Health spending in 2015 is on track for 6.3% growth, a percentage point faster than 2014 growth

- December QSS data, combined with the most recent HSEI results, show health spending growth of 6.2% in Q3 2015 compared to Q3 2014.
- This brings the average for the first three quarters of 2015 to 6.3%, a percentage point faster than the 5.3% growth in 2014 recently reported by the Centers for Medicare & Medicaid Services (CMS).

The percentage point increase in the 2015 growth rate is likely due to the impact of expanded coverage

- As discussed in our November Trend Report, coverage expansion occurred incrementally during the first three quarters of 2014. Expanded coverage increases the demand for health care services, but, as shown in the chart below, the impact on health services spending was not immediate and does not appear to have begun in earnest until 2015.

Growth in Health Care Services Spending by Quarter, 2006–Q3 2015

Source: Altarum analysis of HSEI and QSS data. Growth above 4% is highlighted in red.
One of the surprises in the new CMS estimates was a significant downward revision to the 2013 health spending growth rate (already a record low), from 3.6% to 2.9%. As shown in the above chart, while the 2013 growth rate is due in part to very low growth in prescription drug spending, 2013 is also an outlier for health care services spending, which grew by only 3% for the year.

Setting aside 2013 as an anomaly that is not yet well-understood, the growth of 4.2% in health services spending in 2014 represents a slight slowdown compared to the average growth of 4.6% in the post-recession years 2009–2012, despite expanded coverage. Services spending growth then rose to an average of slightly less than 6% for the first three quarters of 2015, representing a 1.5 percentage point increase, which is in line with what was expected from expanded coverage.

Health care job growth may be moderating

- Altarum recently documented the relationship between the acceleration in health sector hiring and expanded coverage and noted that as coverage expansion stabilizes, the rate of health hiring growth should slow. In our November Trend Report, we documented a slowdown in coverage expansion. Data for October and November 2015 suggest that we may be seeing the beginning of a moderation in the health care hiring boom, as shown below.

Health care price growth remains historically low

- With revisions, September 2015 now represents the all-time low for total health care price growth, at 0.9% year over year, followed by still quite low rates of 1.2% in October and 1.1% in November (though the 12-month moving average for November, at 1.2% ties a multi-decade low).

- While total hospital price growth is modest at 1.4% in November, there is a trend of Medicare and Medicaid prices (growing at 1.2% and -1.5%, respectively) exhibiting a divergent path from private prices (growing at 2.3%) that bears close monitoring in light of the current health care merger frenzy.
Distribution of National Health Expenditures

The health spending data described in this report represent national health expenditures (NHE), as defined in the National Health Expenditure Accounts (NHEA) maintained by CMS. Data through 2014 are the most recent official estimates by CMS, as released on December 2, 2015. Data for the first three quarters of 2015 are from the Altarum monthly HSEI, with the exception of spending on health care services in Q3, which is derived from the December QSS.  

To gain an understanding of trends and growth in health spending, it is useful to have a picture of the major components of NHE and their relative proportions. Altarum presents this information as background by using NHEA data for 2014. Figure 1 breaks down NHE into the major spending categories. Health care products (goods) and services accounted for about 85% of NHE in 2014, with services alone accounting for 71%. Administrative and net costs of insurance made up 7.7% of NHE. Public health, medical research, and investments in structures and equipment made up another 7.7%.

Figure 1: NHE by Spending Category, 2014

![Figure 1: NHE by Spending Category, 2014](source: CMS Office of the Actuary)

Figure 2 presents another way to divide NHE, identifying the largest components of the major spending categories. The largest components of health care services are hospitals and physicians, which together account for more than half (52%) of NHE. Health care products are dominated by prescription drugs (9.8% of the 13.2%), and the net cost of insurance, at 6.4%, accounts for most of the administrative and net costs of insurance category (7.7%). Taken together, these four components—hospitals, physician and clinical services, prescription drugs, and the net cost of insurance—make up more than two-thirds of NHE (68.2%).

Figure 2: NHE by Major Components of Categories, 2014

![Figure 2: NHE by Major Components of Categories, 2014](source: CMS Office of the Actuary)

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1 For Q3, the December QSS was used to estimate year-over-year growth rates in spending on services by component. Growth rates for components not covered by QSS are from the December HSEI.
Growth in NHE with Selected Components

The shaded bars in Figure 3 show the annual growth rates in NHE from 2006 through Q3 2015. During 2006 and 2007, the years immediately preceding the recession, the growth rate exceeded 6%. In 2009, the last year of the recession, it dropped below 4% and remained close to 4% through 2012. The growth rate dipped further in 2013 to an all-time low of 2.9%, according to recent CMS revisions. Growth rose in 2014 to 5.3% and has exceeded 6% for the first three quarters of 2015.²

