



OFFICE OF THE ACTUARY

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SUBJECT: Projected Medicare Expenditures under an Illustrative Scenario with
Alternative Payment Updates to Medicare Providers

In the *2018 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, the Board warns that there is “substantial uncertainty regarding the adequacy of future Medicare payment rates under current law.” The Trustees Report is based on current law; as a result of questions regarding the operations of certain Medicare provisions, however, the projections shown in the report under current law may well understate expenditures for most categories of health care providers. The purpose of this memorandum is to present a Medicare projection under a hypothetical alternative to these provisions to help illustrate and quantify the magnitude of the potential cost understatement under current law.

This analysis is for comparison purposes only and should not be interpreted or construed as advocating any particular legislative change. In particular, no endorsement of this alternative by OACT, CMS, or the Medicare Board of Trustees should be inferred. Similarly, this memorandum’s description of the problems that would likely result from the legislated physician payment updates and/or the long-term application of the productivity adjustments should not be interpreted as a criticism of the statutory policy. OACT’s intent is to help inform Congress and the public at large that an evaluation of the financial status of Medicare that is based on the provisions of current law is likely to portray an overly optimistic outcome. This paper is also an attempt to promote awareness of these issues, to illustrate and quantify the amount by which the Medicare projections are potentially understated, and to help inform discussions of potential policy reactions to the situation.

Overview

Among the most important factors in projecting Medicare expenditures are the annual payment updates to Medicare providers. The estimates shown in the 2018 Trustees Report are complicated substantially by low physician payment updates and mandated reductions in payment updates for most other Medicare services. Specifically, the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) repealed the sustainable growth rate (SGR) formula that set physician fee schedule payments. While the physician payment updates and new incentives put in place by MACRA avoid the significant short-range physician payment issues that would have resulted from the SGR system approach, they nevertheless raise important long-range concerns. In addition, for most of the other categories of Medicare providers, the Patient Protection and

Affordable Care Act (ACA), as amended, calls for a reduction in payment rate updates equal to the increase in economy-wide private nonfarm business multifactor productivity.¹

As described in more detail below, in our view there is a strong likelihood that the scheduled physician payment updates and the productivity adjustments will not be achievable in the long range. It is reasonable to expect that Congress would find it necessary to legislatively override or otherwise modify the reductions in the future to ensure that Medicare beneficiaries continue to have access to health care services.

Because knowledge of the potential long-range effects of the productivity adjustments, delivery and payment innovations, and certain other aspects of the Affordable Care Act is so limited, independent panels of expert actuaries and economists were asked to review the assumptions and methods used by the Trustees to make projections of the financial status of the trust funds. In its final report, the 2010-2011 Medicare Technical Review Panel recommended the continued use of this supplemental analysis, for the purpose of illustrating the higher Medicare costs that would result should the reduction in physician payment rates and the productivity adjustments to most other provider payment updates not be fully implemented as required under current law.² The Panel's recommendation assumed that physician payment rates would be determined by the SGR system. While the payment rates specified by MACRA avoid the reduction in 2015, they will ultimately be lower than those determined by the SGR system. The most recent panel, the 2016-2017 Medicare Technical Review Panel, found the assumptions for the illustrative scenario to be reasonable and recommended the continued presentation of the illustrative alternative scenario to help quantify the potential understatement of the current-law spending projections (Recommendation 2-3, Findings 2-3 and 2-4).³ The 2016-2017 Panel also recommended that the Trustees consider later start dates for the transition to the ultimate assumptions for the illustrative alternative scenario (Recommendation 2-4). We have adopted this recommendation.

Because of the concerns regarding the viability of the Medicare payment rates, the 2018 Trustees Report incorporates a chart that compares the current-law projections to an illustrative alternative projection. The alternative includes adjustments to (i) the scheduled physician payment updates and bonuses required by MACRA, and (ii) the reductions in payment updates by the increase in economy-wide productivity for most other provider categories. The Bipartisan Budget Act of 2018 repealed the Independent Payment Advisory Board (IPAB) and all related provisions. In prior reports, the IPAB provisions reduced Medicare spending under current law, but they were assumed to not take effect under the illustrative alternative scenario. Therefore, the repeal of the IPAB increases current-law spending in this year's report but does not affect the illustrative alternative scenario. This information is contained in section V.C of the 2018 Trustees Report.

¹ The ACA specifies use of the 10-year moving average increase in economy-wide private nonfarm business multifactor productivity, which is a measure of real output per combined unit of labor and capital and which reflects the contributions of all factors of production. For convenience, the term *economy-wide private nonfarm business multifactor productivity* will henceforth be referred to as *economy-wide productivity*.

² *Review of Assumptions and Methods of the Medicare Trustees' Financial Projections* from the 2010-2011 Medicare Technical Review Panel is available at <https://aspe.hhs.gov/pdf-report/review-assumptions-and-methods-medicare-trustees'-financial-projections>.

³ *Review of Assumptions and Methods of the Medicare Trustees' Financial Projections* from the 2016-2017 Medicare Technical Review Panel is available at <https://aspe.hhs.gov/pdf-report/review-assumptions-and-methods-medicare-trustees-financial-projections>.

(1) Physician Payments

MACRA replaced the physician payment updates under the SGR formula, which would have required a large negative update in 2015, with specified physician payment updates for every future year. The Bipartisan Budget Act of 2018 modified the update for 2019. For 2018, the physician payment update is 0.5 percent, and it will be 0.25 percent for 2019 and 0.0 percent for 2020 through 2025. For 2026 and later, there will be two payment rates: for qualifying providers paid through an advanced alternative payment model (advanced APM), payment rates will be increased by 0.75 percent each year, while payment rates for all other providers will be increased each year by 0.25 percent.

