Getzen Model of Long-Run Medical Cost Trends

Update for 2026-2036+

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Getzen Model of Long-Run Medical Cost Trends

Update for 2026-2036+: Minor Changes with no Reduction in Uncertainty

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Executive Summary

The SOA Long-Term Healthcare Cost Trends Getzen Model is a tool for projection of expected growth rates in medical premiums and expenditures from 2030 to 2105; particularly in the estimation of reportable liabilities for retiree health benefits in accordance with FASB and GASB standards. The model projects percentage growth rates and the health share of GDP for the next 80 years using equations and assumptions developed by the authors with the assistance of an SOA Research Institute working group. If desired, the user can change the model input cells to specify alternative assumptions regarding responsiveness to local conditions, external trends, income growth, and other factors to arrive at alternative projections. The model adds transparency to the economic assumptions behind the medical trend assumption.

Some key observations from this year's projection include the following:

- Long-run medical cost increases are estimated at 5.0% per year eventually declining to match the rate of increases in per capita income.

- The following component assumptions of long-run medical cost increases were changed from last year:

    o Long-run health share of GDP was increased to 20.0% from 19.0%.

    o The health care share resistance point was increased to 18.5% from 18.0%.

- Short-run medical trends for the first three projection years of the model were eliminated to allow actuaries using the model to support those inputs.

- The Society of Actuaries Research Institute's Getzen Model Project Oversight Group (POG) expects that there will be greater budgetary resistance and more regulation in the future, which will limit the share of total income/GDP devoted to medical care.

Section 1   Key Considerations

Inflation remains the biggest short-term unknown. There are no good indexes for aggregate medical prices. Contractual adjustments, rebates, and subsidies obscure every attempt to measure care price variations, leaving expenditures as the only well-defined aspect. The politics and policy of health financing remain just as unsettled as they were a year ago.

Insurance and medical organizations will continue to evolve but are unlikely to create major shifts in the short run. However, over the long run, structural changes in providers and payment mechanisms will determine future trends—including the raising or lowering the health share of GDP being dependent upon public choices and private decisions. While the precise long-run configuration of medical provision and expenditures cannot be confidently predicted, a series of extrapolations considered by the POG are reviewed in *"Future Scenarios: U.S Health Care Financing in 2050+"* online.[1] Current macroeconomic disruptions are unlikely to stabilize until after 2026, and perhaps not until 2030 or later. CMS projections indicate that health expenditures soared from 17.5% of GDP in 2019 to 19.5% in 2020 due to COVID-induced reductions in economic growth. Health expenditures then fell to 17.4% in 2022 before gradually moving back toward the long-run trend line in 2023 with the expectation of exceeding 20.0% by 2033 or soon thereafter.[2]

The Getzen Long-Run Trend Model is designed to forecast spending 10+ years into the future. It provides a credible forecast for the 2030s but is of limited use in the short run. The consensus of the POG is that budgetary constraints and regulatory restrictions have already begun to gradually bend the cost curve downward toward a more sustainable growth rate. For year-to-year changes, the volatility of inflation will overwhelm any subtle difference in the underlying secular trend.

Changes in the rate of inflation take 18 to 36 months to be fully expressed in nominal health care spending, while changes in real wages and per capita incomes take three to six years. As in the model for 2025–2035+, which as released in 2024,[3] 2026 is given placeholder question marks ("???") due to residual volatility. These placeholders were extended to 2027 and 2028 in this year's model for 2026–2036+. Uncertainty and the range of possible outcomes involved in any forecast should always be considered.[4,5] Although aftershocks and possible recessions are likely to disrupt year-to-year changes, they are not likely to affect the long-run trend. Since reversion to the mean is expected within ten years, the baseline model parameters are mostly similar to those published last year.

Two factors determine health expenditures: i) the total amount available to spend (GDP) and ii) the fraction of the total allocated to medical care rather than other types of consumption (Share).[6] The first is

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[1] CMS Office of the Actuary. *National Health Expenditure Projections 2024-2033 Forecast Summary.* (June 2025). Online at https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/projected. Accessed December 4, 2025.

[2] CMS Office of the Actuary. *National Health Expenditure Projections 2024-2033 Forecast Summary.* (June 2025). Online at https://www.cms.gov/files/document/nhe-projections-forecast-summary.pdf. Accessed December 9, 2025.

