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State Employee Health Plan Spending

Frequently asked questions

The State Health Care Spending Project's **report** on state employee health plan spending provides a first-of-its kind analysis of the costs and characteristics of these plans. These data and analysis offer important information as policymakers seek the best way to make their employee benefit systems effective, affordable, and sustainable.

Appendix B in the report, as well as footnotes throughout the study, provide an overview of the methods used to perform the analysis. This document supplements those descriptions.

Q: Does the study's analysis account for the participation of state employee health plan enrollees in wellness programs?

No. In general, a wellness program could affect the study's analysis by adjusting one or more of three plan elements: total premium, cost-sharing requirements, or employee premium contribution.

Milliman actuaries found that from 2011 to 2013, it was rare for states or other public employers to define total premiums differently for employees depending on their participation in a wellness program. Therefore, total premiums in the study apply to most state employees, regardless of their participation in wellness programs.

Some employers incentivize participation in wellness programs by reducing cost-sharing provisions such as deductibles. Milliman actuaries found that this practice was also rare among states from 2011 to 2013, so the values related to cost sharing in the study, such as deductibles and actuarial values, apply to most state employees, regardless of their participation in wellness programs.

The most common financial effect of wellness programs is on employee premium contributions. State employee health plan enrollees who participate in wellness programs sometimes pay lower premiums than those who do not; states sometimes offer similar discounts on employee premiums to nonsmokers. States use a variety of approaches to define these different premiums. Some publish separate premium schedules. Some publish a single schedule but define additional payments for employees who do not participate in wellness programs. Others publish a single schedule but define credits for employees who participate in such programs.

In order to produce consistent, comparable values across states—and because each state's rate of enrollee participation in wellness programs was not publicly available—Milliman used one set of employee contributions for each state. For states that publish separate premium schedules, researchers used the schedule for employees who do not participate in the available wellness programs. For states that publish a single schedule, researchers used that schedule and did not reflect any additional payments or credits related to participation in programs.

Based on this methodology, the average employee premium contributions reported in the study may overstate the actual contributions to the extent that employees participate in wellness programs with lower premium rates.

Q: Some states vary their health plan designs based on the employee's salary. How were these states reflected in the report?

In general, states consider salary variation in three components of a state employee health plan: total premium, cost-sharing requirements, or employee premium contribution.

Milliman actuaries found that from 2011 to 2013, it was rare for states or other public employers to vary total premiums or cost-sharing requirements by employee salary. When salary was a determining factor, the study reported the values for an employee making $50,000 per year.

Several states vary employee premium contributions based on salary, with higher premium contributions charged to employees with higher salaries. States do this in at least two ways. One is to publish multiple employee premium contribution schedules for different salary bands. A second is to define all or part of the employee premium contribution as a percentage of salary. In all cases, the study reported employee premium contributions based on an employee earning $50,000 a year.

Applying this methodology, the average employee premium contributions reported in the study may overstate or understate the actual employee premium contributions to the extent that employees in a state earn less than or more than $50,000 a year, on average, respectively. The experiences of individual employees will vary based on their particular circumstances.

Q: Some states vary their health plan designs based on an employee's date of hire. How were these states reflected in the report?

In general, states consider an employee's date of hire in four components of a state employee health plan: total premium, employee premium contribution, cost-sharing requirements, and the plans available to an employee.

In some cases, states have different total premiums, employee premium contributions, or cost-sharing requirements for employees hired after a certain date. This arrangement is sometimes known as a two-tier structure. In these situations, Milliman actuaries generally modeled the premium and benefit provisions for employees hired after that date. One exception is New Jersey, which was in the midst of phasing in a new state employee premium contribution schedule during the study period. Based on guidance from publicly available state information, the study modeled the employee premium contribution provisions for employees straddling Year 2 and Year 3, rather than Year 4, of the phase-in schedule in 2013 (to which all employees hired after legislation was passed in 2011 were directed).

A few states have grandfathered specific plans so that they are available only to employees who were already enrolled in those plans as of a certain date. These plans, which typically have low enrollment, were included in the analysis and treated like any other option.

In cases in which there is a different structure based on the employee's date of hire, employee premium contributions tend to be higher for new hires than for existing employees. As a result, the average employee premium contributions in the study for a particular state may overstate the actual employee premium contributions to the extent that employees were hired before the cutoff date.

