos a principios de este mes, y parecen estar estabilizándose en Colombia. Sin embargo, las infecciones diarias estimadas continúan aumentando en Brasil y Chile; se espera que hayan alcanzado su punto máximo en ambos países esta semana. El pico posterior de muertes para estos países probablemente ocurrirá a mediados de febrero.

Desde el aumento inicial en los casos informados hasta el pico, el intervalo es consistentemente de 20 a 25 días, independientemente de los niveles de vacunación o la prevalencia de infecciones pasadas. La explicación probable es la transmisibilidad extremadamente alta de Omicron y el escape inmunitario considerable de la inmunidad derivada de la vacuna y adquirida por infección. Quizás la idea más importante es la extraordinaria velocidad de la ola Omicron y la probabilidad de que casi todos los países la atraviesen a mediados de marzo. Los niveles de infección sin precedentes están creando una fuerte presión sobre los sistemas de salud, pero afortunadamente no están provocando un gran aumento en las muertes por COVID-19.

Dado lo que hemos aprendido sobre la velocidad y la intensidad de la ola Omicron, las intervenciones políticas parecen tener un impacto muy limitado a corto plazo. En nuestros escenarios, la expansión del uso de mascarillas o la vacunación de tercera dosis acelera la disminución de la transmisión, pero en comparación con las variantes anteriores, estos efectos son bastante modestos. Es poco probable que las pruebas, el rastreo y la cuarentena tengan un impacto dado el volumen de infección en la mayoría de los países. De manera aguda, los principales esfuerzos de los gobiernos deben centrarse en apoyar los sistemas de salud que enfrentan presión debido al aumento en las admisiones relacionadas con COVID-19, la gran cantidad de admisiones por otros problemas de salud que tienen infecciones incidentales de COVID-19 que requieren medidas de control de infecciones, y la escasez de trabajadores de la salud debido a la cuarentena. Dada la ola rápida, los gobiernos pueden querer mantener las medidas y los mandatos existentes y considerar eliminarlos unas pocas semanas después de que disminuya la transmisión, solo para ser cautelosos.

Después de que la ola de Omicron disminuya, los altos niveles de inmunidad adquirida por infección y derivada de la vacuna deberían conducir a niveles bajos de transmisión durante muchas semanas o meses. En el hemisferio norte, las reducciones adicionales en el

potencial de transmisión durante el verano pueden extender el período de bajas infecciones por COVID-19 hasta más adelante en el año.

Sin embargo, COVID-19 regresará por dos razones. En primer lugar, la inmunidad derivada de la vacuna y de la infección que previene la infección disminuirá constantemente. La disminución de la inmunidad y la estacionalidad invernal más adelante en 2022 deberían conducir al menos a un aumento invernal en el hemisferio norte y posiblemente a un regreso más temprano en el invierno del hemisferio sur. En segundo lugar, es muy probable que surjan nuevas variantes. De hecho, los miles de millones de infecciones globales que ocurren en el mundo desde finales de noviembre hasta el 1 de marzo pueden haber creado la oportunidad para que surjan nuevas variantes. Para prepararse para futuras variantes de COVID-19, los gobiernos deben mantener la vigilancia y monitorear la aparición de nuevas variantes, continuar promoviendo la vacunación, incluidas las terceras dosis donde las vacunas estén disponibles, aumentar el acceso a antivirales efectivos y brindar orientación para pacientes de alto riesgo. -grupos de riesgo para usar máscaras de alta calidad y distancia social si surge una nueva variante que es más grave que Omicron. Acelerar el acceso a los antivirales en los países de bajos y medianos ingresos adquiere mayor importancia. Con estas medidas implementadas, incluso la aparición de una nueva variante con mayor gravedad en comparación con Omicron no debería requerir el regreso a los mandatos de la era de la pandemia.

Situación actual

• Las infecciones diarias en la última semana disminuyeron a 14,772,600 por día en promedio en comparación con 17,631,600 la semana anterior (Figura 1.1). El censo diario de hospitales en la última semana (hasta el 18 de enero) aumentó a 383,700 por día en promedio en comparación con los 267,400 de la semana anterior.

• Los casos diarios notificados en la última semana aumentaron a 1,179,300 por día en promedio en comparación con los 1,039,800 de la semana anterior (Figura 2.1).

• Las muertes reportadas por COVID-19 en la última semana aumentaron a 2,700 por día en promedio en comparación con las 2,200 de la semana anterior (Figura 3.1).

• El total de muertes por COVID-19 en la última semana aumentó a 3,300 por día en promedio en comparación con las 2,800 de la semana anterior (Gráfico 3.1). Esto convierte al COVID-19 en la causa número 1 de muerte en la Región de las Américas esta semana (Tabla 1). El total estimado de muertes diarias debido a COVID-19 en la última semana fue 1.2 veces mayor que el número de muertes informado.

• La tasa diaria de muertes reportadas por COVID-19 es superior a 4 por millón en 7 países y 39 subnacionales. (Figura 4.1).

• La tasa diaria de muertes totales por COVID-19 es superior a 4 por millón en 13 países y 55 subnacionales. (Figura 4.2).

• Estimamos que 72% de las personas en la Región de las Américas se han infectado al menos una vez al 18 de enero (Figura 6.1). La R efectiva, calculada a partir de casos, hospitalizaciones y defunciones, es mayor a 1 en la mayor parte de la región. (Figura 7.1).

• La tasa de detección de infecciones en la Región de las Américas fue cercana al 6% el 18 de enero (Figura 8.1).

• Con base en GISAID y varias bases de datos nacionales, combinados con nuestro modelo de dispersión de variantes, estimamos la prevalencia actual de las variantes de interés (Figura 9.1-Figura 9.5). Estimamos que las variantes Alfa, Beta y Gamma no circula en los países de la región y que las variantes Delta y Omicron circulan en 31 países y 123 subnacionales.

Tendencias en los impulsores de la transmisión

• La movilidad de la semana pasada fue un 14% más alta que la línea de base anterior a la COVID-19 (Figura 11.1).

• A partir del 18 de enero, en la Encuesta de Tendencias e Impacto de COVID-19, 60% de las personas informan que siempre usaban una máscara al salir de su hogar en comparación con el 60% la semana pasada (Figura 13.1).

• El 18 de enero se realizaron 202 pruebas diagnósticas por cada 100,000 habitantes (Figura 15.1).

• Al 18 de enero, 15 países y 55 áreas subnacionales han alcanzado 70% o más de la población que ha recibido al menos una dosis de vacuna y 7 países y 32 áreas subnacionales han alcanzado el 70% o más de la población que está completamente vacunada (Figura 17.1). 70% de las personas en la Región de las Américas ha recibido al menos una dosis de vacuna y el 62% está completamente vacunado.

• En la Región de las Américas, 86.2% de la población de 12 años y más dice que aceptaría o probablemente aceptaría una vacuna contra el COVID-19. Tenga en cuenta que la aceptación de la vacuna se calcula utilizando datos de encuestas de la población mayor de 18 años. Esto es casi igual al porcentaje de la semana pasada. La proporción de la población que está abierta a recibir una vacuna contra el COVID-19 oscila entre el 41% en Haití y 100% en Nicaragua (Figura 19.1).

• En nuestro escenario de referencia actual, esperamos que 715.7 millones de personas estén vacunadas con al menos una dosis para el 1 de mayo (Figura 20.1). Esperamos que el 66% de la población esté completamente vacunada para el 1 de mayo.

Proyecciones

Infecciones

• Las infecciones diarias estimadas en el **escenario de referencia**, que representa lo que creemos que es más probable que suceda, descenderán a 102,600 el 1 de mayo de 2022 (Figura 21.1).

• Las infecciones diarias estimadas en el **escenario de cobertura de máscara del 80%** disminuirán a 127,250 el 1 de mayo de 2022 (Figura 21.1).

• Las infecciones diarias estimadas en el **escenario de colocar la tercera dosis de vacuna** disminuirán a 90,990 el 1 de mayo de 2022 (Figura 21.1).

Casos

• Los casos diarios en el **escenario de referencia** disminuirán a 8,090 el 1 de mayo de 2022 (Gráfico 21.2).

• Los casos diarios en el **escenario de cobertura de mascarillas del 80%** disminuirán a 10,230 el 1 de mayo de 2022 (Figura 21.2).

• Los casos diarios en el **escenario de colocar la tercera dosis de vacuna** disminuirán a 7,240 el 1 de mayo de 2022 (Figura 21.2).

Hospitalizaciones

• El censo hospitalario diario en el **escenario de referencia** ascenderá a 426,360 al 21 de enero de 2022 (Gráfico 21.3).

• El censo hospitalario diario en **el escenario de cobertura de máscaras del 80%** aumentará a 426,330 para el 20 de enero de 2022 (Figura 21.3).

• El censo hospitalario diario en el **escenario de colocar la tercera dosis de vacuna** ascenderá a 415,970 para el 20 de enero de 2022 (Figura 21.3).

Fallecidos

• En nuestro **escenario de referencia**, nuestro modelo proyecta 2,673,000 muertes acumuladas notificadas debido a COVID-19 el 1 de mayo. Esto representa 100,000 muertes adicionales del 18 de enero al 1 de mayo. Las muertes diarias reportadas de COVID-19 en el **escenario de referencia** aumentarán a 2,990 en enero 24, 2022 (Figura 21.4).

• Bajo nuestro **escenario de referencia**, nuestro modelo proyecta 3,284,000 muertes totales acumuladas por COVID-19 el 1 de mayo. Esto representa 124,000 muertes adicionales del 18 de enero al 1 de mayo (Figura 24.2).

• En nuestro **escenario de cobertura de mascarillas del 80%,** nuestro modelo proyecta 2,668,000 muertes acumuladas notificadas debido a la COVID-19 el 1 de mayo. Esto representa 96 000 muertes adicionales del 18 de enero al 1 de mayo. aumentará a 2,990 para el 24 de enero de 2022 (Figura 21.4).

• En nuestro **escenario de colocar la tercera dosis de vacuna**, nuestro modelo proyecta 2,667,000 muertes acumuladas notificadas debido a COVID-19 el 1 de mayo. Esto representa 94,000 muertes adicionales del 18 de enero al 1 de mayo. Las muertes diarias reportadas de COVID-19 en el **escenario de colocar la tercera dosis de vacuna** aumentarán a 2,910 para el 24 de enero de 2022 (Figura 21.4).

• La Figura 22.1 compara nuestros pronósticos de **escenarios de referencia** con otros modelos archivados públicamente. Las previsiones son muy divergentes.

• En algún momento entre enero y el 1 de mayo, 31 países tendrán una presión alta o extrema en las camas de los hospitales (Figura 23.1). En algún momento entre enero y el 1 de mayo, 35 países tendrán una presión alta o extrema en la capacidad de la unidad de cuidados intensivos (UCI) (Figura 24.1).

Actualizaciones del modelo

No hay actualizaciones de modelo.

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COVID-19 Results Briefing

The Region of the Americas

January 21, 2022

This document contains summary information on the latest projections from the IHME model on COVID-19 in the Region of the Americas. The model was run on January 20, 2022, with data through January 18, 2022.

The Omicron wave has peaked in the Region of the Americas, with daily estimated infections and cases declining across the region. Multiple countries or states/regions within countries have already peaked and begun to decline. Daily estimated infections last week in Canada, Mexico, Peru, Argentina, and Uruguay have declined precipitously from their peaks earlier this month, and they appear to be leveling off in Colombia. However, daily estimated infections continue to climb in Brazil and Chile; they are expected to have peaked in both countries by this week. The subsequent peak of deaths for these countries will likely occur in mid-February.

From initial surge in reported cases to the peak, the interval is consistently between 20 and 25 days regardless of vaccination levels or prevalence of past infection. The likely explanation is the extremely high transmissibility of Omicron and considerable immune escape from vaccine- derived and infection- acquired immunity. Perhaps the most important insight is the extraordinary speed of the Omicron wave and the likelihood that nearly all countries will be through the wave by mid-March. The unprecedented levels of infection is creating heavy pressure on health systems but fortunately is not leading to a major surge in deaths from COVID-19.

Given what we have learned about the speed and intensity of the Omicron wave, policy interventions appear to have a very limited impact in the short run. In our scenarios, expanding mask use or third- dose vaccination speeds the decline of transmission, but compared to previous variants these effects are quite modest. Testing, tracing, and quarantine are unlikely to have an impact given the volume of infection in most countries. Acutely, the main efforts of governments should be focus on supporting health systems that face pressure due to the surge in COVID-19- related admissions, the large number of admissions for other health problems that have incidental COVID-19 infections requiring infection control measures, and the shortages of health workers due to quarantine. Given the rapid wave, governments may want to keep in place existing measures and mandates and consider removing them in a few weeks after transmission drops, just to be cautious.

After the Omicron wave subsides, high levels of infection-acquired and vaccine-derived immunity should lead to low levels of transmission for many weeks or months. In the Northern Hemisphere, further reductions in transmission potential over the summer may extend the period of low COVID-19 infections into later in the year.

