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National Health Expenditure Projections, 2017–26: Despite Uncertainty, Fundamentals Primarily Drive Spending Growth

ABSTRACT Under current law, national health spending is projected to grow 5.5 percent annually on average in 2017–26 and to represent 19.7 percent of the economy in 2026. Projected national health spending and enrollment growth over the next decade is largely driven by fundamental economic and demographic factors: changes in projected income growth, increases in prices for medical goods and services, and enrollment shifts from private health insurance to Medicare that are related to the aging of the population. The recent enactment of tax legislation that eliminated the individual mandate is expected to result in only a small reduction to insurance coverage trends.

Since the beginning of the Great Recession in late 2007, the health sector has seen noteworthy spending patterns, not only because of economic effects on the use and price of health care services, but also because of the passage and enactment of major health care reform, including major insurance coverage expansions.¹ Although considerable debate and uncertainty regarding the future of health care policy remain, under current law—including the Tax Cuts and Jobs Act of 2017, which effectively repealed the individual mandate by eliminating the shared-responsibility payment for failure to maintain minimum essential coverage—the outlook for national health spending and enrollment over the next decade is expected to be driven primarily by fundamental economic and demographic factors: trends in disposable personal income,² increases in prices for medical goods and services, and shifts in enrollment from private health insurance to Medicare that result from the continued aging of the baby-boom generation into eligibility.

National health spending growth is expected to average 5.5 percent per year for 2017–26 and to reach \$5.7 trillion by 2026 (exhibit 1).³ Over

the same period, growth in the nation's gross domestic product (GDP) is expected to be 4.5 percent per year. This 1.0-percentage-point differential is expected to result in an increase in the health share of the economy from 17.9 percent in 2016¹ to 19.7 percent in 2026.

The projected average annual growth rate of 5.5 percent for 2017–26 is somewhat higher than the rate for 2008–13 (3.8 percent per year), when the most recent recession and modest recovery contributed to historically slow average annual growth in health spending, and for 2014–16 (5.0 percent per year), when the implementation of the Affordable Care Act (ACA) coverage expansions in 2014 was the primary influence. Spending growth in Medicare and Medicaid is a substantial contributor to the faster projected overall growth in national health spending through 2026. Over the period, projected increases in the use and intensity of care contribute to rising growth in Medicare per enrollee spending relative to recent nearly historic lows. In addition, Medicare enrollment is expected to continue to reflect the aging of the baby-boom generation into the program. For Medicaid, aging is anticipated to increase the share of enrollment accounted for by relatively more expensive

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EXHIBIT 1

National health expenditures (NHE), aggregate and per capita amounts, share of gross domestic product (GDP), and average annual growth from previous year shown, by source of funds, selected calendar years 2013–26

Source of funds	2013 ^a	2015	2016	2017 ^b	2018 ^b	2020 ^b	2026 ^b
EXPENDITURE, BILLIONS							
NHE	\$2,879.0	\$3,200.8	\$3,337.2	\$3,489.2	\$3,675.3	\$4,090.9	\$5,696.2
Health consumption expenditures	2,725.9	3,047.1	3,179.8	3,325.4	3,504.3	3,901.7	5,437.1
Out of pocket	325.2	339.3	352.5	365.3	379.8	417.3	555.3
Health insurance	2,087.8	2,382.8	2,486.8	2,607.3	2,755.2	3,075.6	4,351.9
Private health insurance	946.4	1,068.8	1,123.4	1,186.6	1,244.1	1,348.8	1,776.0
Medicare	590.2	648.8	672.1	705.8	748.1	873.1	1,366.0
Medicaid	445.4	544.1	565.5	582.0	622.0	696.4	996.2
Federal	256.9	343.1	358.1	360.4	385.8	429.4	613.0
State and local	188.5	201.0	207.5	221.7	236.2	267.0	383.2
Other health insurance programs ^c	105.9	121.1	125.8	132.8	141.1	157.3	213.8
Other third-party payers and programs and public health activity	312.9	325.0	340.5	352.8	369.2	408.8	529.8
Investment	153.1	153.7	157.4	163.9	171.1	189.2	259.2
Population (millions)	315.7	320.3	322.5	325.4	328.4	334.5	352.3
GDP, billions	\$16,691.5	\$18,120.7	\$18,624.5	\$19,350.9	\$20,182.9	\$22,192.4	\$28,900.0
Disposable personal income, billions	12,395.8	13,615.0	13,968.6	14,441.9	15,074.4	16,609.6	21,799.9
NHE per capita	9,120.9	9,994.2	10,348.2	10,723.5	11,193.2	12,230.4	16,167.6
GDP per capita	52,879.7	56,579.7	57,751.2	59,471.4	61,467.2	66,347.2	82,026.7
Prices (2009 = 100.0)							
GDP Implicit Price Deflator, chain weighted	1.069	1.100	1.114	1.133	1.155	1.206	1.375
Personal Health Care Price Index	1.084	1.107	1.120	1.135	1.160	1.217	1.428
NHE as percent of GDP	17.2%	17.7%	17.9%	18.0%	18.2%	18.4%	19.7%
ANNUAL GROWTH							
NHE	3.8%	5.4%	4.3%	4.6%	5.3%	5.5%	5.7%
Health consumption expenditures	4.0	5.7	4.4	4.6	5.4	5.5	5.7
Out of pocket	1.9	2.1	3.9	3.6	4.0	4.8	4.9
Health insurance	4.4	6.8	4.4	4.8	5.7	5.7	6.0
Private health insurance	3.4	6.3	5.1	5.6	4.8	4.1	4.7
Medicare	5.3	4.9	3.6	5.0	6.0	8.0	7.7
Medicaid	5.4	10.5	3.9	2.9	6.9	5.8	6.1
Federal	5.6	15.6	4.4	0.6	7.1	5.5	6.1
State and local	5.0	3.3	3.2	6.9	6.5	6.3	6.2
Other health insurance programs ^c	6.0	6.9	3.9	5.5	6.2	5.6	5.2
Other third-party payers and programs and public health activity	3.3	1.9	4.7	3.6	4.7	5.2	4.4
Investment	1.7	0.2	2.4	4.1	4.4	5.2	5.4
Population ^d	0.8	0.7	0.7	0.9	0.9	0.9	0.9
GDP	2.4	4.2	2.8	3.9	4.3	4.9	4.5
Disposable personal income	2.8	4.8	2.6	3.4	4.4	5.0	4.6
NHE per capita	3.0	4.7	3.5	3.6	4.4	4.5	4.8
GDP per capita	1.6	3.4	2.1	3.0	3.4	3.9	3.6
Prices (2009 = 100.0)							
GDP Implicit Price Deflator, chain weighted	1.6	1.4	1.3	1.7	1.9	2.2	2.2
Personal Health Care Price Index	2.2	1.1	1.2	1.4	2.2	2.4	2.7

