DOI: 10.1377/ hlthaff.2023.00403 HEALTH AFFAIRS 42, NO. 7 (2023): 886-898 This open access article is distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) license. By Sean P. Keehan, Jacqueline A. Fiore, John A. Poisal, Gigi A. Cuckler, Andrea M. Sisko, Sheila D. Smith, Andrew J. Madison, and Kathryn E. Rennie

National Health Expenditure Projections, 2022-31: Growth To Stabilize Once The COVID-19 Public Health Emergency Ends

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ABSTRACT National health expenditures are projected to grow 5.4 percent, on average, over the course of 2022–31 and to account for roughly 20 percent of the economy by the end of that period. The insured share of the population is anticipated to exceed 92 percent through 2023, in part as a result of record-high Medicaid enrollment, and then decline toward 90 percent as coverage requirements related to the COVID-19 public health emergency expire. The prescription drug provisions of the Inflation Reduction Act of 2022 are anticipated to lower out-of-pocket spending for Medicare Part D enrollees beginning in 2024 and to result in savings to Medicare beginning in 2031.

ational health expenditures are projected to have grown 4.3 percent in 2022, slower than nominal gross domestic product (GDP) growth of 9.2 percent, leading to a decrease in the projected health spending share of GDP from 18.3 percent in 2021 to 17.4 percent in 2022. However, over the course of the full projection period, 2022-31, health spending is expected to grow, on average, 5.4 percent per year, outpacing projected average growth in nominal GDP of 4.6 percent per year and resulting in a health spending share of GDP of 19.6 percent by 2031 (exhibit 1). In addition, the insured share of the population is projected to have reached a historic high of 92.3 percent in 2022 and to remain at that level in 2023 before decreasing to 90.5 percent by 2031 (exhibit 2).

Recent legislation is anticipated to affect trends in health insurance enrollment and health care spending over the course of the next decade. For instance, the expiration of pandemic legislative provisions is expected to result in reductions to Medicaid enrollment through 2025 (falling to 81.1 million that year after reaching its peak of 90.4 million in 2022), increases in en-

rollment in private health insurance from enhanced Marketplace subsidies through 2025, and effects on provider payments for Medicare most notably the expiration of the add-on payment for COVID-19-related admissions. In addition, the Inflation Reduction Act of 2022 included provisions that fundamentally altered the Medicare Part D benefit by reducing the Part D program's cost-sharing arrangements, requiring the Department of Health and Human Services to negotiate prices for certain high-cost drugs, and linking certain drug price increases to growth in the Consumer Price Index (CPI). In total, the law is expected to have a minor, but noteworthy, influence on Medicare spending trends (initially raising then lowering growth rates) and somewhat larger impacts that decrease out-of-pocket spending by reducing cost sharing for Medicare beneficiaries.

For the major payers, Medicare is expected to grow the fastest over the course of 2022–31, averaging 7.5 percent per year. (We note that the specific growth rates for the entire projection period are discussed in the text only and are not found in any of the exhibits, although we mention the relevant exhibits here.) The growth in Medicare enrollment (exhibit 2) is partly at-

National health expenditures (NHE) and personal health care (PHC) expenditures, aggregate and per capita amounts, share of gross domestic product (GDP), and annual growth, selected calendar years 2019-31

				Projected			
NHE, billions PHC, billions GDP, billions NHE as percent of GDP Disposable personal income, billions Population, millions ^a NHE per capita PHC per capita GDP per capita	\$3,757.4 \$3,173.1 \$21,381.0 17.6% \$16,388.6 328.0 \$11,456 \$9,675 \$65,191	\$4,144.1 \$3,367.0 \$21,060.5 19.7% \$17,595.9 329.1 \$12,591 \$10,230 \$63,991	\$4,255.1 \$3,553.4 \$23,315.1 18.3% \$18,633.1 329.5 \$12,914 \$10,784 \$70,757	\$4,439.8 \$3,659.3 \$25,461.3 17.4% \$18,744.5 331.0 \$13,413 \$11,055 \$76,920	2023 \$4,666.3 \$3,896.7 \$26,505.2 17.6% \$19,700.5 333.4 \$13,998 \$11,689 \$79,508	\$4,897.7 \$4,091.6 \$27,459.4 17.8% \$20,587.0 336.1 \$14,571 \$12,172 \$81,691	2031 \$7,174.7 \$6,034.2 \$36,535.9 19.6% \$27,518.8 351.3 \$20,425 \$17,178 \$104,010
Prices (2012 = 100.0) Chain-weighted NHE deflator Chain-weighted PHC deflator Chain-weighted GDP Implicit Price Deflator Real spending	1.098 1.092 1.123	1.131 1.114 1.138	1.148 1.138 1.189	1.176 1.164 1.272	1.208 1.197 1.315	1.249 1.237 1.347	1.523 1.504 1.552
NHE, billions of chained dollars PHC, billions of chained dollars GDP, billions of chained dollars	\$3,421 \$2,905 \$19,036	\$3,665 \$3,022 \$18,509	\$3,706 \$3,122 \$19,610	\$3,776 \$3,143 \$20,018	\$3,861 \$3,256 \$20,158	\$3,922 \$3,309 \$20,400	\$4,710 \$4,011 \$23,617
Average annual growth NHE PHC GDP Disposable personal income Population ^a NHE per capita PHC per capita GDP per capita	2019 ^b 4.2% 5.1 4.1 5.0 0.5 3.8 4.6 3.7	2020 10.3% 6.1 -1.5 7.4 0.3 9.9 5.7 -1.8	2021 2.7% 5.5 10.7 5.9 0.1 2.6 5.4 10.6	2022 4.3% 3.0 9.2 0.6 0.5 3.9 2.5 8.7	2023 5.1% 6.5 4.1 5.1 0.7 4.4 5.7 3.4	2024 5.0% 5.0 3.6 4.5 0.8 4.1 4.1 2.7	2025-31 5.6% 5.7 4.2 4.2 0.6 4.9 5.0 3.5
Prices (2012 = 100.0) Chain-weighted NHE deflator Chain-weighted PHC deflator Chain-weighted GDP Implicit Price Deflator	1.0 1.5 1.8	2.9 2.0 1.3	1.6 2.2 4.5	2.4 2.3 7.0	2.8 2.8 3.4	3.3 3.3 2.4	2.9 2.8 2.1
Real spending NHE PHC GDP	3.2 3.5 2.3	7.1 4.0 –2.8	1.1 3.3 5.9	1.9 0.7 2.1	2.3 3.6 0.7	1.6 1.6 1.2	2.7 2.8 2.1

