## Analysis of National Health Expenditure Projections Accuracy

November 2020

## **SECTION ONE: Introduction**

The information below provides an analysis of the accuracy of the National Health Expenditure (NHE) Projections produced by the Office of the Actuary (OACT). The report includes: accuracy measurements through the latest historical year (which is currently through 2018) for growth in total NHE spending, personal health care (PHC) spending and spending for the four major payers (Medicare, Medicaid, Private Health Insurance (PHI), and Out-of-Pocket (OOP)). The report also contains spending for three of the major health care sectors (hospitals, physicians and clinical services, and prescription drugs) and health care coverage (insured share of the population).

The table with these measurements in Section Two is followed by a comprehensive discussion in Section Three on the underlying reasons why projections of health care spending and health insurance enrollment can be higher or lower than actual experience.

Finally, the report includes an appendix intended to illustrate various examples of over- or underprojected figures over the last several cycles that are highlighted in the analysis.

## **SECTION TWO: Historical Accuracy**

OACT's primary objective is to produce the best technical projections possible with the intention of providing an unbiased outlook for national health care spending and health insurance enrollment trends. Inherent in the projections, however, is considerable uncertainty, which can result in inexact projections.

To the extent possible, the underlying issues that contribute to these imprecisions, whether they are a result of data, assumptions, or methods, should be identified and analyzed. By taking a critical look at the accuracy of the results on a regular basis, the likelihood of perpetuating any unintended bias in their construction is mitigated. Moreover, by being transparent regarding where the estimates tend to be more (or less) accurate and why, stakeholders will be better able to interpret the results, as well as have confidence in their technical construction.

### Background

The NHE projections are comprised of three primary components.<sup>1</sup> They are i) projections of Medicare spending and enrollment (consistent with, at the time of publication, the latest Medicare Trustees Report), ii) projections of Medicaid spending and enrollment (reflecting OACT's latest projections), and iii) projections of private health insurance spending (and its associated enrollment), out-of-pocket spending, and other private revenues. The Medicaid and private projections are constructed using macroeconomic assumptions that are consistent with those that underlie the Medicare projections.

<sup>&</sup>lt;sup>1</sup> Smaller components that are also projected, but not discussed here include spending for Marketplace plans, the Department of Defense, and the Department of Veterans' Affairs.

Examples of critical assumptions include projected growth in gross domestic product (GDP), the GDP deflator<sup>2</sup>, real disposable personal income, and levels of employment.

Past analyses of the projections' accuracy have shown that projected growth rates tend to be more accurate in the earliest years of the projection period.<sup>3</sup> As seen in Table 1 below, this tendency has generally been observed over the past nine projections cycles (Proj10 through Proj18)<sup>4</sup> using the estimates from NHE18<sup>5</sup> as the bass for actual historical rates of growth. This tendency is attributable to two primary reasons. First, in the year after the last historical estimate, there are often preliminary historical data available for part of the year by payer and by sector. Moreover, monthly price data and certain quarterly financial reports are also available for publicly traded health insurance companies that can be used to construct a preliminary picture of price, utilization, and enrollment growth. Second, the projections are typically published in What is year two of the respective projection period (for example, the 2019-2028 projections were published in March 2020). As a result, any recent substantive changes in law that become effective in years one and two are very likely to have been included when developing the figures. Fundamental changes in law that occur after the figures are released, however, are of course not included and thus can significantly contribute to differing rates of growth than were previously expected.

Period	Aggre	gate \$	Payer \$				Sector \$			Health
										Insured
	NHE	PHC	Medicare	Medicaid	PHI	OOP	Hosp	Phys	Drugs	Share of
										Population <sup>b</sup>
Year 1	0.1%	0.1%	0.3%	0.7%	-0.3%	0.1%	-0.2%	0.1%	1.2%	0.0%
Year 2	0.5%	0.4%	0.6%	1.7%	0.1%	-0.2%	-0.1%	0.2%	1.5%	0.0%
Years										
3-5	1.0%	1.0%	0.6%	2.3%	0.6%	0.0%	0.7%	0.5%	1.4%	1.0%

TABLE 1: Average Growth Rate Differential By Projection Year (Proj10 through Proj18)<sup>a</sup>

<sup>a</sup>Growth rate differentials calculated as applicable projected rates of growth less historical rates of growth. <sup>b</sup>Insured share differential calculated as projected insured share of population less historical share of population.

