

Comparison of Price Index Methods and Drug Price Inflation Estimates for Medications for Opioid Use Disorder (MOUD)

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Background

- Drug price inflation has garnered significant attention In the United States due to concerns over medication affordability.
- The Inflation Reduction Act (IRA) of 2022 makes a provision that mandates manufacturers to pay a rebate to the federal government if the Average Sales Price (ASP) or the Average Manufacturer’s Price (AMP) of drugs covered under Medicare Part B and D increases more rapidly than the overall inflation rate.
- However, measuring drug price inflation is challenging due to the constant introduction of new products into the market, branded drugs transitioning to generics, and failure to capture quality improvements.

Objective

- This study aimed to evaluate how different price index methods affect estimates of drug price inflation and to develop a class-level index using Medications for Opioid Use Disorder (MOUD) as a case study.

Methods

- **Study design:** Cross-sectional analysis.
- **Study data and population:** Medicare Part D spending data from 2017 to 2021 was accessed for this study. A list of all Medications for Opioid Use Disorder that were ever on the market from 2017 to 2021, including both brand and generic drugs, was compiled. Total spending amount and claim quantity for each product were recorded.
- **Methodologic considerations:**
 - Product definition: Brand and generic versions of the same product were considered distinct.
 - Price definition: Gross and net spending indexes were calculated. Gross-to-net discount rate derived from SSR Health pricing tool was used to estimate post-rebate net prices.
 - Quantity definition: This was kept constant per treatment guidelines.
 - Calculation method: A chained-Laspeyres method was used.
- **Analyses:**
 - We calculated price indexes using both the product-level and class-level approaches.

Results

Table 1. Product-Level Spending in Medicare Part D for MOUD, 2017 to 2021

Active ingredient (brand/generic)	2017, \$	2018, \$	2019, \$	2020, \$	2021, \$
Total spending	344,602,448	420,205,684	456,530,060	464,277,708	468,046,547
Buprenorphine HCl/Naloxone HCl (Bunavail)	1,220,739	1,069,943	784,955	284,663	2,948
Buprenorphine HCl (generics)	9,589,410	13,903,810	18,189,880	20,176,279	18,420,659
Buprenorphine HCl/Naloxone HCl (generics)	36,059,409	47,436,554	146,083,580	200,218,054	215,874,681
Buprenorphine (Sublocade)	NA	1,152,742	4,172,688	7,756,488	11,842,922
Buprenorphine HCl/Naloxone HCl (Suboxone)	240,639,185	274,574,514	188,433,463	139,934,184	119,562,008
Buprenorphine HCl/Naloxone HCl (Zubsolv)	4,011,903	24,942,338	33,592,370	30,098,649	27,785,931
Methadone HCl (generics)	26,699,041	20,951,980	17,536,414	15,005,697	14,374,082
Methadone HCl (Methadone Intensol)	37,990	63,421	58,269	63,038	33,880
Methadone HCl (Methadose)	19,321	10,722	6,509	7,258	4,206
Naltrexone HCl (generics)	7,919,915	9,654,090	11,681,821	14,078,172	16,842,121
Naltrexone XR (Vivitrol)	18,405,534	26,445,570	35,990,111	36,655,227	43,303,110

Table 2. Class-Level Price Index for MOUD, 2017 to 2021

Spending	2017, \$M	2018, \$M	2019, \$M	2020, \$M	2021, \$M
Total annual spending in Medicare Part D	344.6	420.2	456.5	464.3	468.0
Net spending after rebate	209.6	236.2	300.8	341.5	358.7
Quantity per year	2017, M	2018, M	2019, M	2020, M	2021, M
Total Rxs	2.4	2.6	2.8	2.9	3.0
Price per year	2017, \$	2018, \$	2019, \$	2020, \$	2021, \$
Gross spending per Rx	143	163	164	159	158
Net spending per Rx	87	92	108	117	121
Gross Spending Index					
Laspeyres Price Index (single year)	100	114	101	97	99
Gross Spending Index (2017-2021)	110	NA	NA	NA	NA
Net Spending Index					
Laspeyres Price Index (single year)	100	105	118	108	104
Net Spending Index (2017-2021)	139	NA	NA	NA	NA

