The True Cost of Health Care: An Analysis of Americans' Total Health Care Spend

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About this Report

Healthcare costs are crushing everyday Americans. While there are many obvious direct costs of the health care system such as Medicare, Medicaid, and private insurance expenses, many lesser known hidden healthcare costs also, in sum, represent a significant and often unappreciated additional spend on health care. To accurately describe the escalating healthcare spending crisis in the United States, we identified the multiple avenues by which tax dollars and wages are being spent on health care, including conscious and unconscious federal spending. We hope this analysis helps elucidate the magnitude of the U.S. healthcare costs and sheds light on potential targets for efforts to enhance healthcare delivery efficiencies—lowering costs and improving quality.

Health care, the largest industry in the United States, is now \$3.5 trillion in size and continues to grow (1). Healthcare costs are becoming increasingly unmanageable, taking a greater toll on American businesses, resulting in higher taxes, greater insurance premiums and deductibles, surprise medical bills, and more out-of-pocket costs. With these increasing burdens and a total federal budget of \$4.1 trillion in 2018 (2), it is important to accurately characterize for average taxpayers how much is being spent on health care. The purpose of this report is to expose the true total costs of health care in the U.S.

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Executive Summary

- In 2018, an estimated 48% of the entire U.S. federal budget represents spending on health care, including:
 - o It is projected that 43.65% percent of Social Security's \$1 trillion budget went to health care, representing 10.6% of the entire U.S. federal budget.
 - The Office of Personnel Management (OPM) provides health care benefits for around 9 million people, representing an expense amounting to 1.3% of the entire U.S. federal budget.
 - \$51.1 billion out of \$639.1 billion of the Department of Defense budget went to health care, representing 1.2% of the U.S. federal budget.
 - Federal interest expense on the national debt includes interest expense payments for federal spending for health care.
- For an individual earning \$52,000 a year, total health care spending including contributions from taxes, insurance, and out-of-pocket costs is estimated to be \$19,266, or 37%.
- For a family of two earning \$250,000 a year, total health care spending including contributions from taxes, insurance, and out-of-pocket costs is estimated to be \$64,773, or 26%.
- For a family of four earning \$1 million a year, total health care spending including contributions from taxes, insurance, and out-of-pocket costs is estimated to be \$225,895, or 23%.

Methodology

All data used in this report is from Fiscal Year (FY) 2018. The total U.S. federal spending for FY2018 was \$4.1 trillion.

The United States Department of Veteran Affairs

In 2018, the VA's total budget amounted to \$182,280,000,000 with \$107,030,000,000 allocated to Veterans Benefits Administration (VBA), \$69,740,000,000 (without collections) to the Veterans Health Administration (VHA), and \$698,230,000 for medical and prosthetic research (3). We added the amounts apportioned to the VBS, VHA, and medical and prosthetic research to get a sum total portion of \$177,468,230,000 of the VA's budget apportioned to health care. Calculations are shown below:

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107,030,000,000 + 69,740,000,000 + 698,230,000 = 177,468,230,000
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In order to determine what proportion of the VA's health care spend is of the federal budget, we divided the VA's health care spend by the total federal budget. Calculations are shown below:

\$177,468,230,000 / \$4,100,000,000,000 = **4.3**% of federal spending

The United States Social Security Administration

In 2018, Social Security had a total budget of \$1,000,000,000,000 (4). The Kaiser Family Foundation reported that in 2013, 41% of Social Security spending went to health care, projected to raise to 50% by 2030 (5). Using linear interpolation, we calculated that in 2018, 43.65% of Social Security spending went to health care. Calculations are shown below.