[3] Getzen, Thomas E. (2024). Getzen Model of Long-Run Medical Cost Trends: Update for 2025–2035+. Society of Actuaries. https://www.soa.org/resources/research-reports/2024/2025-getzen-model-update/. Accessed December 9, 2025.

[4] Getzen, Thomas E. (2016). Accuracy of Long-Range Actuarial Projections of Health Care Costs. *North American Actuarial Journal* 20(2): 101-113.

[5] CMS Office of the Actuary. (November 2020). Analysis of National Health Expenditure Projections Accuracy. https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/downloads/projectionaccuracy.pdf. Accessed December 9, 2025.

[6] Getzen, Thomas E. (2022). *Money and Medicine: The Evolution of National Health Expenditures*. Oxford University Press.

expressed in the model as inflation plus real growth per capita, the second as the technology factor, "excess medical cost growth."

Inflation is expected to moderate sometime within the next few years but still outpace the unusually low rates experienced over the last 30 years. Although rising in nominal terms, real wage growth is expected to be moderate once adjustments are made for inflation, averaging about +1.4% annually. A growing public perception that medicine in the U.S. is overpriced is likely to reduce the rate of increase in share. The long-run technology trend parameter is expected to be close to +0.9%, below the 30-year average of +1.0% but above the +0.6% average for the last 10 years.[7] The share resistance point has been increased from 18.0% to 18.5% due to higher ten-year projections in the latest update of CMS's National Health Expenditure Reports.[8]

Volatility and sustainability of existing health care cost trends have become major concerns for patients, providers, and payers. The POG met in 2025 to consider multiple scenarios and factors responsible for trend shifts, providing a framework for considering the timing and direction of future changes in health system payments (see Getzen Model spreadsheet and *"Getzen Model Scenarios in 2050+"* online at https://www.soa.org/4ab471/globalassets/assets/files/resources/research-report/2023/2024-getzen-model-update-scenarios.pdf).

The Getzen Model is a long-run model designed to project medical cost levels and trends ten or more years into the future on a national basis. All short-run or local employee group trends will eventually converge toward that long-run national trend but, in the interim, may deviate widely. It is up to actuaries to use their expertise to bring in local and group factors such as age-gender demographics, regional supply conditions, group experience, plan type, benefit changes, disease prevalence, specialty drug expenses, etc. The general national trend is just one factor to be considered and may be of relatively minor importance on actuarial projections in the short- or medium-term for many specific groups or localities. The 2026 version of the Getzen Model projects the level of spending for 2035 and growth trends for the following years. A simple linear extrapolation is used to estimate growth back to the current situation, not to make year-to year forecasts for the next nine years—nor for trends in a specific locality, employee, or retiree group.

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[7] CMS Office of the Actuary. *National Health Expenditure Projections 2024-2033 Forecast Summary.* (June 2025). Online at https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/projected. Accessed December 4, 2025.
[8] Centers for Medicare & Medicaid Services. (2025). *National health expenditure (NHE) fact sheet*. https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/nhe-fact-sheet. Accessed November 21, 2025.

Section 2   Notes on Long-Run Model Input Parameters

The Getzen Model is a set of linked formulas to facilitate projections of average health care cost increases over the long run.[9] The formulas are embedded in a spreadsheet available on the SOA's Getzen model landing page.[10] A "baseline" is presented on the "output" page of the spreadsheet that provides the consensus estimate of an expert Project Oversight Group (POG) convened by the SOA Research Institute. Rates of increases for specific plans may often be above or below, or more variable than the long-run average national rate of increase in medical costs, which is the primary forecast target of the Getzen Model. Actuaries should be prepared to document and justify conditions or assumptions that they incorporate into their projections according to actuarial standards.

The model has three major sections:

> Years 1-4: short-term annual percent increases (user modifiable)
> Years 5-9: linear transition
> Years 10+: long-run forecasts (per capita income + inflation + X%)

A formula is used to diminish estimated rates of cost increase once the health share of GDP exceeds a **resistance point**. A **year limit** specifies when further growth in medical costs is limited to the rate of increase in per capita income. This stabilizes the model and keeps unbounded growth from creating contradictions. Further explanation of model details, development, historical trends, sensitivity analysis and uncertainty are provided in the **Technical Manual** on the SOA website for actuaries and other users to consult.

