



Getzen Model of Long-Run Medical Cost Trends

Update for 2025-2035+

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Update for 2025-2035+: Minor Changes with no Reduction in Uncertainty

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Executive Summary

The Getzen Model is a long term medical cost trend projection model based on 30+ years of observation. 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 incomes.
- The component assumptions of long-run medical cost increases are unchanged from last year.
- 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 incomes/GDP devoted to medical care.



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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. While a recession is still possible, those fears are fading as the prospect of a hard landing has receded. 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—raising or lowering the health share of GDP depending 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 2025, and perhaps not until 2030. CMS projections indicate that health expenditures soared from 17.6% of GDP in 2019 to 19.7% in 2020 due to COVID-induced reductions in economic growth. Health expenditures then fell to 17.3% 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 in 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 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 last year’s model, 2025 is given placeholder question marks (“???”) due to residual volatility. Even the 2026 and 2027 estimates should be considered as reasonable placeholders rather than forecasts for specific years. Uncertainty and the range of possible outcomes involved in any forecast should always be considered.^{3,4} Although aftershocks and a possible recession 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).⁵ The first is 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 thirty 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 thirty-year average of +1.0% but above the +0.6% average for the last ten years. The share resistance point has been placed at 0.180 since the recent stabilization of Medicare per enrollee costs suggests that medical cost increases are already slowing.

Volatility and sustainability of existing health care cost trends have become major concerns for patients, providers, and payers. The POG met in 2024 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/resources/research-reports/2023/2024-getzen-model-update/>).

The Getzen Model is a long-run model designed to project medical cost levels and trends 10 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 2025 version of the Getzen Model projects the level of spending for 2034 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 or employee or retiree group.

Section 2: Notes on Long-Run Model Input Parameters

The Getzen Model is a set of linked formulas to facilitate projections of average medical care cost increases over the long run.⁶ The formulas are embedded in a spreadsheet available on the SOA website. 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 deviate from the baseline trend projections.

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). 30-year average 1994-2023 of +2.7% with standard deviation of $\pm 1.8\%$ for the Consumer Price Index (CPI) and +2.2% with standard deviation of $\pm 1.2\%$ for deflator; five-year moving average ranges from +1.3% to +4.7%. However, the years 1962-1992 averaged more than twice as much, +5.2%. The Congressional Budget Office (CBO) projects annual CPI averages of +2.2% for 2024-2054 and +2.0% for the GDP deflator in their March 2024 *Long-Term Budget Outlook* (Table 3-1, page 34),⁷ with the upcoming decade 2024-2034 at +2.3% for CPI and +2.0% for the deflator in their June 2024 *Update* (Table 2-1, page 35).⁸ The 2024 Medicare Trustees Report projects CPI of +2.4% (range of +1.8% to +3.0%) for 2048-2098 (Table II.C1, page 14), which is the same as their 2023 assumptions.⁹ 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 +2.1% to +2.6%.¹⁰ 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.

Real Wages/per capita GDP: 1.4% (range 0.5-2.5). 30-year average 1994-2023 of +1.6% with standard deviation of $\pm 0.6\%$; smoothed moving average range +0.8% to +2.4%. Extreme values 2020-2022 suggest that recent historical data must be used with caution or considered as “outliers” relative to the long-run trend. CBO March 2024 *Long Term Outlook* projection is +1.4% for 2024-2034 declining to +1.3% for 2045-2054. The 2024 *Medicare Trustees Report* projects scenarios from +0.5% to +1.8% with an average long-run 2048-2098 estimate of +1.2% (Table II.C.1, page 14). 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). 30-year smoothed average 1992-2022 of +0.9% with standard deviation of $\pm 1.2\%$ and range of -0.2% to +3.9%, 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 July 2024 excess growth projection was +1.3% for 2022-2032 (Table 1).² Medicare 2024 Trustee Report projects +0.5% for 2024, +2.0% for 2025, +1.2% for 2026, then trending down to +1.0% for 2034-2048, +0.6% for 2049-2073, and +0.5% 2074-2098 (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).¹¹ The 2024 CBO *Long-Term Budget Outlook* projects excess cost growth averaging +0.9% for 2023-2054 (page 23). Some recent evidence convinced the POG that resistance to cost increases has already begun to bend to cost curve (see “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 twenty years (+0.5% vs. +3.2%) as public perceptions of the value of new drugs and technology have weakened.

Health Share of GDP in 2034: 0.190 (range 0.175 to 0.235). This is slightly below the CMS 2032 projection of 0.197 and 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: 0.180 (range 0.150 to 0.250). This is the share of GDP above which additional health spending is projected to meet increasing resistance. Since the value is below the estimated health share of 0.190, 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 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*.

Year Limit: 2075 (range 2040 to 2098). 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 2025-2028 ≈ ?? to 5.2% (range 4%-8%*). A series of question marks (“???”) is shown for 2025 medical cost growth rate. The +5.6% for 2026, +5.4% for 2027 and +5.2% are placeholders 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 2034 and beyond. Long-run growth projections are determined solely by the inputs of long-run inflation, wage, and technology factors, 2034 health share of GDP, resistance level, and ultimate year limit.

**Short-term rates for specific groups may deviate substantially from the average national medical cost increases projected in this model due to plan designs (such as 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 and could justify expected short-term rates outside of the suggested ranges in some cases.*

Section 3: Acknowledgments

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