SOURCES Centers for Medicare and Medicaid Services; Office of the Actuary, National Health Statistics Group; and Department of Commerce, Bureau of Economic Analysis and Bureau of the Census. **NOTES** For definitions, sources, and methods for NHE categories, see CMS.gov. National Health Expenditure Accounts: methodology paper, 2016: definitions, sources, and methods [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; [cited 2018 Jan 17]. Available from: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/dsm-16.pdf>. Numbers may not add to totals because of rounding. Percent changes are calculated from unrounded data. ^aAnnual growth, 2008–13. ^bProjected. ^cIncludes health-related spending for Children’s Health Insurance Program, Titles XIX and XXI; Department of Defense; and Department of Veterans Affairs. ^dEstimates reflect the Bureau of the Census’s definition of *resident-based population*, which includes all people who usually reside in the fifty states or the District of Columbia but excludes residents living in Puerto Rico and areas under U.S. sovereignty, and US Armed Forces overseas and US citizens whose usual place of residence is outside of the United States. Estimates also include a small (typically less than 0.2 percent of population) adjustment to reflect census undercounts. Projected estimates reflect the area population growth assumptions found in the 2017 *Medicare Trustees Report* (see note 5 in text).

aged and disabled beneficiaries who tend to have disproportionately higher use and intensity of care provided relative to nonaged or nondisabled beneficiaries. Despite the faster growth projected over the next decade, overall national health spending growth is not anticipated to reach rates experienced in the period before the last recession (7.3 percent per year for 1990–2007).

Another key contributor to faster health spending growth over the projection period is the trend in prices for medical goods and services, which is projected to increase gradually from historically low rates in 2014–16 (1.1 percent per year) and average 2.5 percent per year in 2017–26. Medical-specific factors—including projected growth in input prices for the goods and services required to provide health care—contribute to this trend, as do expected increases in economywide prices. However, for medical goods and services, the rate of price growth is projected to remain lower over the projection period than the 3.3 percent average annual growth rate in 1990–2007.

Among the largest health care goods and services, prescription drugs are projected to experience the fastest average annual spending growth in 2017–26 (6.3 percent per year). This trend primarily reflects faster anticipated growth in drug prices, which is attributable to a larger share of drug spending being accounted for by specialty drugs over the coming decade.

The share of the population with health insurance is projected to decline slightly over the projection period (from 91.1 percent in 2016 to 89.3 percent in 2026). The projected decline is due in part to the elimination of penalty payments associated with the ACA individual mandate. The trend is also influenced by economic factors, such as the impact of growth in GDP and employment on private health insurance enrollment.

Model And Assumptions

The national health expenditure projections are primarily developed under a current-law framework.⁴ Thus, they do not reflect potential health law changes or their impact on the health care economy. The projections are constructed using actuarial and econometric modeling methods, as well as judgments about future events and trends that influence health spending.² The projections are based on economic and demographic assumptions in the 2017 *Medicare Trustees Report*,⁵ updated to reflect recent macroeconomic data, and the 2017 *Actuarial Report on the Financial Outlook for Medicaid*.⁶

The provisions of the recently enacted Tax

Cuts and Jobs Act are partially reflected in these projections of health spending and insurance coverage. Specifically, the impacts from the repeal of the individual mandate have been incorporated, which assume that some younger and healthier people will choose to be uninsured—particularly those with comparatively higher incomes who might not qualify for premium subsidies in the health insurance Marketplaces.² However, the potential effects of the legislation on projected economic trends have not been included, to maintain consistency with the economic assumptions in the 2017 *Medicare Trustees Report*.⁵

This analysis is inherently subject to substantial uncertainty that increases over the projection horizon. Factors such as macroeconomic conditions, changes in health insurance markets, varying consumer responses to changes in benefit design, provider responses to payment reforms, and technological advances are all elements that are uncertain. To the extent that these factors differ from expectations, they may lead to divergence between projected and actual spending.

Chronological Outlook Of Yearly Trends

2017 National health spending is projected to have grown 4.6 percent in 2017 (and to have reached nearly \$3.5 trillion), up slightly from 4.3 percent in 2016 (exhibit 1). Underlying this faster growth are several key factors: Medicare spending growth is projected to have accelerated in 2017 after several years of near-historically low growth; prices for medical goods and services are projected to have grown slightly more rapidly, mainly because of faster growth in economywide prices; and private health insurance spending growth is projected to have accelerated in 2017, partly because of increases in premiums for insurance purchased through the health insurance Marketplaces.