COVID-19 will return, however, for two reasons. First, vaccine-derived and infection-derived immunity preventing infection will steadily wane. Waning immunity and winter seasonality later in 2022 should lead at least to a winter increase in the Northern Hemisphere and possibly an earlier return in the Southern Hemisphere winter. Second, new variants are highly likely to emerge. In fact, the billions of global infections occurring in the world from the end of November to March 1 may have created the opportunity for new variants to emerge already.

To prepare for future COVID-19 variants, the governments should maintain surveillance and monitor for the emergence of new variants, continue to promote vaccination including third doses where vaccines are available, scale -up access to effective anti-virals, and provide guidance for high-risk groups to use high-quality masks and social distance if and when a new variant that is more severe than Omicron emerges. Accelerating access to anti-virals in low- and middle-income countries takes on greater importance. With these measures in place, even the emergence of a new variant with increased severity as compared to Omicron should not require the return to pandemic-era mandates.

Current situation

- Daily infections in the last week decreased to 14,772,600 per day on average compared to 17,631,600 the week before (Figure 1.1). Daily hospital census in the last week (through January 18) increased to 383,700 per day on average compared to 267,400 the week before.

- Daily reported cases in the last week increased to 1,179,300 per day on average compared to 1,039,800 the week before (Figure 2.1).

- Reported deaths due to COVID-19 in the last week increased to 2,700 per day on average compared to 2,200 the week before (Figure 3.1).

- Total deaths due to COVID-19 in the last week increased to 3,300 per day on average compared to 2,800 the week before (Figure 3.1). This makes COVID-19 the number 1 cause of death in the Region of the Americas this week (Table 1). Estimated total daily deaths due to COVID-19 in the past week were 1.2 times larger than the reported number of deaths.

- The daily rate of reported deaths due to COVID-19 is greater than 4 per million in seven countries and 39 subnational locations. (Figure 4.1).

- The daily rate of total deaths due to COVID-19 is greater than 4 per million in 13 countries and 55 subnational locations. (Figure 4.2).

- We estimate that 72% of people in the Region of the Americas have been infected at least once as of January 18 (Figure 6.1). Effective R, computed using cases, hospitalizations, and deaths, is greater than 1 in the majority of the region. (Figure 7.1).

- The infection-detection rate in Region of the Americas was close to 6% on January 18 (Figure 8.1).

- Based on the GISAID and various national databases, combined with our variant spread model, we estimate the current prevalence of variants of concern (Figure 9.1-Figure 9.5). We estimate that the Delta and Omicron variants are circulating in 31 countries.

Trends in drivers of transmission

- Mobility last week was 14% higher than the pre-COVID-19 baseline (Figure 11.1). Mobility was lower than 30% of baseline in no locations.

- As of January 18, in the COVID-19 Trends and Impact Survey, 60% of people self-report that they always wore a mask when leaving their home, the same percentage as last week (Figure 13.1).

- There were 202 diagnostic tests per 100,000 people on January 18 (Figure 15.1).

- As of January 18, 15 countries and 55 subnational locations have reached 70% or more of the population who have received at least one vaccine dose and seven countries and 32 subnational locations have reached 70% or more of the population who are fully vaccinated (Figure 17.1). 70% of people in Region of the Americas have received at least one vaccine dose and 62% are fully vaccinated.

- In the Region of the Americas, 86.2% of the population that is 12 years and older say they would accept or would probably accept a vaccine for COVID-19. Note that vaccine acceptance is calculated using survey data from the 18+ population. This is the same percentage as last week. The proportion of the population who are open to receiving a COVID-19 vaccine ranges from 41% in Haiti to 100% in Nicaragua (Figure 19.1).

- In our current reference scenario, we expect that 715.7 million people will be vaccinated with at least one dose by May 1 (Figure 20.1). We expect that 66% of the population will be fully vaccinated by May 1.

Projections

Infections

- Daily estimated infections in the **reference scenario**, which represents what we think is most likely to happen, will decline to 102,600 on May 1, 2022 (Figure 21.1).

- Daily estimated infections in the **80% mask coverage scenario** will decline to 127,250 on May 1, 2022 (Figure 21.1).

- Daily estimated infections in the **third dose scenario** will decline to 90,990 on May 1, 2022 (Figure 21.1).

Cases

- Daily cases in the **reference scenario** will decline to 8,090 on May 1, 2022 (Figure 21.2).

- Daily cases in the **80% mask coverage scenario** will decline to 10,230 on May 1, 2022 (Figure 21.2).

- Daily cases in the **third dose scenario** will decline to 7,240 on May 1, 2022 (Figure 21.2).

Hospitalizations

- Daily hospital census in the **reference scenario** rose to 426,360 on January 21, 2022 (Figure 21.3).

- Daily hospital census in the **80% mask coverage scenario** rose to 426,330 on January 20, 2022 (Figure 21.3).

- Daily hospital census in the **third dose scenario** rose to 415,970 on January 20, 2022 (Figure 21.3).

Deaths

- In our **reference scenario**, our model projects 2,673,000 cumulative reported deaths due to COVID-19 on May 1. This represents 100,000 additional deaths from January 18 to May 1. Daily reported COVID-19 deaths in the **reference scenario** will rise to 2,990 by January 24, 2022 (Figure 21.4).

- Under our **reference scenario**, our model projects 3,284,000 cumulative total deaths due to COVID-19 on May 1. This represents 124,000 additional deaths from January 18 to May 1 (Figure 24.2).

- In our **80% mask coverage scenario**, our model projects 2,668,000 cumulative reported deaths due to COVID-19 on May 1. This represents 96,000 additional deaths from January 18 to May 1. Daily reported COVID-19 deaths in the **80% mask coverage scenario** will rise to 2,990 by January 24, 2022 (Figure 21.4).

- In our **third dose scenario**, our model projects 2,667,000 cumulative reported deaths due to COVID-19 on May 1. This represents 94,000 additional deaths from January 18 to May 1. Daily reported COVID-19 deaths in the **third dose scenario** will rise to 2,910 by January 24, 2022 (Figure 21.4).

- Figure 22.1 compares our reference scenario forecasts to other publicly archived models. Forecasts are widely divergent.

- At some point from January through May 1, 31 countries will have high or extreme stress on hospital beds (Figure 23.1). At some point from January through May 1, 35 countries will have high or extreme stress on intensive care unit (ICU) capacity (Figure 24.1).

Model updates

No model updates.

Figure 1.1. Daily COVID-19 hospital census and estimated infections

Daily estimated infections — Daily hospital census
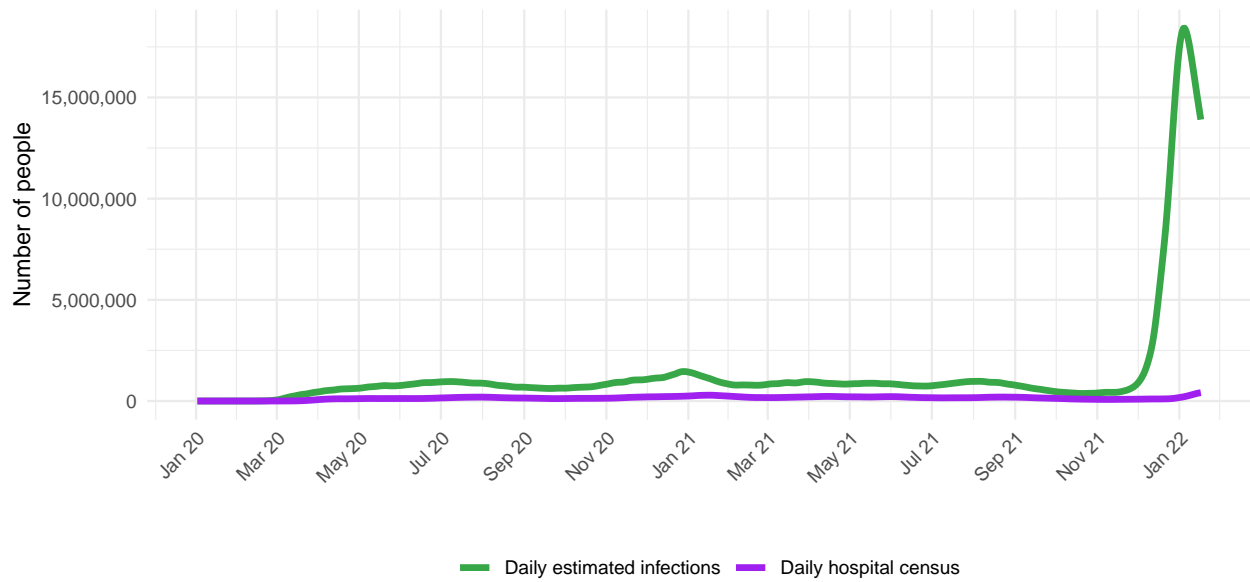
Figure 2.1. Reported daily COVID-19 cases, moving average

Daily cases
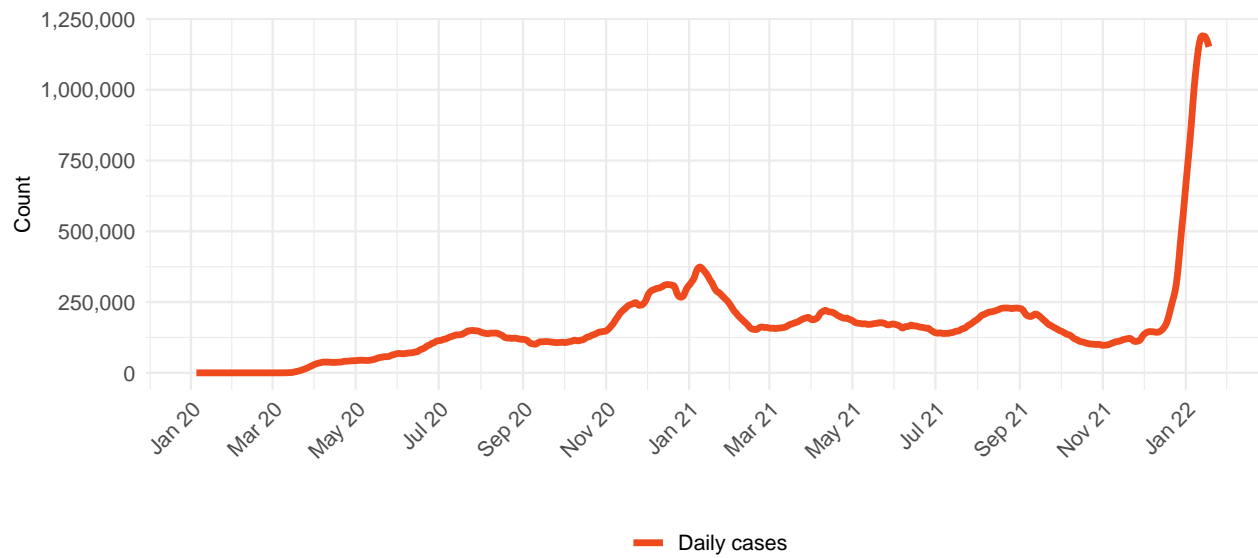
Table 1. Ranking of total deaths due to COVID-19 among the leading causes of mortality this week, assuming uniform deaths of non-COVID causes throughout the year

Cause name	Weekly deaths	Ranking
COVID-19	23,180	1
Ischemic heart disease	22,182	2
Stroke	10,124	3
Chronic obstructive pulmonary disease	7,401	4
Tracheal, bronchus, and lung cancer	6,369	5
Lower respiratory infections	6,211	6
Chronic kidney disease	6,184	7
Alzheimer's disease and other dementias	5,890	8
Diabetes mellitus	5,822	9
Cirrhosis and other chronic liver diseases	4,153	10

Figure 3.1. Smoothed trend estimate of reported daily COVID-19 deaths (blue) and total daily deaths due to COVID-19 (orange)