<sup>&</sup>lt;sup>2</sup> See The 2020 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, <u>https://search.ssa.gov/oact/TR/2020/tr2020.pdf</u>. Section V.B, which discusses economic assumptions and methods and gives long-run assumptions for GDP and price inflation begins on page 100 of this report.

<sup>&</sup>lt;sup>3</sup> CMS, "Accuracy Analysis Of The Short-term (10-year) National Health Expenditure Projections." 14 February 2018. <u>https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-</u> Reports/NationalHealthExpendData/Downloads/ProjectionAccuracy.pdf.

<sup>&</sup>lt;sup>4</sup> The various vintages of projections are referenced using the following notation: Proj10 represents the vintage of projections that covered 2010-2019. The Proj11 vintage spanned 2011-2020 and so on.

<sup>&</sup>lt;sup>5</sup> M Hartman et al, "National Health Care Spending In 2018: Growth Driven By Accelerations In Medicare and Private Insurance Spending." Health Affairs 39, No. 1, January 2020: 8-17.

# SECTION THREE: Five Underlying Reasons for Under- or Over-Projecting or Evolving Projections

Health spending projections can differ from the eventual published historical estimates for a variety of reasons. In general, those reasons can be lumped into five categories including:

- 1. Assumptions (Exogenous & Endogenous)
- 2. Changes In Law
- 3. Historical Data Revisions
- 4. Unforeseen Developments in the Health Care Industry
- 5. Data Vintages

Being able to uncover and understand these reasons is important and helps to quantify the various levels and magnitudes of uncertainty inherent in the projections. Moreover, looking in detail at the various underlying reasons can also help to identify and address components that may be affected by unintended bias during their construction. The remainder of this section speaks to the underlying issues with various examples illustrated in the accompanying appendix.

### Reason #1: Assumptions (Exogenous & Endogenous)

The first reason for why health spending projections may not match the historical estimates that follow is because of actual experience differing from projected trends for certain underlying assumptions (both exogenous, such as the overall macroeconomic assumptions, and endogenous, such as growth in the availability of new and expensive pharmaceuticals). One critical exogenous macroeconomic assumption is the assumed growth of economy-wide price growth, which is measured in the NHE projections by the GDP Deflator and is influential on the price models for individual medical goods and services. Examples of common reasons for this projection to be under- or over-projected are related to: (1) the difference between actual and projected economic growth (as price growth tends to be positively correlated with real growth in the economy), or (2) price movements (up or down) caused by a weather event, shortage, bumper crop, or productivity surge that could be created from an advancement on technology. The price assumption is critically important because projections of prices of medical goods and services are modeled to be consistent with growth in economy-wide prices. As a result, to the extent the GDP deflator projection is imprecise, the projections of medical prices could also be imprecise. For more information on how this impacted the accuracy of recent projections, see Charts 1 and 2 in the appendix.

The single most critical exogenous macroeconomic assumption in our modeling that drives the projection of real per capita private U.S. health spending growth (or growth in PHI, OOP, and other private revenues) is the projection of real disposable personal income (DPI). Examination of the entire National Health Expenditure Accounts time series indicates that, typically, changes in real DPI are associated with changes in real per capita private health spending, but with a lag.<sup>6</sup> When growth in income differs from what was projected, it can be due to an unanticipated recession (such as The Great Recession over 2007-2010) or an economic upturn that was not anticipated when the income

<sup>&</sup>lt;sup>6</sup> CMS, "Projections of National Health Expenditures and Health Insurance Enrollment: Methodology and Model Specification." 24 March 2020, <u>https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/ProjectionsMethodology.pdf</u>.

assumptions were developed. Significant differences between the projected growth in real DPI and its actual growth can result in notable differences between projected and actual health spending growth.

