The US spends substantially more on health care per capita and as a percentage of its economy than any other country in the world,1 and this gap has widened substantially in recent decades. In the JAMA theme issue devoted to prescription drug pricing, a study by Dieleman and colleagues2 charts US health care spending by payer and health condition from 1996 through 2016. This study adds clinical insights and more recent data to prior reports of US spending trends published by the same research group in JAMA.3,4

The authors analyzed a wide range of health care data sources maintained by the federal government. These sources represented 85.2% of all US health care spending during the study period, with spending excluded for home health services, durable medical equipment, and nonprescription medications.

Several findings from this study are noteworthy. Out-of-pocket spending varied widely across different types of health care services, representing low proportions of spending on inpatient care (4.2%), emergency care (4.5%), and ambulatory care (10.1%) but much higher proportions of spending on prescription drugs (20.9%), nursing facility care (25.4%), and dental care (42.6%).2 The burden of out-of-pocket spending in total dollars was greatest for 2 clinical conditions—dementia and falls—experienced by the relatively small demographic group of women 85 years and older.2 In this group, public insurance spending by Medicare and Medicaid was also relatively high for these 2 conditions.

The wide variation in spending trends by clinical condition is also remarkable.2 After standardizing to the US population in 2016, several major common conditions had declines in annualized total spending since 1996, including ischemic heart disease (−1.6% per year), heart failure (−1.3%), colorectal cancer (−1.1%), and lower respiratory tract infections (−0.3%). These reductions in spending likely reflect population-wide improvements in primary and secondary prevention for these conditions. The marked reduction in smoking and improved detection and control of hypertension and hyperlipidemia have contributed to reducing the burden of cardiovascular disease. Widespread dietary changes and increased screening have likely reduced the incidence of colorectal cancer and its total costs. Similarly, smoking cessation and increased use of vaccinations to prevent influenza and pneumococcal pneumonia may have lowered the frequency and costs of pneumonia in recent years.

Conversely, several chronic conditions have had large annual increases in total spending since 1996, including rheumatoid arthritis (10.4% per year), multiple sclerosis (9.2%), HIV/AIDS (7.0%), inflammatory bowel disease (5.9%), and diabetes (5.4%). For each of these conditions, the spending trends reflect the introduction of expensive new pharmaceutical treatments. For HIV/AIDS, the development of highly effective treatments, such as protease inhibitors, has been lifesaving, changing a consistently fatal disease into a manageable chronic condition for those who receive good medical care.

For rheumatoid arthritis, multiple sclerosis, and inflammatory bowel disease, expensive new pharmaceutical and biological treatments have made these conditions much less debilitating for many people in the US. For diabetes, the growth in annual spending likely reflects the rising prevalence of obesity as a key risk factor as well as the increasing cost of insulin and the introduction of expensive new glucose-lowering medications over the past 2 decades. Because these chronic conditions have seen the greatest increases in total spending related to costly new prescription drugs
and burdensome out-of-pocket spending for patients, their treatment costs are drawing substantial attention from patients, payers, and policy makers, as well as legal challenges to extended patents and pricing policies.\(^5\)

Dieleman and colleagues\(^2\) provide encouraging evidence that the US can bend the cost curve for some common conditions, such as cardiovascular disease and colorectal cancer, through public health efforts and improved preventive health care. However, the costs of other less common but important chronic conditions, such as rheumatoid arthritis and multiple sclerosis, continue to accelerate, with pharmaceutical innovation leading to greater use of expensive new specialty drugs. Patients who depend on expensive specialty drugs with substantial out-of-pocket costs would thus benefit from greater use of rigorous cost-effectiveness analysis when public and private payers negotiate the prices paid for these drugs with manufacturers. Patients may also benefit from a value-based insurance design in which their cost-sharing obligations for specialty drugs are lowered for treatments that provide the greatest clinical value and raised for treatments that provide limited marginal value.

**REFERENCES**