Daily COVID-19 death rate per 1 million on January 18, 2022

Figure 4.1 Daily reported COVID-19 death rate per 1 million
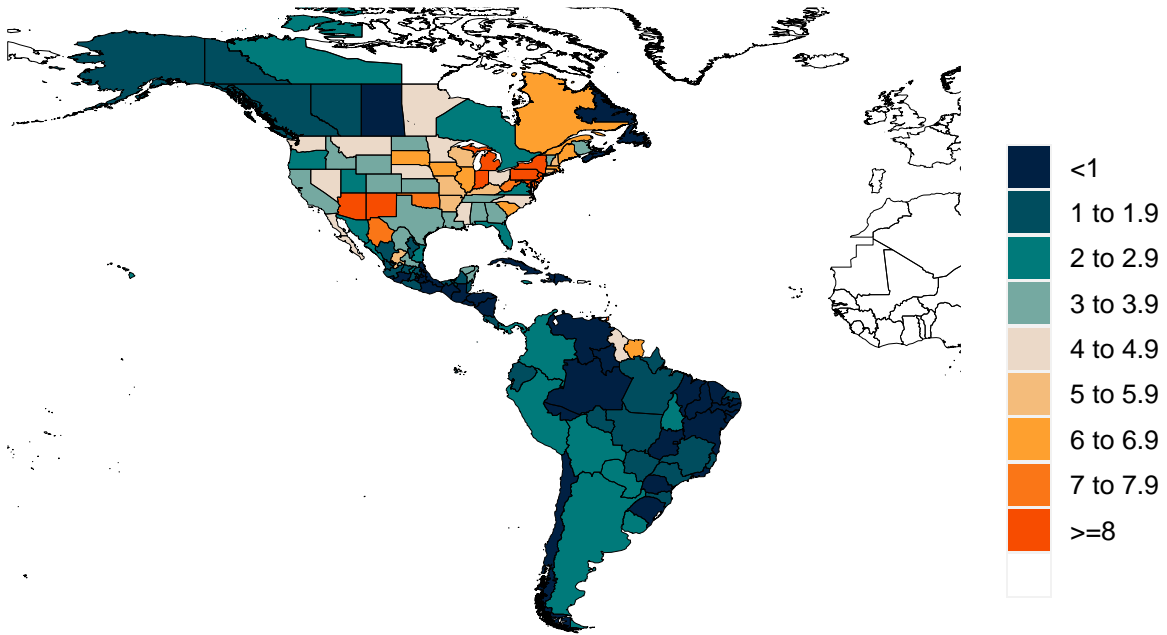
Figure 4.2 Daily total COVID-19 death rate per 1 million
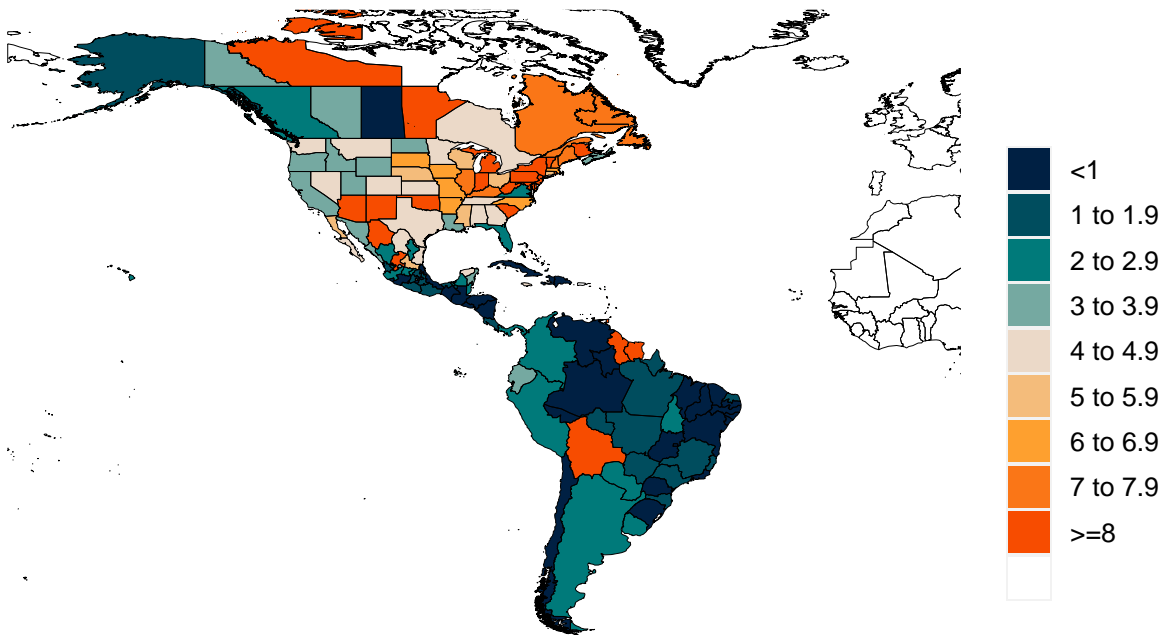
Cumulative COVID-19 deaths per 100,000 on January 18, 2022

Figure 5.1 Reported cumulative COVID-19 deaths per 100,000
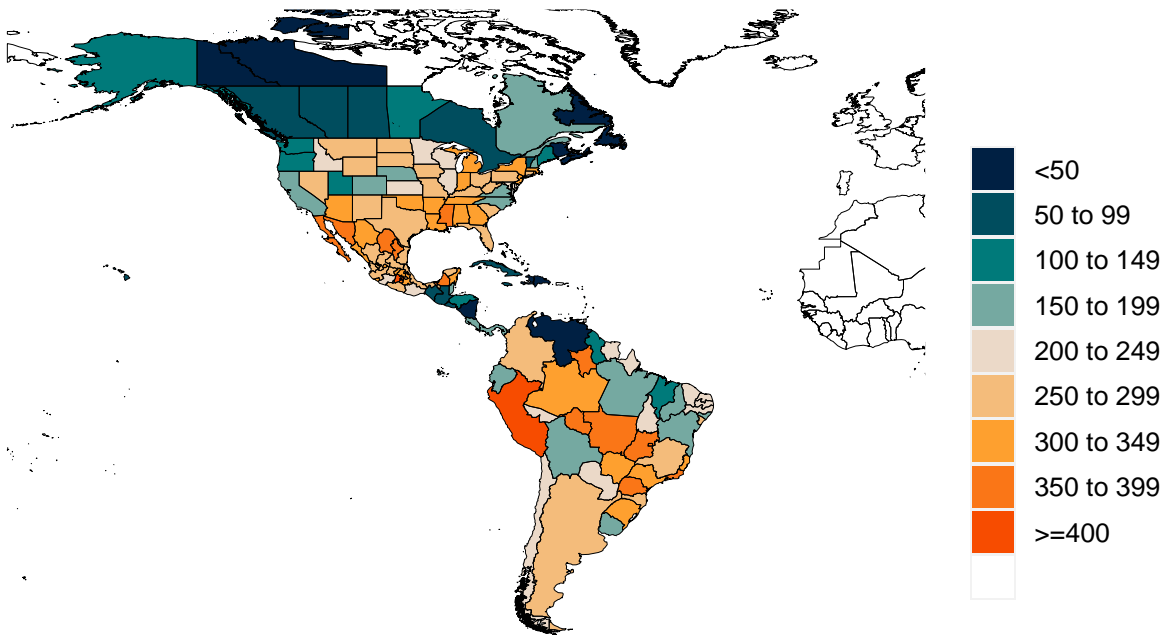
Figure 5.2 Total cumulative COVID-19 deaths per 100,000
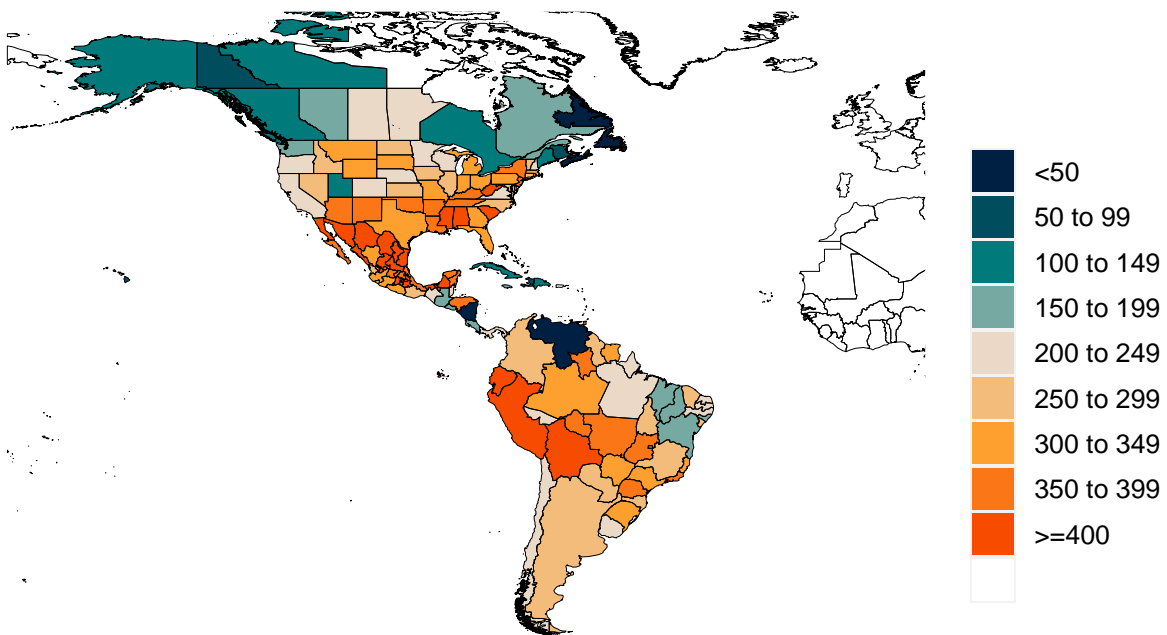
Figure 6.1. Estimated percent of the population infected with COVID-19 on January 18, 2022
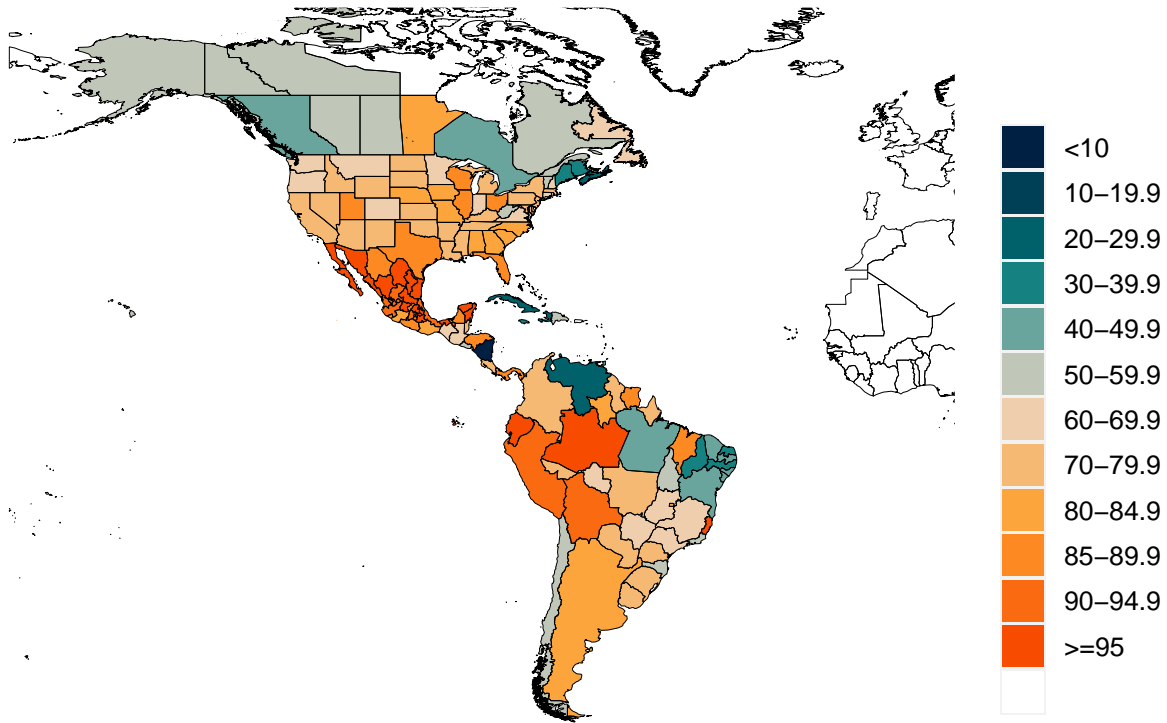
Figure 7.1. Mean effective R on January 7, 2022. Effective R less than 1 means that transmission should decline, all other things being held the same. The estimate of effective R is based on the combined analysis of deaths, case reporting, and hospitalizations where available. Current reported cases reflect infections 11-13 days prior, so estimates of effective R can only be made for the recent past.
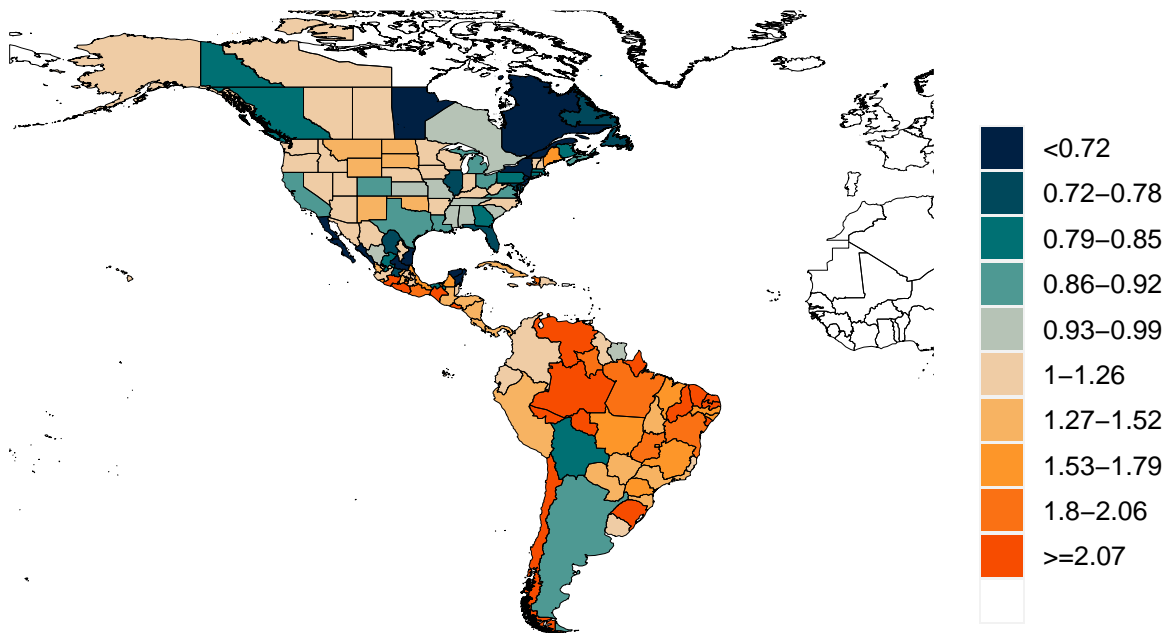
Figure 8.1. Percent of estimated COVID-19 infections detected. This is estimated as the ratio of reported daily COVID-19 cases to estimated daily COVID-19 infections based on the SEIR disease transmission model. Due to measurement errors in cases and testing rates, the infection-detection rate can exceed 100% at particular points in time.
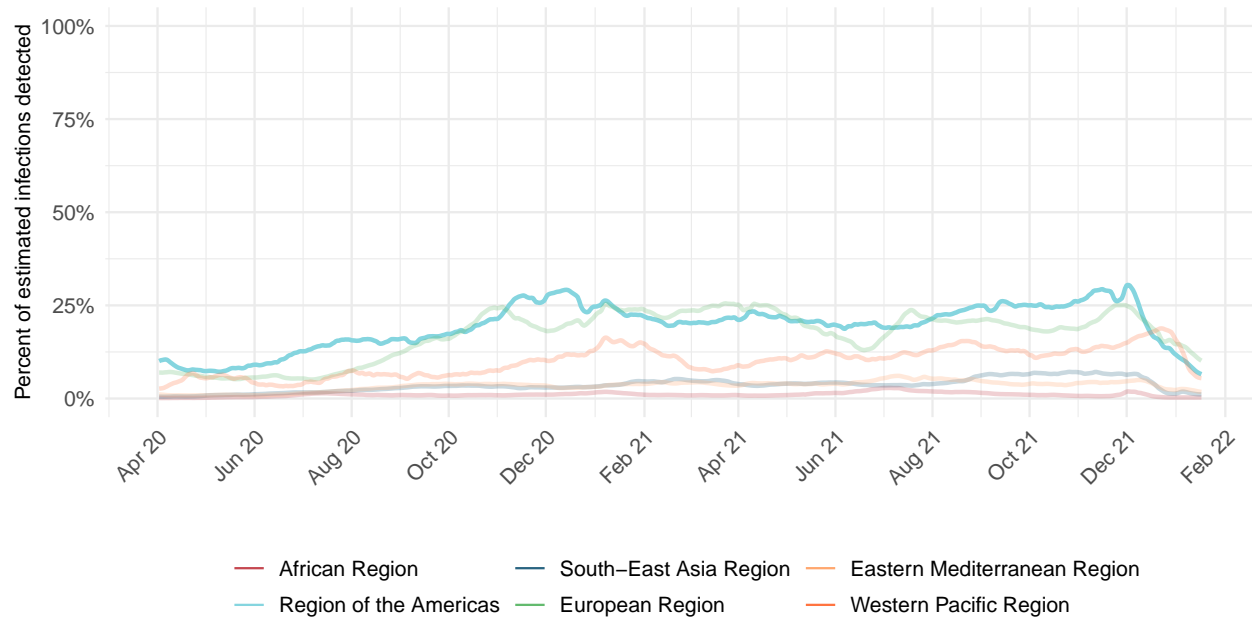
Estimated percent of circulating SARS-CoV-2 for primary variant families on January 18, 2022

