



**Comments on Massachusetts Health Policy Commission (HPC)
Data Analysis and Methodology On PBM Pricing for
Generic Drugs in Massachusetts Medicaid Programs**

Prepared for



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EXECUTIVE SUMMARY

A recent report from the Massachusetts Health Policy Commission¹ (referred to here for simplicity as “HPC”) used publicly available drug pricing data in an attempt to identify proxies to highlight the differences between what health plan sponsors reimburse their pharmacy benefit managers (PBM) for a prescription versus what the PBMs reimburse pharmacies, otherwise known as “spread.” HPC also compared Medicaid Managed Care Organization (MCO) reimbursement with Medicaid Fee-For-Service (FFS) reimbursement rates. Visante replicated the HPC analysis and then examined the data sources, methodologies, and conclusions for flaws and/or potential sources of error.

Major findings include:

1. The HPC report appears to be cherry-picking specially selected data to support its argument, while ignoring plentiful data which does NOT support its argument. For example:
 - a. The HPC analysis focuses only on generic oral solids. Generic oral solids represent only 13% of drug spend, but represent more than half of total spread.
 - b. The HPC report presents a list of “Top 20 Drugs” where MCO reimbursement was higher than FFS reimbursement, but ignores instances where a PBM charged the MCO less than the PBM paid the pharmacy for a drug. Using the same data that HPC is using, we compiled a similar list of “Top 20 Drugs” from the other end of the spectrum, which highlights drugs with MCO prices much lower than FFS, with a total savings of \$1.8 million for 4Q 2018.
 - c. While HPC lists some selected drugs where MCO prices appear to be higher than FFS prices in 4Q 2018, they appear to ignore the fact that MCO prices for generic oral solids in aggregate were \$1.2 million lower than FFS prices for 4Q 2018. In other words, if all the 4Q 2018 MCO generic oral solid claims were paid at FFS reimbursement rates, total spending would have *increased by more than \$1.2 million*.
 - d. HPC also examines “spread” in commercial plans, again by listing the “Top 20 Drugs” with the highest spread. Visante does not have access to the Massachusetts All Payer Claims Database (APCD) to replicate the HPC analysis, but we can replicate the same type of “spread analysis” on MassHealth MCO claims data. Our “alternate list” again looks at the other end of the spectrum and lists the drugs with the largest “negative spread,” where the PBM paid pharmacies more than they charged a health plan and which totaled more than \$2.5 million for 4Q 2018.
2. The HPC analysis also suffers from a few fundamental problems related to its use of data sources which were not intended to be used in this way. For example:
 - a. National Average Drug Acquisition Cost (NADAC) pricing data can be highly variable with wide swings in the listed price of individual drugs. CMS’ State Drug Utilization Data (SDUD) is also highly variable. Unit reporting mismatches occur frequently and can take a long time to be rectified.
 - b. Pricing/reimbursement analysis does not include many discounts, including rebates. While commercial and Medicare Part D plans do not typically receive rebates on generics, Medicaid DOES receive rebates of 13% on most generic drugs. Therefore, the exclusion of rebates may create additional errors in HPC’s cost analysis.
 - c. Specialty pharmacies are excluded from the NADAC survey. Therefore, acquisition costs for specialty drugs in the NADAC survey do not represent acquisition costs for most of the prescriptions dispensed for these drugs. HPC’s list of Top 20 generic oral solid drugs with the largest apparent “spread” per prescription contains 14 generic specialty drugs.

In addition to these major findings, we also offer the following comments:

1. If a particular drug has positive spread, the MCO and PBM bear that cost. The state pays the MCO a capitated rate which is unaffected by the cost of individual prescriptions.
2. Analyses like the recent HPC report apply a “tunnel vision” approach to pharmacy benefits. Reimbursement formulas for a few generic drugs are only a small sliver of the overall picture. Plan sponsors make decisions on PBM contracts based on the overall costs, quality, and outcomes associated with the entire benefit plan.
3. PBMs support transparency for patients, physicians, and plan sponsors. However, both the CBO and the FTC have cautioned that the wrong kind of transparency, such as disclosure of some contractually negotiated discounts, could inadvertently increase costs.