Q: How were total state employee health plan expenditures (gross and net) estimated?

Estimates of total state employee health plan expenditures have two main components: average per-employee premiums and the estimated number of enrolled employees.

Average per-employee premiums were calculated by using each state's distribution of employees by plan and level of dependent coverage. In a state with more than one plan, a composite was calculated for each plan and weighted by actual enrollment so that the state average represents the distribution of enrollment across all plans.

In some instances, detailed employee census data were not available for all plan years. If employee census data were available by plan, but not by tier, Milliman estimated the distribution by dependent tier using that of states with similar dependent-tier structures. If employee census data were available by plan and tier for only one or two years, Milliman used the census data available to estimate the data for the missing years.

Estimates of average per-employee premiums may differ from actual values for several reasons, including:

- The actual distribution of employees by plan may differ from Milliman's estimates.
- The actual distribution of employees by tier may differ from Milliman's estimates.
- Total premium rates for a given plan and tier were typically collected from the values communicated during annual enrollment. In the case of self-funded plans, these amounts are estimated by the state in advance; actual costs for the year can vary from expected costs.
- Milliman's distribution of employees by plan and tier may be based on data as of a given date, such as June 1, whereas states may calculate their total annual costs using the full year of enrollment data, reflecting new hires, terminations, and changes to dependent tiers due to qualifying life events.

Average per-employee per-month premium contributions could differ from actual values for all of these reasons. Moreover, as described above, they may also differ in states where employee premiums vary by participation in wellness programs, salary level, or date of hire.

Total gross state employee health plan expenditures are estimated as the product of the average per-employee premium and an estimate of the number of active employees enrolled. Gross expenditures include employer and employee premium contributions. Net state employee health plan expenditures include only employer premium contributions. To calculate net expenditures, Milliman estimated the net premium paid by the state per employee—excluding the portion of premiums paid by employees—and multiplied this figure by the number of enrolled employees.

There is no consistent source for state employee health plan census data, so Milliman obtained and/or estimated these values from a variety of sources. The following steps were taken in cases where census data were not made publicly available by a state health plan:

- State employee health plan census data for the state plans were used where available for a given year. If one or more of the plans also covers teachers or other local government employees, Milliman removed those counts on an approximate basis. If census data for the plan(s) included retirees under age 65, these were also removed.

- If state employee health plan census data were available for only one or two years, Milliman estimated values for missing years based on the growth in total state employee counts from the state's Comprehensive Annual Financial Reports.
- In the rare cases in which no state employee health plan census data were available for a given year, Milliman used the total state employee counts from the state's Comprehensive Annual Financial Reports.

Because of the difficultly in estimating total expenditures, the estimates reported in the study may differ from actual expenditures. Still, they represent the best estimates currently available.

Q: Were total expenditures for 2011 and 2012 adjusted for inflation?

Yes. Project researchers adjusted total expenditures (**Table C.3**) to 2013 dollars. Nominal spending data for the 2011–12 plan year were converted to 2013 dollars using the Implicit Price Deflator for Gross Domestic Product included in the Bureau of Economic Analysis' National Income and Product Accounts (NIPA Table 1.1.4).

Q: What types of employees were included in this analysis?

This analysis includes every state employee health plan and excludes local government employees, even if they were in the plan (i.e., had the same benefit design and premiums). Milliman excluded school district employees on this basis, even in states that considered local school employees to be state employees, and it included only those public university employees who were in a primary state employee plan.

Q: Many states offer several health plans with differing provisions and requirements. How does the analysis convert these differences into composite averages?

Composite averages were calculated for per-employee premiums (**Table 1**, **Table C.2**), employer and employee premium contributions (**Table 1, Figure 5, Table C.2**), and employee-only premiums adjusted for plan richness and household size (**Figure 2, Table C.2**). Average per-employee premiums were calculated by using each state's distribution of employees by plan and level of dependent coverage. In a state with more than one plan, a composite was calculated for each plan and weighted by actual enrollment so that the state average represents the distribution of enrollment across all plans.