Medicare spending growth is projected to have accelerated to 5.0 percent in 2017 from 3.6 percent in 2016, largely because of faster projected growth in spending per beneficiary, from 0.8 percent in 2016 to 1.7 percent in 2017 (exhibit 2). Recent slow growth in Medicare spending through 2016 was influenced by both low utilization (particularly of hospital services) and slow growth in payment rates (partly the result of modest inflation and ACA-related payment adjustments).⁵ In 2017, however, growth in the use of services and increases in payment updates are projected to have begun to contribute to faster overall Medicare spending growth. Medicare enrollment growth is also expected to have

EXHIBIT 2

National health expenditures (NHE) and health insurance enrollment, aggregate and per enrollee amounts, and average annual growth from previous year shown, by source of funds, selected calendar years 2013–26

Source of funds	2013 ^a	2015	2016	2017 ^b	2018 ^b	2020 ^b	2026 ^b
EXPENDITURE, BILLIONS							
Private health insurance	\$946.4	\$1,068.8	\$1,123.4	\$1,186.6	\$1,244.1	\$1,348.8	\$1,776.0
Medicare	590.2	648.8	672.1	705.8	748.1	873.1	1,366.0
Medicaid	445.4	544.1	565.5	582.0	622.0	696.4	996.2
ANNUAL GROWTH IN EXPENDITURE							
Private health insurance	3.4%	6.3%	5.1%	5.6%	4.8%	4.1%	4.7%
Medicare	5.3	4.9	3.6	5.0	6.0	8.0	7.7
Medicaid	5.4	10.5	3.9	2.9	6.9	5.8	6.1
PER ENROLLEE SPENDING							
Private health insurance	\$ 5,044	\$ 5,445	\$ 5,721	\$ 6,030	\$ 6,301	\$ 6,839	\$ 8,814
Medicare	11,509	11,951	12,046	12,257	12,622	13,876	18,525
Medicaid	7,556	7,870	7,941	8,011	8,412	9,118	12,247
ANNUAL GROWTH IN PER ENROLLEE SPENDING							
Private health insurance	4.2%	3.9%	5.1%	5.4%	4.5%	4.2%	4.3%
Medicare	2.4	1.9	0.8	1.7	3.0	4.8	4.9
Medicaid	0.9	2.1	0.9	0.9	5.0	4.1	5.0
ENROLLMENT (MILLIONS)							
Private health insurance	187.6	196.3	196.4	196.8	197.5	197.2	201.5
Medicare	51.3	54.3	55.8	57.6	59.3	62.9	73.7
Medicaid	58.9	69.1	71.2	72.7	73.9	76.4	81.3
Uninsured	44.2	29.5	28.6	29.4	30.0	32.7	37.7
Population	315.7	320.3	322.5	325.4	328.4	334.5	352.3
Insured share of total population	86.0%	90.8%	91.1%	91.0%	90.9%	90.2%	89.3%
ANNUAL GROWTH IN ENROLLMENT							
Private health insurance	-0.8%	2.3%	0.0%	0.2%	0.3%	-0.1%	0.4%
Medicare	2.9	2.9	2.8	3.2	2.9	3.0	2.7
Medicaid	4.4	8.3	3.0	2.0	1.8	1.6	1.1
Uninsured	1.2	-18.3	-2.8	2.8	1.8	4.4	2.4
Population	0.8	0.7	0.7	0.9	0.9	0.9	0.9

SOURCE Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. **NOTES** For definitions, sources, and methods for NHE categories, see CMS.gov. National Health Expenditure Accounts: methodology paper, 2016 (see exhibit 1 notes). Numbers may not add to totals because of rounding. Percent changes are calculated from unrounded data. ^aAnnual growth, 2008–13. ^bProjected.

contributed to the acceleration, with a projected rate of 3.2 percent in 2017 after a rate of 2.8 percent in 2016.

The Personal Health Care Price Index, which measures the rate of inflation associated with medical goods and services purchased, is also projected to have increased slightly—from 1.2 percent in 2016 to 1.4 percent in 2017 (exhibit 1). The main contributor is anticipated to be economywide inflation, which is projected to have accelerated by 0.4 percentage point to 1.7 percent in 2017. Despite this slight acceleration, the projected price increases associated with providing medical goods and services remain near historic lows.

Total private health insurance spending is projected to have grown 5.6 percent in 2017, compared to 5.1 percent in 2016 (exhibit 1). This slight acceleration reflects faster growth in the net cost of private health insurance (or the

amount of private health insurance spending attributed to nonmedical expenses such as administrative costs, taxes, net gains or losses to reserves, and profits), which is projected to have increased 12.8 percent in 2017 from 3.3 percent in 2016 (data not shown). This expectation is related to two primary factors. First, Market-place premiums were priced higher in 2017 to account for previous underpricing, given the relative health status of the population that enrolled—which suggests that these plans are on track to regain profitability in 2017.⁷ Second, according to several large insurers, increased cost sharing in employer-sponsored plans contributed to more modest growth in medical benefits than in premiums, and this in turn contributed to faster growth in underwriting gains for these plans.⁸ Growth in private health insurance spending on personal health care (or spending attributable to medical benefits) is projected to

have decelerated in 2017 (4.7 percent) from 2016 (5.3 percent), driven by lower Marketplace enrollment and continued modest utilization in employer-sponsored insurance plans because of the rapid growth of high-deductible plans over the past decade and their impact on use.^{9,10}

Unlike overall health spending, Medicaid expenditures are projected to have grown more slowly in 2017, at 2.9 percent, after increasing 3.9 percent in 2016 (exhibit 1). Influencing this trend is an anticipated reduction in 2017 of Medicaid's net cost of health insurance spending (or the difference between payments received by Medicaid managed care organizations and the benefits paid on behalf of their enrollees), because of recoveries related to risk-mitigation strategies. Risk-mitigation payments are exchanged between managed care organizations and states and the federal government to settle contractual arrangements and provide protection against large losses. Managed care organizations returned a portion of these funds to the government in 2017 because the payments exceeded the actual costs of providing care in 2014–16.

With the major changes in health insurance enrollment realized following the implementation of the ACA coverage expansion in 2014, the insured share of the population is projected to have stabilized somewhat in 2017 at 91.0 percent, compared to 91.1 percent in 2016 (exhibit 2). Notably, however, for the first time in seven years, the projected number of uninsured people did not fall in 2017.

2018 In 2018, the rate of growth in national health expenditures is projected to rise again to 5.3 percent (exhibit 1). This outcome is mainly driven by two key factors: The rate of inflation associated with the provision of medical goods and services is expected to be faster than the recent trend, and Medicaid spending growth is expected to accelerate—primarily due to smaller recoveries of previous risk mitigation payments.

