



Institute for Health Metrics and Evaluation

Data Release Information Sheet

Data Summary

Dataset name: Global Inpatient and Outpatient Health Care Utilization, Unit Costs, and Costs and Services Needed to Achieve Universal Health Coverage 1990-2016

Date of original release: December 12, 2018

Update: March 14, 2019 – The dataset was updated with the following:

- Healthcare utilization decomposition estimates
- Results in 2017 United States dollars (along with 2017 purchasing power parity (PPP) dollars) for the total cost to reach UHC using each country as a standard
- Results in 2017 United States dollars (along with 2017 purchasing power parity (PPP) dollars) for the inpatient visits, outpatient visits, and total costs required to reach UHC using Portugal and the Netherlands as standards

Summary:

As part of a study to inform plans to achieve Universal Health Coverage (UHC), IHME research generated estimates on utilization and unit cost of outpatient visits and inpatient admissions, and estimated the additional services and funds needed to meet a UHC standard for utilization. Using 1175 country-years of outpatient and 2068 of inpatient data, utilization per person estimates were produced for outpatient visits and inpatient admissions by age and sex for 195 countries and territories for 1990-2016. Data from 795 National Health Accounts (NHAs) were used to produce cost per outpatient visit and inpatient admission estimates for 188 countries for 1995-2016. UHC standards of utilization per disability-adjusted-life-year (DALY) based on existing health systems were created to estimate the additional services and funding needed annually to expand health coverage for countries in 2016. Results of the study were published in *The Lancet* in December 2018.

Relevant publications and visualizations:

- Moses M, Pedroza P, Baral R, Bloom S, Brown J, et al. Funding and services needed to achieve universal health coverage: Applications of global, regional, and national estimates of utilisation of outpatient visits and inpatient admissions from 1990 to 2016, and unit costs from 1995 to 2016. *The Lancet*. 12 December 2018.

Acknowledgements

Contributing organizations:

- Institute for Health Metrics and Evaluation (IHME)

Funders:

- Bill and Melinda Gates Foundation (BMGF)

Suggested Citation:

Institute for Health Metrics and Evaluation (IHME). Global Inpatient and Outpatient Health Care Utilization, Unit Costs, and Costs and Services Needed to Achieve Universal Health Coverage 1990-2016. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2018.

File Inventory

| File Name | Description | Version Date |
|---|---|---------------------|
| IHME_UHC_1990_2016_UTILIZATION_Y2018M12D12.CSV | Data: Health care utilization (inpatient and outpatient) estimates, 195 countries and territories, 1990-2016 | December 12, 2018 |
| IHME_UHC_1990_2016_UTILIZATION_CODEBOOK_Y2018M12D12.CSV | Codebook: Health care utilization (inpatient and outpatient) estimates, 195 countries and territories, 1990-2016 | December 12, 2018 |
| IHME_UHC_1990_2016_UTIL_DECOMPOSITION_Y2019M3D14.CSV | Data: Health care utilization (inpatient and outpatient) decomposition estimates, 195 countries and territories, 1990-2016 | March 14, 2019 |
| IHME_UHC_1990_2016_UTIL_DECOMPOSITION_CODEBOOK_Y2019M3D14.CSV | Codebook: Health care utilization (inpatient and outpatient) decomposition estimates, 195 countries and territories, 1990-2016 | March 14, 2019 |
| IHME_UHC_1990_2016_UNIT_COSTS_Y2018M12D12.CSV | Data: Cost per outpatient visit and inpatient admission estimates, 188 countries, 1995-2016 | December 12, 2018 |
| IHME_UHC_1990_2016_UNIT_COSTS_CODEBOOK_Y2018M12D12.CSV | Codebook: Cost per outpatient visit and inpatient admission estimates, 188 countries, 1995-2016 | December 12, 2018 |
| IHME_UHC_1990_2016_COUNTERFACTUAL_DALYS_Y2018M12D12.CSV | Data: Predicted counterfactual DALYs for all causes in 2016 after removing the effect of healthcare access and quality | December 12, 2018 |