¹ [HPC DataPoints, Issue 12: Cracking Open the Black Box of Pharmacy Benefit Managers - PBM Pricing for Generic Drugs in Massachusetts Medicaid Programs and the Commercial Market](#). Massachusetts Health Policy Commission (HPC), June 2019.

DISCUSSION

A recent report from the Massachusetts Health Policy Commission (referred to here for simplicity as “HPC”) used publicly available drug pricing data in an attempt to identify proxies to highlight the differences between what plan sponsors reimburse the pharmacy benefit manager (PBM) for a prescription versus what the PBM reimburses the pharmacy, otherwise known as “spread”. HPC also compared Medicaid Managed Care Organization (MCO) reimbursement with Medicaid Fee-For-Service (FFS) reimbursement rates. Visante replicated the HPC analysis and then examined the data sources, methodologies, and conclusions for flaws and/or potential sources of error.

Two primary data sources are used for this analysis:

1. SDUD provides prescription data for FFS plans and MCOs, summarizing prescription claims for drugs at the national drug code (NDC) level (i.e., number of units dispensed, number of prescriptions dispensed, dollar amount reimbursed). The SDUD provides estimated plan reimbursement for specific drugs, separately for both FFS plans and MCOs. The data is summarized quarterly, so can be trended over time.²
2. NADAC dataset provides an estimated retail pharmacy acquisition price based on wholesaler invoices for the majority of drugs marketed in the United States. This is weekly reference data from November 2013 to current, so can also be trended over time. The NADAC file does not contain data from drugs acquired for dispensing through mail service or specialty pharmacies nor does it include any dispensing fees paid to pharmacies or off-invoice discounts, rebates, or price concessions.³

More information regarding these data sources and methodology can be found in a previous Visante study published by PCMA.⁴

The flaws in the HPC analysis can be grouped into two major categories:

1. Cherry-picking data to support a preconceived argument, while ignoring other data
2. Using data sources that we not designed for this type of analysis

A. Cherry-Picking

Definition of Cherry-Picking:

“When only select evidence is presented in order to persuade the audience to accept a position, and evidence that would go against the position is withheld.”⁵



HPC Cherry-Picking #1: Focus on Generic Oral Solids

HPC analysis focuses only on generic oral solids, while ignoring brand name drugs, topicals, injectables, etc.

- Generic oral solids represent only 13% of MassHealth MCO drug spend, but represent more than half of total spread.
- By focusing on generic oral solids, apparent spread is skewed upward and not comparable to all drugs covered by MCOs.

HPC Cherry-Picking #2: Selecting a “Top 20 List” for MCO vs FFS reimbursement rates

HPC highlights their “Top 20 Drug List,” which is based on MCO reimbursement vs FFS reimbursement for individual drugs in Q42018.

² [State Drug Utilization Data](#), available at [Data/Medicaid.gov](#).