SOURCES Centers for Medicare and Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group; and Department of Commerce, Bureau of Economic Analysis and Census Bureau. **NOTES** Definitions, sources, and methods for NHE categories can be found in CMS. National Health Expenditure Accounts: methodology paper, 2021 definitions, sources, and methods [Internet]. Baltimore (MD): CMS; 2022 Dec 14 [cited 2023 May 8]. Available from: https://www.cms.gov/files/document/definitions-sources-and-methods.pdf. Percent changes are calculated from unrounded data. Tables with data for all years of the projection period can be found in CMS.gov. NHE projections tables (see note 6 in text). *Estimates reflect the Census Bureau's definition of resident-based population, which includes all people who usually reside in the 50 states or the District of Columbia but excludes residents living in Puerto Rico and areas under US sovereignty, members of the US Armed Forces overseas, and US citizens whose usual place of residence is outside of the US. Estimates also include a small (typically less than 0.2 percent of the population) adjustment to reflect census undercounts. *Annual growth, 2018–19.

tributable to the last of the baby boomers enrolling in the program through 2029. Legislative provisions associated with the public health emergency affect private health insurance (including Marketplace plans) and Medicaid, which are anticipated to grow 5.4 percent and 5.0 percent, respectively, over the entire projection period. Last, growth in out-of-pocket payments is expected to average 4.3 percent over the projection period (exhibit 3) and is affected by the savings to Medicare beneficiaries associated with the Part D provisions of the Inflation Reduc-

tion Act.

For the major sectors, hospital spending is expected to grow more rapidly (averaging 5.8 percent for 2022–31) than spending both for physician and clinical services (5.3 percent) and for prescription drugs (4.6 percent) (exhibit 4). Average price growth for hospitals (3.2 percent over the course of 2022–31) is expected to outpace that of physician and clinical services (2.0 percent) and prescription drugs (2.2 percent) (price data not shown), reflecting, in part, an expectation that prices associated with the

EXHIBIT 2

National health expenditures (NHE) and health insurance enrollment, aggregate and per enrollee amounts, and average annual growth, by source of funds, selected calendar years 2019–31

				Projected			
Source of funds	2019	2020	2021	2022	2023	2024	2031
EXPENDITURE, BILLIONS							
Private health insurance Medicare Medicaid	\$1,157.8 802.0 615.0	\$1,145.2 831.2 672.0	\$1,211.4 900.8 734.0	\$1,248.0 944.2 804.7	\$1,344.6 1,019.5 834.4	\$1,447.1 1,093.0 816.7	\$2,058.7 1,848.7 1,198.4
PER ENROLLEE SPENDING							
Private health insurance Medicare Medicaid	\$5,728 13,319 8,460	\$5,723 13,518 8,824	\$6,035 14,405 8,666	\$6,126 14,854 8,906	\$6,543 15,712 9,316	\$6,990 16,480 10,006	\$9,898 24,211 14,066
ENROLLMENT, MILLIONS							
Private health insurance Medicare Medicaid Uninsured Population Insured share of total population	202.1 60.2 72.7 31.8 328.0 90.3%	200.1 61.5 76.2 31.2 329.1 90.5%	200.7 62.5 84.7 28.5 329.5 91.4%	203.7 63.6 90.4 25.6 331.0 92.3%	205.5 64.9 89.6 25.7 333.4 92.3%	207.0 66.3 81.6 28.6 336.1 91.5%	208.0 76.4 85.2 33.3 351.3 90.5%
Average annual growth	2019°	2020	2021	2022	2023	2024	2025-31
EXPENDITURE							
Private health insurance Medicare Medicaid	2.5% 7.0 3.2	-1.1% 3.6 9.3	5.8% 8.4 9.2	3.0% 4.8 9.6	7.7% 8.0 3.7	7.6% 7.2 –2.1	5.2% 7.8 5.6
PER ENROLLEE SPENDING							
Private health insurance Medicare Medicaid	1.7 4.3 4.1	-0.1 1.5 4.3	5.5 6.6 –1.8	1.5 3.1 2.8	6.8 5.8 4.6	6.8 4.9 7.4	5.1 5.6 5.0
ENROLLMENT							
Private health insurance Medicare Medicaid Uninsured Population	0.7 2.6 –0.9 3.8 0.5	-1.0 2.1 4.8 -1.9 0.3	0.3 1.7 11.2 –8.6 0.1	1.5 1.6 6.7 –10.2 0.5	0.9 2.1 –0.9 0.7 0.7	0.7 2.2 –8.9 11.0 0.8	0.1 2.0 0.6 2.2 0.6

SOURCE Centers for Medicare and Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group. **NOTES** Definitions, sources, and methods for NHE categories can be found in CMS. National Health Expenditure Accounts: methodology paper (see the exhibit 1 notes). Numbers might not add to totals because of rounding. Percent changes are calculated from unrounded data. Tables with data for all years of the projection period can be found in CMS.gov. NHE projections tables (see note 6 in text). Annual growth, 2018–19.

inputs required to provide hospital care will grow more rapidly, as they have over the longerrun history.

By 2031, the shares of spending accounted for by the sponsors of health care are expected to be the same as they were in 2021 but notably different than in 2019 (exhibit 5). Businesses, households, and other private revenues are expected to sponsor 51 percent of health care spending in 2031 (compared with 54 percent in 2019), and governments are anticipated to sponsor the remaining 49 percent (compared with 46 percent in 2019), with the federal government accounting for roughly two-thirds of government spending.