Figure 3 also displays the growth rates over this period for health care services, prescription drugs, and the cost of insurance, which together account for about 89% of NHE. While health care services constitute by far the largest component, the volatility of spending on prescription drugs and of the cost of insurance gives these two smaller components a disproportionate impact on NHE growth rates in some years.³

The increase to 5.3% growth in 2014 seems to confirm the expected uptick in NHE due to expanded coverage under the Patient Protection and Affordable Care Act (ACA). However, it is worth a look at the individual components to understand better the impact of ACA and other factors. The 2014 growth rate in spending on health care services is similar to the rates in 2010, 2011, and 2012, with 2013 a low outlier. The rise in the NHE growth rate in 2014, particularly when compared to 2009 through 2012, is mainly due to spikes in the growth rates for spending on prescription drugs and in the cost of insurance. While some of the spike in spending on prescription drugs is likely due to expanded coverage, most of it appears to be attributable to fewer patent expirations, the introduction of the hepatitis C drugs Sovaldi and Harvoni, and price growth for generics. The

² Price inflation for the U.S. economy, as measured by the gross domestic product deflator, averaged 3.1% for 2005–2007 and 1.5% for 2009–2013, a drop of 1.6 percentage points. Thus, about 60% of the roughly 2.6-percentage-point decline in the health spending growth rate pre- and post-recession can be attributed to lower overall price inflation. See Charles Roehrig’s *Health Affairs* blog for a more detailed breakdown of the post-recession spending slowdown. The recession began in December 2007 and ended in June 2009.

³ As a rough rule of thumb, the impact of a particular component on changes in the overall NHE growth rate from one year to the next is the product of the change in the growth rate of that component and its share of total NHE. For example, the growth in spending on prescription drugs increased by about 9.9 percentage points between 2013 and 2014. Since spending on prescription drugs represents 9.3% of NHE, the jump in the growth rate added about 0.9 percentage points to NHE growth in 2014 (0.099 x 0.093 = 0.0092) through Q3.
spike in the cost of insurance reflects the impact of expanded coverage and the growth of Medicaid managed care.

The limited uptick in the overall growth of health care services spending in 2014 does not mean that expanded coverage had no impact. Looking at the pattern over the year reveals that Q1 2014 looked much like 2013 (3.2% growth), but spending growth picked up as the year went on, growing at 4.0%, 4.6%, and 5.0% in Q2, Q3, and Q4 2014, respectively. Thus, the faster growth at the end of 2014 was offset by the slow growth at the start, resulting in the modest overall growth rate.

For 2015, Altarum estimates that NHE growth has averaged 6.3% for the first three quarters of 2015. As shown in Figure 3, higher growth rates in 2015 are being driven by higher growth in spending on services, while growth rates for spending on prescription drugs and cost of insurance have been declining compared to 2014.

Figure 4 compares the growth rate in health care services spending to the growth rates of its two largest components: hospitals and physicians. Both components contributed to the increase in spending on services in 2015. Hospital growth peaked early in Q1 2015 at 7.7%, while physician and clinical services growth has continued to climb, peaking at 8% in Q3 2015.

The Role of Health Care Prices in Spending Growth

Total spending on health care can be represented by the familiar economic formula of $P \times Q$, where $P$ represents the price paid for the product or service and $Q$ represents the quantity purchased. The percentage growth in $P \times Q$ is well-approximated by the percentage growth in $P$ plus the percentage growth in $Q$. This means that the difference between the growth rates in spending and prices is an indicator of the growth rate in the quantity of care consumed or, using the more familiar term, health care utilization.

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4 It is well known that in health care, the price charged often bears little resemblance to the price actually paid, thanks to negotiated contracts that supersede list prices (charges). To address this problem, the BLS price indexes that Altarum uses are based on “transaction” prices (the agreed-upon payment) rather than charges.

5 To be precise, the growth in $P \times Q$ equals the growth in $P$ plus the growth in $Q$ plus the product of the growth rates. When growth rates are small, the product is negligible and the approximation is quite accurate.
Figure 5 plots the growth rate in spending on health care services along with the growth in prices for those services. For the pre-recession years of 2006 and 2007, the growth rate for spending on services averaged 6.2%, with 3.3% attributable to prices and 2.9% to utilization. Post-recession, from 2009 to 2014, growth in spending on services averaged 4.2%, with prices and utilization accounting for 2.0% and 2.2%, respectively. Thus, the post-recession period is associated with a 2-percentage point reduction in the growth rate for spending on health care services. Most of this reduction (1.3 percentage points) is due to slower price growth. The jump in services spending in the first three quarters of 2015 appears to be driven by utilization, as price growth actually drops below 1%.