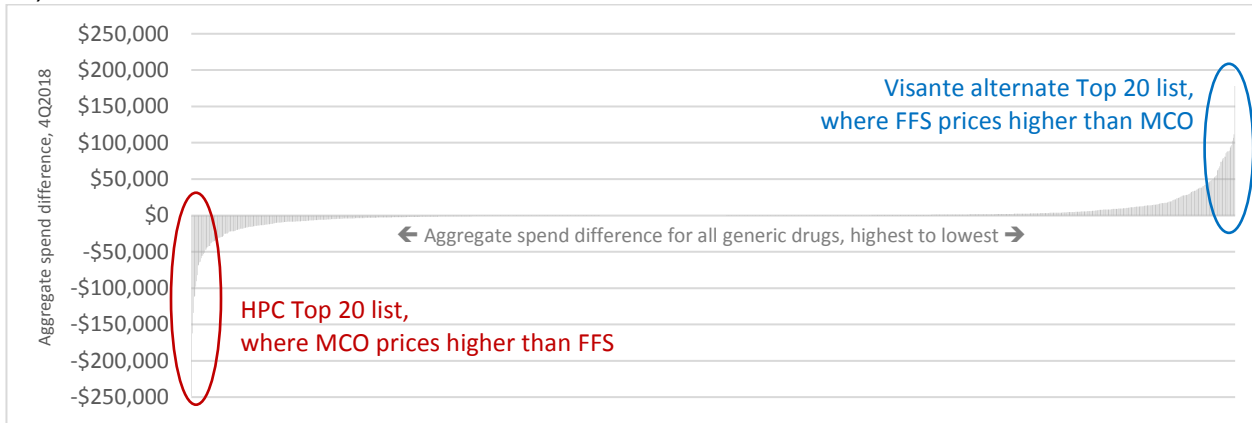
³ [National Average Drug Acquisition Cost \(NADAC\)](#) weekly reference data.

⁴ [Comments on 46brooklyn and 3 Axis Advisors Data Analysis and Methodology On Pharmacy Reimbursement and Spread in Medicaid MCOs](#). Published by Pharmaceutical Care Management Association, May 2019.

⁵ [Urban dictionary](#)

- HPC chose to highlight a select few drugs where MCO reimbursement was higher than FFS reimbursement, even though the vast majority of drugs have reimbursement rates that are roughly equivalent, or have MCO reimbursement much lower than FFS.
- Figure 1 illustrates how HPC’s “Top 20 List” represents a highly skewed sample from the overall universe.

Figure 1: All generic oral solids from lowest to highest savings (compare claims for same drugs paid at MCO vs FFS prices, 2018 Q4)



In Figure 2 below, we provide an alternate list of “Top 20 Drugs” from the other end of the spectrum shown in Figure 1 (using the same data that HPC is using), but this list highlights drugs with MCO prices much lower than FFS, with a total savings of \$1.8 million for 4Q 2018. For these and many other drugs, FFS reimbursement rates were much higher than MCO reimbursement rates leading to savings for MCOs.

Figure 2: Alternate Top 20 generic drugs ranked by greatest aggregate MCO savings, 2018 Q4