Chronological Overview Of Major Trends In National Health Expenditures

2022 In 2022, national health expenditures are projected to have grown 4.3 percent, up from 2.7 percent growth in 2021 (exhibit 1). Although growth for most major payers is projected to have been slower in 2022, this was more than offset by increases in funding for federal public health activity related to both the Public Health and Social Services Emergency Fund and the Centers for Disease Control and Prevention, as well as a normalization of spending for other federal programs after the large declines in 2021 associated with expiring supplemental COVID-19 funding² (exhibit 3). Nominal GDP increased by 9.2 percent in 2022, primarily as a result of

National health expenditures (NHE) amounts and annual growth, by source of funds, selected calendar years 2019-31

				Projected			
Source of funds	2019	2020	2021	2022	2023	2024	2031
Expenditure amount (billions)							
NHE	\$3,757.4	\$4,144.1	\$4,255.1	\$4,439.8	\$4,666.3	\$4,897.7	\$7,174.7
Health consumption expenditures	3,563.3	3,950.1	4,048.1	4,219.8	4,433.4	4,651.7	6,829.4
Out of pocket	403.0	392.3	433.2	451.8	475.2	497.8	659.3
Health insurance	2,719.8	2,805.6	3,018.4	3,180.5	3,402.9	3,574.8	5,403.3
Private health insurance	1,157.8	1,145.2	1,211.4	1,248.0	1,344.6	1,447.1	2,058.7
Medicare	802.0	831.2	900.8	944.2	1,019.5	1,093.0	1,848.7
Medicaid	615.0	672.0	734.0	804.7	834.4	816.7	1,198.4
Federal	387.7	460.6	513.0	564.4	561.0	523.1	759.8
State and local	227.3	211.4	221.0	240.3	273.4	293.6	438.7
Other health insurance programs ^a	145.0	157.1	172.1	183.6	204.4	217.9	297.5
Other third-party payers and programs	333.5	514.0	409.0	368.2	387.4	411.6	576.8
Other federal programs ^b	14.0	193.1	71.9	24.4	22.1	20.4	30.9
Other third-party payers and programs							
less other federal programs	319.4	320.9	337.0	343.8	365.3	391.2	545.9
Public health activity	107.1	238.3	187.6	219.3	167.8	167.5	190.0
Federal ^c	13.3	135.8	78.8	104.6	47.7	41.9	25.3
State and local	93.8	102.5	108.8	114.6	120.1	125.6	164.7
Investment	194.1	193.9	207.0	220.0	232.9	246.0	345.3
Average annual growth	2019 ^d	2020	2021	2022	2023	2024	2025-31
NHE	4.2%	10.3%	2.7%	4.3%	5.1%	5.0%	5.6%
Health consumption expenditures	4.4	10.9	2.5	4.2	5.1	4.9	5.6
Out of pocket	4.2	-2.6	10.4	4.3	5.2	4.8	4.1
Health insurance	4.1	3.2	7.6	5.4	7.0	5.1	6.1
Private health insurance	2.5	-1.1	5.8	3.0	7.7	7.6	5.2
Medicare	7.0	3.6	8.4	4.8	8.0	7.2	7.8
Medicaid	3.2	9.3	9.2	9.6	3.7	-2.1	5.6
Federal	4.2	18.8	11.4	10.0	-0.6	-6.7	5.5
State and local	1.4	-7.0	4.6	8.7	13.8	7.4	5.9
Other health insurance programs ^a	6.2	8.3	9.6	6.6	11.3	6.6	4.5
Other third-party payers and programs	5.4	54.1	-20.4	-10.0	5.2	6.2	4.9
Other federal programs ^b	9.3	1276.0	-62.7	-66.0	-9.3	-7.8	6.1
Other third-party payers and programs							
less other federal programs	5.3	0.5	5.0	2.0	6.2	7.1	4.9
Public health activity	7.7	122.5	-21.3	16.9	-23.5	-0.2	1.8
Federal ^c	10.3	921.4	-41.9	32.7	-54.4	-12.2	-7.0
State and local	7.4	9.3	6.1	5.4	4.8	4.6	3.9
Investment	2.2	-0.1	6.8	6.3	5.8	5.6	5.0
NHE impacts by direct federal COVID-19							
supplemental funding	2019	2020	2021	2022	2023	2024	2025-31
Expenditures							
NHE excluding federal public health activity	\$3,744.1	\$4,008.3	\$4,176.3	\$4,335.2	\$4,618.6	\$4,855.9	\$7,149.4 ^f
NHE excluding federal public health activity	, -,	, ,	, ,	, ,	, ,	, ,	, ,
and other federal programs	\$3,730.1	\$3,815.2	\$4,104.3	\$4,310.7	\$4,596.4	\$4,835.4	\$7,118.6 ^f
Annual growth							,
NHE excluding federal public health activity	4.2% ^d	7.1%	4.2%	3.8%	6.5%	5.1%	5.7%
NHE excluding federal public health activity							
and other federal programs	4.2% ^d	2.3%	7.6%	5.0%	6.6%	5.2%	5.7%
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SOURCE Centers for Medicare and Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group. **NOTES** Definitions, sources, and methods for NHE categories can be found in CMS. National Health Expenditure Accounts: methodology paper (see the exhibit 1 notes). Numbers might not add to totals because of rounding. Percent changes are calculated from unrounded data. Tables with data for all years of the projection period can be found in CMS.gov. NHE projections tables (see note 6 in text). Includes health-related spending for Children's Health Insurance Program, Titles XIX and XXI; Department of Defense; and Department of Veterans Affairs. Included in this category is federal COVID-19 supplemental funding, including the Paycheck Protection Program (PPP) loans and Provider Relief Fund. Includes COVID-19-related federal public health spending. Annual growth, 2018–19. Billions of dollars. Includes PPP loans, Provider Relief Fund, and COVID-19-related federal public health spending. 2031 only.

EXHIBIT 4

National health expenditures (NHE) amounts and average annual growth, by spending category, selected calendar years 2019-31