| File Name | Description | Version Date |
|---|---|-------------------|
| IHME_UHC_1990_2016_COUNTERFACTUAL_DALYS_CODEBOOK_Y2018M12D12.CSV | Codebook: Predicted counterfactual DALYs for all causes in 2016 after removing the effect of healthcare access and quality | December 12, 2018 |
| IHME_UHC_1990_2016_UHC_COSTS_STD_COUNTRIES_Y2019M3D14.CSV | Data: Total cost to reach UHC using each country as a standard in 2017 purchasing power parity (PPP) dollars and 2017 United States dollars (in millions) | March 14, 2019 |
| IHME_UHC_1990_2016_UHC_COSTS_STD_COUNTRIES_CODEBOOK_Y2018M12D12.CSV | Codebook: Total cost to reach UHC using each country as a standard in 2017 purchasing power parity (PPP) dollars and 2017 United States dollars (in millions) | March 14, 2019 |
| IHME_UHC_1990_2016_UHC_SERVICES_COSTS_Y2019M3D14.CSV | Data: Inpatient visits, outpatient visits, and total costs, in 2017 purchasing power parity (PPP) dollars and 2017 United States dollars (in millions), to reach UCH using Portugal and the Netherlands as standards | March 14, 2019 |
| IHME_UHC_1990_2016_UHC_SERVICES_COSTS_CODEBOOK_Y2018M12D12.CSV | Codebook: Inpatient visits, outpatient visits, and total costs, in 2017 purchasing power parity (PPP) dollars and 2017 United States dollars (in millions), to reach UCH using Portugal and the Netherlands as standards | March 14, 2019 |
| IHME_UHC_1990_2016_NHA_DATA_Y2018M12D12.CSV | Data: Data from 795 National Health Accounts (NHAs) used to produce unit cost estimates | December 12, 2018 |
| IHME_UHC_1990_2016_NHA_DATA_CODEBOOK_Y2018M12D12.CSV | Codebook: Data from 795 National Health Accounts (NHAs) used to produce unit cost estimates | December 12, 2018 |
| IHME_UHC_1990_2016_CODE_Y2018M12D12.ZIP | Code files used to produce health care utilization, unit cost, and UHC estimates | December 12, 2018 |
| IHME_UHC_1990_2016_INFO_SHEET_Y2018M12D12.PDF | Data Release Information Sheet | December 12, 2018 |

Variable Information

| Variable | Variable Label | Variable Definition |
|--|---|--|
| age_group_ID | Age Group ID | Unique numeric identifier for the age group generated and stored in an IHME database of data dimensions. |
| age_group_name | Age Group Name | Age bound corresponding to the estimate. |
| cost_to_reach_UHC_all_countries_std | Total cost to reach UHC using each country as a standard (2017 PPP) | Total cost to reach UHC using each country as a standard in 2017 purchasing power parity (PPP) dollars |
| cost_to_reach_UHC_all_countries_std_usd | Total cost to reach UHC using each country as a standard (2017 USD) | Total cost to reach UHC using each country as a standard in 2017 United States dollars |
| counterfactual_dalys_lower | Lower bound of 95% uncertainty interval for counterfactual DALYs | Lower bound of 95% uncertainty interval for predicted counterfactual DALYs for all causes in 2016 after removing the effect of healthcare access and quality |
| counterfactual_dalys_mean | Mean predicted counterfactual DALYs | Mean predicted counterfactual DALYs for all causes in 2016 after removing the effect of healthcare access and quality |
| counterfactual_dalys_upper | Upper bound of 95% uncertainty interval for counterfactual DALYs | Upper bound of 95% uncertainty interval for predicted counterfactual DALYs for all causes in 2016 after removing the effect of healthcare access and quality |
| ip | Inpatient Share | Reported percentage of health spending spent in inpatient care |
| ip_cost_lower | Average cost of an inpatient admission, lower bound of 95% uncertainty interval | Lower 95% uncertainty interval for average cost of inpatient admission in 2015 purchasing power parity (PPP) dollars |
| ip_cost_mean | Average cost of an inpatient admission, mean estimate | Mean estimate of average cost of inpatient admission in 2015 purchasing power parity (PPP) dollars |
| ip_cost_upper | Average cost of an inpatient admission, upper bound of 95% uncertainty interval | Upper 95% uncertainty interval for average cost of inpatient admission in 2015 purchasing power parity (PPP) dollars |
| ip_percentage_change_age | Total percentage change due to changes in age | Total percentage change in inpatient admissions from 1990 to 2016 due to changes in age |
| ip_percentage_change_age_sex_utilization | Total percentage change due to changes in age-sex utilization | Total percentage change in inpatient admissions from 1990 to 2016 due to changes in age-sex utilization |
| ip_percentage_change_population | Total percentage change due to changes in population | Total percentage change in inpatient admissions from 1990 to 2016 due to changes in population |