The Personal Health Care Price Index is projected to rise to 2.2 percent in 2018 from 1.4 percent in 2017 (exhibit 1). This increase partly reflects faster projected prescription drug price growth of 4.4 percent in 2018 (from 2.1 percent in 2017), which is based on the expectation that the dollar value of drugs losing patents in 2018 is smaller than in prior years and that price growth will therefore be influenced more strongly by relatively more expensive brand-name drugs.¹¹ Faster drug price growth also contributes to a projected acceleration in total prescription drug spending growth—to 6.6 percent in 2018 from 2.9 percent in 2017 (exhibit 3).¹²

Medicaid spending is projected to increase 4 percentage points more rapidly in 2018, at a

projected rate of 6.9 percent (exhibit 1). Growth in the net cost of health insurance spending for Medicaid principally drives this trend, which is a result of smaller recoveries of risk-mitigation payments in 2018 than in 2017.⁶

At the same time, private health insurance spending growth is projected to slow to 4.8 percent in 2018 (exhibit 1). This slowdown is due to a deceleration in growth in the net cost of private health insurance (5.6 percent), mainly from slowing growth in the net cost of health insurance in the Marketplaces in 2018 that is trending to better align with anticipated benefit spending for enrollees. This slower growth in net cost more than offsets the upward pressure on Marketplace premium growth related to the cancellation of cost-sharing reduction payments to insurers from the federal government, resulting in slower growth in private health insurance spending in the aggregate.^{13,14}

2019–20 In 2019–20, national health spending growth is projected to average 5.5 percent, a slight acceleration from 5.3 percent in 2018 (exhibit 1). This trend is a result of faster projected growth in Medicare spending that is not fully offset by slower private health insurance spending growth, which is partly attributable to the effects of the repeal of the individual mandate.

Compared to 2018, Medicare spending is projected to grow 2 percentage points more rapidly on average during 2019–20, at 8.0 percent (exhibit 1). One factor contributing to this acceleration is incentive payments made to physicians under the Medicare Access and CHIP Reauthorization Act (MACRA) of 2015.¹⁵ Another factor is projected growth in the combined volume of Medicare goods and services consumed and the intensity of care provided—growth that is expected to increase from recent historic lows. Both of these factors influence the projected Medicare per enrollee average spending growth of 4.8 percent over the period, compared to 3.0 percent in 2018 (exhibit 2).

Growth in private health insurance spending is projected to slow, on average, to 4.1 percent for 2019–20 from 4.8 percent in 2018 (exhibit 2). Contributing to this trend is slower projected growth in private health insurance enrollment (–0.1 percent for 2019–20, on average, down from 0.3 percent in 2018) resulting from the repeal of the individual mandate, beginning in 2019 (exhibit 2). Between 2018 and 2020, the number of uninsured people is projected to increase from 30.0 million to 32.7 million. The impact of the repeal is expected to be concentrated in this period, since most people who would be responsive to the penalty for not maintaining coverage are anticipated to make their coverage decision shortly after the effective date of the

EXHIBIT 3

National health expenditures (NHE) amounts and annual growth from previous year shown, by spending category, selected calendar years 2013–26

Spending category	2013 ^a	2015	2016	2017 ^b	2018 ^b	2020 ^b	2026 ^b
EXPENDITURE, BILLIONS							
NHE	\$2,879.0	\$3,200.8	\$3,337.2	\$3,489.2	\$3,675.3	\$4,090.9	\$5,696.2
Health consumption expenditures	2,725.9	3,047.1	3,179.8	3,325.4	3,504.3	3,901.7	5,437.1
Personal health care	2,436.7	2,715.5	2,834.0	2,958.0	3,112.7	3,466.3	4,836.3
Hospital care	937.6	1,033.4	1,082.5	1,132.6	1,189.9	1,326.4	1,848.2
Professional services	759.4	837.7	881.2	923.8	969.9	1,074.9	1,457.8
Physician and clinical services	569.6	631.0	664.9	698.3	733.9	814.2	1,110.2
Other professional services	78.7	87.8	92.0	96.5	101.6	113.7	155.6
Dental services	111.1	118.9	124.4	129.1	134.4	147.0	192.0
Other health, residential, and personal care	144.2	164.8	173.5	180.4	191.6	214.4	301.1
Home health care	80.5	88.8	92.4	97.1	102.8	117.1	172.6
Nursing care facilities and continuing care retirement communities	149.0	158.1	162.7	168.1	174.6	191.9	261.0
Retail outlet sales of medical products	365.9	432.7	441.7	456.1	483.9	541.6	795.6
Prescription drugs	265.2	324.5	328.6	338.1	360.2	404.4	604.8
Durable medical equipment	45.1	48.6	51.0	52.9	55.7	62.4	89.1
Other nondurable medical products	55.7	59.6	62.2	65.1	68.0	74.9	101.7
Government administration	36.9	42.1	43.8	45.1	48.1	54.5	81.2
Net cost of health insurance	174.0	207.7	219.8	237.7	256.3	288.9	408.6
Government public health activities	78.3	81.7	82.2	84.5	87.1	92.1	110.9
Investment	153.1	153.7	157.4	163.9	171.1	189.2	259.2
Noncommercial research	46.6	46.5	47.7	50.6	52.9	58.1	78.4
Structures and equipment	106.5	107.2	109.7	113.3	118.2	131.2	180.7
ANNUAL GROWTH							
NHE	3.8%	5.4%	4.3%	4.6%	5.3%	5.5%	5.7%
Health consumption expenditures	4.0	5.7	4.4	4.6	5.4	5.5	5.7
Personal health care	4.1	5.6	4.4	4.4	5.2	5.5	5.7
Hospital care	5.2	5.0	4.7	4.6	5.1	5.6	5.7
Professional services	3.6	5.0	5.2	4.8	5.0	5.3	5.2
Physician and clinical services	3.7	5.3	5.4	5.0	5.1	5.3	5.3
Other professional services	4.6	5.6	4.7	4.9	5.3	5.8	5.4
Dental services	2.2	3.5	4.6	3.8	4.2	4.6	4.6
Other health, residential, and personal care	4.9	6.9	5.3	4.0	6.2	5.8	5.8
Home health care	5.8	5.0	4.0	5.1	5.9	6.7	6.7
Nursing care facilities and continuing care retirement communities	3.0	3.0	2.9	3.3	3.9	4.8	5.3
Retail outlet sales of medical products	2.2	8.7	2.1	3.3	6.1	5.8	6.6
Prescription drugs	2.0	10.6	1.3	2.9	6.6	5.9	6.9
Durable medical equipment	3.3	3.8	4.9	3.9	5.2	5.8	6.1
Other nondurable medical products	2.6	3.5	4.4	4.6	4.4	5.0	5.2
Government administration	4.0	6.9	4.0	2.9	6.6	6.5	6.9
Net cost of health insurance	3.3	9.3	5.8	8.1	7.8	6.2	5.9
Government public health activities	2.9	2.2	0.6	2.8	3.1	2.8	3.2
Investment	1.7	0.2	2.4	4.1	4.4	5.2	5.4
Noncommercial research	1.5	-0.2	2.6	6.1	4.5	4.8	5.1
Structures and equipment	1.8	0.3	2.3	3.2	4.4	5.3	5.5