			Projected			
Spending category 2019	2020	2021	2022	2023	2024	2031
Expenditure, billions						
NHE \$3,757.4	\$4,144.1	\$4,255.1	\$4,439.8	\$4,666.3	\$4,897.7	\$7,174.7
Health consumption expenditures 3,563.3		4,048.1	4,219.8	4,433.4	4,651.7	6,829.4
Personal health care 3,173.1		3,553.4	3,659.3	3,896.7	4,091.6	6,034.2
Hospital care 1,193.6		1,323.9	1,335.0	1,459.8	1,541.8	2,335.7
Professional services 1,022.5	1,075.5	1,157.0	1,191.7	1,252.8	1,317.4	1,924.3
Physician and clinical services 767.9	818.4	864.6	885.1	930.0	977.7	1,445.5
Other professional services 110.9	117.7	130.6	139.7	148.3	156.3	229.2
Dental services 143.7	139.3	161.8	166.9	174.4	183.4	249.7
Other health, residential, and personal care 194.8		223.5	234.7	244.7	255.4	371.2
Home health care 112.4	125.0	125.2	131.5	141.5	149.3	250.6
Nursing care facilities and continuing care						
retirement communities 174.1	196.9	181.3	193.6	201.4	206.1	283.3
Retail outlet sales of medical products 475.7	491.1	542.5	572.7	596.6	621.5	869.1
Prescription drugs 338.1	350.6	378.0	397.4	411.6	426.7	591.8
Durable medical equipment 56.5		67.1	72.3	75.4	78.9	114.5
Other nondurable medical products 81.2	85.4	97.4	103.0	109.6	115.9	162.7
Government administration 47.6		51.5	54.9	55.1	57.1	78.3
Net cost of health insurance 235.6		255.7	286.2	313.8	335.6	527.0
Government public health activities 107.1		187.6	219.3	167.8	167.5	190.0
Investment 194.1		207.0	220.0	232.9	246.0	345.3
Noncommercial research 56.6		61.5	65.3	68.8	72.4	103.3
Structures and equipment 137.5		145.6	154.7	164.1	173.6	242.0
Average annual growth 2019°	2020	2021	2022	2023	2024	2025-31
NHE 4.2	2% 10.3%	2.7%	4.3%	5.1%	5.0%	5.6%
Health consumption expenditures 4.4	10.9	2.5	4.2	5.1	4.9	5.6
Personal health care 5.1	6.1	5.5	3.0	6.5	5.0	5.7
Hospital care 6.3	6.2	4.4	0.8	9.3	5.6	6.1
Professional services 4.5	5.2	7.6	3.0	5.1	5.2	5.6
Physician and clinical services 4.3	6.6	5.6	2.4	5.1	5.1	5.7
Other professional services 6.2	6.1	11.0	6.9	6.1	5.4	5.6
Dental services 4.6	-3.0	16.1	3.2	4.5	5.2	4.5
Other health, residential, and personal care 2.6	8.2	6.1	5.0	4.2	4.4	5.5
Home health care 6.5	11.2	0.2	5.1	7.5	5.5	7.7
Nursing care facilities and continuing care						
retirement communities 3.8	13.1	-7.9	6.8	4.0	2.4	4.6
Retail outlet sales of medical products 4.4	3.2	10.5	5.6	4.2	4.2	4.9
Prescription drugs 4.3	3.7	7.8	5.1	3.6	3.7	4.8
Durable medical equipment 4.3		21.8	7.7	4.3	4.6	5.5
Other nondurable medical products 4.6	5.1	14.1	5.8	6.4	5.7	5.0
Government administration 2.4	1.1	7.0	6.7	0.3	3.6	4.6
Net cost of health insurance —5.4	26.0	-13.9	12.0	9.6	7.0	6.7
Government public health activities 7.7	122.5	-21.3	16.9	-23.5	-0.2	1.8
Investment 2.2		6.8	6.3	5.8	5.6	5.0
Noncommercial research 5.3	6.3	2.3	6.2	5.3	5.4	5.2
Structures and equipment 1.0	-2.7	8.8	6.3	6.1	5.7	4.9

SOURCE Centers for Medicare and Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group. **NOTES** Definitions, sources, and methods for NHE categories can be found in CMS. National Health Expenditure Accounts: methodology paper (see the exhibit 1 notes). Numbers might not add to totals because of rounding. Percent changes are calculated from unrounded data. Tables with data for all years of the projection period can be found in CMS.gov. NHE projections tables (see note 6 in text). Annual growth, 2018–19.

rapid growth in economywide prices (as measured by the GDP Implicit Price Deflator [7.0 percent]) (exhibit 1). With health spending growth projected to be significantly slower than that of GDP, the health share of the economy is expected to have fallen from 18.3 percent in 2021 to

17.4 percent in 2022 (exhibit 1).

Health insurance coverage is projected to have reached a historic high in 2022, with an insured share of 92.3 percent (exhibit 2). Underlying this unprecedented rate were continued growth in the number of Medicaid enrollees and signifi-

National health expenditures (NHE) amounts, average annual growth, and percent distribution, by type of sponsor, selected calendar years 2019-31

				Projected			
Type of sponsor	2019	2020	2021	2022	2023	2024	2031
Expenditure, billions							
NHE	\$3,757.4	\$4,144.1	\$4,255.1	\$4,439.8	\$4,666.3	\$4,897.7	\$7,174.7
Businesses, household, and other private							
revenues	2,047.6	2,039.2	2,168.9	2,269.5	2,417.5	2,572.9	3,690.0
Private businesses	709.8	689.0	734.0	759.0	809.8	869.4	1,242.3
Household	1,065.1	1,077.7	1,143.6	1,212.5	1,289.9	1,362.3	1,970.7
Other private revenues	272.7	272.5	291.3	298.1	317.8	341.2	477.0
Governments	1,709.8	2,104.8	2,086.2	2,170.3	2,248.8	2,324.8	3,484.7
Federal government	1,103.8	1,510.4	1,457.2	1,500.5	1,515.2	1,536.3	2,340.9
State and local governments	606.0	594.4	629.0	669.8	733.6	788.5	1,143.9
Average annual growth	2019ª	2020	2021	2022	2023	2024	2025-31
NHE	4.2%	10.3%	2.7%	4.3%	5.1%	5.0%	5.6%
Businesses, household, and other private							
revenues	4.0	-0.4	6.4	4.6	6.5	6.4	5.3
Private businesses	3.2	-2.9	6.5	3.4	6.7	7.4	5.2
Household	4.2	1.2	6.1	6.0	6.4	5.6	5.4
Other private	5.5	-0.1	6.9	2.3	6.6	7.4	4.9
Governments	4.5	23.1	-0.9	4.0	3.6	3.4	6.0
Federal government	6.0	36.8	-3.5	3.0	1.0	1.4	6.2
State and local governments	2.0	-1.9	5.8	6.5	9.5	7.5	5.5
Distribution	2019	2020	2021	2022	2023	2024	2031
NHE	100%	100%	100%	100%	100%	100%	100%
Businesses, household, and other private							
revenues	54	49	51	51	52	53	51
Private businesses	19	17	17	17	17	18	17
Household	28	26	27	27	28	28	27
Other private	7	7	7	7	7	7	7
Governments	46	51	49	49	48	47	49
Federal government	29	36	34	34	32	31	33
State and local governments	16	14	15	15	16	16	16

SOURCE Centers for Medicare and Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group. **NOTES** Definitions, sources, and methods for NHE categories can be found in CMS. National Health Expenditure Accounts: methodology paper (see exhibit 1 notes). Numbers might not add to totals because of rounding. Percent changes are calculated from unrounded data. Tables with data for all years of the projection period can be found in CMS.gov. NHE projections tables (see note 6 in text). Annual growth, 2018–19.

cant gains in enrollment in Marketplace plans (related to the expanded eligibility for subsidized premiums under the American Rescue Plan Act of 2021)³ (exhibit 2; Marketplace data not shown). The Medicaid trend reflects additions of the newly enrolled, as well as the continuous enrollment requirement of the Families First Coronavirus Response Act of 2020.