Figure 9.1 Estimated percent of new infections that are Alpha variant

Figure 9.2 Estimated percent of new infections that are Beta variant

Figure 9.3 Estimated percent of new infections that are Delta variant

Figure 9.4 Estimated percent of new infections that are Gamma variant

Figure 9.5 Estimated percent of new infections that are Omicron variant

Legend:
- 0%
- 1–9%
- 10–24%
- 25–49%
- 50–74%
- 75–89%
- 90–100%
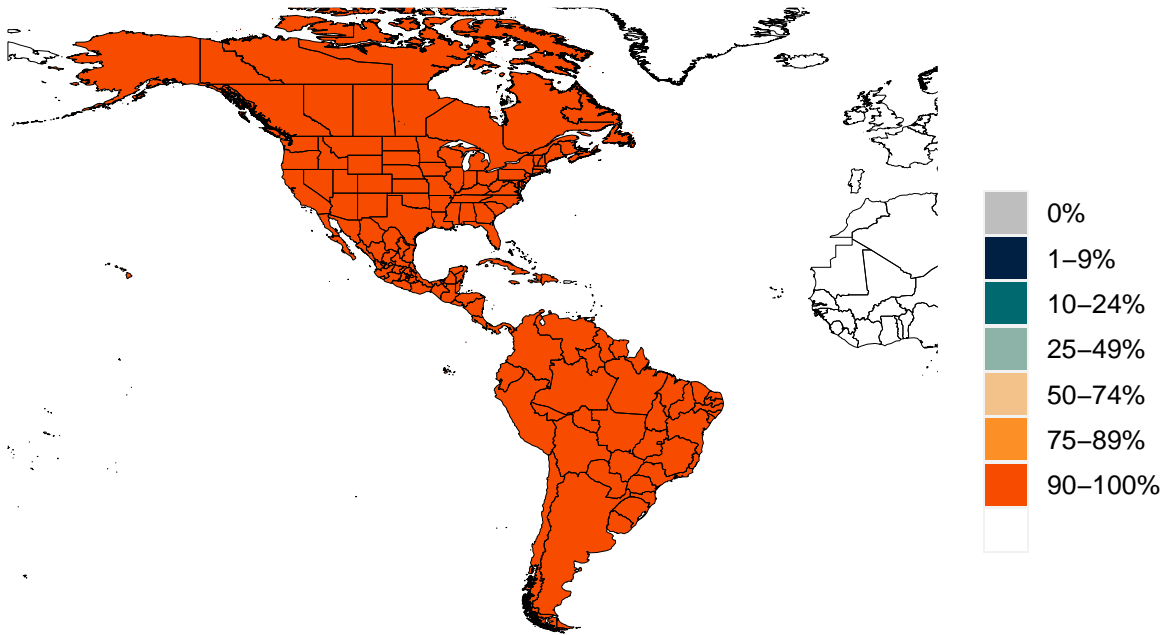
Figure 10.1. Infection-fatality rate on January 18, 2022. This is estimated as the ratio of COVID-19 deaths to estimated daily COVID-19 infections.
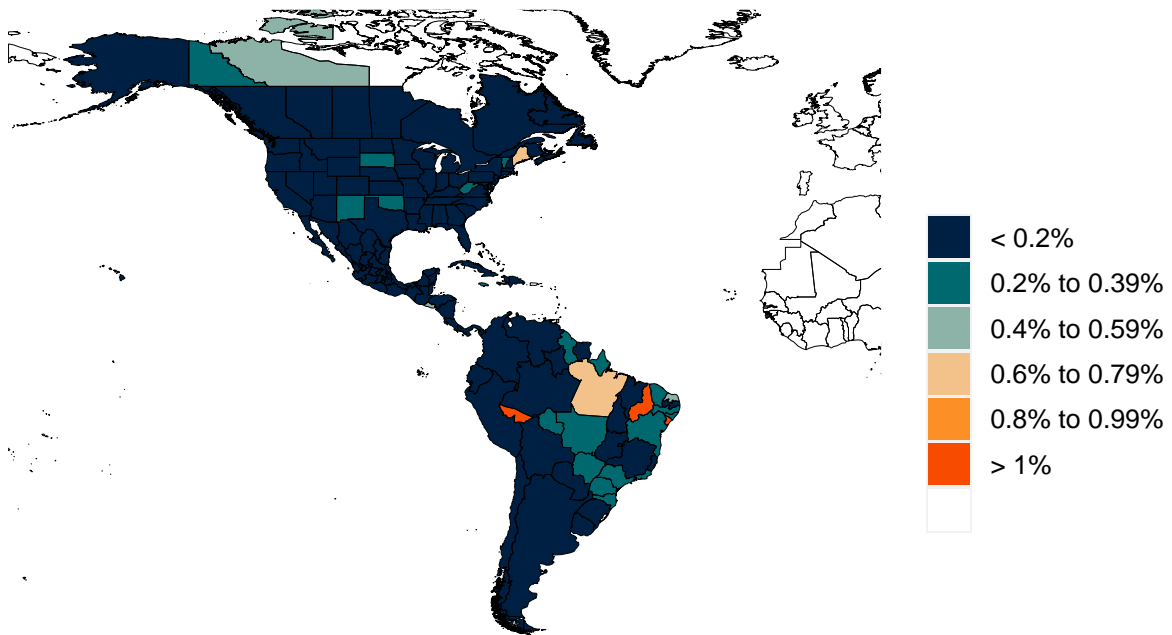
Critical drivers

Table 2. Current mandate implementation

*Not all locations are measured at the subnational level.

Figure 11.1. Trend in mobility as measured through smartphone app use, compared to January 2020 baseline
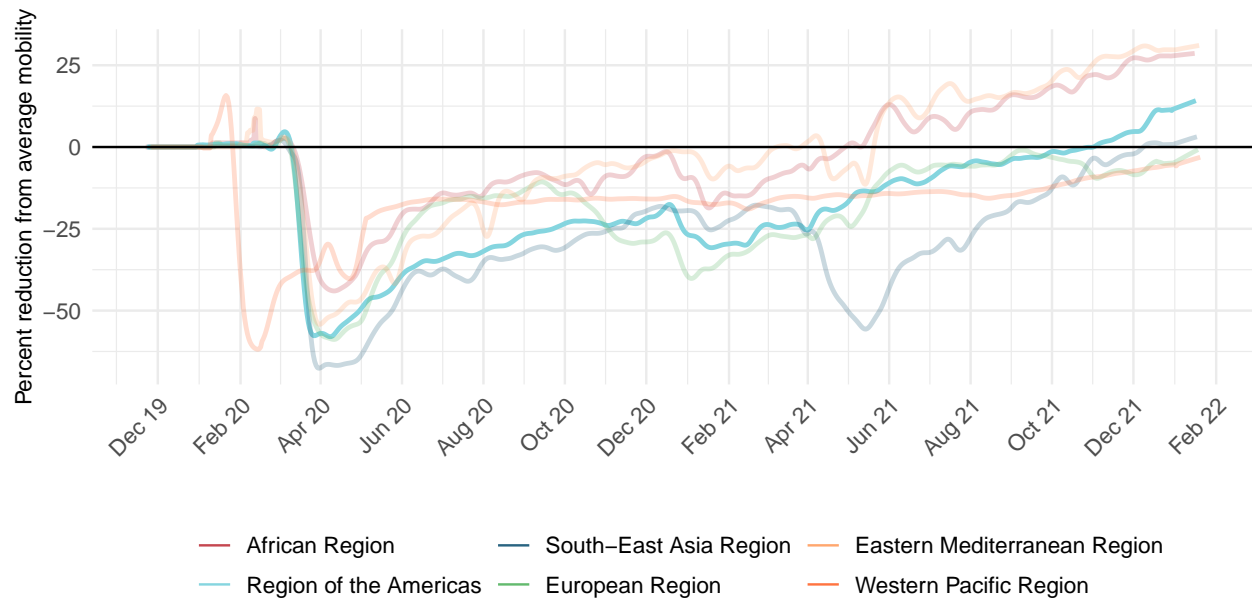
Figure 12.1. Mobility level as measured through smartphone app use, compared to January 2020 baseline (percent) on January 18, 2022