Although the physician payment updates and new incentives put in place by MACRA are likely viable in the short range, important long-range concerns exist. In particular, additional payments of \$500 million per year for one group of physicians and 5-percent annual bonuses for another group are scheduled to expire in 2025, resulting in a significant one-time payment reduction for most physicians. In addition, the law specifies the physician payment update amounts for all years in the future, and these amounts do not vary based on underlying economic conditions, nor are they expected to keep pace with the average rate of physician cost increases. The specified rate updates could be an issue in years when levels of inflation are high and would be problematic when the cumulative gap between the price updates and physician costs becomes large. We have estimated that physician payment rates under current law will be lower than they would have been under the SGR formula by 2048 and will continue to worsen thereafter.⁴ Absent a change in the delivery system or level of update by subsequent legislation, we expect access to Medicare-participating physicians to become a significant issue in the long term under current law.

(2) Productivity Adjustments

Most of the services covered by the Medicare fee-for-service program (including inpatient and outpatient hospital services, skilled nursing facility services, and home health care) receive annual payment increases based on statutory input price indices. These price indices, or *market baskets*, measure the increase in prices that each category of provider must pay for the goods and services they purchase to enable them to care for patients. Such inputs include wages and other compensation for their employees, medical and other equipment, and such overhead expenses as heating, utilities, and rent. Other Medicare services, including ambulance services, care at ambulatory surgical centers, certain durable medical equipment, and prosthetics, have their payments updated annually by the increase in the Consumer Price Index (CPI). The Affordable Care Act specifies that all of these payment updates be reduced by the percentage increase in the 10-year moving average of economy-wide productivity beginning as early as 2011.⁵

The statutory reductions in Medicare payment updates for most provider categories, based on economy-wide productivity, are an extension of a recommendation by the Medicare Payment

⁴ This analysis was completed in 2015 after the enactment of MACRA, which repealed the SGR system. Updating the estimate in a reasonable fashion would be difficult given that the SGR system is no longer in existence. However, we believe that this estimate is still a reasonable representation of the expected outcomes.

⁵ Note that these payment updates affect all of the services covered under Part A and many of the services covered under Part B. The Medicare Part D payments to drug plans and qualifying employers are not affected by the productivity adjustments.

Advisory Commission (MedPAC). The Commission’s goal in making the recommendation was to create a strong incentive for hospitals and other providers to improve their efficiency. It is important to note, however, that their proposed adjustments have been made for one year at a time, with consideration given to other circumstances, as expressed in this excerpt from MedPAC’s March 2010 report to Congress:

The Commission begins its deliberations with the expectation that Medicare should benefit from productivity gains in the economy at large... . This factor links Medicare’s expectations for efficiency to the gains achieved by the firms and workers who pay the taxes that fund Medicare. But the Commission may alter that expectation depending on the circumstances of a given set of providers in a given year.⁶

In contrast, the productivity adjustments under the ACA apply automatically to payment updates for all future years. These update reductions cannot be modified or rescinded except through new legislation.

Because most Medicare payment updates, by law, are based on *input* price indices, it makes sense to apply a productivity offset and thereby approximate the increase in *output* prices that providers must charge to maintain a constant margin level. Medicare could reasonably reduce payments by such an adjustment, if it were based on attainable health sector productivity gains, and thus share in the financial benefit achieved through improved productivity. Additionally, to the extent that there is currently excess cost or waste in the health care system, providers should be able to withstand slower payment updates for a period until such excess or waste is eliminated. Medicare can create a strong incentive for the removal of excess cost and waste by reducing payment updates, as specified in the Affordable Care Act.

In the 2018 Trustees Report, economy-wide productivity is estimated to increase by about 1.1 percent per year in the long range, an amount that is roughly its long-run historical average. This assumption reflects the expectation of continuing relatively high rates of productivity in the manufacturing sector and much lower rates in the service sector, as have occurred historically.⁷ The theory of these findings is consistent with Baumol’s cost disease, which suggests that sustained productivity gains in service industries is difficult to achieve as long as the services remain labor-intensive.⁸

For the health sector, measured productivity gains have generally been quite small, given the labor-intensive nature of health services and the individual customization of treatments required in many instances. Hospital productivity has increased in recent years by about 0.4 percent per

⁶ MedPAC, *Report to the Congress: Medicare Payment Policy*, March 2010, available at http://medpac.gov/docs/default-source/reports/Mar10_EntireReport.pdf. At their December 2, 2010 meeting, the Commission members debated whether to recommend to Congress that the statutory productivity adjustment be implemented for the 2012 hospital payment update. Ultimately, as shown in their March 2011 report to the Congress (http://medpac.gov/docs/default-source/reports/Mar11_EntireReport.pdf), MedPAC’s recommended hospital update did not incorporate a reduction for economy-wide productivity.

⁷ Service sector productivity—and health sector productivity in particular—is notoriously hard to measure. However, manufacturing multifactor productivity is estimated to have increased 0.8 percent per year from 1987 through 2015 compared to a 0.0 percent for services. See <https://www.bls.gov/mfp/>

⁸ Baumol, William J. “Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis,” *American Economic Review*, 57, no. 3 (1967): pp. 415-26.

year (and by negligible levels, on average, over longer periods).⁹ For skilled nursing facilities and home health agencies, productivity gains are believed to be close to zero.¹⁰ As noted earlier, some Medicare payment systems (such as payments for ambulatory surgical centers) are updated by the CPI, which is already an output price index. These updates will also be reduced by economy-wide productivity gains under the new law, essentially requiring that these providers and suppliers achieve twice the rate of economy-wide productivity increases to break even.

