**Prescription Drug Spending is Consuming a Bigger Share of Wages**

Research on the cost of prescription drugs can be a hard pill to swallow. Economists, often with proprietary data, cite massive dollar-value costs for bringing a new drug to market, but this doesn’t tell us much about how much Americans pay for prescription drugs. We can get a better picture by looking at how national prescription drug spending compares to wage income and median earnings.

The Centers for Medicare & Medicaid Services produce projections of national expenditures on prescription drugs through 2025, along with historical estimates dating back to 1960. A shown below, prescription drug spending from 1960 to 1980 was equivalent to about one percent of total wage and salary income. In the years leading up to the passage of the Bayh-Dole act in 1980, the share of wages spent on prescription drugs was actually falling, reaching a low in 1979 of 0.86%, as wage income was rising faster than spending on prescription drugs.

However, after 1980, prescription drug spending’s share of total wage income took a turn for the worse, growing each year from 1980 to 2007 (in 2007 wage growth finally outpaced drug expenditures). The Great Recession hit the next year, bringing down wage income while monopolies on prescription drug production, granted through patent protections, prevented market prices from falling at the same rate. By 2010, the wage share of prescription drug spending had climbed above four percent.

The three percent of annual wage income lost to higher drug spending over the past 40 years makes a big difference to working families saving for home purchases and education. While it’s true that an aging population can inflate prescription drug spending relative to wages, by looking at consumer price index data and comparing prescription drug spending to median wages, we find that prescription drug prices, rather than total spending, can explain much of the wage income lost to pharmaceuticals.

From 1970 to the end of 1980, prescription drug prices increased at an average annual rate of 4.2 percent, compared with an all-item average annual inflation rate of 7.7 percent (according to price estimates from the Bureau of Labor Statistics, see table below). In fact, prescription drug prices only outpaced the all-items CPI during 14 of the 132 months in this 11-year period. However, since the start of 1981, prescription drug prices have increased at an annual rate of 5.6 percent, compared with just a three percent all-items inflation rate. Since 1981, drug prices have outpaced the CPI during 391 of the 444 months.

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| --- | --- | --- |
|  | Prescription Drug Prices | All-items CPI |
| 1970--end-1980 | 4.2 | 7.7 |
| 1981--Present | 5.6 | 3.0 |

Another way to examine how prescription drug spending compares to wages is to look at per capita spending relative to the median wage. This measure (see chart below) follows a similar trend, increasing from less than 0.5 percent in 1979 to 2.5 percent in the estimate for 2017.

So what has driven prescription drug prices upward such that spending on this category of health care services has eaten away a large share of worker’s income? One starting place in answering this question is to examine the erosion of competition between firms due to patent protections. Legislation, including the Bayh-Dole act have strengthened the ability of firms to collect monopoly rents on their pharmaceutical products. Patent protections on prescription drugs are estimated to increase costs fivefold, relative to generic drugs without monopoly status. Even worse, there is evidence that the maze of legal protections on pharmaceutical research can actually inhibit the research process; small companies tend to stay away from research areas where the large players hold patents.

(Need more here, government-funded clinical trials? Citations?)

CMS projections, combined with projections on wage income growth from the Congressional Budget Office, suggest that the share of total and median wages devoted to prescription drugs will increase further through 2025. The share of wage income lost to prescription drug spending is expected to exceed five percent by 2024, and reach 2.8 percent of the median wage.

The dire prognosis around prescription drug expenditures would be fully reversed if patent protections were removed. If all prescription drugs were generics without market exclusivity, cutting prices to 1/5th the current level, spending as a share of wage income would return to its pre-1980 levels. The result would be a big boost to the average worker’s financial health.

Notes:

I can include spending on doctors or that could be a separate post.

I’m still feeling out the writing style here, so the health-related idioms can be removed! If I’m also way off in general, please let me know.

I can add a table summarizing Rx spending share of total wage income by decade.

Links to Data Sources:

Wages projections: <https://www.cbo.gov/about/products/budget-economic-data#4>

Median wage: (Seas)- Median usual weekly earnings (second quartile), Employed full time, Wage and salary workers Age 16+ <https://data.bls.gov/timeseries/LES1252881500>

NIPA 1.12 Compensation of Employees: Wages and Salaries

CMS NHE and Historical Projections 1960—2025 <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccountsprojected.html>

Prescription drug component of CPI-U: <https://data.bls.gov/timeseries/CUSR0000SEMF01>

I just used the CPI-U in price data 1970-onward for simplicity and ease of comparison. Happy to use CPI-U-X1 for 1970-Nov 1977 and the CPI-U-RS for Dec 1977- Nov 1999, if you prefer.