	=<−50
	−49 to −45
	−44 to −40
	−39 to −35
	−34 to −30
	−29 to −25
	−24 to −20
	−19 to −15
	−14 to −10
	>−10
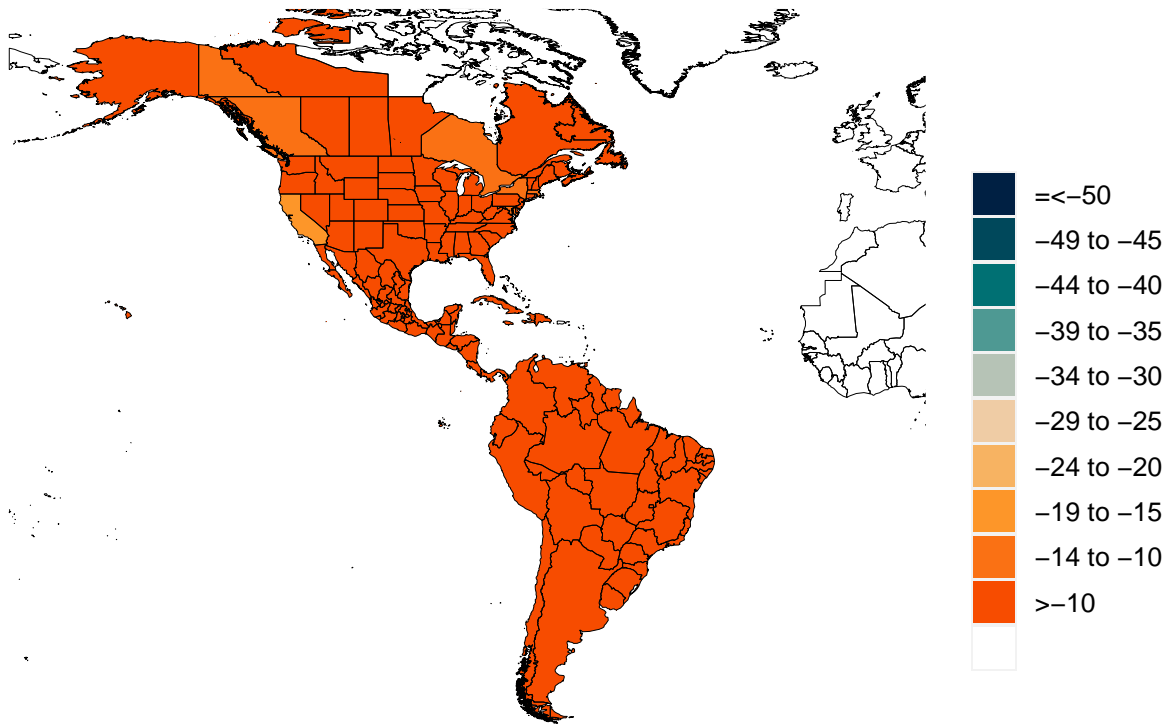
Figure 13.1. Trend in the proportion of the population reporting always wearing a mask when leaving home
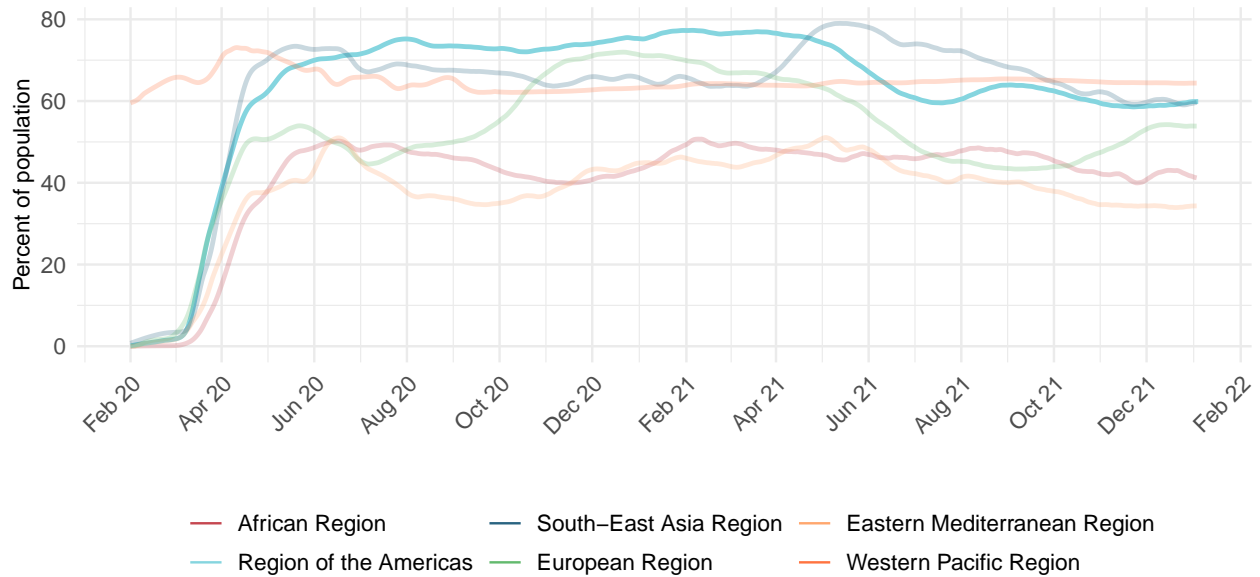
Figure 14.1. Proportion of the population reporting always wearing a mask when leaving home on January 18, 2022
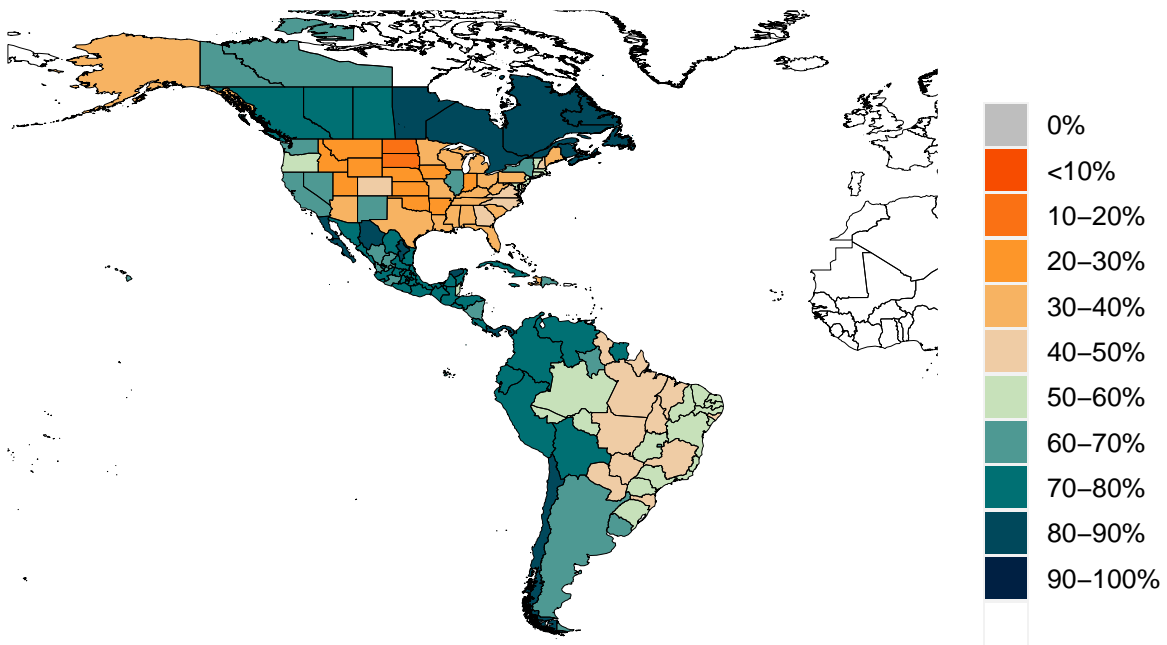
Figure 15.1. Trend in COVID-19 diagnostic tests per 100,000 people

—— African Region	—— South–East Asia Region	—— Eastern Mediterranean Region
—— Region of the Americas	—— European Region	—— Western Pacific Region
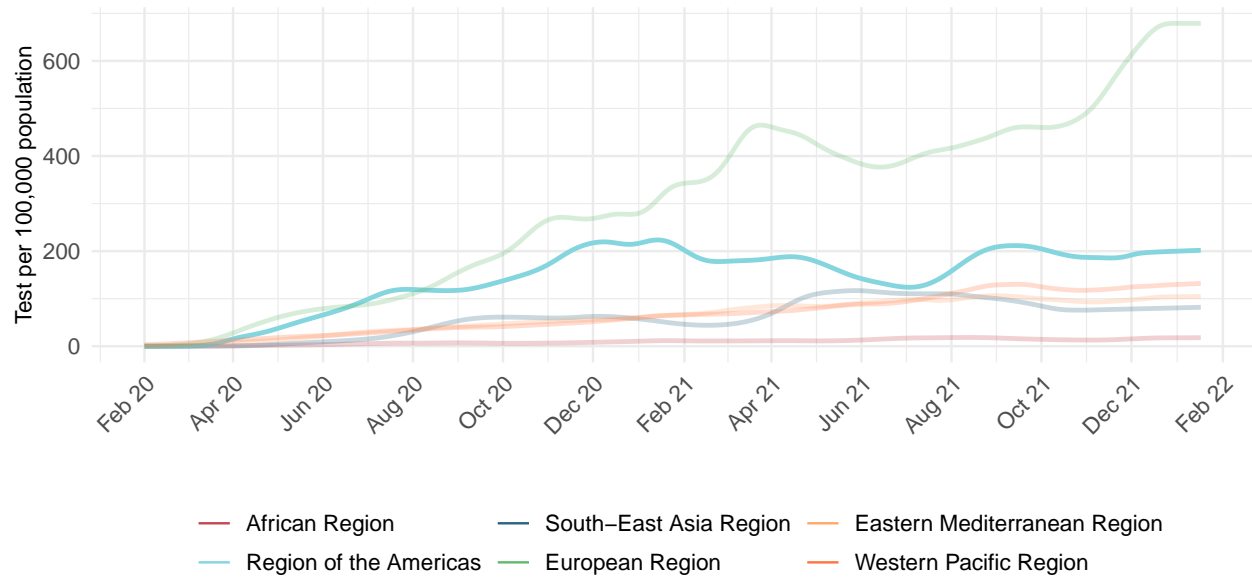
Figure 16.1. COVID-19 diagnostic tests per 100,000 people on January 18, 2022
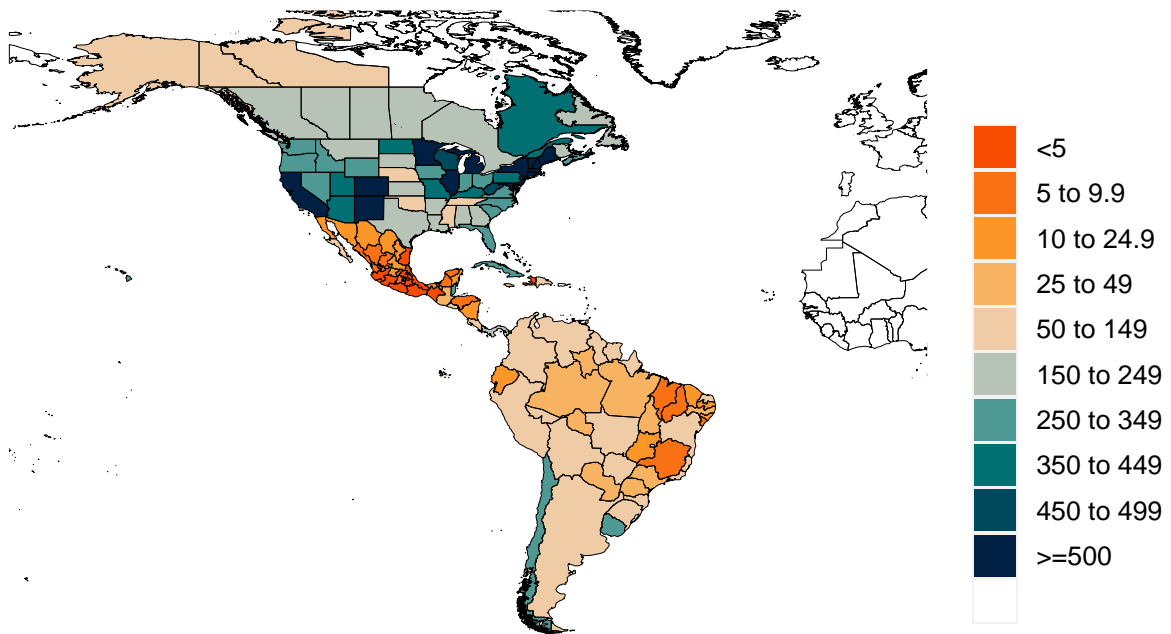
Table 3. Estimates of vaccine effectiveness for specific vaccines used in the model at preventing severe disease and infection. We use data from clinical trials directly, where available, and make estimates otherwise. More information can be found on our website.

| | Effectiveness at preventing | | | | | | | | | | | |
| | Ancestral | | Alpha | | Beta | | Gamma | | Delta | | Omicron | |
Vaccine	Severe disease	Infection	Severe disease	Infection	Severe disease	Infection	Severe disease	Infection	Severe disease	Infection	Severe disease	Infection
AstraZeneca	94%	63%	94%	63%	94%	69%	94%	69%	94%	69%	71%	36%
CanSino	66%	62%	66%	62%	64%	61%	64%	61%	64%	61%	48%	32%
CoronaVac	50%	47%	50%	47%	49%	46%	49%	46%	49%	46%	37%	24%
Covaxin	78%	73%	78%	73%	76%	72%	76%	72%	76%	72%	57%	38%
Johnson & Johnson	86%	72%	86%	72%	76%	64%	76%	64%	76%	64%	57%	33%
Moderna	97%	92%	97%	92%	97%	91%	97%	91%	97%	91%	73%	48%
Novavax	89%	83%	89%	83%	86%	82%	86%	82%	86%	82%	65%	43%
Pfizer/BioNTech	95%	86%	95%	86%	95%	84%	95%	84%	95%	84%	72%	44%
Sinopharm	73%	68%	73%	68%	71%	67%	71%	67%	71%	67%	53%	35%
Sputnik-V	92%	86%	92%	86%	89%	85%	89%	85%	89%	85%	67%	44%
Other vaccines	75%	70%	75%	70%	73%	69%	73%	69%	73%	69%	55%	36%
Other vaccines (mRNA)	91%	86%	91%	86%	88%	85%	88%	85%	88%	85%	67%	45%