Despite increases in the level of insurance coverage in 2022, projected spending growth for medical services and goods (referred to as personal health care) slowed, from 5.5 percent in 2021 to 3.0 percent in 2022 (exhibit 4). Slower growth in spending is broadly expected to have occurred for Medicare, private health insurance, and out-of-pocket payments (exhibit 3). Of particular note is slow projected growth in hospital spending, in part reflecting labor supply issues in providing timely medical care.⁴

Finally, although economywide prices grew at a forty-year high in 2022, medical price growth, as measured by the Personal Health Care Price Deflator, is estimated to have grown just 0.1 percentage point faster than in 2021, at 2.3 percent (exhibit 1). This is partly driven by the timing of when health insurance rates are set, often well in advance of the dates in which they become effective, which in this case preceded rapidly rising economywide inflation.

penditures is expected to accelerate, to 5.1 percent, as is growth in spending on personal health care, to 6.5 percent (exhibit 1). The insured share of 92.3 percent is projected to remain unchanged, reflecting the offsetting effects of both a decline in Medicaid enrollment (0.8 million) (exhibit 2), as states begin to actively disenroll beneficiaries with the ending of the Families

First Coronavirus Response Act's continuous enrollment requirement, and an increase in enrollment in direct-purchase insurance (1.8 million; data not shown), particularly Marketplace plans. For the latter, the expected trends reflect the Inflation Reduction Act's extensions of subsidies through 2025 for Marketplace plans, as well as the Internal Revenue Service's revised affordability test making more families eligible for subsidies. ⁵

Spending growth rates in 2023 for the major payers are generally expected to rise compared with 2022, particularly private health insurance spending, which is expected to increase 7.7 percent, versus 3.0 percent growth in 2022, related to faster growth in utilization and the associated spending on benefits (exhibit 2). Medicare expenditures are also projected to grow more rapidly in 2023 (8.0 percent, compared with 4.8 percent in 2022). Hospital spending growth is the principal reason for Medicare's faster growth, accelerating from 0.9 percent in 2022 to 11.0 percent in 2023 (data not shown), as the use of services is expected to rebound from the comparatively low use seen in 2022.

The Personal Health Care Price Deflator is projected to rise by 0.5 percentage point to 2.8 percent in 2023 as price growth for the inputs

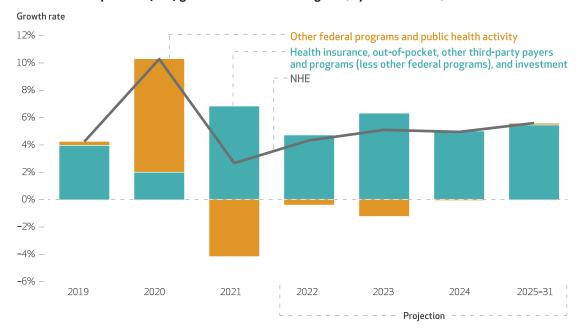
needed to provide medical care accelerates (exhibit 1). Economywide price inflation, however, is projected to decelerate to 3.4 percent in 2023, from 7.0 percent in 2022.

Putting downward pressure on overall health spending growth is an expected deceleration in Medicaid spending growth related to the ending of the public health emergency and the Families First Coronavirus Response Act's continuous enrollment requirement. States are expected to have begun disenrollment starting in April 2023 and to continue that process over a period of eighteen to twenty-four months, contributing to a 0.9 percent decline in Medicaid enrollment in 2023 (exhibit 2). There is also a significant decline projected in other federal programs and public health activity in 2023 (exhibit 6) associated with large reductions in projected outlays for the Public Health and Social Services Emergency Fund.2

2024 In 2024, both overall national health expenditures and personal health care spending are expected to grow 5.0 percent (exhibit 1). For personal health care spending, this reflects a slowdown from a 6.5 percent increase in 2023, whereas overall health spending growth is anticipated to be similar to growth in 2023. The projected slowdown in personal health care spend-

EXHIBIT 6

National health expenditure (NHE) growth and contributions to growth, by source of funds, 2019-31



SOURCE Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group. **NOTES** "Other federal programs" is the National Health Expenditure Accounts category that includes flows dedicated to the Provider Relief Fund and the Paycheck Protection Program. For definitions, sources, and methods for NHE categories, see Centers for Medicare and Medicaid Services. National Health Expenditure Accounts: methodology paper (see the exhibit 1 notes). Numbers might not add to totals because of rounding. Percent changes are calculated from unrounded data. Tables with data for all years of the projection period can be found in CMS.gov. NHE projections tables (see note 6 in text).

Recent legislation is anticipated to affect trends in health insurance enrollment and health care spending.

ing growth is driven by expected trends in Medicaid, where enrollment in the program is anticipated to decline by 8.9 percent (a reduction of about eight million people) (exhibit 2), and Medicaid spending, in turn, is projected to contract by 2.1 percent. Per enrollee, however, Medicaid spending is projected to increase 7.4 percent—its highest growth since 1991—reflecting the sizable departure of younger and healthier beneficiaries who are no longer eligible because of the expiration of the public health emergency.

Although Medicaid enrollment is expected to fall, the insured share of the population is only expected to decline to 91.5 percent (from 92.3 percent), as many who were not disenrolled during the public health emergency had comprehensive coverage from another source (such as through an employer) and thus remain insured even when disenrolled from Medicaid (exhibit 2).