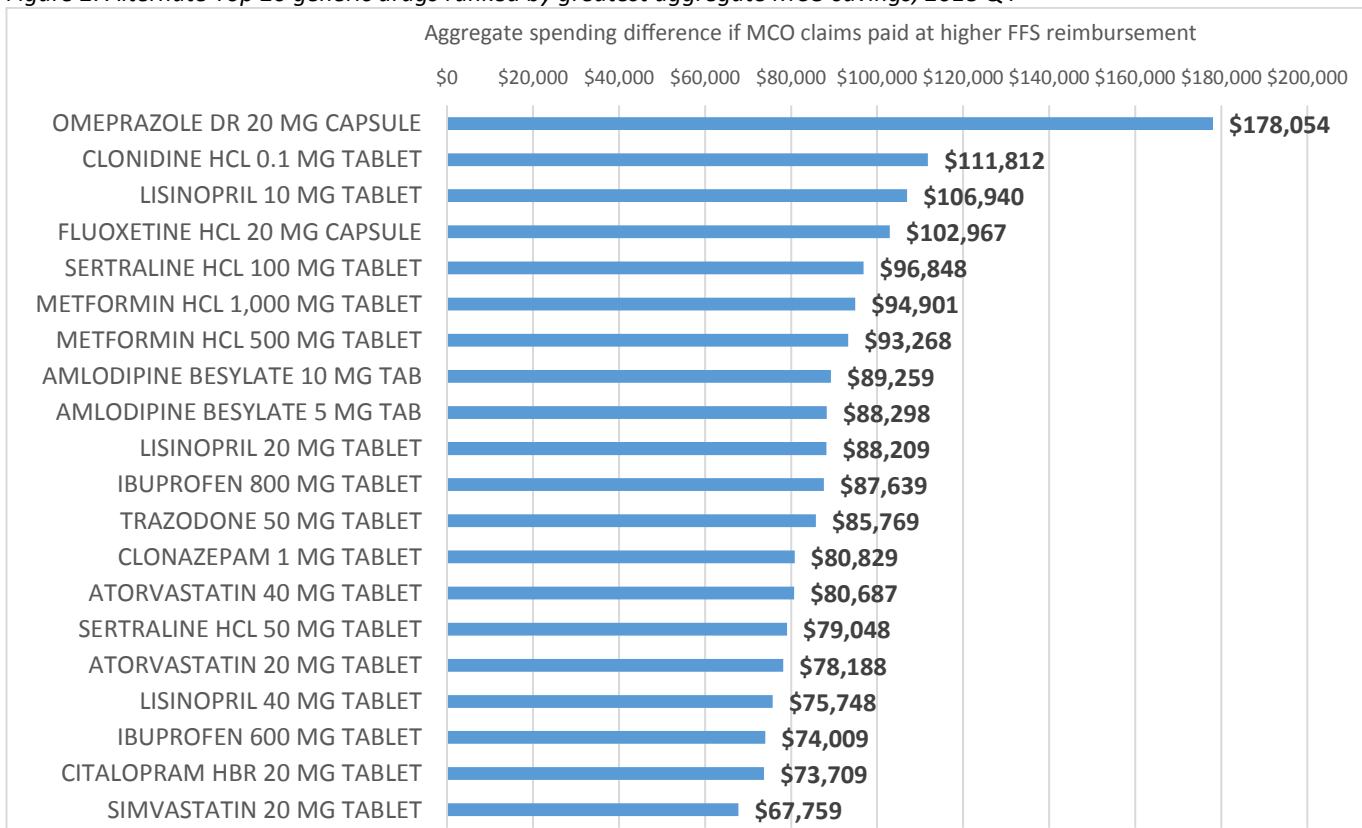
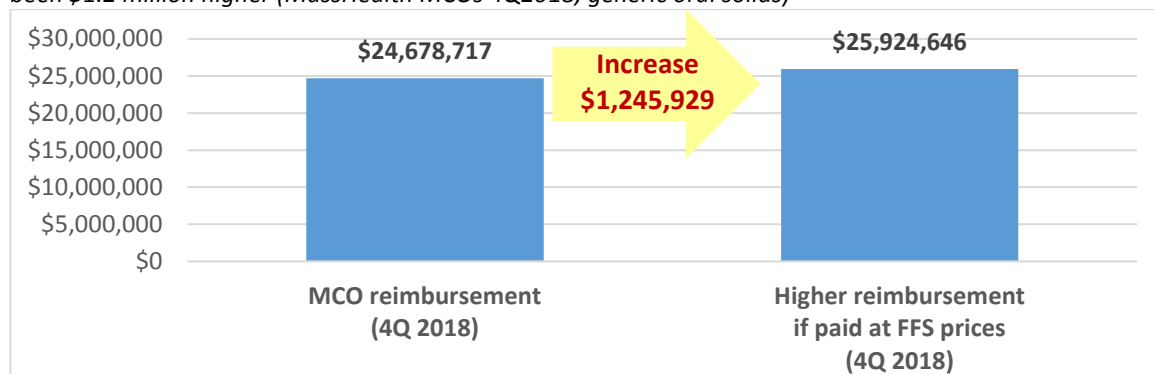


Figure 3 demonstrates that MCO prices for generic oral solids were \$1.2 million lower than FFS prices in aggregate for 4Q 2018. In other words, if all the 4Q 2018 MassHealth MCO generic claims were paid at FFS reimbursement rates, total costs would have increased more than \$1.2 million.