Inexact endogenous assumptions can also contribute to under- or over-projected estimates. An example would be where a trend appeared to be established in the history, but evolved in a different manor after the release of the projections. For instance, in the prescription drug industry around the year 2000, there was an industry consensus that the pipeline was full of promising new drugs and that there were serious roadblocks to generic drugs taking a much larger share of dispensed prescriptions than the relatively small share that they had at the time. Although prescription drug spending growth was anticipated to slow from the very high growth rates experienced in 1998 and 1999, there was a widespread belief that prescription drugs would remain one of the fastest growing sectors in health care for the near future. However, the pipeline turned out not to be as impactful as was assumed (and there were notable high-profile safety issues with some newly approved drugs).<sup>7</sup> That development, coupled with the widespread adoption of generic drugs, such that they accounted for 86 percent of all prescriptions dispensed in 2018<sup>8</sup> versus just 42 percent in 2000, significantly altered the level of expenditures and the growth profile for this sector.<sup>9</sup> For more information about the accuracy of recent prescription drug projections, see Chart 3 in the appendix below.

Another example relates to assumptions associated with growth in the number of people who were expected to be insured via directly purchased health insurance plans. Early projections of this metric that were constructed close to when Marketplace plans established by Patient Protection and Affordable Care Act (ACA) became available assumed rapid growth in take-up. Although the number of people covered by these plans has grown since their inception, the growth rate in enrollment has been slower than anticipated contributing to fewer people enrolled in directly purchased plans in more recent years (see Chart 4 in the appendix on recent projections of the insured share of the population).

Finally, endogenous assumptions related to expected growth in the volume and intensity (V&I) of services can also contribute to imprecise projections. For instance, assumed growth in V&I among Medicare beneficiaries is a key input into the Medicare spending projections. After the Great Recession, growth in V&I had slowed to historically low rates and it was not clear whether this slower growth was permanent or temporary (and if temporary, when faster growth would resume).<sup>10</sup> In subsequent projections after the Great Recession, growth in V&I was expected to accelerate somewhat rapidly and more closely resemble the growth rates observed between 2000 and 2009. However, this acceleration in growth did not materialize for several years because of unanticipated changes in behavior of Medicare beneficiaries. The latest historical data indicate growth in 2018 that is the highest since 2008,

https://ascpt.onlinelibrary.wiley.com/doi/full/10.1038/clpt.2010.286.

- <sup>8</sup> M Hartman et al, "National Health Care Spending In 2018: Growth Driven By Accelerations In Medicare and Private Insurance Spending." Health Affairs 39, No. 1, January 2020: 8-17.
- <sup>9</sup> Kaiser Family Foundation, "Prescription Drug Trends, A Chartbook Update." November 2001,

http://files.kff.org/attachment/report-prescription-drug-trends-a-chartbook-update.

<sup>&</sup>lt;sup>7</sup> K Kaitlin and J DiMasi, "Pharmaceutical innovation in the 21<sup>st</sup> century: new drug approvals in the first decade, 2000-2009." Clincial Pharmacology & Therapeutics, February 2011,

<sup>&</sup>lt;sup>10</sup> L Keohane et al. "The Slowdown in Medicare Spending Growth for Baby Boomers and Older Beneficiaries." Commonwealth Fund, 27 December 2019, <u>https://www.commonwealthfund.org/sites/default/files/2020-01/Keohane Medicare spending slowdown db.pdf</u>.

due in part to faster growth in V&I. See Chart 5 in the appendix for more information on the evolution of the Medicare spending projections.

#### Reason #2: Changes In Law

A second reason for why health spending projections may not match historical estimates once they are available is because of changes in law that affect the health sector. The NHE projections have always been constructed on a current-law basis, which means that the projections assume no new law changes are passed during the time period of the projection. Although one cannot necessarily expect that the law will remain unchanged over the next 10 years, this assumption i) provides a baseline for policymakers and the public off of which law changes can be estimated, and ii) ensures the Office of the Actuary isn't viewed as advocating for a particular law change or the timing of such a change.