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Percent of the population having received at least one dose (17.1) and fully vaccinated against SARS-CoV-2 (17.2) by January 18, 2022

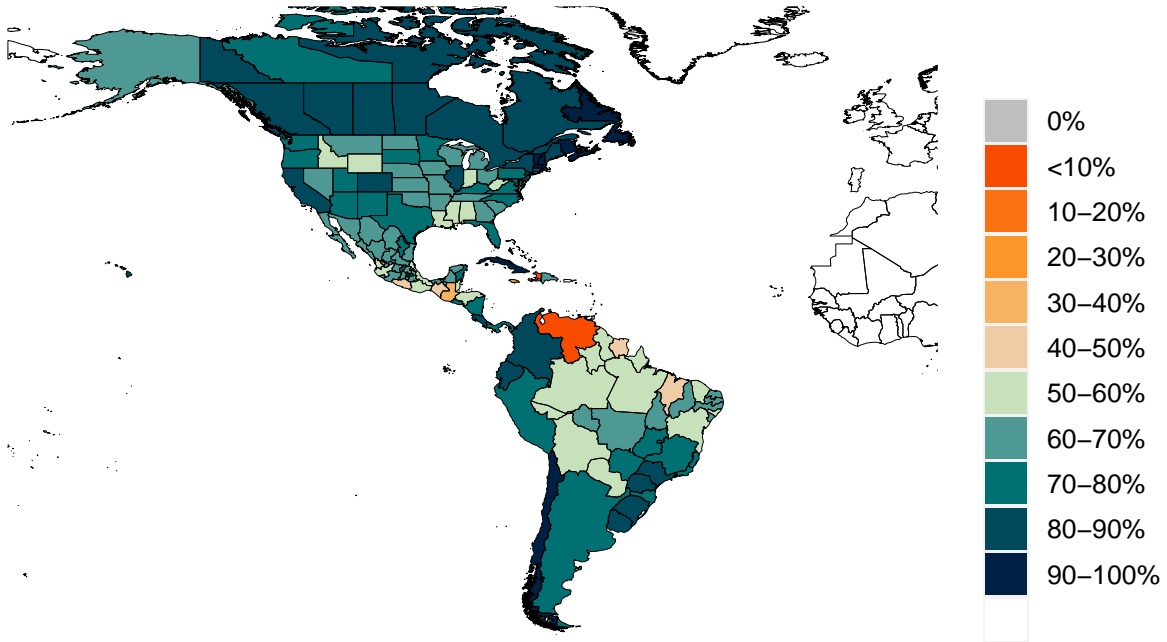**Figure 17.1 Percent of the population having received one dose of a COVID-19 vaccine**

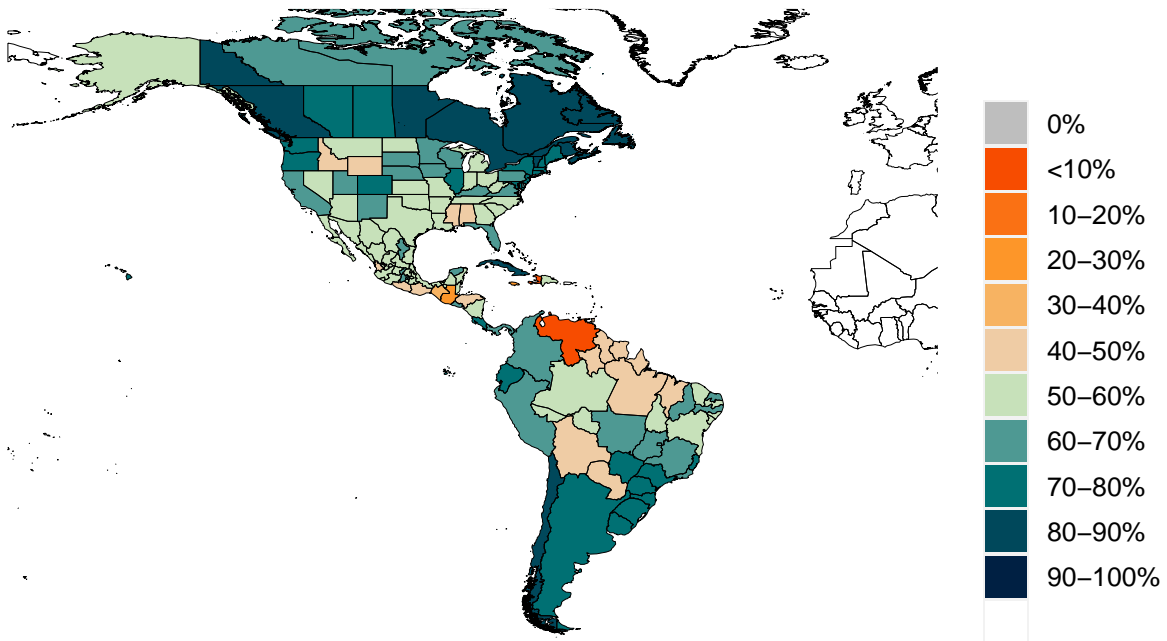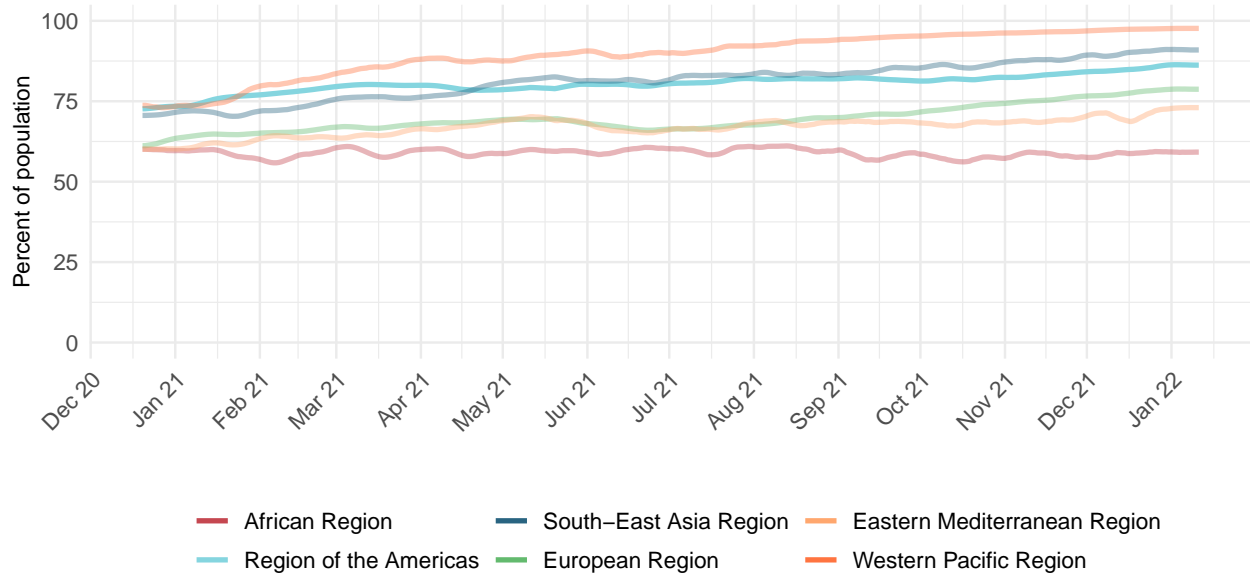**Figure 17.2 Percent of the population fully vaccinated against SARS-CoV-2**

Figure 18.1. Trend in the estimated proportion of the population that is 12 years and older that has been vaccinated or would probably or definitely receive the COVID-19 vaccine if available. Note that vaccine acceptance is calculated using survey data from the 18+ population.


Figure 19.1. Estimated proportion of the population that is 12 years and older that has been vaccinated or would probably or definitely receive the COVID-19 vaccine if available. Note that vaccine acceptance is calculated using survey data from the 18+ population.
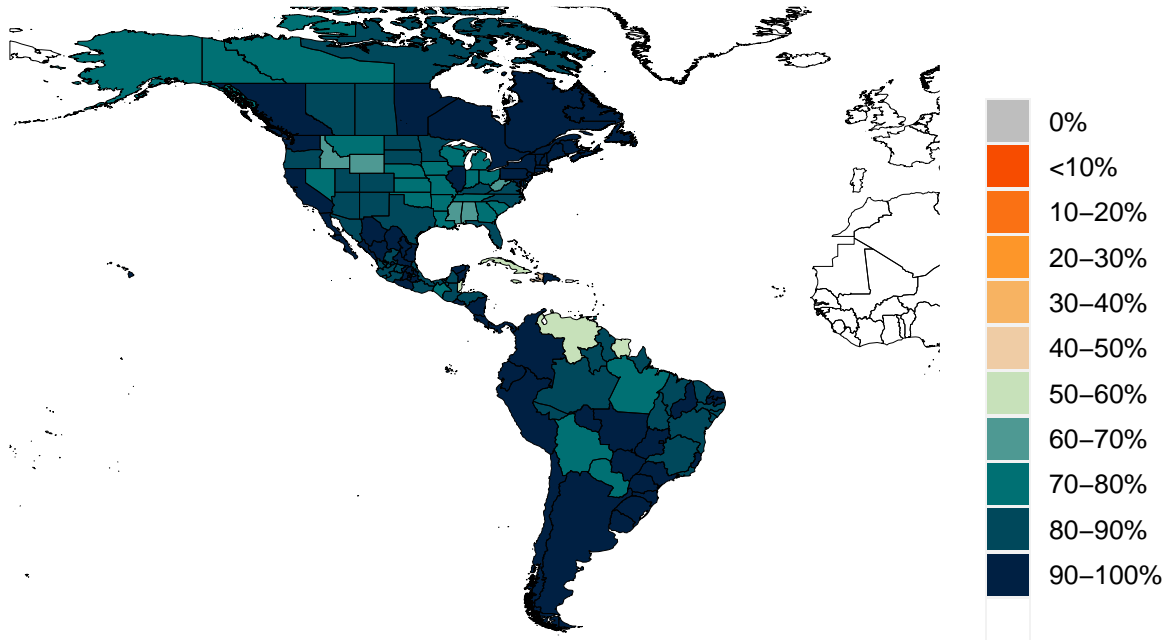
Figure 20.1. Percent of people who receive at least one dose of a COVID-19 vaccine and those who are fully vaccinated
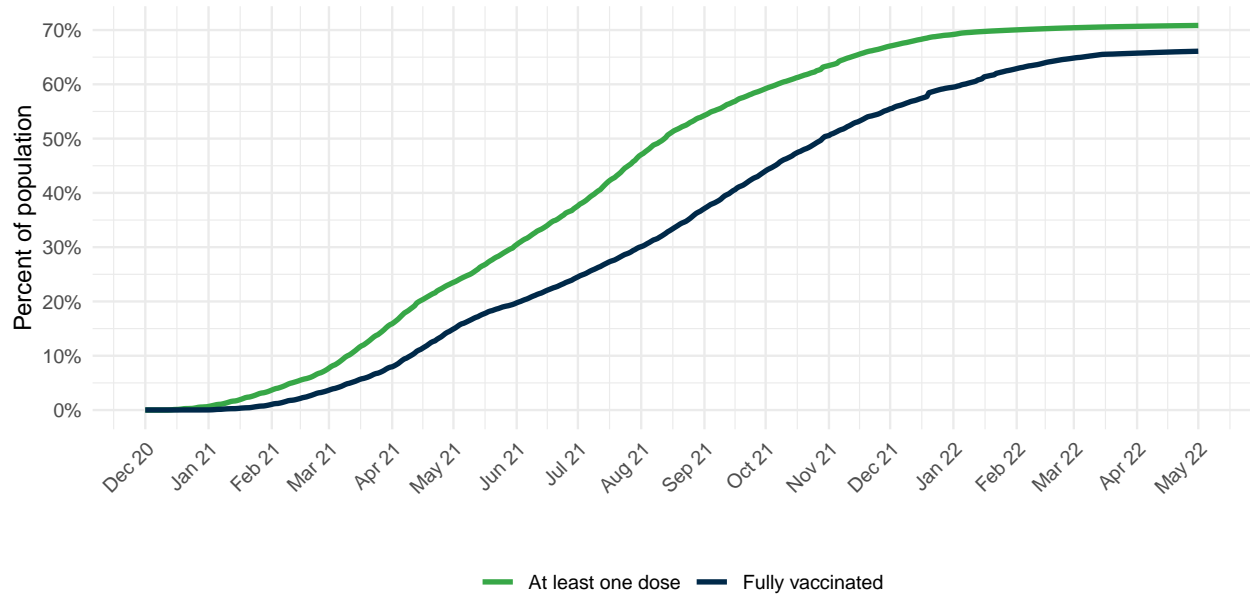
Projections and scenarios

We produce 3 scenarios when projecting COVID-19. The **reference scenario** is our forecast of what we think is most likely to happen:

- Vaccines are distributed at the expected pace. Brand- and variant-specific vaccine efficacy is updated using the latest available information from peer-reviewed publications and other reports.
- Future mask use is the mean of mask use over the last 7 days.
- Mobility increases as vaccine coverage increases.
- Omicron variant spreads according to our flight and local spread model.