Figure 3: MCO prices are lower than FFS prices in aggregate. If FFS prices were applied to MCO reimbursement, costs would have been \$1.2 million higher (MassHealth MCOs 4Q2018, generic oral solids)



HPC Cherry-Picking #3: Selecting a “Top 20 List” for MCO/PBM spread

HPC also examines “spread” in commercial plans, again by highlighting the “Top 20 Drugs” with the highest spread. Visante does not have access to the Massachusetts All Payer Claims Database (APCD) to replicate the HPC analysis. However, we can replicate the same type of “spread analysis” on MassHealth claims data, by comparing MCO reimbursement to estimated acquisition costs (i.e., NADAC). While the HPC report lists the Top 20 drugs with the largest spread, our list again looks at the other end of the spectrum and lists the drugs with the largest “negative spread” totaling more than \$2.5 million for 4Q 2018. For drugs with MCO reimbursement lower than the NADAC (i.e., drugs with “negative spread”) PBMs would lose money. During 2016- 2018, 58% of all drugs studied had “negative spread” in at least one quarter of data due to the volatility of drug pricing.

Table 1: Top 20 drugs with “negative spread,” MassHealth MCOs 4Q2018 ⁶

| Rank | Drug Name | Brand/ Generic | Oral Solid? | Total MCO Reimbursed | Total NADAC | Total “Negative Spread” |
|---------------------|---------------------------------|-------------------|----------------|-------------------------|---------------------|-------------------------------|
| 1 | EPINEPHRINE 0.3 MG AUTO-INJECT | Generic | | \$528,292 | \$1,201,303 | -\$673,012 |
| 2 | AVONEX PEN 30 MCG/0.5 ML KIT | Brand | | \$145,184 | \$577,004 | -\$431,820 |
| 3 | AVONEX PREFILLED SYR 30 MCG KIT | Brand | | \$92,181 | \$367,066 | -\$274,885 |
| 4 | ADDERALL XR 20 MG CAPSULE | Brand | Yes | \$1,274,750 | \$1,438,381 | -\$163,631 |
| 5 | ADDERALL XR 30 MG CAPSULE | Brand | Yes | \$1,226,413 | \$1,365,301 | -\$138,888 |
| 6 | EPINEPHRINE 0.15 MG AUTO-INJECT | Generic | | \$241,838 | \$353,637 | -\$111,799 |
| 7 | NEULASTA 6 MG/0.6 ML SYRINGE | Brand | | \$322,501 | \$411,054 | -\$88,553 |
| 8 | CONCERTA ER 36 MG TABLET | Brand | Yes | \$1,056,020 | \$1,138,317 | -\$82,298 |
| 9 | REMICADE 100 MG VIAL | Brand | | \$555,498 | \$637,652 | -\$82,154 |
| 10 | ADDERALL XR 10 MG CAPSULE | Brand | Yes | \$467,401 | \$535,141 | -\$67,740 |
| 11 | FOCALIN XR 10 MG CAPSULE | Brand | Yes | \$368,264 | \$422,993 | -\$54,728 |
| 12 | FOCALIN XR 15 MG CAPSULE | Brand | Yes | \$255,681 | \$308,370 | -\$52,689 |
| 13 | ADDERALL XR 15 MG CAPSULE | Brand | Yes | \$404,040 | \$455,148 | -\$51,108 |
| 14 | CONCERTA ER 54 MG TABLET | Brand | Yes | \$645,025 | \$693,277 | -\$48,252 |
| 15 | CONCERTA ER 18 MG TABLET | Brand | Yes | \$510,871 | \$550,309 | -\$39,439 |
| 16 | ANDROGEL 1.62%(2.5G) GEL PCKT | Brand | | \$43,356 | \$82,002 | -\$38,647 |
| 17 | ADDERALL XR 25 MG CAPSULE | Brand | Yes | \$379,846 | \$418,286 | -\$38,440 |
| 18 | CONCERTA ER 27 MG TABLET | Brand | Yes | \$587,185 | \$625,486 | -\$38,301 |
| 19 | FOCALIN XR 20 MG CAPSULE | Brand | Yes | \$316,520 | \$351,844 | -\$35,324 |
| 20 | EPIPEN 0.3 MG AUTO-INJECTOR | Brand | | \$35,347 | \$67,797 | -\$32,450 |
| Total Top 20 | | | | \$9,456,212 | \$12,000,369 | -\$2,544,158 |