Inflation/CPI: **2.6%** *(range 1.5-4.5).The* 30-year average from 1995-2024 is *+2.5%* for the Consumer Price Index (CPI) and *+2.2%* for the deflator. However, the years 1962-1992 averaged more than twice as much, *+5.2%*. The Congressional Budget Office (CBO) projects annual CPI averages of *+2.3%* for 2025-2055 and *+2.0%* for the GDP deflator in their March 2025 *Long-Term Budget Outlook* (Table 3-1, page 32),[11] with the upcoming decade (2025-2035) at *+2.3%* for CPI and *+2.0%* for the deflator in their June 2025 *Update* (Appendix C, page 27).[12] The 2025 Medicare Trustees Report projects a CPI of *+2.4%* (range of *+1.8%* to *+3.0%*) for 2049-2099 (Table II.C1, page 13), which is the same as their 2024 assumptions.[13] The August 10, 2024 30-year T-Bond (4.2%) - TIPS (2.1%) implied inflation rate is *+2.1%*. The August 2024 Federal Survey of Professional Forecasters had a median of *+2.3%* for the next ten years with an interquartile range of *+2.2%* to *+2.6%*.[14] Inflation is volatile and can change rapidly, confounding expectations. However, inflation is neutral over the long-run and, thus, has no effect on the health share of GDP or annual percentage increases in real spending in this model.

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[9] The revised Model with an updated *Technical Manual and Documentation* is available on the SOA website at the following link: https://www.soa.org/4937bc/globalassets/assets/files/research/research-2016-getzen-model-tech-manual-doc.pdf. Accessed December 9, 2025.

[10] Natsis, A. & Avner, K. (2024). *Getzen Model of Long-Run Medical Cost Trends: Update for 2026–2036+*. Society of Actuaries Research Institute. https://www.soa.org/resources/research-reports/2025/2026-getzen-model-update/ Accessed December 16, 2025.

[11] CBO. *The Long-Term Budget Outlook: 2024 to 2054.* (March 2025). USGPO, Washington, DC. https://www.cbo.gov/system/files/2025-03/61187-Long-Term-Outlook-2025.pdf Accessed December 9, 2025.

[12] CBO. *An Update to the Budget and Economic Outlook: 2024 to 2034.* (March 2025). USGPO, Washington, DC. https://www.cbo.gov/system/files/2025-01/60870-Outlook-2025.pdf . Accessed December 9, 2025.

[13] Medicare Trustees Report, (June 2025). *2025 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.* Washington, D.C. https://www.cms.gov/oact/tr/2025 . Accessed November 25, 2025.

[14] Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters* (August 11, 2024). https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters. Accessed December 9, 2025.

Real Wages/per capita GDP: **1.4%** (range 0.5-2.5). The 30-year average from 1994-2023 is +1.6% with a standard deviation of ±0.6%; the smoothed moving average range is from +0.8% to +2.4%. Extreme values for 2020-2022 suggest that recent historical data must be used with caution or considered as "outliers" relative to the long-run trend. The CBO March 2025 Long Term Outlook projection is +1.2% for 2025-2035, increasing slightly to +1.3% for 2046-2055.[11] The 2025 Medicare Trustees Report projects scenarios from +0.53% to +1.73%, with an average long-run 2049-2099 estimate of +1.13% (Table II.C.1, page 13).[13] There is considerable controversy as to how much economic growth has or has not slowed and whether it will be lower for the next two decades, with experts expressing a variety of opinions.