| Variable | Variable Label | Variable Definition |
|----------------------------|--|--|
| ip_percentage_change_sex | Total percentage change due to changes in sex | Total percentage change in inpatient admissions from 1990 to 2016 due to changes in composition of sex in the population |
| ip_total_percentage_change | Total percentage change in inpatient admissions | Total percentage change in inpatient admissions from 1990 to 2016 |
| ip_visits_needed_nld_lower | 95% UI (lower bound) for inpatient visits needed to reach UHC (NLD/std) | Lower bound of 95% uncertainty interval for inpatient visits needed to each UHC with Netherlands as the standard (thousands) |
| ip_visits_needed_nld_mean | Mean inpatient visits needed to reach UHC (NLD/std) | Mean inpatient visits needed to reach UHC with Netherlands as the standard (thousands) |
| ip_visits_needed_nld_upper | 95% UI (upper bound) for inpatient visits needed to each UHC (NLD/std) | Upper bound of 95% uncertainty interval for inpatient visits needed to each UHC with Netherlands as the standard (thousands) |
| ip_visits_needed_prt_lower | 95% UI (lower bound) for inpatient visits needed to reach UHC (PRT/std) | Lower bound of 95% uncertainty interval for inpatient visits needed to each UHC with Portugal as the standard (thousands) |
| ip_visits_needed_prt_mean | Mean inpatient visits needed to reach UHC (PRT/std) | Mean inpatient visits needed to reach UHC with Portugal as the standard (thousands) |
| ip_visits_needed_prt_upper | 95% UI (upper bound) for inpatient visits needed to reach UHC (PRT/std) | Upper bound of 95% uncertainty interval for inpatient visits needed to each UHC with Portugal as the standard (thousands) |
| ip_visits_per_cap_95_lower | Annual inpatient visits per capita, lower bound of 95% uncertainty interval | Annual inpatient visits = Annual overnight admissions into a formal hospital |
| ip_visits_per_cap_95_upper | Annual inpatient visits per capita, upper bound of 95% uncertainty interval | Annual inpatient visits = Annual overnight admissions into a formal hospital |
| ip_visits_per_cap_mean | Annual inpatient visits per capita, mean estimate | Annual inpatient visits = Annual overnight admissions into a formal hospital |
| location_id | Location ID | Unique numeric identifier for the location generated and stored in an IHME database of data dimensions |
| location_name | Location Name | Location of the estimate |
| op | Outpatient Share | Reported percentage of health spending spent on outpatient care |
| op_cost_lower | Average cost of an outpatient visit, lower bound of 95% uncertainty interval | Lower 95% uncertainty interval for average cost of average cost of an outpatient visit in 2015 purchasing power parity (PPP) dollars |

| Variable | Variable Label | Variable Definition |
|--|--|--|
| op_cost_mean | Average cost of an outpatient visit, mean estimate | Mean estimate of average cost of an outpatient visit in 2015 purchasing power parity (PPP) dollars |
| op_cost_upper | Average cost of an outpatient visit, upper bound of 95% uncertainty interval | Upper 95% uncertainty interval for average cost of average cost of an outpatient visit in 2015 purchasing power parity (PPP) dollars |
| op_percentage_change_age | Total percentage change due to changes in age | Total percentage change in outpatient visits from 1990 to 2016 due to changes in age |
| op_percentage_change_age_sex_utilization | Total percentage change due to changes in age-sex utilization | Total percentage change in outpatient visits from 1990 to 2016 due to changes in age-sex utilization |
| op_percentage_change_population | Total percentage change due to changes in population | Total percentage change in outpatient visits from 1990 to 2016 due to changes in population |
| op_percentage_change_sex | Total percentage change due to changes in sex | Total percentage change in outpatient visits from 1990 to 2016 due to changes in composition of sex in the population |
| op_total_percentage_change | Total percentage change in outpatient visits | Total percentage change in outpatient visits from 1990 to 2016 |
| op_visits_needed_nld_lower | 95% UI (lower bound) for outpatient visits needed to reach UHC (NLD/std) | Lower bound of 95% uncertainty interval for outpatient visits needed to each UHC with Netherlands as the standard (thousands) |
| op_visits_needed_nld_mean | Mean outpatient visits needed to reach UHC (NLD/std) | Mean outpatient visits needed to reach UHC with Netherlands as the standard (thousands) |
| op_visits_needed_nld_upper | 95% UI (upper bound) for outpatient visits needed to reach UHC (NLD/std) | Upper bound of 95% uncertainty interval for outpatient visits needed to each UHC with Netherlands as the standard (thousands) |
| op_visits_needed_prt_lower | 95% UI (lower bound) for outpatient visits needed to reach UHC (PRT/std) | Lower bound of 95% uncertainty interval for outpatient visits needed to each UHC with Portugal as the standard (thousands) |
| op_visits_needed_prt_mean | Mean outpatient visits needed to reach UHC (PRT/std) | Mean outpatient visits needed to reach UHC with Portugal as the standard (thousands) |
| op_visits_needed_prt_upper | 95% UI (upper bound) for outpatient visits needed to reach UHC (PRT/std) | Upper bound of 95% uncertainty interval for outpatient visits needed to each UHC with Portugal as the standard (thousands) |