Based on the historical evidence of health sector productivity gains, the labor-intensive nature of health care services, and presumed limits on the current excess costs and waste that could be removed from the system, actual health provider productivity is very unlikely to achieve improvements equal to the economy as a whole over sustained periods. Despite this conclusion, the payment update reductions are scheduled to occur under current law and are therefore included in the 2018 Medicare Trustees Report. As a result of the update reductions, affected providers will certainly have an even stronger financial incentive to reduce unnecessary aspects of care and to eliminate wasteful costs. Moreover, it is possible that providers will find new ways to take advantage of technology and otherwise improve their productivity to a greater extent than they appear to have been able to do in the past. Finally, the intensive program of research and development for innovative new approaches to health care service delivery and payment, as facilitated by the Affordable Care Act, may lead to more cost-effective care, with the potential to help reduce cost growth to rates compatible with the lower Medicare price updates. These outcomes, while highly desirable, are far from certain. Until such gains can be demonstrated, it is more reasonable to expect that provider costs per service will continue to increase in the long range more in line with long-term past input price growth.

(3) Implications of Payment Reductions

To illustrate the implications of the productivity adjustments and the physician payment updates, simulated future Medicare price levels under current law were compared to private health insurance and Medicaid. For several categories of service, including inpatient and outpatient hospital services, nursing facility care, and clinic services, Medicaid payments are subject to certain upper payment limits (UPLs). For these services, total payments for all services in each category by a State Medicaid program cannot exceed the amount that Medicare would have paid for the same care.¹¹ Medicaid payments for other categories, notably physician services, are not

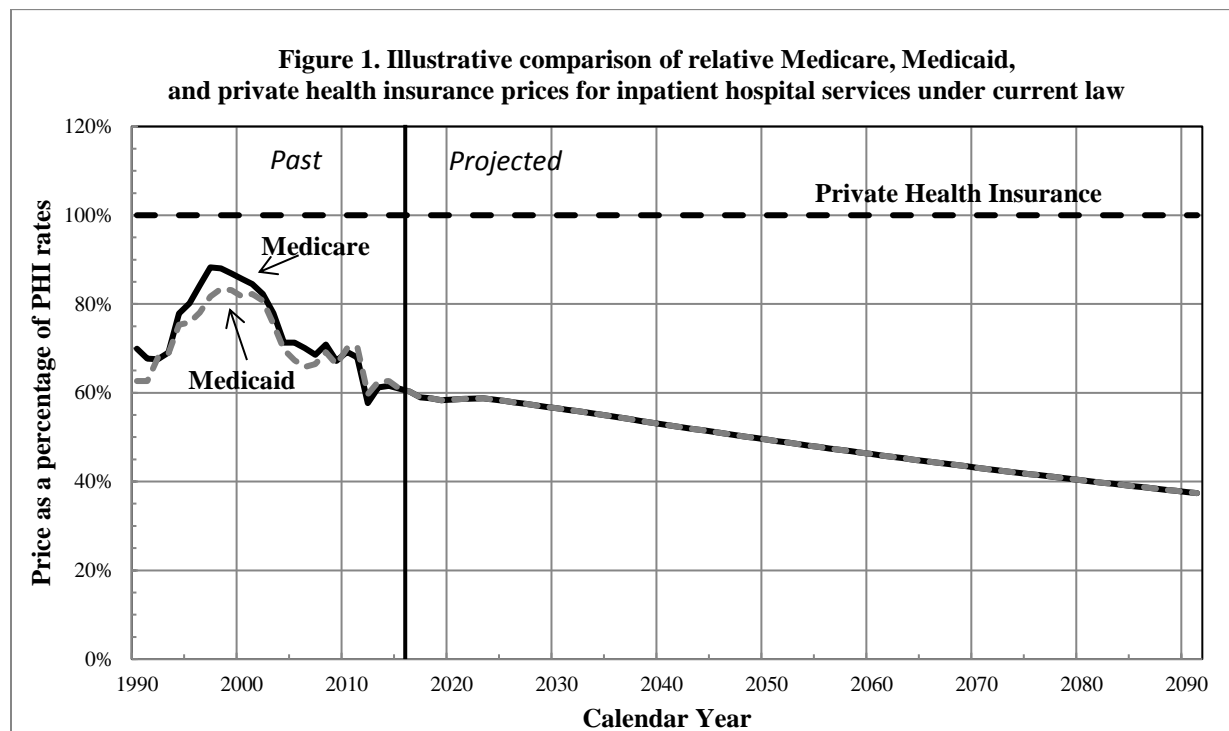
⁹ See <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/ProductivityMemo2016.pdf> and Cylus *et al.*, “Hospital Multifactor Productivity: A Presentation and Analysis of Two Methodologies,” available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/HealthCareFinancingReview/Downloads/07-08Winterpg49.pdf>.

¹⁰ Multifactor productivity in ambulatory health care services averaged a 0.4-percent decline per year from 1987 through 2015 and hospitals and nursing and residential care facilities averaged a 0.9-percent decline over the same period. See <https://www.bls.gov/mfp/>

¹¹ The UPL is set as a reasonable estimate of the amount that Medicare would have paid for those services and is not a precise calculation of exactly what Medicare would have paid for all Medicaid claims. For the purpose of this analysis, it is assumed that (i) UPLs are equal to what Medicare would have paid for Medicaid services, and (ii) Medicaid programs could make total payments that would precisely match UPLs. In actuality, there may be small differences between UPLs and what Medicare would have paid for the same care, and between Medicaid payments and UPLs.

subject to UPLs.¹² The payment rates paid by private health insurers are assumed to be unaffected by the reductions in the Medicare payment rates for this illustration.