Technology/excess cost growth: **0.9%** (range 0.3-2.0). The 30-year smoothed average from 1992-2022 is +0.9% with a standard deviation of ±1.2% and a range of -0.2% to +3.9%, It is trending downward and averaging +0.6% over the last ten years. The 2020, 2021, and 2022 values are so extreme that they should be treated as outliers relative to the long-run trend. The CMS Office of the Actuary's June 2025 excess growth projection was +1.5% for 2024-2033.[2] The Medicare 2025 Trustee Report projects +0.75% for 2049-2099 (pages 166-169 and Table V.B5, page 185, see also CMS memorandum "Long Term Projection Assumptions for Medicare and Aggregate National Health Expenditures," April 22, 2020, page 24).[15] The 2025 CBO Long-Term Budget Outlook projects excess cost growth averaging +0.9% for 2023-2054 (page 22).[11] Some recent evidence convinced the POG that resistance to cost increases has already begun to bend to cost curve (see the "Scenarios 2050" Appendix). Excess growth, not the level or nominal rate of spending growth, is the factor creating fiscal pressure on employers and government, making projected growth due to technology and related factors the most important element of the model. Health employment since 2010 has shown less excess growth compared to the prior 20 years (+0.5% vs. +3.2%) as public perceptions of the value of new drugs and technology have weakened.

Health Share of GDP in 2035: 0.200 *(range 0.175 to 0.235).* This is equal to the CMS 2032 projection of 0.200 but slightly below the CMS 2033 projection of 0.203. It reflects the rebound from sector-wide COVID disruptions.[2] The main impact of this parameter comes from its interaction with the share resistance limit. When the share resistance point is lower than the expected health share of GDP, then the impact of the technology factor (excess growth rate) is reduced, and the projected trend is lower than the baseline long-run annual growth rate of 5.0% (cell H28).

Share Resistance Point: 0.185 *(range 0.150 to 0.250)*. This is the share of GDP above which additional health spending is projected to meet increasing resistance. This value was increased from 0.180 last year due to average annual increases in CMS's National Health Expenditures projected to be 0.27% for 2024-2033, which is well above historical average increases from 2014-2023. This indicates that significant resistance to an increasing share of health expenditures does not appear to be in play as much per CMS. Nevertheless, since the value of the share resistance point is below the estimated ultimate health share of 0.200, this has the effect of reducing the expected health share of GDP. Actuaries expecting greater budgetary resistance to medical cost increases can set this parameter as low as 0.150, which has the effect of bending the cost curve immediately and more strongly, so that the long-run medical costs after 50 years are further reduced to 0.216. If the share resistance parameter is raised above 0.270, there is no

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[15] CMS Office of the Actuary. (April 22, 2020). Long Term Projection Assumptions for Medicare and Aggregate National Health Expenditures. https://www.cms.gov/files/document/long-term-projection-assumptions-medicare-and-aggregate-national-health-expenditures.pdf. Accessed December 9, 2025.

resistance, and the projected share after 50 years rises to 0.261. The POG provides more detail on how alternative assumptions would affect projected growth rates in the Technical Manual.[16]

Year Limit: 2075 *(range 2045 to 2105)*. This parameter sets the year in which spending is projected to match the rate of increase in wages so that the health share of GDP stays constant.

Annual Premium Increases *have often exceeded the growth in medical costs per capita by +1% or more for extended periods, although in the long run, the ratio of costs/premiums will stabilize so that these growth rates converge with the rate of increase in total National Health Expenditures. Conversely, Medicare and Medicaid per enrollee costs are likely to rise less rapidly than NHE.*

Short-term rates for 2026-2029 ≈ ?? to 5.5% (range 4%-8%[17]). A series of question marks ("???") is shown for the 2026-2028 medical cost growth rate. The +5.5% for 2029 is a placeholder consistent with current expectations rather than a forecast of a specific annual rate. Note that, in the model, the short-term growth rate inputs do not affect the rates projected for 2035 and beyond. Long-run growth projections are determined solely by the inputs of long-run inflation, wage, and technology factors, 2035 health share of GDP, resistance level, and ultimate year limit.

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[16] Society of Actuaries. (2016). *Getzen Model of Long-Run Medical Cost Trends: Technical Manual*. Society of Actuaries.https://www.soa.org/4937bc/globalassets/assets/files/research/research-2016-getzen-model-tech-manual-doc.pdf . Accessed December 9, 2025.

[17] Short-term rates for specific groups may deviate substantially from the average national medical cost increases projected in this model due to plan designs (including Rx only or Medicare Advantage), known rate increases at the time the valuation is performed, changes in state or federal premium taxes and fees, or other factors. Significant changes to provider payment methods due to legislative or regulatory actions are apt to create perturbations. Actuaries should make use of such information, which might justify expected short-term rates outside of the suggested ranges in some cases.

Section 3   Acknowledgments

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