SOURCE Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. **NOTES** For definitions, sources, and methods for NHE categories, see CMS.gov. National Health Expenditure Accounts: methodology paper, 2016 (see exhibit 1 notes). Numbers may not add to totals because of rounding. Percent changes are calculated from unrounded data. ^aAnnual growth, 2008–13. ^bProjected.

repeal.

2021–26 For 2021–26, national health spending growth is projected to accelerate slightly to 5.7 percent, on average, from the 5.5 percent projected for 2019–20 (exhibit 1). Among the major payers of health care, spending growth for Medicare and Medicaid is anticipated to continue to outpace that for private health insur-

ance, mainly because of faster enrollment growth associated with the aging of the population. (Per enrollee growth rates are expected to be somewhat similar, as shown in exhibit 2.) Growth in Medicare spending is projected to be faster than for the other major payers because of sustained strong enrollment growth as baby boomers continue to enter the program. For the

same reason, private health insurance spending is projected to increase relatively more slowly, as baby boomers continue to shift out of private coverage and into Medicare. Medicaid spending is also projected to grow relatively faster than private health insurance spending because of a projected increase in the share of aged and disabled Medicaid enrollees.

Spending for Medicare is projected to grow the fastest among three major payers in 2021–26, averaging 7.7 percent—which is near the 8.0 percent growth rate projected for 2019–20. Medicare enrollment is projected to increase at an average rate of 2.7 percent for 2021–26, representing a slight deceleration from 2019–20, while Medicare per enrollee spending growth is projected to average 4.9 percent for 2021–26. Moreover, the ending of sequestration under the Budget Control Act of 2011 and the expiration of MACRA incentive payments markedly influences the pattern of Medicare spending growth in 2025 and 2026. Beginning in April 2013 and continuing through March 2025, the sequestration reduces Medicare benefit payments by 2 percent, with a larger reduction of 4 percent scheduled for April through September 2025.⁵ Under MACRA, incentive payments to physicians, which previously contributed to faster Medicare spending growth in 2019, are set to expire in 2025. Given these two effects, overall Medicare spending growth is projected to slow to 6.6 percent in 2025, down from 7.6 percent in 2024. In 2026, however, since sequestration would no longer be in effect, Medicare spending growth is projected to accelerate sharply to a projection-period high of 9.0 percent.

Growth in Medicaid spending is projected to average 6.1 percent over 2021–26, a somewhat faster average rate than that of 5.8 percent for 2019–20 (exhibit 1). Driven by increasing shares of comparatively expensive aged and disabled enrollees, growth in per enrollee Medicaid spending is projected to accelerate from an average of 4.1 percent for 2019–20 to 5.0 percent over 2021–26 (exhibit 2). Enrollment growth, however, is projected to slow to 1.1 percent during this time from an average rate of 1.6 percent projected for 2019–20 in lagged response to decreases in the unemployment rate. Finally, reductions in Medicaid's disproportionate-share hospital payments under current law are due to expire during 2025, leading to a projected acceleration in the rate of growth for Medicaid hospital spending—to 8.6 percent in 2026 from 7.0 percent in 2025 and 5.5 percent in 2024.¹⁶

In contrast to spending by the other major payers, spending for private health insurance is projected to grow relatively more slowly in 2021–26, at 4.7 percent on average (exhibit 1).

Growth in private health insurance enrollment is projected to remain modest and average just 0.4 percent for 2021–26. This 2021–26 trend in enrollment growth largely reflects the continued shift of the baby-boom generation from private health insurance to Medicare, as well as slower anticipated employment growth in the latter half of the projection period. Growth in private health insurance spending per enrollee for 2021–26 (4.3 percent) is expected to remain similar to 2019–20 (4.2 percent) (exhibit 2)—a result that is partly due to accelerating growth attributable to the lagged effect of faster growth in disposable personal income during 2018–20, which is offset, in part, by the excise tax on high-cost health insurance plans now scheduled to take effect in 2022 under current law. The excise tax is anticipated to result in some employers' reducing benefits and increasing cost-sharing requirements to keep plan costs under the thresholds for the tax. Accordingly, the presence of the tax results in faster projected growth in out-of-pocket spending (5.2 percent in 2022, compared to 4.7 percent in 2021) (data not shown).

In 2026, national health expenditures sponsored by federal, state, and local governments are projected to account for 47 percent of total spending, up from 45 percent in 2016, while national health expenditures collectively sponsored by private businesses, households, and other private revenues are projected to represent 53 percent of total spending by 2026, down from 55 percent in 2016 (exhibit 4). These trends largely reflect the impact of shifting demographics. The projected increasing share of spending sponsored by the federal government (from 28 percent to 31 percent) and the corresponding decreasing share sponsored by private businesses (from 20 percent to 19 percent) are largely attributable to the baby boomers' continued shift out of private health insurance and into Medicare. Ongoing subsidies paid for lower-income enrollees in Marketplace plans by the federal government also contribute to its rising share.