From a price perspective, growth in medical prices is expected to accelerate to 3.3 percent, reflecting the lagged impact of recent faster price growth associated with the inputs required to provide medical care, whereas growth in economywide prices is projected to slow further in 2024, to 2.4 percent (exhibit 1).

2025–31 Over the course of 2025–31, national health spending is projected to increase at an average rate of 5.6 percent—higher than the average growth rate of 4.2 percent projected for GDP—partly as a result of faster projected average growth in medical prices (2.8 percent) compared with economywide price growth (2.1 percent) (exhibit 1). As a result, the health share of GDP is expected to be 19.6 percent in 2031.

Medicare is expected to experience the highest rate of growth among the major payers, at 7.8 percent per year, for 2025–31 (exhibit 2). One provision from the Inflation Reduction Act that is expected to put upward pressure on Medicare spending growth is the anticipated

outlays that the program will pay to cover the cap on Part D out-of-pocket spending at \$2,000 per year, which takes effect in 2025. However, Medicare is expected to experience slower growth in spending toward the final years of the projection period, reflecting the full effect of the Inflation Reduction Act's provisions that allow the program to negotiate prices for certain Part D drugs and that link drug price increases to the CPI.

Medicaid expenditures are projected to average 5.6 percent growth over the course of 2025–31, with enrollment growth expected to average 0.6 percent over that period (exhibit 2). Medicaid hospital spending growth is projected to average 6.0 percent, influenced by an 8.0 percent increase in 2028 related to the expiration of the disproportionate share hospital payment cap reduction in late 2027 (data not shown).

On average, over the course of 2025–31, private health insurance spending is expected to grow by 5.2 percent, which is lower than the growth rates for Medicare and Medicaid, in part because enrollment for private health insurance is expected to increase at an average rate of 0.1 percent during those years (exhibit 2). This is influenced by a decline in Marketplace enrollment expected in 2026 as a result of expiring premium subsidies, contributing to slow private health insurance spending growth of 4.2 percent and resulting in a drop in the insured share to 90.6 percent in that year.⁶

Average out-of-pocket spending growth is projected to be 4.1 percent over the course of 2025–31, which is slower than projected growth for the major health insurance payers (exhibit 3). The out-of-pocket spending trend is affected by the Part D benefit redesign as well as by the Inflation Reduction Act's inflation and negotiation provisions, which are expected to result in lower gross prices (and thus lower out-of-pocket spending at the point of service) for Medicare beneficiaries.

Model And Assumptions

The Centers for Medicare and Medicaid Services Office of the Actuary produces national health expenditure projections using actuarial and econometric modeling methods. The projections are refined according to judgment of factors that may affect future health spending and health insurance enrollment, and they reflect current law at the time of estimation. The projections rely on economic and demographic assumptions from the 2023 *Medicare Trustees Report*, as well as updated near-term macroeconomic data.

It is important to note that there is inherent uncertainty associated with these projections. Specifically, this analysis relied on assumptions about future macroeconomic conditions, such as growth in disposable personal income and economywide inflation (and the historical relationships between these and other variables). These assumptions did not account for potential future legislative changes that could affect national health spending or insurance coverage. To the extent that the assumptions used in this analysis differ from the ultimate outcomes, they may result in deviations between health spending projections and actual experience.

Outlook For Spending And Enrollment By Payer

MEDICARE Medicare expenditures are projected to have grown 4.8 percent in 2022, compared with 8.4 percent growth in 2021, and to have reached \$944.2 billion (exhibit 2). Slower growth in 2022 is attributable in part to Medicare fee-for-service beneficiaries using emergent hospital care at lower rates during 2022. Also contributing to the slowdown was the phased-in reinstatement of sequestration-based payment rate cuts of 1 percent during April–June 2022 and 2 percent for July 2022 onward, after a full-year suspension of those rate cuts in 2021.

Medicare spending growth is projected to accelerate to 8.0 percent, with expenditures projected to exceed \$1.0 trillion in 2023 (exhibit 2). For 2023, a rebound in Medicare hospital spending growth to 11.0 percent is attributed to an expected increase in volume and intensity growth (data not shown). Partially offsetting this projected increase are two factors associated with the end of the public health emergency in May 2023: the expiration of the Skilled Nursing Facility (SNF) 3-Day Rule Waiver, which waived the three-day inpatient stay requirement to receive SNF services and increased SNF spending, and the expiration of the 20 percent increase in payments to hospitals for inpatient admissions related to COVID-19.

Medicare spending growth is projected to moderate somewhat to 7.2 percent in 2024. This largely reflects slower growth in Medicare Advantage per enrollee payments, in addition to slower fee-for-service hospital spending growth as a result of lower volume and intensity growth and more modest fee-for-service price updates. The deceleration in total Medicare growth is partially offset by an acceleration in prescription drug spending growth due to a Part D benefit redesign provision in the Inflation Reduction Act that eliminates the 5 percent coinsurance for catastrophic coverage.

For the remainder of the projection period, 2025–31, Medicare spending growth is expected to average 7.8 percent (exhibit 2). Medicare pre-

Health insurance coverage is projected to have reached a historic high in 2022.

scription drug spending is projected to continue growing rapidly in 2025 (12.4 percent), partly driven by a provision of the Inflation Reduction Act that redesigned the Part D benefit to set a \$2,000 cap on out-of-pocket spending. Thereafter, Medicare prescription drug spending growth is slower as a result of Inflation Reduction Act provisions associated with drug price negotiations and linking price increases to the CPI (all of which, over the course of the projection period, is projected to reduce aggregate drug costs by an average of 20 percent and to result in manufacturers decreasing rebates to Part D plans by an average of 45 percent). By 2030 and 2031, annual Medicare spending growth rates are expected to be the slowest within the 2025-31 period (6.8 percent for both years) because of a combination of impacts of the Inflation Reduction Act Part D provisions and slower projected enrollment growth, after the last of the baby boomers enroll in 2029 (data not shown).

MEDICAID Medicaid spending is projected to have totaled \$804.7 billion in 2022, growing 9.6 percent, which is slightly faster than the 9.2 percent growth seen in 2021 (exhibit 2). Medicaid enrollment is expected to have climbed by 5.7 million and to have reached 90.4 million in 2022. This historically high figure reflects new enrollees to the program, as well as many people remaining enrolled because of the continuous enrollment requirement of the Families First Coronavirus Response Act. Projected expenditure growth accelerated in 2022 for both nursing home spending (from 1.4 percent in 2021 to 5.1 percent in 2022) and home health spending (from 6.6 percent in 2021 to 10.1 percent in 2022) as the impact of the pandemic waned and the use of these services increased (data not shown).