| Variable | Variable Label | Variable Definition |
|----------------------------------|--|--|
| op_visits_per_cap_95_lower | Annual outpatient visits per capita, lower bound of 95% uncertainty interval | Annual outpatient visits = Annual visits to a formal healthcare provider that does not involve admission into a hospital |
| op_visits_per_cap_95_upper | Annual outpatient visits per capita, upper bound of 95% uncertainty interval | Annual outpatient visits = Annual visits to a formal healthcare provider that does not involve admission into a hospital |
| op_visits_per_cap_mean | Annual outpatient visits per capita, mean estimate | Annual outpatient visits = Annual visits to a formal healthcare provider that does not involve admission into a hospital |
| other | Other Share | Reported percentage of health spending spent on all other spending categories aside from inpatient and outpatient care |
| sdi_quintile | Sociodemographic-index quintile | Sociodemographic-index quintile |
| sex | Sex | The sex to which the estimate applies to |
| total_costs_to_uhc_nld_lower | 95% UI (lower bound) for total cost to reach UHC (NLD/std - 2017 PPP) | Lower bound of 95% uncertainty interval for total cost UHC with Netherlands as standard in 2017 purchasing power parity (PPP) dollars (in millions) |
| total_costs_to_uhc_nld_lower_usd | 95% UI (lower bound) for total cost to reach UHC (NLD/std - 2017 USD) | Lower bound of 95% uncertainty interval for total cost UHC with Netherlands as standard in 2017 United States dollars (in millions) |
| total_costs_to_uhc_nld_mean | Mean total cost to reach UHC (NLD/std - 2017 PPP) | Mean total cost to reach UHC with Netherlands as standard in 2017 purchasing power parity (PPP) dollars (in millions) |
| total_costs_to_uhc_nld_mean_usd | Mean total cost to reach UHC (NLD/std - 2017 USD) | Mean total cost to reach UHC with Netherlands as standard in 2017 United States dollars (in millions) |
| total_costs_to_uhc_nld_upper | 95% UI (upper bound) for total cost to reach UHC (NLD/std - 2017 PPP) | Upper bound of 95% uncertainty interval for total cost to reach UHC with Netherlands as standard in 2017 purchasing power parity (PPP) dollars (in millions) |
| total_costs_to_uhc_nld_upper_usd | 95% UI (lower bound) for mean total cost to reach UHC (PRT/std - 2017 PPP) | Upper bound of 95% uncertainty interval for total cost to reach UHC with Netherlands as standard in 2017 United States dollars (in millions) |
| total_costs_to_uhc_prt_lower | 95% UI (lower bound) for mean total cost to reach UHC (PRT/std - 2017 USD) | Lower bound of 95% uncertainty interval for total cost UHC with Portugal as standard in 2017 purchasing power parity (PPP) dollars (in millions) |

| Variable | Variable Label | Variable Definition |
|----------------------------------|--|---|
| total_costs_to_uhc_prt_lower_usd | 95% UI (lower bound) for mean total cost to reach UHC (PRT/std - 2017 USD) | Lower bound of 95% uncertainty interval for total cost UHC with Portugal as standard in 2017 United States dollars (in millions) |
| total_costs_to_uhc_prt_mean | Mean cost to reach UHC (PRT/std - 2017 PPP) | Mean cost to reach UHC with Portugal as standard in 2017 purchasing power parity (PPP) dollars (in millions) |
| total_costs_to_uhc_prt_mean_usd | Mean cost to reach UHC (PRT/std - 2017 USD) | Mean cost to reach UHC with Portugal as standard in 2017 United States dollars (in millions) |
| total_costs_to_uhc_prt_upper | 95% UI (upper bound) for total cost to reach UHC (PRT/std - 2017 PPP) | Upper bound of 95% uncertainty interval for total cost to reach UHC with Portugal as standard in 2017 purchasing power parity (PPP) dollars (in millions) |
| total_costs_to_uhc_prt_upper_usd | 95% UI (upper bound) for total cost to reach UHC (PRT/std - 2017 USD) | Upper bound of 95% uncertainty interval for total cost to reach UHC with Portugal as standard in 2017 United States dollars (in millions) |
| year_id | Year | Time period of estimate |

Additional Information

Terms and Conditions

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

Contact information

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These files may be updated periodically, so we appreciate hearing feedback or additional information about how these data are being used.