Factors Accounting For Growth

The overall health spending trends in 2017 and 2018 are influenced by the effects on spending associated with Medicaid risk-mitigation payments and Marketplace premium pricing, two anomalous issues that are not necessarily indicative of the underlying drivers of medical spending. To elucidate these underlying drivers, the discussion in this section focuses on the key factors that are anticipated to affect personal health care spending, which is the subset of national

EXHIBIT 4

National health expenditures (NHE) amounts, average annual growth from previous year shown, and percent distribution, by type of sponsor, selected calendar years 2013–26

Type of sponsor	2013 ^a	2015	2016	2017 ^b	2018 ^b	2020 ^b	2026 ^b
EXPENDITURE, BILLIONS							
NHE	\$2,879.0	\$3,200.8	\$3,337.2	\$3,489.2	\$3,675.3	\$4,090.9	\$5,696.2
Businesses, household, and other private revenues	1,618.7	1,742.6	1,828.7	1,926.4	2,026.8	2,237.1	2,993.2
Private businesses	579.8	633.3	664.6	700.6	738.2	817.0	1,066.4
Households	832.1	897.5	938.8	990.3	1,041.4	1,144.6	1,561.7
Other private revenues	206.8	211.8	225.2	235.5	247.2	275.6	365.1
Governments	1,260.3	1,458.3	1,508.6	1,562.8	1,648.5	1,853.8	2,703.1
Federal government	752.7	908.9	944.1	973.9	1,028.7	1,167.3	1,755.0
State and local governments	507.6	549.3	564.5	588.9	619.8	686.5	948.1
ANNUAL GROWTH							
NHE	3.8%	5.4%	4.3%	4.6%	5.3%	5.5%	5.7%
Businesses, household, and other private revenues	2.8	3.8	4.9	5.3	5.2	5.1	5.0
Private businesses	2.3	4.5	5.0	5.4	5.4	5.2	4.5
Households	3.1	3.9	4.6	5.5	5.2	4.8	5.3
Other private revenues	3.3	1.2	6.3	4.6	5.0	5.6	4.8
Governments	5.3	7.6	3.5	3.6	5.5	6.0	6.5
Federal government	6.1	9.9	3.9	3.2	5.6	6.5	7.0
State and local governments	4.2	4.0	2.8	4.3	5.3	5.2	5.5
DISTRIBUTION							
NHE	100%	100%	100%	100%	100%	100%	100%
Businesses, household, and other private revenues	56	54	55	55	55	55	53
Private businesses	20	20	20	20	20	20	19
Households	29	28	28	28	28	28	27
Other private revenues	7	7	7	7	7	7	6
Governments	44	46	45	45	45	45	47
Federal government	26	28	28	28	28	29	31
State and local governments	18	17	17	17	17	17	17

SOURCE Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. **NOTES** For definitions, sources, and methods for NHE categories, see CMS.gov. National Health Expenditure Accounts: methodology paper, 2016 (see exhibit 1 notes). Numbers may not add to totals because of rounding. Percent changes are calculated from unrounded data. ^aAnnual growth, 2008–13. ^bProjected.

health spending that captures spending on medical goods and services provided directly to patients. In 2017–26, personal health care spending growth is projected to average 5.5 percent per year, with prices and use and intensity expected to account for roughly 75 percent of this growth. Over the projection period, however, the trends for each of these components are anticipated to diverge compared with trends in the recent historical period (2014–16). The years 2014–16 were notable for their historically low rate of growth in personal health care prices of 1.1 percent, on average (exhibit 5), which was primarily influenced by slow economywide price growth. During that time, stronger growth in use and intensity of 2.8 percent per year, on average, was related to the ACA coverage expansions and increased access to medical care.

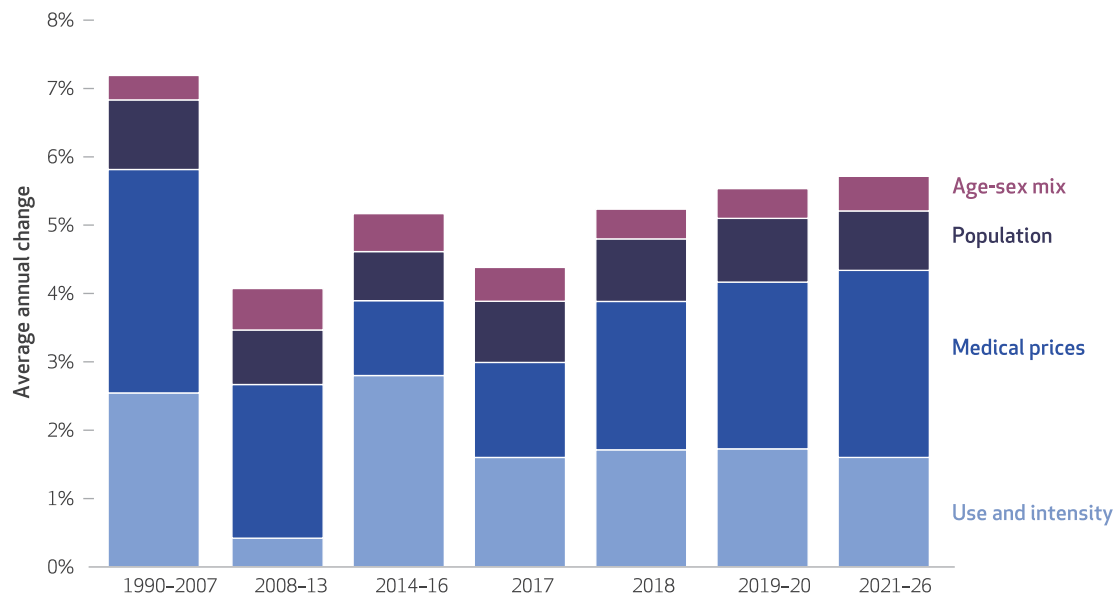
Growth in personal health care prices is expected to accelerate over the projection period, from 1.1 percent in 2014–16 to an average of

2.7 percent per year by 2021–26. About half of the projected acceleration is attributable to faster growth in economywide inflation, and the rest is a result of faster growth in medical-specific price inflation.