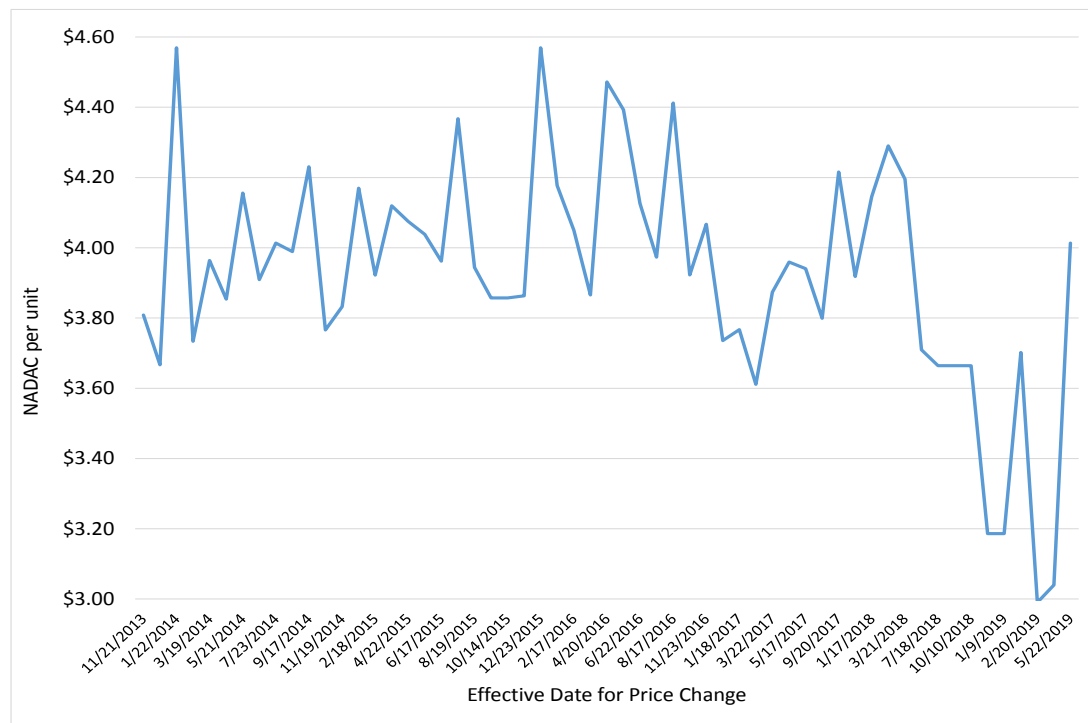
⁶ “Spread” is deemed to occur when the plan sponsor reimbursement to the PBM is greater than the estimated reimbursement from the PBM to the pharmacy. A “negative spread” indicates the plan sponsor, in this case the Medicaid MCO, reimbursed the PBM less than the estimated PBM reimbursement to the pharmacy for the same drug.

B. Problems With Data Sources

Data Sources #1: Prices in both NADAC and SDUD data can be highly variable.

National Average Drug Acquisition Cost (NADAC) is one of three primary data sources used by HPC. NADAC pricing data can be highly variable with wide swings in the listed price of individual drugs. This can make analyses based on average NADAC costs difficult to interpret and trends appear more volatile than they really are. As an example of the volatility of NADAC, Figure 4 shows the monthly NADAC price changes per pill of generic albuterol sulfate (2 mg tablet). The NADAC price shown changes by as much as a dollar per pill on a monthly basis.

