

Chronic Disease Cost Calculator  
Top Frequently Asked Questions (FAQ)

**1. Why are the Chronic Disease Cost Calculator estimates important?**

The Chronic Disease Cost Calculator is a downloadable tool that provides the first Medicaid-specific, state-level estimates of Medicaid spending for six chronic diseases: congestive heart failure, heart disease (other than congestive heart failure), stroke, hypertension, cancer and diabetes. Cost Calculator cost estimates include both federal and state payments for Medicaid and reflect how much money the Medicaid program spends on a specific set of chronic diseases within a state in one year. The statistical analysis used to generate these estimates minimizes double-counting of costs across diseases, which often occurs in other cost estimates. For a detailed explanation of Cost Calculator methodology, including how it calculates prevalence and per person costs, refer to the *Cost Calculator Technical Appendix*.

These estimates provide vital information to better understand how pervasive these chronic diseases are and the cost burden they impose. These Medicaid estimates should not be viewed as “too high” or “too low.” Rather, they need to be taken in context by considering the overall health needs of the population and the degree to which those needs are being met. Further, Medicaid spending is only a portion of the total cost burden of these chronic diseases. The Cost Calculator does not include: Medicare, private insurance, and individual out-of-pocket spending. Also, the Cost Calculator does not take into account lost economic productivity due to disability and premature death. Although these estimates represent only a portion of the total economic burden of these diseases, they provide vital information to better understand the scope of the problem.

All reported numbers are estimates and could differ from actual values. The Cost Calculator is designed to provide the best possible estimates given the data available on each state’s allocation of Medicaid resources for each of the six chronic diseases. The default data used by the Chronic Disease Cost Calculator have at least four limitations:

- 1) Medical Expenditure Panel Survey (MEPS) data used by the Cost Calculator are self-reported. However, extensive efforts are undertaken to validate self-reported diagnosis and expenditure data.
- 2) The MEPS sampling design excludes the institutionalized population (excludes long term care). Although Medicaid data were used to adjust for long term care costs, these adjustments were based on data from only four states, which may not be nationally representative.
- 3) Although the overall sample size is reasonably large, the expenditure estimates are associated with uncertainty, and the variance in the estimates is greater for those diseases that are less prevalent in the Medicaid population.
- 4) These estimates include prescription drug expenditures for individuals who are dually eligible for Medicare and Medicaid. Following the introduction of the Medicare outpatient prescription drug benefit in January 2006, Medicaid no longer pays for these services.

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**2. Why are the Cost Calculator spending estimates lower than other chronic disease cost estimates?**

There are reasons why prevalence and spending estimates for the Medicaid population are lower than one might assume:

- Prevalence estimates for the Medicaid population may appear lower than expected because the majority of Medicaid beneficiaries are age 18 and under (51%), almost double the proportion found within the general population, and these diseases are far less prevalent in this younger population.
- The majority of Medicaid beneficiaries receiving treatment for any of these six chronic diseases are dually eligible for Medicare coverage. The Medicaid expenditure estimates in the Cost Calculator only include the Medicaid portion of spending for dual eligibles and do not include Medicare expenditures. Medicare is the primary payer for most services for dually eligible beneficiaries.

There are also specific reasons why the Chronic Disease Cost Calculator spending estimates may be lower than other spending estimates that use different methodologies:

- The statistical analysis used by the Cost Calculator employs an econometric methodology that minimizes double-counting (i.e., overlap of disease costs) of Medicaid dollars going to multiple diseases.
- The per person cost estimates are based on all persons reporting treatment for or problems with a disease within the interview year, rather than new diagnoses during the year, and include people at any stage of treatment. For example, cancer costs may appear low because they include both people in the acute phase of treatment and those receiving longer term follow-up.

**3. What if there are discrepancies between the Cost Calculator estimates and other Medicaid estimates?**

The Cost Calculator provides consistent estimates of state Medicaid chronic disease expenditures for all states using a single methodology and common set of databases.

Cost Calculator estimates may differ from other state Medicaid estimates for several reasons:

- Differences in the type of data (e.g., survey vs. administrative).
- Definition of chronic disease prevalence.
- Methodology to attribute costs to diseases (e.g., accounting vs. regression).
- Differences in the time period of the data. Estimated spending in the Cost Calculator is based on 2001-2005 data inflated forward to 2007 dollars.
- All estimates involve some uncertainty. Although estimates in the Cost Calculator may appear different from other estimates, they may not be statistically significant differences.

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However, when discrepancies occur, users should contact the state Medicaid department and state health department to help determine which set of data and modeling assumptions are most appropriate in the given situation.

**4. Because hypertension and diabetes are both diseases themselves and also risk factors for other diseases, do they present any issues for the Cost Calculator?**

Given that both hypertension and diabetes are themselves diseases that require treatment as well as leading causes of other diseases in the Calculator, these cost estimates include expenditures for the diseases for which they are risk factors. As a result, when summing the costs of hypertension and/or diabetes with the costs of other cardiovascular diseases, a small amount of double-counting will occur.

**5. Can the Cost Calculator be used to compare my state with other states or the nation? My state has higher/lower Medicaid spending than other states. Why?**

The Cost Calculator was not designed to make statistical comparisons between states or between a state and the national estimate.

The primary factors that influence a state's total estimated cost for each disease are the prevalence of these diseases in the Medicaid population and variables specific to each Medicaid program, including the number of people served, the age distribution of the Medicaid population, eligibility criteria, and services covered under Medicaid. Cost Calculator estimates are a reflection of services and treatment provided according to self-reports and do not necessarily capture the full burden of disease or the need for services among this population.

**6. What kind of guidance or technical support is available?**

Directions for use are available at the Cost Calculator website ([www.cdc.gov/nccdphp/resources/calculator.htm](http://www.cdc.gov/nccdphp/resources/calculator.htm)) and through help buttons on the Cost Calculator itself. The *User Guide* and the *Technical Appendix* both provide guidance on the Cost Calculator. In addition, technical support can be requested at the website or at the following email address: [cdcostcalculator@cdc.gov](mailto:cdcostcalculator@cdc.gov).

**7. What enhancements to the calculator are anticipated in the next two years?**

Future iterations of the cost calculator will include estimates of the prevalence and costs of asthma, arthritis, and depression; estimates of the medical costs to Medicare and private payers; estimates of the indirect costs of lost productivity; and projections of future costs.