Figure 1. Class-Level Price Index

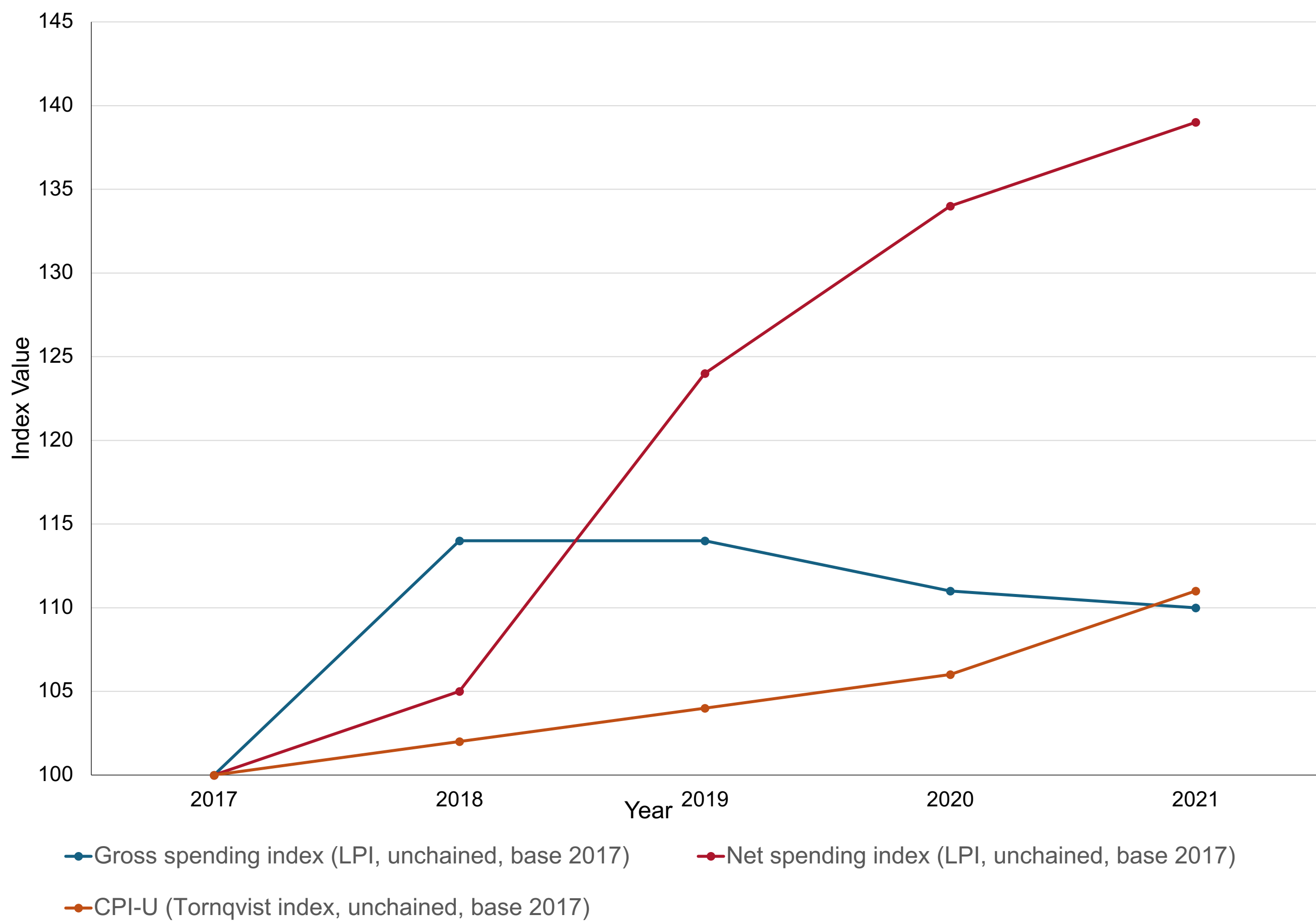
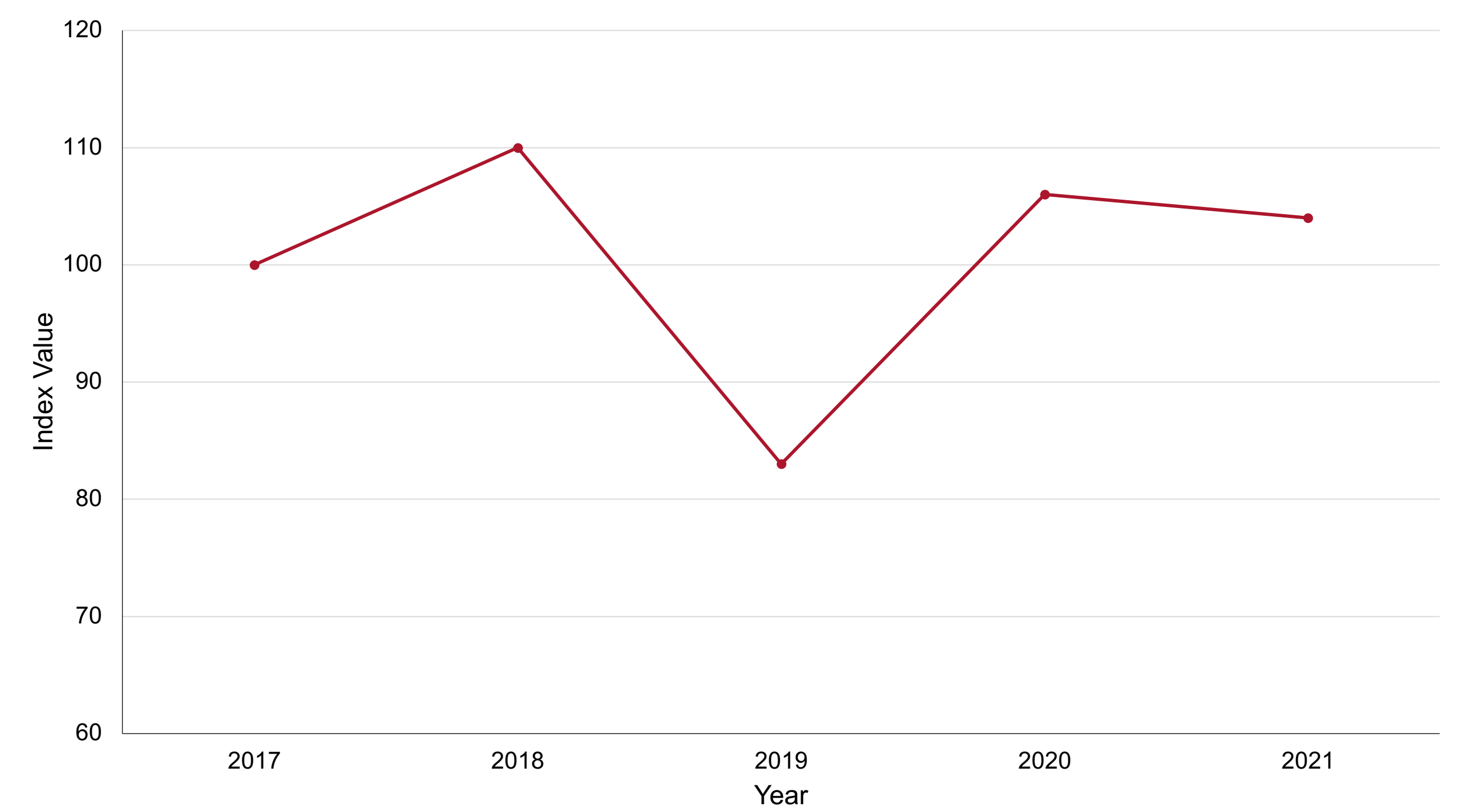


Figure 2. Product-Level Gross Spending Index



Conclusion

- A product-level gross spending index showed that MOUD prices were 10% greater in 2021.
- Using 2017 as the base year and a class-level approach, the net spending index after applying gross-to-net discount rates showed that prices for MOUD were 39% greater in 2021
- Despite rebates, the net spending inflation rates were higher than the gross spending rate reflecting the steady increase in MOUD spending from 2017 to 2021.
- Product-level approach of drug price inflation estimation may likely underestimate price increases.

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