For inpatient hospital services, Medicare payment rates in 2014 were about 62 percent, and Medicaid payment rates were about 63 percent, of private health insurance payment rates (including Medicaid disproportionate share hospital, or DSH, payments).¹³ As shown in figure 1, Medicaid payment rates equal Medicare payment rates in 2016, and both decline in tandem relative to private health insurance payment rates over the next 75 years. The increasing differential between Medicare and private payment rates is due to the productivity adjustments in 2012 and later for the Medicare payment updates (and, to a lesser degree, to the other, smaller downward adjustments during the period 2010 through 2019 that are specified by the ACA in addition to the productivity adjustments). The smaller UPL established by the Medicare rates forces a similar differential for Medicaid payments. By the end of the long-range projection period, Medicare and Medicaid payment rates for inpatient hospital services would both represent roughly 37 percent of the average level for private health insurance.



For other services subject to UPLs, future Medicaid payment rate changes would tend to follow a pattern similar to that shown above for inpatient hospital services; however, the initial Medicare and Medicaid payment rates relative to private health insurance rates, and the corresponding projected updates, would be somewhat different for these other services.

For physician services, Medicare payment rates are updated according to the MACRA provisions in current law. Medicaid payment rates are not directly related to Medicare physician fees and

¹² There is a physician UPL in Medicaid, but it is not a binding limit, as is the case for the other services listed above.

¹³ American Hospital Association, *2015 TrendWatch Chartbook*.

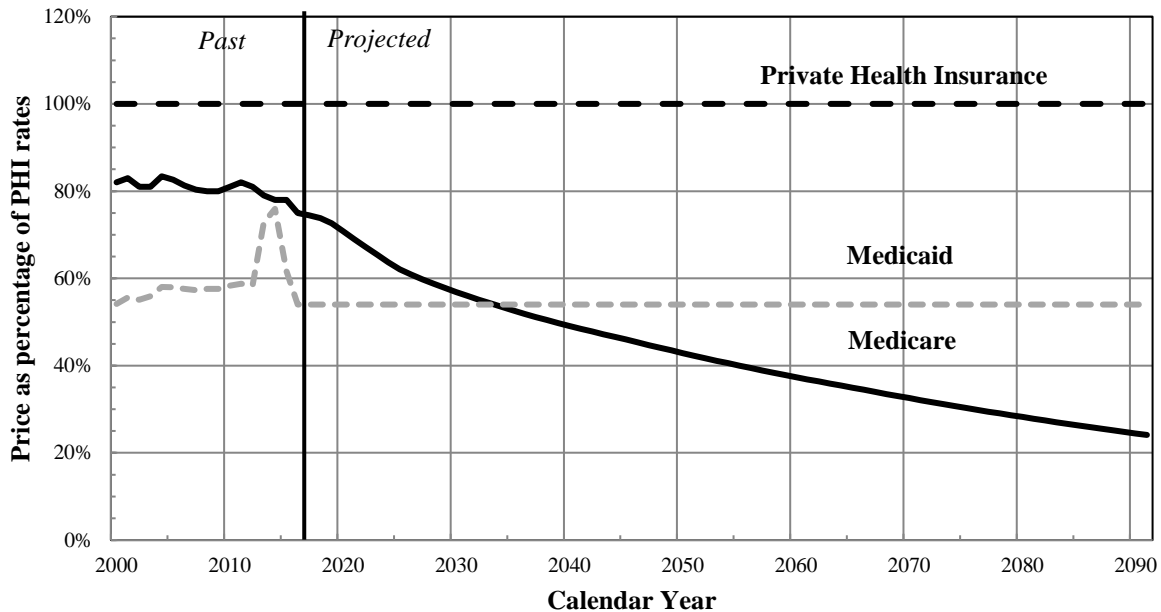
thus may grow at different rates over time (and can exceed corresponding Medicare payment rates). As before, illustrative future Medicare and Medicaid payment levels for physician services have been calculated relative to private health insurance payment rates. For Medicaid and private health insurance, payment rates are assumed to increase annually at the rate of increase of the Medicare Economic Index (MEI).¹⁴ Medicaid payment rates are adjusted in 2013 and 2014 as specified in the Affordable Care Act, which provides for temporary increases in Medicaid payments for primary care physicians.

Figure 2 shows the resulting comparison of future Medicare and Medicaid payment rates for physician services relative to private health insurance payment rates. Medicare payment levels in 2016 were about 75 percent of private health insurance payment rates, and Medicaid payment rates in 2008 were about 58 percent. In this illustration, Medicaid payment rates increase to 73 percent of private health insurance levels in 2013 and to 77 percent in 2014 before falling to 54 percent for 2016 and beyond.¹⁵ Medicare physician payment rates would decline steadily through the projection period relative to private health insurance payment rates. Under current law, the Medicare rates would eventually fall to 24 percent of private health insurance levels by 2092 and to less than half of the projected Medicaid rates. The continuing slower growth would occur as a result of update factors required by MACRA.

¹⁴ The MEI is a price index reflecting the weighted-average price change for various inputs needed to furnish physician services, adjusted by the change in economy-wide productivity. Medicaid payments for physician services have generally not kept pace with the MEI in recent years. At today's levels, Medicaid payment rates have contributed to problems with access to such services. Because further below-MEI growth would likely exacerbate these problems, especially in the long range, it is reasonable to illustrate future Medicaid physician payment rates based on assumed growth equal to the MEI increase.