When changes in law result in new programs and/or other significant expansions or restrictions in benefits (or who is covered), they can dramatically alter the growth rates at all levels of aggregation across the health care sector.<sup>11</sup> Clear recent examples of this are the ACA and the Medicare Prescription Drug, Improvement, and Modernization Act (which added a prescription drug benefit to Medicare). In the case of the ACA's implementation, for certain aspects, there were no historical data on which to base projections (such as who would take up subsidized insurance available in the new Health Insurance Marketplaces). As a result, new and innovative approaches were implemented in order to generate projected enrollment and spending trends. Since the ACA's implementation there have been subsequent law changes to some of its provisions, such as multiple moratoriums on the collection of the health insurance growth (see Chart 6 in the appendix below).

In the case of the law that created Medicare Part D, which was passed in May of 2004, all prescription drug spending projections published prior to that law's passage would not reflect the enormous rise in Medicare prescription drug spending (and associated changes for other payers) when the Part D program began in 2006.

In an example of how changes in law can affect hospital spending trends, recent legislation that penalized hospitals based on their rates of readmission had the effect of exerting downward pressure on the number hospital stays resulting in actual growth falling below projected growth. For additional detail, see chart 7 in the appendix.

#### Reason #3: Historical Data Revisions

The third reason for why health spending projections may not match historical estimates is because of revisions to the historical data that served as the basis for the projections when they were built. Each year when historical NHE estimates are published, they are subject to revisions to i) accommodate more complete data that may not have been available when the estimates were originally produced, and ii) to incorporate any improvements in methods or data sources if necessary. These historical revisions can

<sup>&</sup>lt;sup>11</sup> In some instances where the law change is substantial in terms of who is covered, what is covered, or both, the impacts might start affecting the health sector a few years after passage and thus would have a minimal effect on first few years of the projection period.

affect the resulting levels, the magnitudes of observed growth rates, and at times, the direction of an observed growth rate (that is, did growth accelerate or decelerate).

When historical revisions are minor in nature, such as when levels of spending are updated slightly and growth rates are largely unaffected, they aren't likely to have a material impact on what the resulting projections would have been. The more impactful historical revisions are when the magnitudes of growth rates change substantially or when the direction of the changing growth rate switches from an acceleration to a deceleration (or the opposite). One recent example is the implementation of a new methodology to reflect higher prescription drug rebates that lowered the actual historical price growth of prescription drugs, as well as overall medical prices. This revision contributes to the price trends displayed in Chart 2.<sup>12</sup>

Other exogenous inputs used to generate the NHE projections are also subject to historical data revisions. For instance, as mentioned above, the most influential driver of real per capita spending among private payers is the trend in real disposable personal income. Private spending trends tend to positively correlate with changes in income trends, but with a lag. Consequently, in those cases where income data are revised, it is expected that such updates would impact the timing and magnitude of changes in projected health spending.

#### Reason #4: Unforeseen Developments in the Health Care Industry

The fourth reason for why health spending projections may not match historical estimates is because of unforeseen influential developments in the health sector. For instance, a significant unforeseen impact occurred in the prescription drug sector when Gilead Sciences introduced Sovaldi (a pharmaceutical that cured Hepatitis C), which was approved in late 2013. Although this drug was known to be in the pipeline of drugs likely to be approved, there were not expectations for the high introductory price of this drug or the much higher than expected number of prescriptions that would be dispensed in the first full year of its availability, 2014.<sup>13</sup> As a result, the projected spending growth rates for prescription drugs for 2014 and 2015 (when Gilead launched another expensive Hepatitis C drug, Harvoni) were underprojected for the vintage of NHE projections released in 2013 and before when the impact of these drugs was not known.