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50% - 41% = 9%

2030 - 2013 = 17 years

9% / 17 years = 0.53% per year

2018 - 2013 = 5 years

0.53% x 5 years = 2.65%

41% + 2.65% = 43.65% of federal spending
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To find out exactly how much of Social Security went to health care, we took 43.65% of Social Security's total \$1,000,000,000,000 budget to get \$436,500,000,000. This was then divided by the total federal budget to get 10.6% of social security going to health care out of the total federal budget. Calculations shown below:

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0.4365 \times \$1,000,000,000,000 = \$436,500,000,000
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436,500,000,000 / 4,100,000,000,000 = 10.6% of federal spending

Medicare

According to the U.S. Department of Health and Human Services (HHS), in 2018, the four parts of Medicare (in billions) are as follows (6):

Part A (inpatient hospital services): \$202.8

Part B (outpatient services): \$201.9

Part C (Medicare Advantage): \$203.0

Part D (prescription drugs): \$96.8

We summed Part A-D to get a total 2018 Medicare budget of \$704,500,000,000. Calculations are shown below.

\$202,800,000,000 + \$201,900,000,000 + \$203,000,000,000 + \$96,800,000,000 = \$704,500,000,000

We then divided the total Medicare spend by the total federal budget to calculate that Medicare comprises 17.2% of the federal budget. Calculations shown below:

\$704,500,000,000 / \$4,100,000,000,000 = 17.2% of federal spending

Medicaid

The total Medicaid budget in 2018 was \$407,570,000,000, according to HHS (7). This was divided by the total federal budget to get Medicaid's proportion of the federal budget. Calculations are shown below:

\$407,570,000,000 / \$4,100,000,000,000 = **9.9**% of federal spending

Children's Health Insurance Program

Per HHS, The Children's Health Insurance Program (CHIP) had a budget of \$12,017,000,000 in 2018 (8). This was divided by the total federal budget to determine how much of the federal budget went to CHIP. Calculations are shown below.

12,017,000,000 / 44,100,000,000,000 = 0.3% of federal spending

The United States Department of Defense

In 2018, The Congressional Research Service reported that 8% of the Department of Defense budget was spent on health care (9). DoD's total 2018 budget amounted to \$639,100,000,000 (10). This includes a \$574,500,000,000 base budget and a \$64,600,000,000 Overseas Contingency Operations. The total DoD budget was divided by the total federal budget to determine how much of the DoD's health care spend is of the federal budget.

 $[(.08) \times $639,100,000,000] / $4,100,000,000,000 = 1.2\%$ of federal spending

The Office of Personnel Management

According to The Office of Personnel Management (OPM), The Federal Employees Health Benefits Program (FEHB) premiums represent a total federal government spend of \$55,000,000,000 (11). The government share of these premiums was \$38,600,000,000, while the enrollee share was \$16,400,000,000. We summed both the share of the government and the enrollee premiums (since they are taken as out of the paychecks of the federal employee) and then divided the total by the total federal budget to calculate how much of OPM's health care budget was out of the total federal budget. Calculations are shown below.

\$16,400,000,000 + \$38,600,000,000 = \$55,000,000,000

\$55,000,000,000 / \$4,100,000,000,000 = 1.3% of federal spending

Interest Expense

In 2018, the net interest expense on the public debt amounted to \$317,000,000,000 (12). We divided the total net interest expense by the total federal budget to calculate the proportion of the federal outlay for interest expense. That proportion was then applied to the total health care spend of the federal budget, sum of the above health care programs, to find the total interest expense allocated to health care. Calculations are shown below:

317,000,000,000 / 44,100,000,000,000 = 7.7% of federal spending

4.3% + 10.6% + 17.2% + 9.9% + 0.3% + 1.2% + 1.3% = 44.8% of federal spending

The estimated interest expense allocated to federal healthcare spending = **3.0**% **of federal spending** (rounded down for a conservative estimation)

Total Federal Health Care Spend

After calculating how much of each federal sector budget is allocated to healthcare, we summed each amount to find the total health care spend. Calculations are as follows:

4.3% + 10.6% + 17.2% + 9.9% + 0.3% + 1.2% + 1.3% + 3.0% = 47.8% of federal spending