¹⁵ Medicare Payment Advisory Commission, *Report to the Congress: Medicare Payment Policy*, March 2018. S. Zuckerman *et al.*, "Medicaid Physician Fees after the ACA Primary Care Fee Bump," *Urban Institute*, March 2017. Medicaid physician payment rates relative to those of private health insurance are derived by multiplying the ratio of Medicare rates to private health insurance (0.75, MedPAC) by the ratio of Medicaid rates to Medicare (0.72, Zuckerman).

Figure 2. Illustrative comparison of relative Medicare, Medicaid, and private health insurance prices for physician services under current law



OACT’s simulations, which take into account the lower Medicare payment rates, other payment provisions, sequestration, changes to Medicare and Medicaid DSH payments, and coverage expansions, collectively suggest a deterioration of facility margins for hospitals, skilled nursing facilities, and home health agencies, particularly over the long range. For 2011 through 2019, the simulations suggest that up to 5 percent more hospitals would experience negative total facility margins and that approximately 15 percent more would experience negative Medicare margins. By 2040, the simulations suggest that approximately half of hospitals, roughly two-thirds of skilled nursing facilities, and over 80 percent of home health agencies would have negative total facility margins, raising the possibility of access and quality-of-care issues for Medicare beneficiaries.¹⁶

Over time, unless providers could alter their use of inputs to reduce their cost per service correspondingly, Medicare’s payments for health services would fall increasingly below providers’ costs. Providers could not sustain continuing negative margins and would have to withdraw from serving Medicare beneficiaries or (if total facility margins remained positive) shift substantial portions of Medicare costs to their non-Medicare, non-Medicaid payers. Under such circumstances, lawmakers might feel substantial pressure to override the productivity adjustments, much as they did to prevent reductions in physician payment rates while the SGR was in effect.

To better understand how providers might react to the Medicare update reductions in the long range, OACT spoke informally with several prominent health economists. All of them believed that the payment reductions were unsustainable in the long range, for reasons similar to those

¹⁶ See <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/ACAmarginsimulations2018.pdf>.

described above.¹⁷ Writing in a *National Journal* blog, Dr. David Cutler, Professor of Applied Economics at Harvard University, stated that “as the actuaries . . . note, traditional payment reductions are not a long-term source of financing. Prices can be reduced only so far before they become unreasonably low.” Dr. Joseph Newhouse, Professor of Health Policy and Management at Harvard, wrote in an article for *Health Affairs*, “. . .it is equally hard to imagine cutting only Medicare spending while spending by the commercially insured under age sixty-five continues to grow at historic rates, which would lead to a marked divergence between what providers are paid for treating the commercially insured relative to what they are paid for Medicare beneficiaries. This gap could jeopardize Medicare beneficiaries’ access to mainstream medical care.”¹⁸ Similarly, in an article for *Foreign Affairs*, former CBO and OMB Director Peter Orszag said, “[One] approach is to simply reduce payments to providers—hospitals, doctors, and pharmaceutical companies. This blunt strategy can work, often quite well, in the short run. It is inherently limited over the medium and long term, however, unless accompanied by other measures to reduce the underlying quantity of services provided. If only Medicare and Medicaid payments were reduced, for example, providers would shift the costs to other patients and also accept fewer Medicare and Medicaid patients.”¹⁹ Moreover, Washington and Lee University law professor Timothy Jost wrote in the *New England Journal of Medicine* that “If the gap between private and Medicare rates continues to grow, health care providers may well abandon Medicare.”²⁰

It is reasonable to expect that health care providers, while being unable to match economy-wide productivity gains, will make every effort to improve efficiency, eliminate wasteful costs, and take other steps to maintain their viability despite the slower Medicare price updates. Further consolidation by hospitals, physician practices, and other providers can increase their ability to negotiate favorable prices with private health insurance plans. In some instances, substantial improvements in cost effectiveness have been achieved by particular provider groups, such as ThedaCare of Appleton, Wisconsin and the Cleveland Clinic in Ohio.

There is certainly some level of excess cost that can be forced out over time in response to the Medicare payment changes. When the Medicare inpatient hospital prospective payment system (PPS) was introduced in 1984, Congress applied reductions of 0.4 to 3.8 percentage points to the annual payment updates for most of the first 20 years of operation without causing hospital bankruptcies or withdrawal from the Medicare market. Prior to the inpatient PPS, however, hospitals were reimbursed on a reasonable-cost basis, which not only failed to serve as a constraint on cost growth but also encouraged construction, the indiscriminate acquisition of new

¹⁷ One of these experts expressed optimism that payment and delivery system innovations could result in significantly slower growth in health care costs for Medicare and other payers. He envisioned that most beneficiaries would transfer out of fee-for-service Medicare, where the payment rates would become wholly inadequate, and into other delivery systems with greater efficiency. (Because of the statutory quality and/or savings requirements, however, cost growth for these other systems could not exceed that for fee-for-service care, as reduced by the productivity offsets.) All other health economists whom OACT consulted were less optimistic and anticipated a serious decline in the availability and/or quality of health services for Medicare beneficiaries if the productivity adjustments continued indefinitely.

¹⁸ Newhouse, Joseph P. “Assessing Health Reform’s Impact on Four Key Groups of Americans,” *Health Affairs*, 29, no. 9 (2010): pp. 1-11.

¹⁹ Orszag, Peter R. “How Health Care Can Save or Sink America,” *Foreign Affairs*, 90, no. 4 (2011): pp. 42-56.

