Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: COVID-19 Mortality, Infection, Testing, Hospital Resource Use, and Social Distancing Projections

Summary:

IHME has developed projections for total and daily deaths, daily infections and testing, hospital resource use, and social distancing due to COVID-19 for a number of countries. Forecasts at the subnational level are included for select countries. The projections for total deaths, daily deaths, and daily infections and testing each include three scenarios:

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 will decline to 50% of the minimum level it reached between January 1, 2021, and May 1, 2022. This decline begins after the last observed data point in each location and transitions linearly to the minimum over a period of six weeks.
- Mobility increases as vaccine coverage increases.
- 80% of those who have had two doses of vaccine (or one dose for Johnson & Johnson) receive a third dose at six months after their second dose.
- Antiviral utilization for COVID-19 risk prevention in high-risk populations will reach 80% between June 15, 2022, and July 31, 2022. This applies in high-income countries, but not low- and middle-income countries, and this rollout assumption follows a similar pattern to global vaccine rollouts.

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

The **antiviral access scenario** makes all the same assumptions as the reference scenario but assumes globally distributed antivirals and extends coverage to all low- and middle-income countries between August 15, 2022, and September 30, 2022.

These projections are produced with a model that incorporates data on observed COVID-19 deaths, hospitalizations, and cases, information about mandates and other protective measures, mobility, and other factors. They include uncertainty intervals and are being updated daily with new data. These forecasts were developed in order to provide hospitals, policy makers, and the public with crucial information about how expected need aligns with existing resources, so that cities and countries can

best prepare.

Access current projections

Acknowledgements

Suggested Citation:

Institute for Health Metrics and Evaluation (IHME). COVID-19 Mortality, Infection, Testing, Hospital Resource Use, and Social Distancing Projections. Seattle, United States of America: Institute for Health Metrics and Evaluation (IHME), University of Washington, 2020.

Variable Information

Reference_hospitalization_all_locs.csv [Current projection]

Variable	Variable Description
location_name	Name of the country or subnational location
date	Date
allbed_mean	Mean covid beds needed by day
allbed_lower	Lower uncertainty bound of covid beds needed by day
allbed_upper	Upper uncertainty bound of covid beds needed by day
ICUbed_mean	Mean ICU covid beds needed by day
ICUbed_lower	Lower uncertainty bound of ICU covid beds needed by day
ICUbed_upper	Upper uncertainty bound of ICU covid beds needed by day
InvVen_mean	Mean invasive ventilation needed by day
InvVen_lower	Lower uncertainty bound of invasive ventilation needed by day
InvVen_upper	Upper uncertainty bound of invasive ventilation needed by day
admis_mean	Mean hospital admissions by day
admis_lower	Lower uncertainty bound of hospital admissions by day
admis_upper	Upper uncertainty bound of hospital admissions by day
newICU_mean	Mean number of new people going to the ICU by day
newICU_lower	Lower uncertainty bound of the number of new people going to the ICU by day

Variable	Variable Description
newICU_upper	Upper uncertainty bound of the number of new people going to the ICU by day
bedover_mean	[covid all beds needed] - ([total bed capacity] - [average all bed usage])
bedover_lower	Lower uncertainty bound of bedover (above)
bedover_upper	Upper uncertainty bound of bedover (above)
icuover_mean	[covid ICU beds needed] - ([total ICU capacity] - [average ICU bed usage])
icuover_lower	Lower uncertainty bound of icuover (above)
icuover_upper	Upper uncertainty bound of icuover (above)
deaths_mean	Mean daily covid deaths
deaths_lower	Lower uncertainty bound of daily covid deaths
deaths_upper	Upper uncertainty bound of daily covid deaths
totdea_mean	Mean cumulative covid deaths
totdea_lower	Lower uncertainty bound of cumulative covid deaths
totdea_upper	Upper uncertainty bound of cumulative covid deaths
deaths_mean_smoothed	Mean daily covid deaths (smoothed)
deaths_lower_smoothed	Lower uncertainty bound of daily covid deaths (smoothed)
deaths_upper_smoothed	Upper uncertainty bound of daily covid deaths (smoothed)
totdea_mean_smoothed	Mean cumulative covid deaths (smoothed)
totdea_lower_smoothed	Lower uncertainty bound of cumulative covid deaths (smoothed)
totdea_upper_smoothed	Upper uncertainty bound of cumulative covid deaths (smoothed)
mobility_data_type	Indicator of whether mobility composite is observed / projected
mobility_composite	Mobility composite score
total_tests_data_type	Indicator of whether total tests composite is observed or projected