Figure 4: Example of NADAC Variation, Albuterol 2mg tablets



CMS' State Drug Utilization Data (SDUD), the second publicly-available data source HPC relies upon, is also highly variable, especially for utilization data reported for MCOs. Unit reporting mismatches occur frequently and can take a long time to be rectified.⁷ The third data source used by HPC was Massachusetts All Payer Claims Database (APCD). We have no experience with this data, other than to point out that HPC is using APCD data from 2016.

Data Sources #2: Pricing/reimbursement analysis does not include many discounts, including rebates

The HPC methodology does not include the impact of manufacturer rebates. For some brand drugs, rebates account for more than 50% of brand ingredient cost. It is difficult, if not impossible, to draw conclusions about Medicaid costs on brand drugs without factoring in manufacturer rebates. And while commercial and Medicare Part D plans do not typically receive rebates on generics, Medicaid DOES receive rebates of 13% on most generic drugs. The SDUD data is reported pre-rebates, so does not include the 13% rebate.⁸ Furthermore, NADAC data are based on invoice prices, and do not include off-invoice discounts and price concessions that wholesalers offer pharmacies or dispensing fees paid to pharmacies by PBMs. Therefore, the NADAC values do not represent the actual net costs for the specified drugs at retail pharmacies, and the difference between the MCO payment to the PBM (SDUD) and the estimated pharmacy invoice cost (NADAC) is not a meaningful number that exists in the supply chain to represent spread.

⁷ ["Unit of Measure Inconsistencies in the Medicaid Prescription Drug Program."](#) Department of Health and Human Services Office of Inspector General. November 2007.

⁸ ["State Drug Utilization Data \(SDUD\) FAQs."](#) CMS Medicaid.gov.

Data Sources #3: NADAC does not accurately reflect acquisition costs for specialty drugs and specialty pharmacies

Specialty and mail-order pharmacies are excluded from the NADAC survey. Therefore, acquisition costs for specialty drugs in the NADAC survey do not represent the acquisition costs for most of the prescriptions dispensed for these drugs, which may be dispensed by specialty and mail-order pharmacies. So if a specialty drug is dispensed in a community retail facility, there might be a NADAC for it, but it may not represent a true acquisition cost because it wouldn't include the costs to the specialty and mail-order pharmacies, which may face different acquisition costs and receive different discounts. This may cause the reported NADAC value to be quite off.

HPC's Figure 7 lists the Top 20 drugs with the largest apparent "spread" per prescription for commercial payers in 4Q 2016. Fourteen of the Top 20 generic oral solid drugs are generic specialty drugs, so this limitation of the NADAC data may exert a significant impact on HPC's findings calling the study methodology even further into question.

C. Additional Comments

Comment #1: If a particular drug costs more, the MCO pays more, but not the state

Some may assume that states and taxpayers are "paying more" because of spread on a few drugs. The HPC report recognizes that this is not the case. The state pays the Medicaid MCOs a capitated rate. If the price of a drug is lower than the amount that the Medicaid MCO pays the PBM, the MCO is at risk for the additional cost, not the state.

Comment #2: Plan sponsors make decisions on PBM contracts based on the overall cost of the entire benefit plan

Analyses like the recent HPC report apply a "tunnel vision" approach to the costs of pharmacy benefits. Reimbursement formulas for a few generic drugs are only a small sliver of the overall picture. Plan sponsors make decisions on PBM contracts based on the overall costs, quality, and outcomes associated with the entire benefit plan. For example, in Massachusetts, generic oral solids, the focus of the HPC analysis, accounted for only 13% of total MCO drug reimbursement during their study period. Focusing on a sliver of one small component of spending is not uncovering gross market distortions.