Recent over-estimated Medicaid projections have also reflected unforeseen events including largerthan-expected risk mitigation payments back to the federal government by Medicaid managed care plans and implementation delays in states expanding their Medicaid programs to cover additional people (see Chart 8 in the Appendix below for more information regarding recent Medicaid projections).<sup>14</sup>

Finally, two recent examples of unforeseen developments in the health sector impacted spending growth in the physician and clinical services sector. First, in earlier vintages of projection cycles, the

<sup>&</sup>lt;sup>12</sup> CMS, "National Health Expenditure Accounts: methodology paper, 2019 definitions, sources, and methods." 16 December 2020, <u>https://www.cms.gov/files/document/definitions-sources-and-methods.pdf</u>

<sup>&</sup>lt;sup>13</sup> L Fegraus and M Ross. "Sovaldi, Harvoni, And Why It's Different This Time." Health Affairs, 21 November 2014, https://www.healthaffairs.org/do/10.1377/hblog20141121.042908/full/.

<sup>&</sup>lt;sup>14</sup> Risk mitigation payments to the federal government reflected a refund of overpayments to managed care plans whose experience in covering newly-eligible Medicaid enrollees was less costly than anticipated.

price projections for physician and clinical services did not consider the more recent trend of physicians' offices utilizing more non-physicians (such as nurse practitioners) to help deliver care.<sup>15</sup> Recent analysis of physician compensation data suggests that this trend may have contributed to slow growth in operating expenses, which in turn would suggest slower than expected price growth in this sector. Second, in late 2017, the penalty associated with the ACA's individual mandate was reduced to zero. Although the change in penalty wasn't effective until 2019, there were more immediate notable and unexpected drops in health insurance enrollment in the year prior. The associated higher than expected increase in the number of uninsured contributed to slower actual spending growth than projected in this sector for 2018 (see Chart 9 in the appendix).

A final example of this type of event is the pandemic associated with COVID-19 (coronavirus). The rapid initial increases in the number of people infected resulted in i) high demand for intensive care units in some areas of the country, ii) many people who weren't infected delaying or foregoing care, and iii) significant economic impacts including the loss of employment and/or employer-based private health insurance. The next publication of the NHE projections will be the first to reflect the impacts of the virus across the entire health sector.

#### Reason #5: Data Vintages

The fifth reason for why health spending projections may not match historical estimates is because of the timing of the vintages that are used. In most years, this issue has only minor impacts on projections accuracy. For example, the NHE projections rely on the latest publically available Medicare spending trends from the Medicare Trustees Report. Although additional Medicare claims data become available between the time the Trustees report is released and when the NHE projections are published, the updated data do not tend to be significantly different from what underlie the projections in the preceding vintage and are thus unlikely to materially alter the profile for growth.

## **SECTION FOUR: Conclusion**

The analysis above provides measurements of accuracy on the latest 9 cycles of NHE projections, as well as an examination of the 5 main underlying reasons as to why a projection may turn out to be imprecise. On average, the projected figures have tended to be slightly over-projected with the earliest years being somewhat more accurate than the years that follow. Nonetheless, for the vast majority of metrics shown in Table 1, projected spending growth rates have been within plus or minus 1.0 percentage point, on average, of their historical estimates.

As has been the practice, the Office of the Actuary will continue to review and evaluate the accuracy of future cycles. As a result, models will be re-estimated and perhaps re-specified, and core assumptions that underlie those models will be scrutinized, and perhaps wholly or partially changed. The goal will

<sup>&</sup>lt;sup>15</sup> Medical Group Management Association, "New MGMA Data Shows Medical Practices Utilizing More Non-Physician Providers are More Profitable, Productive." 18 July 2018. Available at: <u>https://www.mgma.com/news-insights/press/new-mgma-data-shows-medical-practices-utilizing-mo.</u>

continue to be to produce the best technical estimates possible for use by policy-makers and other interested stakeholders.

## Appendix: Charts and background illustrating recent vintages of projections relative to the most recent estimates of historical growth

Below are a series of selected charts illustrating many of the examples of the issues highlighted above. The charts are accompanied by additional background on how these particular projections evolved. Note that the Proj19 projections reflect historical data through 2018, thus the charts that follow illustrate historical accuracy through that year, as well as how the projections have evolved for the years 2019 and later.







#### CHART #2 – Growth in Prices for Personal Health Care (PPHC) by Vintage

Charts 1 and 2 above illustrate that over the last 6 projection cycles, projections of aggregate NHE growth have generally been over-projected, a result largely attributable to slower-than-expected growth in prices.