²⁰ Jost, Timothy Stoltzfus, J.D. “The Independent Payment Advisory Board,” *New England Journal of Medicine*, 363, no. 2 (2010): pp. 103-105.

technology, unreasonable charges for disaggregated items, and other cost-increasing actions. It was relatively straightforward for hospitals to address the very significant levels of inefficiency that existed at that time. Hospitals have been pushing back in recent years against payment reductions aimed at further reducing inefficiency, a signal that much of the achievable gains may have already been made.

The Balanced Budget Act of 1997 decreased the payment updates for inpatient hospital services for 1998 through 2002. However, some of these reductions were overridden with subsequent legislation. The latest cost report data indicate that more than two-thirds of hospitals are losing money on Medicare inpatient services and that the average Medicare inpatient hospital margin was -9.6 percent in 2016.²¹

On behalf of OACT and the Medicare Board of Trustees, the 2010-2011 and 2016-2017 Medicare Technical Review Panels considered the potential effects of sustained slower payment increases on provider participation, beneficiary access to care, quality of services, and other factors. These issues were considered both in the context of the current health care system and in conjunction with possible future changes in payment mechanisms, delivery systems, and other aspects of health care that could arise in response to the ACA-supported research program for innovations in health care. The 2010-2011 Panel's final report contains an extensive discussion of alternative long-term scenarios with different possible behavioral reactions by providers and with varying implications for the financial viability of providers and the availability and quality of health care services for beneficiaries. The 2016-2017 Panel recommended continued research regarding the long-range financial, quality, and access implications of current-law payment updates, bonuses, and provider compensation (Recommendation 2-5).

Estimation Methodology

Since there is substantial uncertainty regarding the adequacy of future Medicare payment rates under current law, OACT prepared a set of alternative projections to illustrate the level of Medicare expenditures that could result if these current-law provisions are not sustained in all future years. There are multiple ways in which the law could be changed if these provider updates prove unsustainable. The illustrative scenario presented in this memo is just one possibility among many that demonstrates the degree to which the current-law projections may be understated. The following describes the methodology used to determine the projections for the alternative scenario that is shown in the 2018 Trustees Report.

While a particular set of illustrative alternative update assumptions for specific years is used, the transition from current law to the illustrative alternative ultimate assumptions over time is intended to reflect an increasing likelihood of modifications to current law rather than a specific forecast of when current law will cease to be fully implemented. This illustrative alternative assumes that (i) starting in 2028, the economy-wide productivity adjustments gradually phase down to 0.4 percent until the Medicare price updates equal those assumed for private health plans in 2042; (ii) physician payments transition from current-law updates to the MEI increase of

²¹ CMS analysis of Medicare Cost Reports (<http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/ACAmarginsimulations2018.pdf>) and MedPAC, *Report to the Congress: Medicare Payment Policy*, March 2018, available at http://medpac.gov/docs/default-source/reports/mar18_medpac_entirereport_sec.pdf?sfvrsn=0.

2.2 percent from 2028 to 2042; and (iii) the 5-percent bonuses for qualifying physicians in advanced APMs and the \$500 million in additional payments for physicians in the merit-based incentive payment system (MIPS) will continue after 2025. On average under this alternative, the long-range per beneficiary growth rate for all Medicare services would be similar to the long-range growth rate assumed for the overall health sector. These growth rates are very similar to the full illustrative alternative projections discussed in the 2010-2015 Trustees Reports and the illustrative alternative scenarios shown in the 2016-2017 Trustees Reports.

Comparison of Results

The illustrative alternative projections are shown for Parts A and B and for Medicare in total. The Part D projections under current law are not affected by the payment-update issues.

(1) Part A

The alternative scenario begins phasing down the productivity adjustments prescribed in the Affordable Care Act beginning in 2028. The resulting alternative expenditure projections for Part A are therefore slightly higher than the current-law projections in the early years and ultimately become substantially higher by the end of the 75-year period. Under the alternative scenario projections, the Part A trust fund is estimated to be depleted in 2026, the same year as under current law because the differences in assumptions do not start until 2028.

Figure 3 shows the projected Hospital Insurance (HI) income and cost rates for the illustrative alternative compared to the current-law results shown in the 2018 Trustees Report. Since the alternative projections vary only the payment rates to providers, the income rate is the same as under current law.

HI expenditures are projected under current law to rise from about 3.4 percent of taxable payroll in 2018 to 4.9 percent in 2042 and to 5.2 percent in 2092. Under the illustrative alternative scenario, costs would continue increasing as a percentage of taxable payroll throughout the long-range period, reaching 8.1 percent in 2091—or 2.9 percentage points higher than under current law. This comparison shows the strong impact of the statutory productivity adjustments; as the slower payment rate updates compounded over time, their impact on HI costs as a percentage of taxable payroll would offset much of the combined effects of the aging of the beneficiary population, excess medical price inflation, and growth in the volume and intensity of services. As noted, however, there is considerable doubt as to the long-range feasibility of the lower HI payment rates.