Summary Findings

The United States Department of Veteran Affairs: 4.3%

The United States Social Security Administration: 10.6%

Medicare: 17.2%

Medicaid: 9.9%

Children's Health Insurance Program: 0.3%

The United States Department of Defense: 1.2%

The Office of Personnel Management: 1.3%

Interest Payment on the Debt Attributable to Health Care Spending: 3.0%

Estimated Total Federal Health Care Spend: 48%

Case Study 1: Single 27-yr-old Male in Boston, MA

Income: \$52,156a

Total federal and state taxes: \$11,287

Total federal taxes: \$8,804

Amount of federal taxes going to health care: \$4,226

Total state taxes: \$2,483

Amount of state taxes going to health care: \$919^b



Health insurance for self: \$11,121^c

Average out-of-pocket health care spend: \$3,000d

Total healthcare spend per year: \$19,266 or 37%

^a Average income for a male in the United States in 2017 (13)

^b In 2018, 37% of MA resident's state taxes went to health care (14)

^c Average spend on health insurance in 2018, (15)

^d The average out-of-pocket spending on health care in 2018 (16) *Insurance costs vary by age of dependents and family characteristics*

Case Study 2: Married Couple (ages 30 and 32) in Denver, CO

Income: \$250,000

Total federal and state taxes: \$82,256

Total federal taxes: \$70,681

Amount of federal taxes going to health care: \$33,927

Total state taxes: \$11,575

Amount of state taxes going to health care: \$2,604a





Health insurance for couple: \$22,242

Average out-of-pocket health care spend: \$6,000

Total healthcare spend per year: \$64,773 or 26%

^a In 2015, 22.5% of CO resident's state taxes went to health care (17) *Insurance costs vary by age of dependents and family characteristics*

Case Study 3: Family of 4, In New York City

Income: \$1,000,000

Total federal and state taxes: \$420,717

Total federal taxes: \$353,636

Amount of federal taxes going to health care: \$169,745

Total state taxes: \$67,081

Amount of state taxes going to health care: 21,265^a

Health insurance for family: \$22,885^b

Average out-of-pocket health care spend: \$12,000

Total healthcare spend per year: \$225,895 or 23%







^a In 2015, 31.7% of NY resident's state taxes went to health care (18) ^b In 2018, the average health insurance cost for a family of four (19) Insurance costs vary by age of dependents and family characteristics

Notes

- 1. Martin, B. et al., "National Healthcare Spending in 2017. Growth Slows to Post-Great Recession Rates; Share of GDP Stabilizes," *Health Affairs* 38, no. 1 (2018).
- 2. USAspending.gov. https://www.usaspending.gov/#/
- 3. Panangala, S. (2018, March 9). "Department of Veterans Affairs FY2018 Appropriations." Congressional Research Service.
- 4. USAspending.gov. https://www.usaspending.gov/#/explorer/budget_function
- 5. Cubanski, J. et. al., "Medicare Beneficiaries' Out-of-Pocket Health Care Spending as a Share of Income Now and Projections for the Future." Henry J Kaiser Family Foundation.
- U.S. Department of Health and Human Services. https://www.hhs.gov/about/budget/fy2018/budget-in-brief/cms/medicare/index.html
- 7. U.S. Department of Health and Human Services. https://www.hhs.gov/about/budget/fy2018/budget-in-brief/cms/medicaid/index.html
- 8. U.S. Department of Health and Human Services. https://www.hhs.gov/about/budget/fy2018/budget-in-brief/cms/chip/index.html
- 9. Mendez, B. (2018, April 20). "Defense Primer: Military Health Systems." Congressional Research Service.
- 10. U.S. Department of Defense https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/fy2018_Press_Release.pdf
- 11. The Office of Personnel Management.
- 12. Delisle, E. et. al., (2018, October 5). "Monthly Budget Review for September 2018." Congressional Budget Office.
- 13. Fontenot, K. et. al., (2018, September 12). "Income and Poverty in the United States: 2017." United States Census Bureau.
- Wagman, N. et. al, (2017, May 23). "What is the Actual State Cost of MassHealth in 2018." Massachusetts Budget and Policy Center.
- 15. Herman, B. (2019, February 21). "America's health care economy keeps ballooning." Axios.
- 16. Owens, C. (2019, August 16). "The growing employer health care crisis." Axios.
- 17. BallotPedia.
- 18. BallotPedia.
- 19. Franki, R. (2019, August 29). "Health spending nears \$23,000 per family." Internal Medicine News.
- 20. Tax Calculator. 2019. Neuvoo.