Beginning in 2018, projected growth in personal health care price inflation (2.2 percent) is expected to outpace growth in economywide prices (1.9 percent) for the first time since 2010. Projected input prices associated with providing medical services are expected to rebound, in part reflecting more rapid growth in health care workers' wages. As a result, in 2018 and later, growth in personal health care price inflation is anticipated to be the single largest factor explaining personal health care spending growth, as it was in 1990–2013. Over the full projection period, such inflation is expected to account for 2.5 percentage points of the 5.5 percent average annual growth rate for personal health care spending.

EXHIBIT 5

Factors accounting for growth in personal health care expenditures, selected calendar years 1990–2026



SOURCE Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. **NOTES** "Use and Intensity" includes quantity and mix of services. As a residual, this factor also includes any errors in measuring prices or total spending. "Medical prices" reflect a chain-weighted index of the price for all personal health care deflators. "Population" is population growth. "Age-sex mix" refers to that mix in the population. ^aProjected.

Conversely, the proportion of growth attributed to changes in the use and intensity of care is expected to fall over the projection period following the mostly one-time effects of the ACA coverage expansions.¹⁷ Two key factors impacting the trend through 2020 are the transition toward more typical growth rates under employers' efforts to manage health care costs and the impacts on use from changes in coverage resulting from the repeal of the individual mandate. Thereafter, the growth trend in use and intensity of care provided, especially care that is paid for through private health insurance and out-of-pocket spending, reflects the lagged impact of projected growth in disposable personal income. Over the full projection period, growth in use and intensity is expected to account for just under one-third (1.7 percentage points) of the 5.5 percent average annual growth rate for personal health care spending.

Population growth and the changing age and sex mix of the population account for the remainder of the projected average annual growth for personal health care. On average for 2017–26, population growth is expected to account for 0.9 percentage point per year, and changes in the age and sex composition of the population are expected to account for the remaining 0.5 percentage point. While the aging of the baby-boom generation has significantly influenced Medi-

care enrollment growth in the recent past and will continue to do so, increases in the proportion of younger and relatively healthier Medicare beneficiaries are likely to continue to moderate the growth in Medicare per enrollee spending. Even with modest growth in per enrollee spending, coupling that with consistent rapid enrollment growth in 2017–26 results in faster overall projected Medicare spending, relative to spending by other major payers.

Special Topics

PRESCRIPTION DRUG REBATES The availability of prescription drug manufacturer rebates to pharmacy benefit managers has increased sharply in the past few years. These rebates, typically provided based on the inclusion of drugs on plan formularies, are estimated to have contributed to lower net prices for many prescription drugs in recent years and are expected to have dampened prescription drug spending growth in 2017.^{18,19}

In 2018 and beyond, the share of total prescription drug spending affected by rebates is not expected to increase as rapidly as in the recent past. As a result, the outlook for such spending reflects somewhat stronger growth in drug prices, which is in part due to the expectation that the effects of rebates will level off by the last half of the projection period.⁵ Faster projected prescrip-

tion drug price growth by the end of the projection period is largely influenced by trends in relatively more costly specialty drugs, which are expected to represent a larger share of prescription drug spending over the projection period.¹²

THE EFFECT OF HIGH-DEDUCTIBLE HEALTH PLANS Now that the major impacts of the ACA coverage expansion have been realized, future growth in the use of health care goods and services by the privately insured is again expected to be influenced by plan design. This factor—most notably the use of high deductibles—in combination with economic trends had been a driver of slower utilization growth for several years before the coverage expansion.²⁰ The share of covered workers who are enrolled in high-deductible plans was 28 percent in 2017, compared with just 5 percent in 2007.¹⁰

Recent research has continued to find that enrollment in high-deductible plans tends to constrain the use of health care goods and services, particularly when the initial enrollment shift occurs.⁹ Since people shifting into high-deductible plans have constituted a growing share of private health insurance enrollees over the past decade, such research suggests that this trend has moderated growth in private health insurance utilization. In contrast to 2014–16, a period when the effects of the ACA coverage expansions more than offset the effect of high-deductible plans on use, growth in utilization of care by private insurance enrollees in 2017 is anticipated to have been more strongly influenced by the prevalence of these plans. As a result, this effect contributes to the projected deceleration in private health insurance spending growth in 2017 for hospital care (0.9 percentage point slower than in 2016) and for physician and clinical services (also 0.9 percentage point slower).^{21,22} Additionally, growth of out-of-pocket spending for these services is projected to reflect this impact on utilization, though the effect is mitigated somewhat by the higher cost-sharing requirements associated with high-deductible plans.

Over the past decade, there has been rapid growth in high-deductible plans' penetration of the employer market. Some employer surveys suggest, however, that employers are evaluating

different cost containment and care delivery approaches as alternatives to further increases in cost sharing, in part as a way to remain competitive for labor.²³ Accordingly, the share of private health insurance enrollees in high-deductible plans is anticipated to stabilize over the projection period. Consequently, by the latter half of the period, both out-of-pocket and private health insurance spending for personal health care are projected to be driven by the same underlying factors (most importantly, disposable personal income that affects the use of health care goods and services). The result is similar projected growth for private health insurance and out-of-pocket spending in 2021–26.

Conclusion

Though future health policy remains an area of significant uncertainty, these projections illustrate that under current law, economic and demographic trends are expected to be key drivers of projected growth in national health spending and enrollment over the next decade. Price growth for medical goods and services is projected to accelerate during this period from recent historical lows, driven by economywide inflation and growth in health-sector wages. The aging of the population is projected to influence trends in spending for the major payers, predominantly through enrollment—with projected enrollment shifts to Medicare mainly from private health insurance. Accordingly, after 2017, Medicare spending is projected to grow more rapidly than private health insurance spending, as the baby-boom generation continues its shift out of private plans and into Medicare and as employers and insurers continue their efforts to manage health care cost growth. In addition, by the end of the projection period, the expected higher share of aged and disabled enrollees contributes to faster growth in Medicaid spending. These factors collectively lead to projected national health spending growth of 5.5 percent on average in 2017–26. While this projected average annual growth rate is more modest than the 7.3 percent rate observed over the longer-term history before the last recession (1990–2007), it is more rapid than had been experienced in 2008–16 (4.2 percent). ■