Figure 3. Projected HI income and costs as a percentage of taxable payroll under the illustrative alternative projection compared to current law

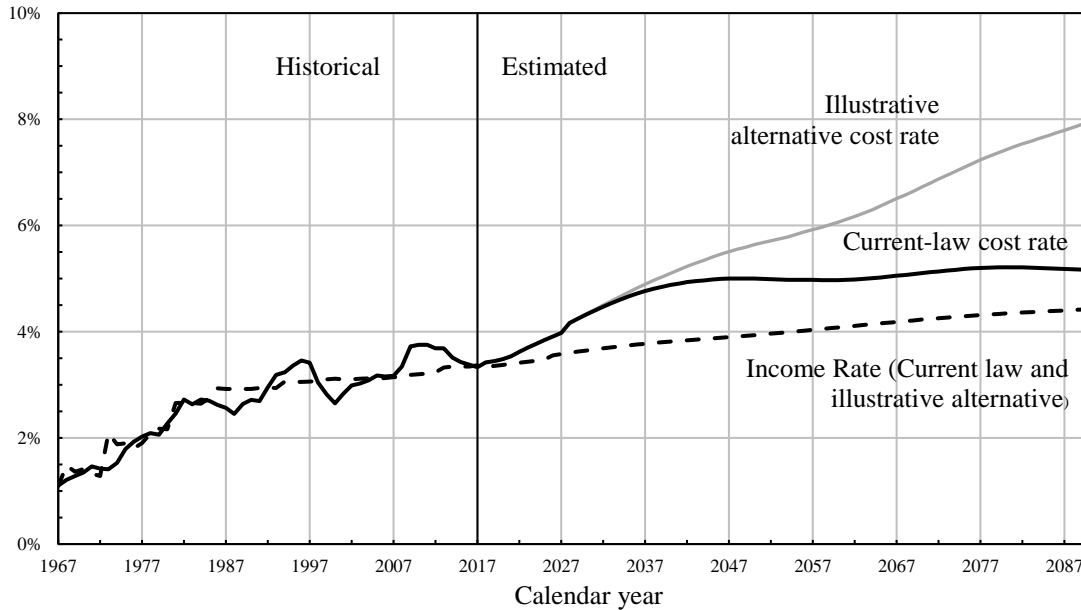


Table 1 shows the HI actuarial balances, for the next 25, 50, and 75 years, from the 2018 Trustees Report under current law and the illustrative alternative. For the 75-year projection period, the HI actuarial deficit is projected to be 0.82 percent of taxable payroll in this year’s report. If the productivity adjustments were gradually phased down, then the long-range HI deficit would be 1.71 percent of taxable payroll, as indicated by the alternative projection.

Table 1. HI actuarial balances under the illustrative alternative scenario compared to the 2018 Trustees Report
(as a percentage of taxable payroll)

	2018 Report (current law)	Alternative projection
Valuation periods:		
25 years, 2018-2042:		
Summarized income rate ¹	3.70%	3.70%
Summarized cost rate ¹	4.41	4.48
Actuarial balance	-0.71	-0.79
50 years, 2018-2067:		
Summarized income rate ¹	3.83	3.83
Summarized cost rate ¹	4.65	5.09
Actuarial balance	-0.82	-1.25
75 years, 2018-2092:		
Summarized income rate ¹	3.95	3.96
Summarized cost rate ¹	4.77	5.67
Actuarial balance	-0.82	-1.71

¹Income rates include beginning trust fund balances, and cost rates include the cost of attaining a trust fund balance at the end of the period equal to 100 percent of the following year’s estimated expenditures.

Note: Totals do not necessarily equal the sums of rounded components.

Another way to compare the expenditures in the alternative scenario to the current-law amounts in the 2018 Trustees Report is to examine HI expenditures as a percent of Gross Domestic Product (GDP) over the next 75 years. Table 2 shows that, under current law, HI costs are projected to increase to 2.24 percent of GDP in 2092, a level that is 45 percent greater than in 2017. Under the illustrative alternative to current law, costs would be 3.51 percent of GDP in 2092, or more than 125 percent greater than their 2017 level.

Table 2. Projected HI expenditures as a percentage of GDP under the illustrative alternative compared to current law, selected calendar years 2017-2092

Calendar year	HI expenditures as a percentage of GDP	
	Current law	Alternative projection
2017	1.54%	1.54%
2020	1.57	1.57
2030	1.98	1.98
2040	2.21	2.30
2050	2.25	2.53
2060	2.22	2.71
2070	2.26	2.98
2080	2.29	3.26
2090	2.25	3.46
2092	2.24	3.51

The 2018 Trustees Report notes that the HI trust fund still fails both the short-range test of financial adequacy and the long-range test of close actuarial balance, indicating a need for further reforms to bring the program into financial balance. As illustrated by the alternative projections, if the annual productivity adjustments were to become unworkable over time and were overridden, the financial challenges would be much more severe.

(2) Part B

The illustrative alternative scenario for Part B assumes that (i) the physician payment update will transition from current law to the MEI increase of 2.2 percent from 2028 to 2042; (ii) the 5-percent bonuses for physicians in advanced APMs and the \$500 million in additional payments to MIPS physicians will continue after 2025; and (iii) the productivity adjustments for most other Part B providers will be phased down beginning in 2028 until they reach the estimated level of achievable health provider productivity (0.4 percent) in 2042.

Table 3 shows the long-range Part B expenditure projections from the 2018 Trustees Report under current law and under the illustrative alternative. It is customary to express long-range Part B costs as a percentage of GDP to facilitate interpretation and comparison of costs over such distant periods. As shown in table 3, under current law Part B spending is projected to increase from 1.63 percent of GDP in 2017 to 1.78 percent by 2020 and to 2.76 percent of GDP by 2092. For the alternative scenario, Part B grows to 4.26 percent of GDP by 2092. Under the illustrative alternative, the Part B cost in 2092 would be 55 percent larger than the current-law projection.