Variable	Variable Description
total_tests	Total tests
confirmed_infections	Observed data only (confirmed infections)
est_infections_mean	Mean estimated infections
est_infections_lower	Lower uncertainty bound of estimated infections
est_infections_upper	Upper uncertainty bound estimated infections

Best_mask_hospitalization_all_locs.csv, [Universal masks], Worse_hospitalization_all_locs.csv [Mandates easing]

Variable	Variable Description
location_name	Name of the country or subnational location
date	Date
deaths_mean	Mean daily covid deaths
deaths_lower	Lower uncertainty bound of daily covid deaths
deaths_upper	Upper uncertainty bound of daily covid deaths
totdea_mean	Mean cumulative covid deaths
totdea_lower	Lower uncertainty bound of cumulative covid deaths
totdea_upper	Upper uncertainty bound of cumulative covid deaths
deaths_mean_smoothed	Mean daily covid deaths (smoothed)
deaths_lower_smoothed	Lower uncertainty bound of daily covid deaths (smoothed)
deaths_upper_smoothed	Upper uncertainty bound of daily covid deaths (smoothed)
totdea_mean_smoothed	Mean cumulative covid deaths (smoothed)
totdea_lower_smoothed	Lower uncertainty bound of cumulative covid deaths (smoothed)
totdea_upper_smoothed	Upper uncertainty bound of cumulative covid deaths (smoothed)
mobility_data_type	Indicator of whether mobility composite is observed / projected
mobility_composite	Mobility composite score

Variable	Variable Description
total_tests_data_type	Indicator of whether total tests composite is observed or projected
total_tests	Total tests
confirmed_infections	Observed data only (confirmed infections)
est_infections_mean	Mean estimated infections
est_infections_lower	Lower uncertainty bound of estimated infections
est_infections_upper	Upper uncertainty bound estimated infections

Summary_stats_all_locs.csv

Variable	Variable Description
location_name	Name of the country or subnational location
peak_bed_day_mean	Mean peak bed use date
peak_bed_day_lower	Lower uncertainty bound of peak bed use date
peak_bed_day_upper	Upper uncertainty bound of peak bed use date
peak_icu_bed_day_mean	Mean peak ICU bed use date
peak_icu_bed_day_lower	Lower uncertainty bound of peak ventilator use date
peak_icu_bed_day_upper	Upper uncertainty bound of peak ventilator use date
peak_vent_day_mean	Mean peak ventilator use date
peak_vent_day_lower	Lower uncertainty bound of peak ventilator use date
peak_vent_day_upper	Upper uncertainty bound of peak ventilator use date
all_bed_capacity	Total number of beds that exist at that location
icu_bed_capacity	Total number of icu beds that exist at that location
all_bed_usage	Average number of total beds used normally at that location
icu_bed_usage	Average number of icu beds used normally at that location
available_all_nbr	All_bed_capacity - all_bed_usage: excess bed capacity at that location

Variable	Variable Description
available_icu_nbr	Icu_bed_capacity - icu_bed_usage: icu excess bed capacity at that location
travel_limit_start_date	Start date for Severe travel restrictions
travel_limit_end_date	End date for Severe travel restrictions
stay_home_start_date	Start date for People ordered to stay at home
stay_home_end_date	End date for People ordered to stay at home
educational_fac_start_date	Start date for Educational facilities closed
educational_fac_end_date	End date for Educational facilities closed
any_gathering_restrict_start_date	Start date for Any gathering restrictions
any_gathering_restrict_end_date	End date for Any gathering restrictions
any_business_start_date	End date for Any business closures
any_business_end_date	End date for Any business closures
all_non-ess_business_start_date	Start date of Non-essential businesses ordered to close
all_non-ess_business_end_date	End date of Non-essential businesses ordered to close

Additional Information

Terms and Conditions

http://www.healthdata.org/about/terms-and-conditions

Contact information

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