Comment #3: In favor of the right types of transparency

PBMs support transparency for patients, physicians, and plan sponsors.⁹ However, both the CBO and the FTC have cautioned that disclosure of some contractually negotiated discounts could inadvertently increase costs. CBO has noted that disclosure requirements could allow firms to "observe the prices charged by their rivals, which could lead to reduced competition."¹⁰ According to CBO, the "disclosure of rebate data would probably cause the variation in rebates among purchasers to decline," leading to a "compression in rebates."¹¹ The FTC has warned that "whenever competitors know the actual prices charged by other firms, tacit collusion—and thus higher prices—may be more likely."¹² FTC concluded that PBM disclosure mandates could "undermine the ability of some consumers to obtain the pharmaceuticals and health insurance they need at a price they can afford."¹³

⁹ [The Right Transparency On Prescription Drug Costs](#). PCMA, April 2019.

¹⁰ "Increasing transparency in the pricing of health care services and pharmaceuticals," Congressional Budget Office, Jun. 5, 2008.

¹¹ Letter to Rep. Joe Barton and Rep. Jim McCrery, U.S. House of Representatives, Congressional Budget Office, Mar. 12, 2007.

¹² "Improving health care: a dose of competition," U.S. Federal Trade Commission and the U.S. Department of Justice, Jul. 2004.

¹³ Letter from FTC to Rep. Patrick T. McHenry, U.S. Congress, Jul. 15, 2005; Letter from FTC to Assemblyman Greg Aghazarian, California State Assembly, Sept. 3, 2004.

APPENDIX A: What is spread pricing?

Spread pricing is one of several contractual arrangements that exist between PBMs and plan sponsors. One expert on the pharmacy and PBM market describes “spread pricing” and “pass-through pricing” strategies as follows:

“Plan sponsors use one of two basic pricing approaches to compensate a PBM for plan administration and other services.

- *Spread pricing* – PBMs are compensated for their services in part by handling the flow of drug payments from plan sponsors to network pharmacies. With spread pricing, plan sponsors compensate the PBM by permitting the PBM to retain differences, or spreads between (a) the amount that a PBM charges to a plan sponsor and (b) the amount that the PBM pays to the pharmacy that dispenses the drug to a consumer.
- *Pass-through pricing* – Here the PBM provides all discounts, rebates, and other revenues to the plan sponsor. The PBM is paid via administrative fees. The plan sponsor pays directly for any services provided by the PBM, instead of having spreads cover these expenses.”¹⁴

Spread pricing contract designs use two different formulas for two different contracts:



1. The PBM contract with the plan sponsor may use a formula based on discounted AWP (e.g., AWP less x% plus dispensing fee). See below for more information on AWP.
2. The PBM contract with the pharmacy uses a reimbursement formula of “Maximum Allowable Cost (MAC) plus a dispensing fee” for generic drugs. MAC is a function of the Actual Acquisition Cost (AAC) for the pharmacy, across all versions of a given drug. See below for more information on MAC.

Because one formula is based on MAC, and the other formula is based on AWP, there can be a difference in the two reimbursements, which is referred to as “spread.”

Plan sponsors choose the structure of their contract with the PBM, and some choose the spread pricing model. Industry surveys of employer clients of PBMs have shown that more than one-third of clients have chosen spread pricing models for their PBM contracts during the past 5 years,¹⁵ and that number has been declining over time.³ PBMs also offer plan sponsor clients guaranteed discounts on drug ingredient costs, which are typically expressed as a percentage discount off of AWP. In 2018, 77% of employer clients reported a guaranteed discount from their PBM that applied to all generic medications, with an average retail AWP discount for 30-day generic prescriptions of 56%.¹⁶

¹⁴ “[2019 economic report on pharmacies and pharmacy benefit managers.](#)” Drug Channels Institute, March 2019.

¹⁵ Annual surveys, “[Trends in Drug Benefit Design](#),” 2015-2018. Pharmacy Benefit Management Institute.

¹⁶ “[2018 Trends in Drug Benefit Design.](#)” Pharmacy Benefit Management Institute.