For 2023, states are expected to resume actively disenrolling Medicaid beneficiaries who no longer qualify for benefits, leading to a small projected decline in enrollment of less than 1 percent (0.8 million). Spending growth is projected to slow to 3.7 percent, in part due to this initial drop in enrollment (exhibit 2).

The health sector has been significantly affected since 2020 by the COVID-19 pandemic.

The major effects of the end of the continuous enrollment requirement are expected to occur in 2024, when Medicaid enrollment is projected to drop by 8.0 million, or 8.9 percent. This significant reduction in the number of people enrolled is subsequently expected to result in a reduction in Medicaid expenditures of 2.1 percent, reflecting expected broad declines in spending across most services. Spending growth per enrollee, however, is expected to climb to 7.4 percent in 2024 (exhibit 2)—its highest growth rate since 1991—reflecting the rapid loss of many enrollees who tended to be younger and healthier, and thus less expensive. Notably, although there will be millions fewer enrollees over the course of 2023-24, state Medicaid spending is projected to be 22.2 percent higher in 2024 than in 2022, as states no longer receive the Families First Coronavirus Response Act's increased federal medical assistance percentage; federal Medicaid spending is projected to decline by 7.3 percent during these two years (exhibit 3).

Over the course of 2025–31, Medicaid spending growth is projected to average 5.6 percent (exhibit 2). The final impacts of disenrollment are expected to be complete by 2025, when Medicaid enrollment is projected to decline by 0.7 percent, but then to resume steady positive average growth of less than 1 percent through 2031 (data not shown). Medicaid hospital spending is projected to average 6.0 percent growth over the seven-year period, highest among services and goods, in part as a result of the expiration of the disproportionate share hospital payment cap reductions in 2027 (data not shown).

PRIVATE HEALTH INSURANCE AND OUT-OF- POCKET SPENDING In 2022, growth in private health insurance spending is projected to have decelerated to 3.0 percent, following growth of 5.8 percent in 2021, with total spending of \$1.2 trillion (exhibit 3). This is the result of a projected slowdown in per enrollee spending growth from 5.5 percent in 2021 to 1.5 percent in 2022 because of lower growth in utilization, especially for hospital services (exhibit 2). Par-

tially offsetting the overall deceleration is an acceleration in private health insurance enrollment growth from 0.3 percent in 2021 to 1.5 percent in 2022, led by higher Marketplace growth and its American Rescue Plan Act–based expanded eligibility for subsidies. Out-of-pocket spending is projected to have grown 4.3 percent in 2022 (down from 10.4 percent in 2021) and to have totaled \$451.8 billion (exhibit 3). This decelerating rate of growth was largely due to slower trends in sectors with higher out-of-pocket spending shares (including dental, durables, and other nondurables) that experienced high growth in 2021.

In 2023, private health insurance spending is expected to grow 7.7 percent (up from 3.0 percent in 2022) (exhibit 3), with per enrollee spending growth accelerating from 1.5 percent in 2022 to 6.8 percent as a result of faster growth in both utilization and prices (exhibit 2). Higher expected use of hospital services (rebounding from negative utilization growth in 2022) is the primary driver for the faster use of health services and goods. Also contributing to the acceleration is faster growth in the Personal Health Care Price Deflator to 2.8 percent in 2023, up from 2.3 percent in 2022 (exhibit 1). Out-ofpocket spending growth is expected to accelerate to 5.2 percent in 2023, also in part related to faster health care price growth (exhibit 3).

In 2024, private health insurance spending growth is expected to be similar to growth in 2023, at 7.6 percent (exhibits 2 and 3). This reflects slower spending growth for hospital services (from 11.2 percent to 10.0 percent) and prescription drugs (from 4.4 percent to 1.4 percent) coupled with faster growth in physician and clinical services (from 4.4 percent to 6.9 percent) (data not shown).

During 2025-31, average rates of spending growth expected for private health insurance and out-of-pocket payments are 5.2 percent and 4.1 percent, respectively (exhibit 3). Private health insurance growth is projected to be 4.2 percent in 2026, partly because of the expiration of subsidies for Marketplace plans and the associated 10 percent enrollment decline (roughly two million people) projected for directly purchased insurance (data not shown). The out-of-pocket spending trend over the course of 2025-31 contains a projection-periodlow rate of growth of just 3.6 percent in 2026 as the first round of Medicare Part D's lower negotiated drug prices takes effect, featuring significantly lower gross prices and accompanying lower out-of-pocket payments for beneficiaries.

Outlook For Major Services And Goods

HOSPITAL Hospital spending growth is expected to have slowed from 4.4 percent in 2021 to 0.8 percent in 2022, with projected expenditures of \$1.3 trillion (exhibit 4). Declining growth in utilization,10 in part attributable to pandemicrelated hospital staffing issues,4 contributed to projected declines in private health insurance and out-of-pocket hospital spending, as well as low growth in Medicare hospital spending. In addition, spending for other third-party payers and programs, particularly from the COVID-19 Provider Relief Fund, is expected to have continued to decline in 2022 (data not shown). Although Medicaid hospital spending growth remained relatively high (9.7 percent), it also slowed in 2022 because of a decrease in severe COVID-19 cases and an increase of people with multiple coverage types (data not shown).

In 2023, hospital spending growth is projected to accelerate substantially, to 9.3 percent (exhibit 4). Growth in utilization is expected to rebound, and hospital price growth is projected to accelerate partly because of rising labor costs. These factors contribute to accelerations in growth for private health insurance, out-of-pocket, and Medicare hospital spending in 2023.

In 2024, hospital spending growth is expected to slow to 5.6 percent (exhibit 4). Although private health insurance and out-of-pocket hospital spending growth are projected to remain relatively elevated, similar to 2023, a decline in hospital spending of 4.6 percent (data not shown) is expected for Medicaid as significantly more beneficiaries disenroll from the program.