In some instances, detailed employee census data were not available for all plan years. If employee census data were available by plan, but not by tier, Milliman estimated the distribution by dependent tier using that of states with similar dependent-tier structures. If employee census data were available by plan and tier for only one or two years, Milliman used the census data available to estimate the data for the missing years.

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Average per-employee per-month premium contributions could differ from actual values for all of these reasons. Moreover, as described above, they may also differ in states where employee premiums vary by participation in wellness programs, salary level, or date of hire.

Q: Some state health plan provisions differ depending on whether an enrollee receives care from in-network—or "preferred"—providers or from those who are out-of-network. How does the study account for these differences?

State health plans sometimes require different cost-sharing arrangements—deductibles, copayments, and coinsurance—based on whether a provider who cares for a plan enrollee is in the plan's network. These plans require enrollees to share more of the cost of care received from out-of-network providers. Because Milliman's actuarial research shows that, in plans with provider networks, services are typically provided in-network and because it is not possible to know how many employees receive out-of-network care in each state, the study analyzed states based on their in-network provisions.

Q: How does the study adjust employee-only premiums for richness, household size, and cross-tier subsidization?

Richness was controlled for by adjusting premiums per employee to reflect a hypothetical premium in which each plan offered included no employee cost sharing (**Figure 2, Table C.2**). In other words, each plan's premium was adjusted proportionately as though its actuarial value were equal to a hypothetical 100 percent. This calculation does not capture the total underlying cost of health care services because this hypothetical premium includes the insurance carrier's load for profit and nonbenefit expenses such as administrative costs.

It is important to note a limitation in the mathematical adjustment of plan richness to a standard actuarial value: such a calculation does not account for actions taken by employees and dependents in response to cost-sharing arrangements that might have been different under the hypothetical plan design. For example, a person enrolled in a plan with a $250 annual deductible may use services more often than a similar person enrolled in a plan with a $1,500 annual deductible, especially after the first person has reached his or her deductible. Therefore, a lower premium due to greater cost sharing may be additionally reduced by the behavioral effect that a higher

deductible can have on the utilization of services. This reduction cannot be fully captured by normalizing actuarial values.

Researchers calculated an average employee-only total premium using Milliman's standard large employer tier slopes instead of the state-specific tier slopes. By comparing these adjusted average employee-only premiums instead of a cross-tier per employee composite premium, researchers removed differences in mix by tier and tier slopes among states.

Q: Why might a state's average actuarial value reported in the study differ from other actuarial value calculations?

To calculate actuarial values, Milliman researchers estimated the underlying claims cost per member per month for each state, and then estimated what portion of these expenses are paid by the health plan. The actuarial value is the ratio of expenses paid by the health plan to the total expenses eligible under the plan. The average actuarial value is weighted across plans based on actual enrollment.

Average actuarial values are based on Milliman's proprietary actuarial valuation tool, the Milliman Health Cost Guidelines. The data in the tool include utilization of services, cost sharing, and total costs for a standard population of health plan enrollees covered by large employers.

Under the Affordable Care Act, all plans sold in the individual and small-group markets must meet specific actuarial value standards, often referred to as the metallic tiers (platinum, gold, silver, and bronze). To measure the actuarial value of individual and small-group market plans, the U.S. Department of Health and Human Services developed an actuarial value calculator, which accounts for utilization, cost sharing, and total costs for health services for a standard population of enrollees who are likely to be covered by the individual and small-group health insurance market. Although both the Milliman tool and the federal calculator use a similar process for determining actuarial values, the underlying data and specific manner by which actuarial values are calculated differ. In particular, the federal calculator is designed to represent enrollees who are likely to be covered in the individual and small-group market, while the Milliman tool is focused on the large-employer market, which includes state governments.

Some states may rely on the federal calculator or another tool. Accordingly, they may value a plan's actuarial value differently.

For more information, please visit:

pewtrusts.org/healthcarespending

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The State Health Care Spending Project, a collaboration between The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, is examining seven key areas of state health care spending—Medicaid, the Children's Health Insurance Program, substance abuse treatment, mental health services, prison health care, active state government employee health insurance, and retired state government employee health insurance. The project is providing a comprehensive examination of each of these health programs that states fund. The programs vary by state in many ways, so the research highlights those variations and some of the key factors driving them. The project has also released state-by-state data on 20 key health indicators to complement the programmatic spending analysis.