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NOTES

- 1 Hartman M, Martin AB, Espinosa N, Catlin A. National Health Expenditure Accounts Team. National health care spending in 2016: spending and enrollment growth slow after initial coverage expansions. *Health Aff (Millwood)*. 2018;37(1):150–60.
- 2 Centers for Medicare and Medicaid Services. Projections of National Health Expenditures: methodology and model specification [Internet]. Baltimore (MD): CMS; 2017 Feb 9 [cited 2018 Jan 17]. Available from: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/ProjectionsMethodology.pdf>
- 3 Unless otherwise specified, national health expenditure and gross domestic product (GDP) estimates are presented on a nominal basis. In other words, they are not adjusted for inflation.
- 4 The projections reflect health tax provisions of the continuing resolution legislation passed January 22, 2018.
- 5 Boards of Trustees. 2017 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; 2017 [cited 2018 Jan 17]. Available from: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2017.pdf>
- 6 Truffer CJ, Wolfe CJ, Rennie KE. Report to Congress: 2017 actuarial report on the financial outlook for Medicaid [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; forthcoming.
- 7 Cox C, Semanskee A, Levitt L. Individual insurance market performance in late 2017 [Internet]. Menlo Park (CA): Henry J. Kaiser Family Foundation; 2018 Jan [cited 2018 Jan 18]. (Issue Brief). Available from: <http://files.kff.org/attachment/Issue-Brief-Individual-Insurance-Market-Performance-in-Late-2017>
- 8 Coombs B. As Obamacare twists in political winds, top insurers made \$6 billion (not that there is anything wrong with that). CNBC [serial on the Internet]. [Updated 2017 Aug 6; cited 2018 Jan 18]. Available from: <https://www.cnbc.com/2017/08/05/top-health-insurers-profit-surge-29-percent-to-6-billion-dollars.html>
- 9 Agarwal R, Mazurenko O, Menachemi N. High-deductible health plans reduce health care cost and utilization, including use of needed preventive services. *Health Aff (Millwood)*. 2017;36(10):1762–8.
- 10 Henry J. Kaiser Family Foundation, Health Research and Educational Trust. 2017 employer health benefits survey [Internet]. Menlo Park (CA): KFF; 2017 Sep 19 [cited 2018 Jan 18]. Available from: <https://www.kff.org/health-costs/report/2017-employer-health-benefits-survey/>
- 11 UBS. Longer term investments: generics [Internet]. Basel: UBS; 2017 Jul 5 [cited 2018 Jan 18]. Available from: <https://www.ubs.com/content/dam/WealthManagementAmericas/documents/longer-term-investments-genetics.pdf>
- 12 IQVIA Institute for Human Data Science. Medicines use and spending in the U.S.: a review of 2016 and outlook to 2021 [Internet]. Parsippany (NJ): IQVIA Institute; 2017 May 4 [cited 2018 Jan 18]. (Institute Report). Available for download (free registration required) from: <https://www.iqvia.com/institute/reports/medicines-use-and-spending-in-the-us-a-review-of-2016>
- 13 It is assumed that cost-sharing reduction payments under the ACA to insurers from the federal government are not paid from 2018 forward, in accordance with the October 12, 2017, executive order.
- 14 Pearson CF, Sloan C. Silver exchange premiums rise 34% on average in 2018 [Internet]. Washington (DC): Avalere; 2017 Oct 25 [cited 2018 Jan 19]. Available from: <http://avalere.com/expertise/managed-care/insights/silver-exchange-premiums-rise-34-on-average-in-2018>
- 15 Under MACRA, payments of \$500 million per year for physicians in the Merit-based Incentive Payment System and 5 percent annual bonuses for those in Advanced Alternative Payment Models are payable in the period 2019–24. See the 2017 *Medicare Trustees Report* (note 5).
- 16 Reductions in Medicaid disproportionate-share hospital payments were initially enacted under the ACA, but subsequent legislation has combined to delay the start of these reductions until 2018 and extend their duration through a portion of 2025.
- 17 Growth in the use and intensity of care provided is measured as a residual after price, population, and age/sex growth effects are removed from personal health care spending growth.
- 18 Barrett P, Langreth R. The crazy math behind drug prices. *Bloomberg BusinessWeek* [serial on the Internet]. 2017 Jun 29 [cited 2018 Jan 18]. Available from: <https://www.bloomberg.com/news/articles/2017-06-29/the-crazy-math-behind-drug-prices>
- 19 Drug rebates as a percentage of total Part D drug costs are projected to increase from 22.0 percent in 2016 to 23.8 percent in 2017. See Table IV.B8, “Key Factors for Part D Expenditure Estimates,” in the 2017 *Medicare Trustees Report* (note 5).
- 20 Hartman M, Martin AB, Lassman D, Catlin A, National Health Expenditure Accounts Team. National health spending in 2013: growth slows, remains in step with the overall economy. *Health Aff (Millwood)*. 2015; 34(1):150-60.
- 21 Barkholz D. Hospital volumes laid low by high-deductible health plans. *Modern Healthcare* [serial on the Internet]. 2017 Aug 11 [cited 2018 Jan 18]. Available from: <http://www.modernhealthcare.com/article/20170810/NEWS/170819994>
- 22 DiJulio B, Kirzinger A, Wu B, Brodie M. Data note: Americans’ challenges with health care costs [Internet]. Menlo Park (CA): Henry J. Kaiser Family Foundation; 2017 Mar 2 [cited 2018 Jan 18]. Available from: <https://www.kff.org/health-costs/poll-finding/data-note-americans-challenges-with-health-care-costs/>
- 23 Mercer. Mercer national health survey: employers finding new ways to hold the line on health benefit cost growth [Internet]. New York (NY): Mercer; 2017 Nov 2 [cited 2018 Jan 18]. Available from: <https://www.mercer.com/newsroom/mercer-national-health-survey-employers-finding-new-ways-to-hold-the-line-on-health-benefit-cost-growth.html>