

Drug Expense Drivers & Risk Mitigation Strategies

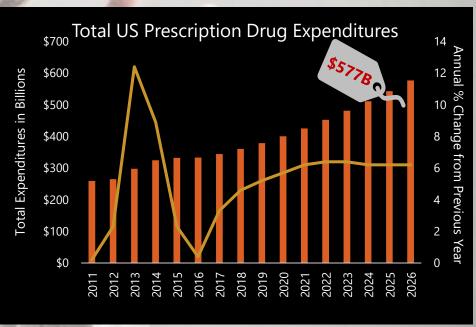
January 23, 2020



Why are drug prices in the U.S. so high?







TORING PHARMACEUTICALS

Focus on Pharma



Healthcare lobbying

\$228,484,392 total spent on pharmaceuticals and health products, 2019

Top 25 healthcare organizations out of 415 ranked by lobbying expenditures for the first three quarters of 2019

Rank	Client/Parent	Total
1	Pharmaceutical Research & Manufacturers of America	\$22,772,000
2	Biotechnology Innovation Organization	\$9,090,000
3	Pfizer Inc	\$8,700,000
4	Amgen Inc	\$8,540,000
5	Roche Holdings	\$8,355,000
6	Bayer AG	\$7,230,000
7	Bristol-Myers Squibb	\$6,140,000
8	Merck & Co	\$5,935,000
9	Novartis AG	\$5,470,000
10	AbbVie Inc	\$5,370,000
11	Eli Lilly & Co	\$5,170,000
12	Johnson & Johnson	\$4,460,000
13	Gilead Sciences	\$4,420,000

Rank	Client/Parent	Total
14	Sanofi	\$4,334,000
15	Medtronic Inc	\$4,000,000
16	GlaxoSmithKline	\$3,990,000
17	Mylan Inc	\$3,430,000
18	Association for Accessible Medicines	\$3,170,000
19	Horizon Therapeutics	\$3,100,000
20	Pharmaceutical Care Management Assn	\$2,990,219
21	Abbott Laboratories	\$2,840,000
22	Alkermes Plc	\$2,780,000
23	Allergan plc	\$2,620,000
24	AstraZeneca PLC	\$2,370,000
25	Takeda Pharmaceutical Co	\$2,230,000

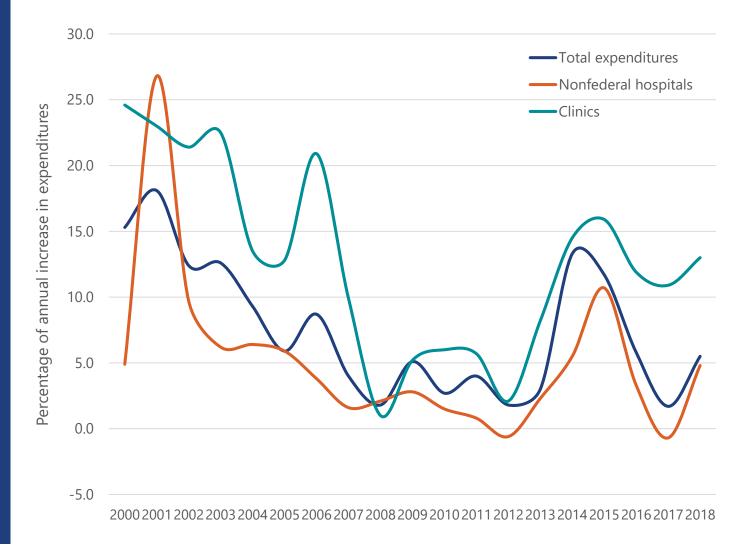


Drug expense drivers

Overall pharmaceutical expenditures in the United States grew 5.5% in 2018 compared to 2017, for a total of \$476.2 billion.

Nonfederal hospitals accounted for \$35.8 billion in prescription expenditures in 2018, a 4.8% increase compared to 2017, whereas in clinics spending grew 13.0% to \$80.5 billion.