For 2025–31, hospital spending growth is projected to average 6.1 percent per year, as trends are expected to normalize and transition away from pandemic-related impacts on utilization and spending (exhibit 4). Medicare is expected to experience the highest hospital spending growth, with growth ranging from 7.8 percent to 8.1 percent each year from 2025 to 2029 as the last of the baby boomers enroll, followed by slower annual growth of 6.9 percent during 2030–31 (data not shown).

physician and clinical services in 2022 is projected to have grown 2.4 percent—slower than in 2021, when growth was 5.6 percent—and to have totaled \$885.1 billion (exhibit 4). The overall deceleration largely reflects slowing growth in the use of physician and clinical services after the pandemic-driven decline in utilization in 2020 and the rebound that occurred in 2021. The slowdown in utilization is also consistent with the reporting of many people forgoing doctors' appointments in the midst of high

Health spending over the course of the next ten years is expected to grow more rapidly, on average, than the overall economy.

economywide inflation, as well as limited availability of appointments and their associated wait times. 11,12 In the case of Medicare, which grew 14.4 percent in 2021 but is projected to have grown 5.8 percent in 2022 (data not shown), growth was also affected by the phased-in reinstatement of sequestration-based payment rate cuts. In addition, declines in spending in 2022 for other third-party payers and programs, particularly the Provider Relief Fund, contributed to slower overall growth in spending for physician and clinical services.

Spending growth for physician and clinical services is expected to accelerate in 2023 to 5.1 percent (exhibit 4). The acceleration is largely due to much faster projected growth in spending for other third-party payers and programs (from -19.7 percent in 2022 to 1.7 percent in 2023).6 Expenditure growth in this category is expected to normalize after having declined significantly in 2021 and 2022 as payments associated with various federal stimulus efforts, including the Paycheck Protection Program and the Provider Relief Fund, were expended over the period. Although faster physician price growth is anticipated (from 1.1 percent in 2022 to 1.5 percent in 2023; data not shown), slower growth in Medicare physician payment updates and lower negotiated commercial insurer reimbursement rates associated with the No Surprises Act (which is intended to curtail situations where out-of-network billing occurs unexpectedly) both contribute to constrain projected physician price growth.¹³

In 2024, growth for physician and clinical services is expected to remain unchanged, at 5.1 percent (exhibit 4). A significant decline in Medicaid enrollment is expected to result in a decline of 2.9 percent in physician and clinical services spending for that program, offsetting the impacts of rising growth in private health insurance of 6.9 percent (from 4.4 percent in 2023) and faster price growth of 2.0 percent in 2024

(from 1.5 percent in 2023) (data not shown).

During the 2025-31 period, physician and clinical services spending growth is projected to average 5.7 percent (exhibit 4). Medicare spending for these services is projected to grow the most rapidly over this time frame, averaging 8.1 percent, whereas growth in private health insurance spending for these services is expected to average 4.6 percent (data not shown). This differential is primarily attributable to the programs' respective projected enrollment trends. In 2026, private health insurance enrollment is projected to decline 1.0 percent related to the expiration of Marketplace subsidies, with very slow positive growth thereafter. In contrast, Medicare enrollment growth is projected to outpace private health insurance enrollment growth, particularly through 2029, as the youngest baby boomers age into the program.

prescription drug spending growth is expected to have decelerated in 2022 to 5.1 percent, down from 7.8 percent in 2021, with spending having reached \$397.4 billion (exhibit 4). Among payers, growth in private health insurance spending for prescription drugs is projected to have slowed significantly to 3.1 percent (from 8.5 percent in 2021), driven by a reduction in spending on new drug introductions. Medicaid prescription drug spending growth is projected to have remained elevated (at 12.7 percent), partly as a result of continued strong enrollment growth (data not shown).

For 2023, prescription drug spending growth is expected to slow further to 3.6 percent (exhibit 4). Growth in Medicaid prescription drug spending is projected to fall to 5.8 percent, reflecting an expected decline in Medicaid enrollment after robust growth in 2022. In addition, Medicare prescription drug spending growth is projected to slow to 2.1 percent from 6.2 percent in 2022 (data not shown), partly as a result of generic drugs reducing spending for some categories of drugs within Part D.⁷

Some key aspects of the Inflation Reduction Act will begin to affect spending growth for Part D and overall drug spending in 2024, which, on net, result in growth of 3.7 percent, similar to that seen in 2023 (exhibit 4). Medicare prescription drug spending growth is projected to increase significantly to 12.4 percent in general as a result of the Part D benefit redesign. Notably, the provision that requires Part D plans to cover the 5 percent coinsurance payments in the cata-

strophic portion of the benefit that were previously paid for by beneficiaries largely accounts for out-of-pocket prescription drug spending growth of –5.9 percent in 2024 (from 2.6 percent in 2023) (data not shown). Finally, Medicaid prescription drug spending is anticipated to fall 1.6 percent in 2024, related to a decline in enrollment of 8.0 million.

During 2025–31, prescription drug spending growth is projected to average 4.8 percent (exhibit 4). Although spending trends for the major payers are expected to be influenced by their typical drivers, such as aging and the introduction of new drugs, they are also expected to be differentially affected by the Inflation Reduction Act. For example, provisions of the act are expected to take effect and lead to lower out-ofpocket spending for Medicare beneficiaries in 2025 (when a \$2,000 cap on out-of-pocket spending begins) and 2026 (when negotiations resulting in lower gross prices for several of the most expensive Part D drugs are expected to lead to lower payments at the point of service). 15 The Inflation Reduction Act is also expected to put downward pressure on Medicare's prescription drug spending growth, mainly as a result of the act's inflation rebate provisions.

Conclusion

The health sector has been significantly affected since 2020 by the COVID-19 pandemic. As the public health emergency comes to an end in 2023, the unwinding of many of these impacts will affect projected trends. The insured share of the population is expected to have reached new highs in 2022 and 2023 before falling somewhat with the expiration of pandemic-related legislation that provided a health insurance safety net for many. Moreover, changes in growth for the nation's health expenditures are expected to be more influenced by health-specific factors and less by federal supplemental payments to providers and federal public health spending. The latter years of the projection reflect important changes to Medicare's Part D program and, with it, significant savings for the program's beneficiaries. Altogether, and consistent with its past trend, health spending over the course of the next ten years is expected to grow more rapidly, on average, than the overall economy, and by 2031, it will account for roughly \$1 out of every \$5 spent in the US. ■

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