Table 3. Projected Part B expenditures as a percentage of GDP under current law and the illustrative alternative, selected years 2016-2092

Calendar year	Part B expenditures as a percentage of GDP	
	Current law	Alternative projection
2017	1.63%	1.63%
2020	1.78	1.78
2030	2.52	2.55
2040	2.85	3.00
2050	2.82	3.20
2060	2.83	3.46
2070	2.85	3.76
2080	2.83	4.02
2090	2.76	4.21
2092	2.76	4.26

(3) *Total Medicare*

Total Medicare spending under the illustrative alternative scenario includes (i) the increased costs for Part B caused by the transition to updates equal to the MEI and by the continuation of the physician bonuses after 2025, and (ii) the higher costs for Parts A and B resulting from the phase-down of the productivity adjustments. The Medicare payments to Part D plans and qualifying employers are not affected by the productivity adjustments and are therefore equal to the current-law projections in the 2018 Medicare Trustees Report.

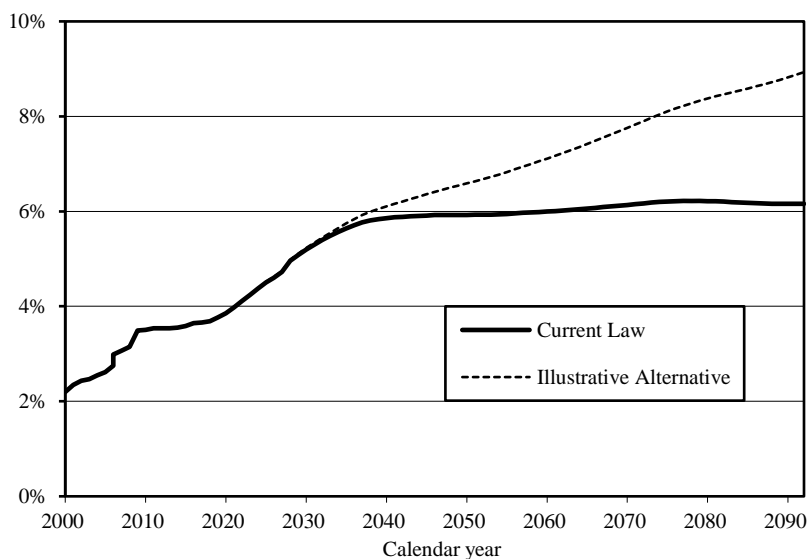
Table 4 indicates the magnitude of the difference relative to the current-law projections by showing total Medicare expenditures as a percent of GDP. Under the alternative scenario, Medicare spending is projected to constitute 3.86 percent of GDP in 2020 and to grow to 8.93 percent by 2092. These results compare to 3.86 percent of GDP in 2020 under current law, increasing to only 6.16 percent in 2092. In other words, if these elements of current law are not sustained in all future years, then Medicare expenditures in 2092 could be 45 percent greater than projected under current law.

Table 4. Projected total Medicare expenditures as a percentage of GDP under current law and the illustrative alternative, selected years 2017-2092

Calendar year	Total Medicare expenditures as a percentage of GDP	
	Current law	Alternative projection
2017	3.66%	3.66%
2020	3.86	3.86
2030	5.20	5.23
2040	5.86	6.11
2050	5.93	6.59
2060	6.00	7.11
2070	6.13	7.76
2080	6.22	8.38
2090	6.16	8.82
2092	6.16	8.93

Figure 4 illustrates the very large impact on Medicare expenditures in the long range from the steadily compounding effect of the current-law productivity adjustments to most provider payment updates and the payment updates to physicians.

Figure 4. Medicare expenditures as a percentage of GDP under current law and the illustrative alternative



Under current law, Medicare expenditures as a percentage of GDP are projected to increase rapidly as the baby boom generation reaches eligibility age. After about 2040, however, the effects of the productivity adjustments and physician updates would largely offset the growth that would otherwise occur due to the aging of the beneficiary population, excess medical price inflation, and increases in the volume and intensity of Medicare services. In the absence of these reductions in payment rate updates, Medicare costs would continue to grow steadily as a percentage of GDP throughout the long-range period.

Conclusion

As the substantial differences between current-law and illustrative alternative projections demonstrate, Medicare’s actual future costs are highly uncertain for reasons apart from the inherent difficulty in projecting health care cost growth over time. The current-law projections reflect substantial, but very uncertain, cost reductions deriving from provisions of the ACA and MACRA that lower increases in Medicare payment rates to most categories of health care providers. Without fundamental change in the current delivery system, these adjustments would probably not be viable indefinitely. Given the anticipated challenges in achieving such a transformation, particularly over the long run, actual Medicare expenditures are likely to exceed the projections shown in the 2018 Trustees Report for current law, possibly by considerable amounts.

In practice, of course, lawmakers may enact any number of changes to the Medicare program in coming years. While some of these are likely to address the adequacy of provider payment rates, others may be designed to reduce expenditure levels or growth rates in other ways that may be

more sustainable over time. In view of the very substantial uncertainty associated with possible changes to Medicare, readers should interpret the current-law Medicare projections cautiously.

Thus, the current-law projections should not be interpreted as the most likely expectation of actual Medicare financial operations in the future but rather as illustrations of the very favorable impact of permanently slower growth in health care costs, if such slower growth can be achieved. The illustrative alternative projections shown here help to quantify and underscore the potential understatement of the current-law projections in the 2018 Trustees Report.

While the substantial improvements in Medicare’s financial outlook under the ACA and MACRA are welcome and encouraging, expectations must be tempered by awareness of the difficult challenges that lie ahead in improving the quality of care and making health care far more cost efficient. The sizable differences in projected Medicare cost levels between current law and the illustrative alternative scenario highlight the critical importance of finding ways to bring Medicare costs—and health care costs in the U.S. generally—more in line with society’s ability to afford them.

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