Annual growth in drug expenditures from previous year, 2000 - 2018





Drug expense drivers



Price increases

Inflation

Compounding-related



New agents



Utilization

Patient/procedure volume Appropriateness of use

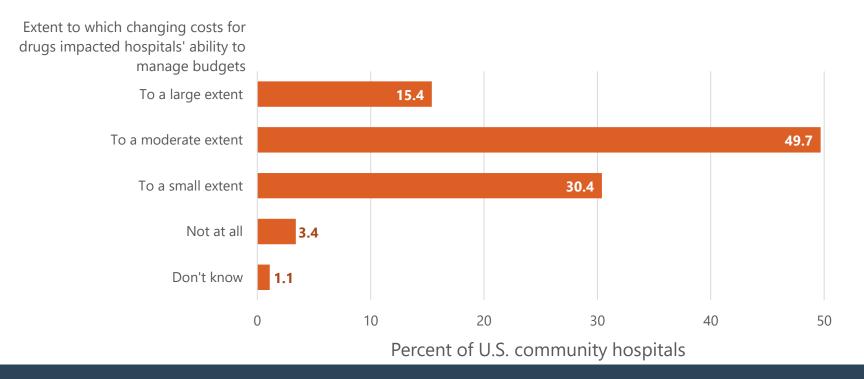


Drug shortages



Changes in drug prices between FYs 2015 and 2017 impacted hospitals' and health systems' ability to manage their budgets. Almost two-thirds of the hospitals responding to the Drug Survey reported that changes in drug prices had a moderate or severe impact on their budgets, with over 15 percent of hospitals indicating that the increase in drug prices impacted their budgets "to a large extent."

Impact of Changing Drug Prices on Hospitals' Ability to Manage Budgets (FYs 2015 – 2017)





More than 90% of around 1,200 surveyed hospitals reported having to identify alternative therapies to mitigate the impact of drug price increases and shortages, according to a report from Jan 15, 2019 by the American Hospital Association, the Federation of American Hospitals and the American Society of Health-System Pharmacists. Rising drug prices and shortages are putting strains on hospital budgets and operations.

Finding new suppliers can lead to errors, safety issues, or delayed surgeries, as well as inflated costs. Patients also forgo medication if it costs too much.

The average unit price of drugs in shortage in 2016 increased 23.4%, according to the data analyzed by the University of Chicago's NORC.









Prescription Drug Spending per Adjusted Admission at U.S. Community Hospitals (FYs 2015 – 2017)



- Average total drug spending per hospital admission increased by 18.5% between FY2015 and FY2017.
- Outpatient drug spending per admission increased by 28.7%, while inpatient drug spending per admission increased by 9.6% between FY2015 and FY2017. This 9.6% increase was on top of the 38% increase in inpatient drug spending between FY2013 and FY2015 included in the previous report.
- Very large percentage increases (over 80%) of unit price were seen across different classes of drugs, including those for anesthetics, parenteral solutions, and chemotherapy.
- Over 90% of surveyed hospitals reported having to identify alternative therapies to manage spending.
- One in four hospitals had to cut staff to mitigate budget pressures.
- Almost 80% of hospitals found it extremely challenging to obtain drugs experiencing shortages, while almost 80% also said that drug shortages resulted in increased spending on drugs to a moderate or large extent.



- Outpatient drug spending per adjusted admission increased 28.7%, while inpatient drug spending per admission increased 9.6% during the same period as prices jumped more than 80% for anesthetics, parenteral solutions, opioid agonists, and chemotherapy.
- Outpatient drug spending per adjusted admission increased more than 28% from 2015 to 2017, while inpatient spending was up almost 10% during the same period.

Outpatient and Inpatient Prescription Drug Spending per Admission at U.S. Community Hospitals (FYs 2015 – 2017)