As stated above under Reason #1 (Assumptions), the projection of medical price growth has two components: (1) total economy-wide price inflation, as measured by the GDP deflator, and (2) relative medical price inflation (or the difference between growth in medical prices and growth in economy-wide prices). The majority of the explanation behind recent over-projections of medical price growth relates to over-projections in the assumptions for the GDP deflator. The table below showing projected growth by year from the 2014 Medicare Trustees Report is an example that illustrates this point. Despite gradual declines in the assumed growth over subsequent Trustees Reports as illustrated in Chart 2, the majority of the roughly 1 percentage point over-projection of medical price inflation from 2015 to 2019 can traced back to an over-projection of the GDP Deflator.

Year	2015	2016	2017	2018	2019
2014TR <sup>16</sup>	1.5%	1.8%	2.0%	2.2%	2.3%
Actual <sup>17</sup>	1.0%	1.0%	1.3%	1.5%	1.7%
Difference	0.5%	0.8%	0.7%	0.7%	0.6%

Growth in the GDP Price Deflator	, 2014 Medicare	<b>Trustees Re</b>	port versus Actual
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<sup>&</sup>lt;sup>16</sup> See The 2020 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, <u>https://search.ssa.gov/oact/TR/2014/tr2014.pdf</u>, Table V.B1.—Principal Economic Assumptions, page 99.

<sup>&</sup>lt;sup>17</sup> See Table 1.1.4 Price Indexes for Gross Domestic Product, line 1, calculated growth from annual levels, <u>https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey</u>.



CHART #3 – Prescription Drugs Spending Growth by Vintage

Slower than projected growth in this sector over 2016-2018 was partly explained by three factors. First, economy-wide price growth was at historically low levels when those earlier cycles of projections were completed. Price growth was expected to rebound, but this failed to materialize. Second, in 2018, the National Health Expenditure Accounts incorporated a new method for estimating rebates on prescription drugs, which resulted in historical revisions that lowered growth. Finally, for 2016 specifically, drug spending growth was coming down from a sharp acceleration in 2014 and 2015 due to the waning effects of both the implementation of the ACA, as well as the high use of expensive drugs to treat hepatitis C. It was clear that drug spending growth would decelerate from its relatively high level in 2015, but the pace at which this occurred was unforeseen at the time.



CHART #4 – Insured Share of the Population by Vintage

This series is calculated as follows: (Population – Uninsured) / Population. Projections of population count are very stable. As a result, almost all of the changes seen in the graph above are the result of projections of the number of people who are uninsured, which itself, is a function of the projections of health insurance enrollment for third-party payers. The over-projected rates of insurance beginning in 2015 are partly explained by slower growth in the direct purchase segment of the private health insurance market, partly because fewer people enrolled in Marketplace plans than were originally expected.



CHART #5 - Medicare Spending Growth by Vintage

Slower than expected growth in the volume and intensity (V&I) of goods and services among Medicare beneficiaries, coupled with assumed higher than actual price growth, contributed to generally over-projected growth in Medicare spending over 2016-2017. This was mainly caused by projections of inpatient admissions growth being higher than the historical estimates of this growth as a result of hospitals attempting to trying to cut preventable readmissions (see Chart #7 for more information). In addition, as described in Chart #2, projections of growth in prices for many types of Medicare goods and services were over-projected during this period.



CHART #6 – Private Health Insurance Spending Growth by Vintage

The evolution of recent private health insurance projections provides an example of the impact of changes in law as they occur over time. For example, the profile for growth over 2017 and 2018 has changed substantially as a result of the moratoriums on the collection of the Health Insurance Tax (in 2017 and 2019).<sup>18</sup> The suspension of that tax is currently projected to influence a notable slowdown in the growth of the net cost of private health insurance (from 15.3 percent in 2018 to 2.0 percent in 2019) and by extension, overall PHI spending.<sup>19</sup> The three earliest vintages of trends highlighted here had no such slowdown as current law did not call for the moratorium at the time they were produced.

