**Documentation for the State Health Expenditure Data Files**

**State Health Expenditures by State of Provider**

This paper provides key information on the State Health Expenditures by state of provider (1980-2020) data files released by the CMS Office of the Actuary on August 12, 2022.

Please send questions to CMSDNHS@cms.hhs.gov.

I. Data Overview and Important Notes

The State Health Expenditures by state of provider are calculated based on the location of the health provider or establishment in which a health good is purchased at retail. Documentation that discusses the data and methods used for both the state of provider estimates and residence estimates in detail are available elsewhere on our website.[[1]](#footnote-1)

Please note the following:

* Only the health spending by state of residence estimates adjust for border-crossing and thus re-assigns spending to the state in which a patient lives. As a result, per capita estimates are only appropriate when using state of residence estimates.
* As with all other National Health Expenditure Accounts estimates, all spending levels are expressed in nominal terms unless otherwise specified.
* While these files contain US government data and are thus in the public domain, citation of the source is requested.
  + **SUGGESTED CITATION FOR STATE OF PROVIDER DATA:** Centers for Medicare & Medicaid Services (2022). *Health Expenditures by State of Provider*. Retrieved (date accessed) at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/provider-state-estimates.zip>

II. Data File Information

The State Health Expenditures data files are posted to the CMS website as a collection of zipped CSV-formatted files. The following tables provide the location and key information necessary to navigate our data files.

**Table 1: State Health Expenditure Data by State of Provider File Names, Contents, Notes, and References**  
URL: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/provider-state-estimates.zip>

| **File Names and Location** | **Contents** | **Notes and References** |
| --- | --- | --- |
| PROV\_US\_AGGREGATE20.CSV | Total personal health care spending by state and by service, in millions of dollars | SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group. |
| PROV\_MEDICARE\_AGGREGATE20.CSV | Total Medicare personal health care spending by state and by service, in millions of dollars | SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group. |
| PROV\_MEDICAID\_AGGREGATE20.CSV | Total Medicaid personal health care spending by state and by service, in millions of dollars | SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group. |

**Table 2: Variable Names and Descriptions for State Health Expenditure Data Files**

| **VARIABLE** | **DESCRIPTION** |
| --- | --- |
| Code | Numerical code assigned to each Item |
| Item | Identifies health spending level of aggregation/payer/service/good; appropriate units/scale (e.g. millions of dollars) |
| Group | Level of aggregation by geography |
| Region\_Number | Numerical Code Assigned to each Region, for sorting purposes |
| Region\_Name | Bureau of Economic Analysis Region Name |
| State\_Name | U.S. State Name or District |
| Y1980 | Spending level for 1980 |
| Y1981 | Spending level for 1981 |
| Y1982 | Spending level for 1982 |
| Y1983 | Spending level for 1983 |
| Y1984 | Spending level for 1984 |
| Y1985 | Spending level for 1985 |
| Y1986 | Spending level for 1986 |
| Y1987 | Spending level for 1987 |
| Y1988 | Spending level for 1988 |
| Y1989 | Spending level for 1989 |
| Y1990 | Spending level for 1990 |
| Y1991 | Spending level for 1991 |
| Y1992 | Spending level for 1992 |
| Y1993 | Spending level for 1993 |
| Y1994 | Spending level for 1994 |
| Y1995 | Spending level for 1995 |
| Y1996 | Spending level for 1996 |
| Y1997 | Spending level for 1997 |
| Y1998 | Spending level for 1998 |
| Y1999 | Spending level for 1999 |
| Y2000 | Spending level for 2000 |
| Y2001 | Spending level for 2001 |
| Y2002 | Spending level for 2002 |
| Y2003 | Spending level for 2003 |
| Y2004 | Spending level for 2004 |
| Y2005 | Spending level for 2005 |
| Y2006 | Spending level for 2006 |
| Y2007 | Spending level for 2007 |
| Y2008 | Spending level for 2008 |
| Y2009 | Spending level for 2009 |
| Y2010 | Spending level for 2010 |
| Y2011 | Spending level for 2011 |
| Y2012 | Spending level for 2012 |
| Y2013 | Spending level for 2013 |
| Y2014 | Spending level for 2014 |
| Y2015 | Spending level for 2015 |
| Y2016 | Spending level for 2016 |
| Y2017 | Spending level for 2017 |
| Y2018 | Spending level for 2018 |
| Y2019 | Spending level for 2019 |
| Y2020 | Spending level for 2020 |
| Average\_Annual\_Percent\_ Growth | Average annual growth rate for spending, 1980-2020 |

**Table 3: Code Key**

| **CODE** | **DESCRIPTION** |
| --- | --- |
| 1 | Personal Health Care |
| 2 | Hospital Care |
| 3 | Physician & Clinical Services |
| 4 | Other Professional Services |
| 5 | Dental Services |
| 6 | Other Health, Residential, and Personal Care |
| 7 | Home Health Care |
| 8 | Nursing Home Care |
| 9 | Prescription Drugs |
| 10 | Durable Medical Products |
| 11 | Other Non-durable Medical Products |
| NOTE: Level of aggregation, payer, and unit of analysis is specified in the Item column and is evident in each filename. | |

III. How to Use the State Health Expenditures Data Files and Data

The state health spending data as presented can be accessed and easily mined for any purpose, at any level of complexity, and with a variety of software.

The CSV files can be opened for immediate and intuitive viewing in Microsoft Excel. To take advantage of Excel’s analysis tools, data filters, pivot tables/charts, and general chart/graph functionality:

* Save a copy of the CSV files as Excel spreadsheets.
* Highlight all data rows/columns pertinent to your needs.
* Select the data analysis function that you would like to use. In Excel, selected functions can be found as follows:
  + Data Filters: select the Filter command from the Data Ribbon. Click on the filter icon in each column to customize/sort the data to your specifications.
  + Pivot Tables/Charts and other chart/graph options: select applicable command from the Insert ribbon and follow the on-screen instructions.

Please consult the help documentation of the version of Microsoft Excel that you are running for specific instructions on how to use these or any other data analysis functions.

The data can just as easily be read into econometric or other data management/data analysis software.

The following calculations/metrics are typically used when analyzing the State Health Expenditures data:

| Calculation/Metric | Purpose | Example: |
| --- | --- | --- |
| Descriptive Statistics | To provide basic statistics for a given variable; typically provided with regression analysis. | Mean, Standard Deviation, Maximum, Minimum |
| Average Annual Growth | To provide the rate of change in a particular variable from one year to the next or the average rate of change over a period of years. | AAG= (growth in final year of analysis/growth in first year of analysis)^(1/(number of years))-1\*100% |
| Percent Distribution | Typically used to determine the share of spending associated with a given payer, service within a state; a state’s spending as a share of the national total, etc. | % spending associated with hospital care in State A = total hospital spending for State A/total personal health care spending in State A \*100% |
| Location Quotient | Standardizes the relationship of spending among the states to the percent difference between spending in a state to the national average. | LQ=per capita total personal health care spending for State X/average per capita total personal health care spending for US\*100% |

1. Please see the “Downloads” section on each of the following page: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsProvider.html> [↑](#footnote-ref-1)