The growth in prices for health care services is determined primarily by prices for hospital and physician services, each plotted for recent years in Figure 6. Comparing 2006–2007 with 2009–2014, hospital price growth dropped from 3.9% to 2.3%; and for physician services, there was a decline from 2.5% to 1.3%. Thus, both hospitals and physicians contributed to the slower price growth for health care services following the recession, with physician price growth running more than a percentage point below hospital price growth. Price growth drops even further in the first three quarters of 2015, with physician prices actually falling and hospital prices rising less than 1%.

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6 Price growth is based on a health services price index constructed from health care price index data obtained from CMS. Deflating by this measure gives an implicit measure of utilization.
Figure 7 plots rates of growth in spending and prices for prescription drugs. Medicare Part D prescription drug coverage began in 2006, so the large rate of growth in prescription drug spending in that year is an outlier. After 2006, the rate of growth in drug spending ranged from about 5% to less than 1% but was historically well-controlled until 2014, when the rate jumped to 12.2% driven primarily by new drugs. The high rate of spending growth in 2014 has slowed somewhat in each of the first three quarters of 2015.

The pattern of growth in drug prices has been somewhat less volatile. However, there are important issues with the BLS prescription drug price index used here. First, it does not capture the impact of rebates, so in periods when rebates are increasing as a share of spending, price growth will be overstated. Second, the introduction of an expensive new drug such as Sovaldi does not affect the price index in the year of introduction. Finally, when there is a major shift from brand names to generics, as occurred in 2012, the impact on the BLS index is delayed, because the market basket used to weight prices is not updated in a timely manner.7

**Health Care Services Jobs and Productivity**

The health care services industry is a major employer, accounting for more than 15 million jobs, or 10.7% of all U.S. jobs.8 Interestingly, the distribution of jobs across types of services is quite different from the distribution of spending on types of services (Figure 8). For example, while hospitals account for 45% of health services spending, their share of health services jobs is only 33%. Similarly, physicians account for 28% of spending but only 17% of jobs. The remaining services, including nursing homes, home health, dentists, and other ambulatory services, account for more than half of all jobs but only 27% of spending. These figures are for 2014, but the proportions are nearly identical in 2015.

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7 The prescription price growth shown in Figure 7 is based on Table 23 from CMS NHE Tables through 2013 and the BLS prescription drug consumer price index (CPI) for 2014. CMS documentation cites the BLS CPI as a source for its prescription drug price index but has introduced adjustments to properly capture the timing of the 2012 “patent cliff.”

8 Labor data used in this report are from the BLS Current Employment Statistics monthly survey.
There are various reasons for these large differences between the distribution of jobs and spending. In the case of physician services, a key factor is that the job totals do not include unincorporated self-employed individuals, and many physicians fit in this category. More broadly, there are differences in the mix of occupations and salaries and in the amount of nonlabor costs associated with different categories of services.\(^9\) For example, the nonlabor share of hospital costs is about 48\%, but for nursing homes, it is 38\%.\(^{10}\)

If the method of producing health care services remained constant over time, the rate of growth in health services jobs would be the same as the growth in the utilization of such services. As noted earlier, the rate of growth in services utilization can be approximated by subtracting the rate of growth in prices from the rate of growth in spending.\(^{11}\) Figure 9 compares growth rates for jobs and utilization from 2006 through Q3 2015. The growth rates are fairly similar through 2013, apart from a small bump in utilization growth in 2012. Utilization has been growing faster than jobs since 2014, averaging 2.5 percentage points faster so far in 2015. The difference between the utilization and job growth is a rough measure of productivity, in the sense that it represents the percentage change in services produced per job. By this measure, productivity has increased since 2005, with services per job up about 5\% (Figure 10). Utilization growth in 2014 and 2015 may be somewhat overstated due to reductions in uncompensated care, which causes spending to rise faster than \(P \times Q\).

**Concluding Observations**

The recent CMS estimate of a 5.3\% rate of growth in health spending for 2014 has received much attention as the highest rate since the recession. As shown in this report, Altarum is estimating health spending growth rates above 6\% through the first three quarters of 2015, foretelling an annual rate for 2015 that is likely to be on the order of a percentage point higher than 2014. However, we believe that the impacts of expanded coverage and new prescription drug spending are stabilizing, so the acceleration in health spending that began in late 2014 and has continued through 2015 will moderate in 2016, depending on the degree to which low price growth continues. There are already indications of slowing growth in prescription drug spending and in health care hiring.

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\(^9\) By “nonlabor costs,” we mean costs not associated with employment.


\(^{11}\) More precisely, the formula is spending growth minus price growth, all divided by the sum of 1 and the price growth.