 <sup>&</sup>lt;sup>18</sup> The Health Insurance Tax was applicable in 2020 but has now been permanently repealed for all future years.
<sup>19</sup> S. Keehan et al., "National Health Expenditure Projections, 2019-28: Expected Rebound In Prices Drives Rising Spending Growth." Health Affairs 39 (4), April 2020, 704-714.





In the graph above, hospital spending growth for 2018 was 4.5 percent, or about one percentage point lower than the average of the 4 earliest projections (Proj14 through Proj17) for that year. One of the main reasons leading to projected spending growth being lower than the eventual historical growth was the assumption on the use of inpatient hospital services. Although slower economic growth and the continued shift from inpatient to outpatient were important factors, inpatient hospital use grew less rapidly than expected. This was mainly a result of reduced admissions as hospitals sought to avoid penalties from the Hospital Readmissions Reduction Program. A recent MedPAC report cited multiple actions by hospitals to reduce readmissions of Medicare beneficiaries, which were applied to all patients and reduced readmissions for all payers.<sup>20</sup> Moreover, the application of the penalties themselves (Medicare cut payments to over 2,000 hospitals in 2018 due to readmission penalties) also contributed to slower than expected growth.<sup>21</sup>

 <sup>&</sup>lt;sup>20</sup> MedPAC, "Mandated Report: The Effects of the Hospital Readmissions Reduction Program." 27 November 2019, <a href="http://medpac.gov/docs/default-source/reports/jun18">http://medpac.gov/docs/default-source/reports/jun18</a> ch1 medpacreport rev nov2019 v2 note sec.pdf
<sup>21</sup> Rau, J, "New Round of Medicare Readmission Penalties Hits 2,583 Hospitals." 1 October 2019, <a href="https://khn.org/news/hospital-readmission-penalties-medicare-2583-hospitals">https://khn.org/news/hospital-readmission-penalties-medicare-2583-hospitals</a>.



CHART #8 - Medicaid Spending Growth by Vintage

While Medicaid spending growth was projected to grow near 6 percent in the last few vintages, recent historical growth rates for 2017 and 2018 have been closer to 3 percent. Revisions to historical data have been a primary factor in Medicaid spending growth being recently over-projected. The downward revisions were, in part, related to recovery payments from managed care organizations paid to the federal government based on their favorable prior-period experience.<sup>22</sup>

Also contributing to slower than projected spending growth was the enrollment trend, which came in at a lower rate than was expected. The Affordable Care Act allowed for optional expansion of the Medicaid program, which would be almost entirely funded by the federal government. After the implementation of the ACA in 2014, additional states had voted to expand their Medicaid programs and these expansions were expected to be implemented in 2016 and 2017. As a result, Medicaid enrollment growth was expected to be above its historical trend. However, the experience in several states was that there were unanticipated delays in implementation, as well as challenges in completing the enrollment process for those eligible for coverage.<sup>23</sup> As a result of lower than expected enrollment growth, there was lower overall Medicaid spending growth than was anticipated when the projections were completed.

<sup>&</sup>lt;sup>22</sup> Hartman, M et al., "National Health Care Spending In 2018: Growth Driven By Accelerations In Medicare And Private Insurance Spending." Health Affairs 39 (1), January 2020, 8-17.

<sup>&</sup>lt;sup>23</sup> T Brooks et al, "Medicaid and CHIP Eligibility, Enrollment, and Cost Sharing Policies as of January 2020: Findings from a 50-State Survey, 26 March 2020, <u>https://www.kff.org/coronavirus-covid-19/report/medicaid-and-chip-eligibility-enrollment-and-cost-sharing-policies-as-of-january-2020-findings-from-a-50-state-survey/</u>.



CHART #9 – Physician Spending Growth by Vintage

Slower growth in physician and clinical services spending, particularly for 2018, was influenced by fewer people enrolled in private health insurance than was expected and cost-cutting measures recently implemented, namely the incorporation of less expensive non-physicians in the delivery of care. In addition, the actual prices paid for physician and clinical services grew at a slower rate than projected, partly caused by over-projections in the GDP Deflator (described above).