- 80% of those who have had two doses of vaccine (or one dose for Johnson & Johnson) receive a third dose at 6 months after their second dose.

The **80% mask use scenario** makes all the same assumptions as the reference scenario but assumes all locations reach 80% mask use within 7 days. If a location currently has higher than 80% use, mask use remains at the current level.

The **third dose scenario** is the same as the reference scenario but assumes that 100% of those who have received two doses of vaccine will get a third dose at 6 months.
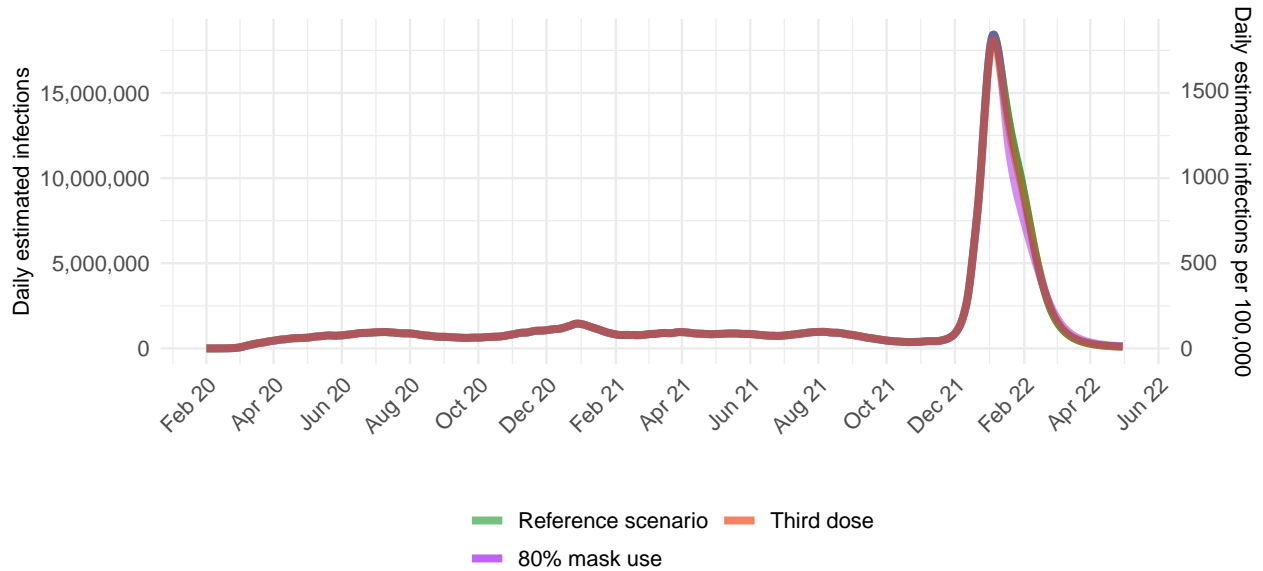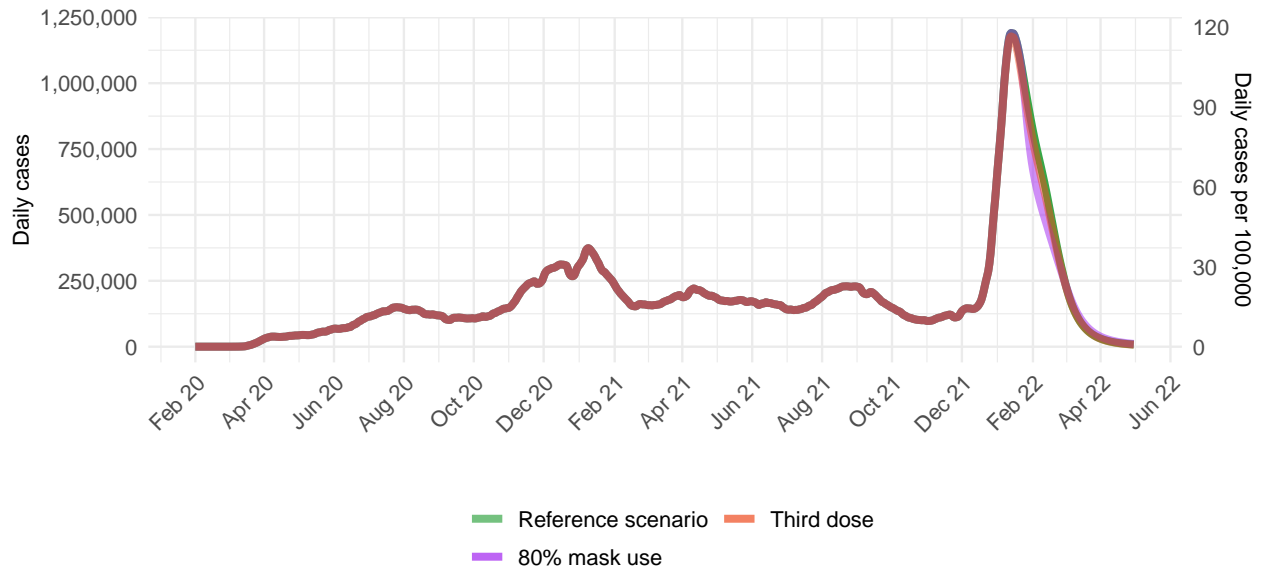
Figure 21.1. Daily COVID-19 infections until May 01, 2022 for 3 scenarios

Reference scenario — Third dose
— 80% mask use

Figure 21.2. Daily COVID-19 reported cases until May 01, 2022 for 3 scenarios

Reference scenario — Third dose
— 80% mask use

Figure 21.3. Daily COVID-19 hospital census until May 01, 2022 for 3 scenarios

Reference scenario — Third dose
80% mask use
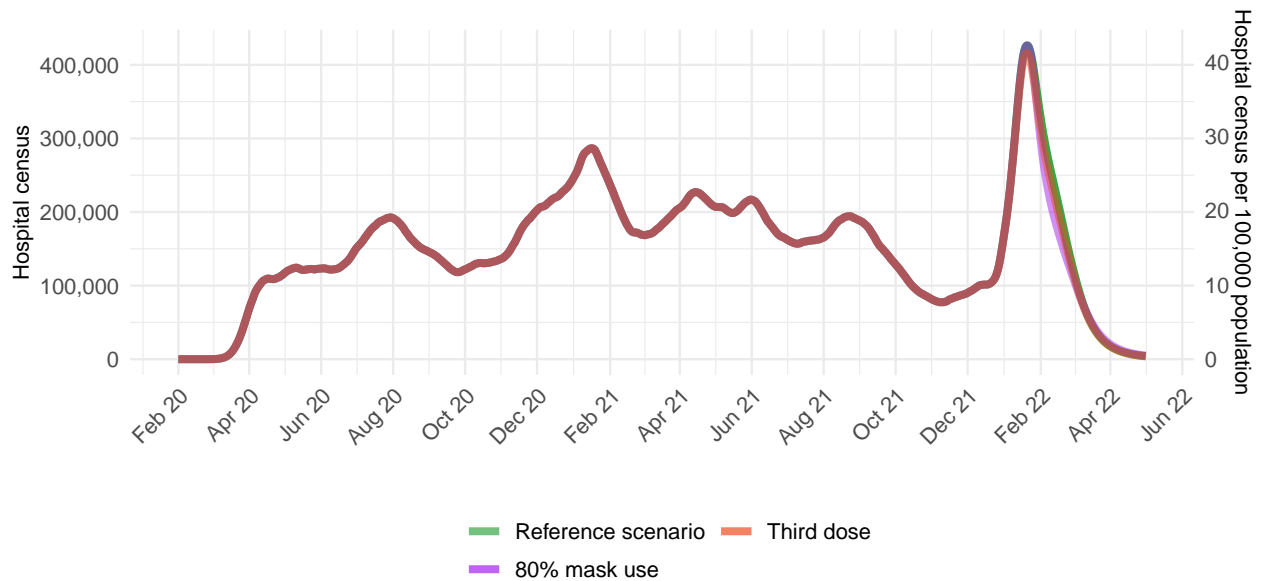
Figure 21.4 Reported daily COVID-19 deaths per 100,000

Reference scenario — Third dose
80% mask use
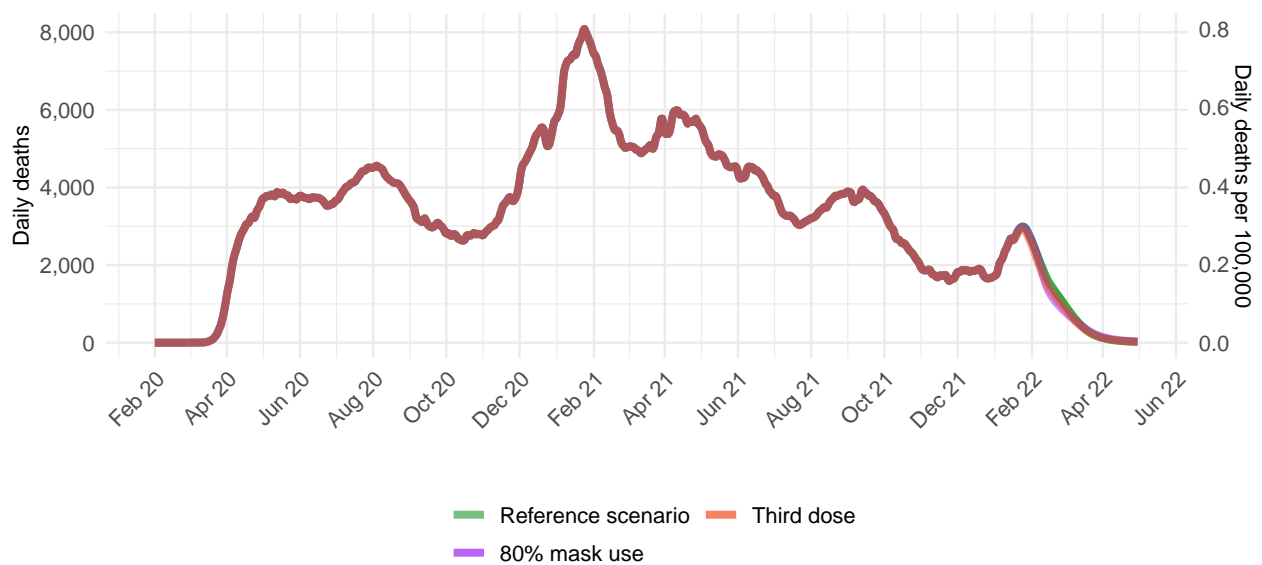
Figure 21.5 Total daily COVID-19 deaths per 100,000
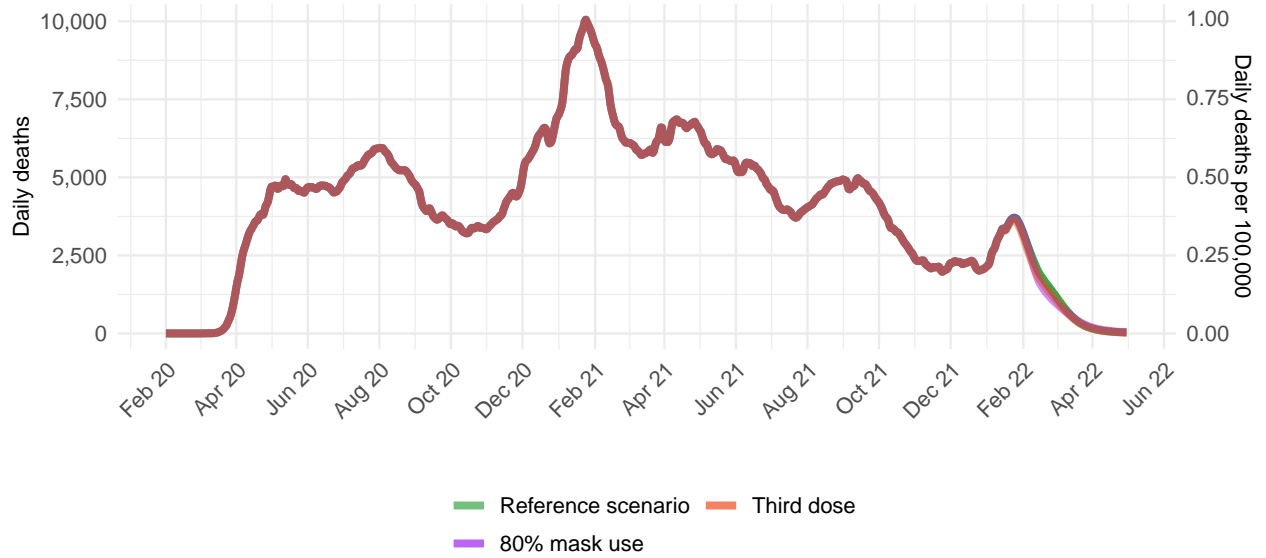

Reference scenario — Third dose
80% mask use

Figure 22.1. Comparison of reference model projections with other COVID modeling groups. For this comparison, we are including projections of daily COVID-19 deaths from other modeling groups when available, last model update in brackets: Delphi from the Massachusetts Institute of Technology (Delphi) [January 21, 2022], Imperial College London (Imperial) [January 2, 2022], the SI-KJalpha model from the University of Southern California (SIKJalpha) [January 20, 2022]. Daily deaths from other modeling groups are smoothed to remove inconsistencies with rounding. Regional values are aggregates from available locations in that region.
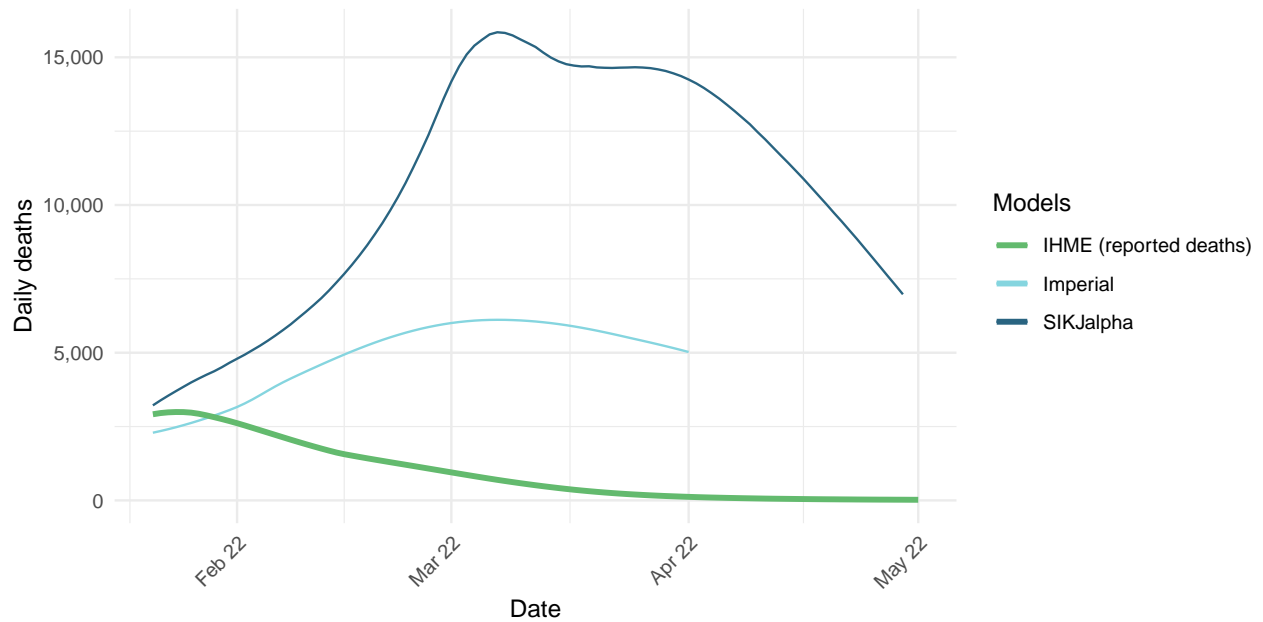
Figure 23.1. The estimated inpatient hospital usage is shown over time. The percent of hospital beds occupied by COVID-19 patients is color-coded based on observed quantiles of the maximum proportion of beds occupied by COVID-19 patients. Less than 5% is considered *low stress*, 5-9% is considered *moderate stress*, 10-19% is considered *high stress*, and 20% or greater is considered *extreme stress*.
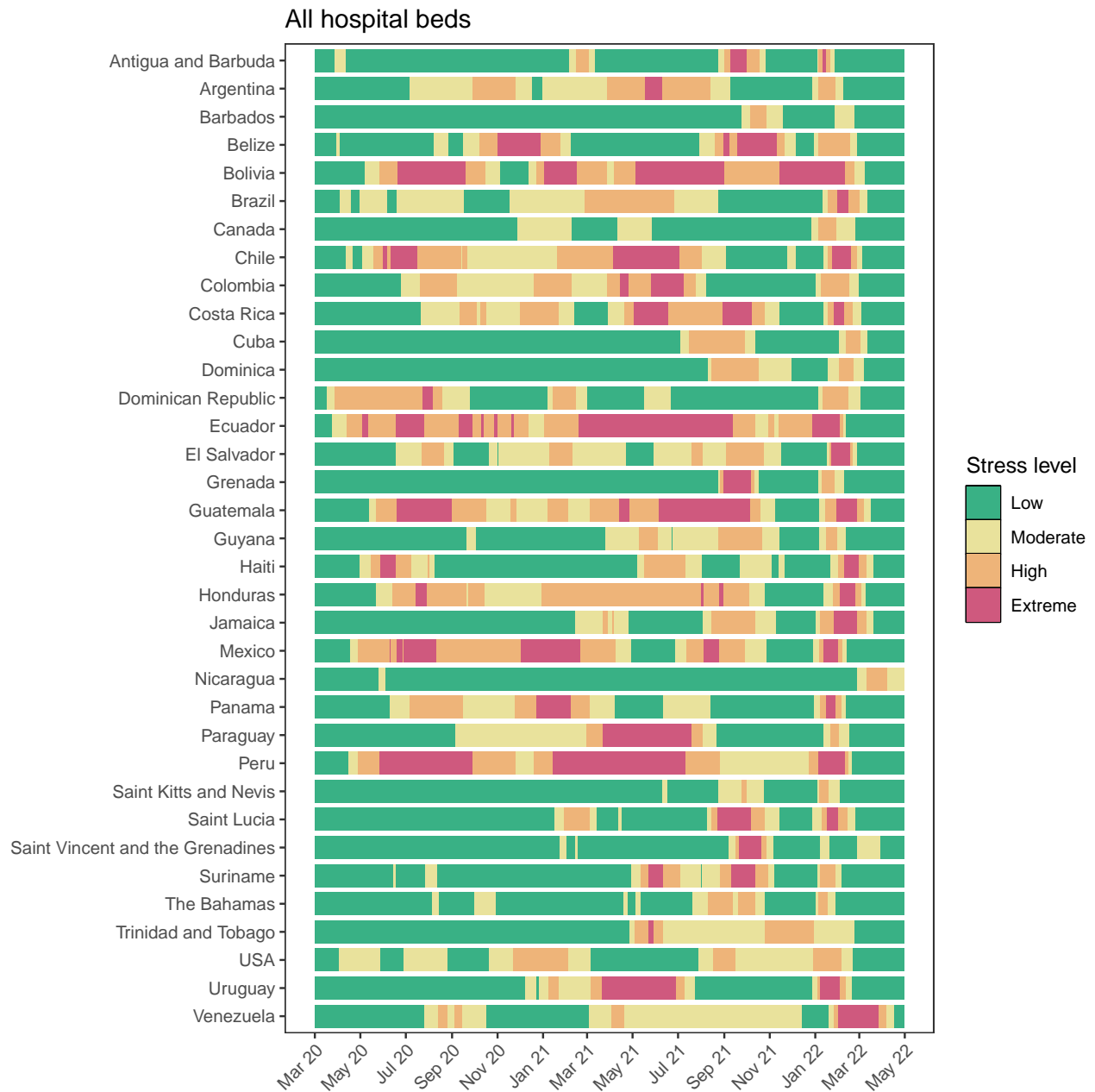
Figure 24.1. The estimated intensive care unit (ICU) usage is shown over time. The percent of ICU beds occupied by COVID-19 patients is color-coded based on observed quantiles of the maximum proportion of ICU beds occupied by COVID-19 patients. Less than 10% is considered *low stress*, 10-29% is considered *moderate stress*, 30-59% is considered *high stress*, and 60% or greater is considered *extreme stress*.
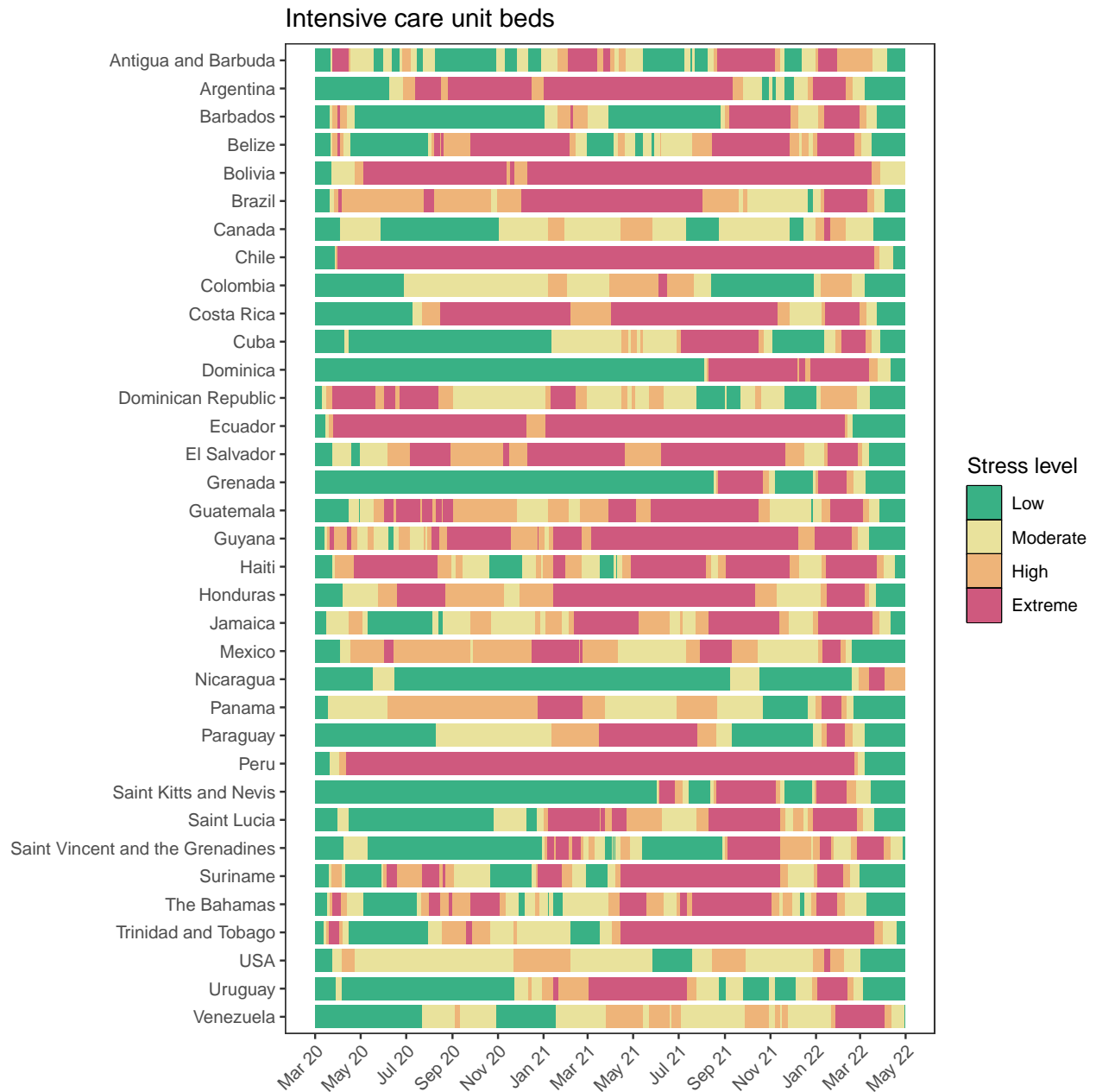
More information

Data sources:

Mask use and vaccine confidence data are from the The Delphi Group at Carnegie Mellon University and University of Maryland COVID-19 Trends and Impact Surveys, in partnership with Facebook. Mask use data are also from Premise, the Kaiser Family Foundation, and the YouGov COVID-19 Behaviour Tracker survey.

Genetic sequence and metadata are primarily from the GISAID Initiative. Further details available on the COVID-19 model FAQ page.

A note of thanks:

We wish to warmly acknowledge the support of these and others who have made our COVID-19 estimation efforts possible.

More information:

For all COVID-19 resources at IHME, visit http://www.healthdata.org/covid.

To download our most recent results, visit our Data downloads page.

Questions? Requests? Feedback? Please contact us at https://www.healthdata.org/covid/contact-us.