

# PRICE VARIATION FOR CHEMOTHERAPY DRUGS IN MASSACHUSETTS

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## INTRODUCTION

Oncology drugs represent the highest drug expenditure by therapeutic class in both Massachusetts and the U.S., totaling \$700 million in Massachusetts in 2014, and growing 12.3% from 2013 to 2014. Spending on this class of drugs is expected to increase as innovation continues, with hundreds of late phase oncology therapies currently in the global pipeline.

Chemotherapy administered by injection (including by infusion) represents a predominant form of oncology drugs.

The Health Policy Commission (HPC) and others have extensively studied variation in prices in Massachusetts for inpatient, outpatient, and physician services, but studies to date have not focused on drug pricing. The HPC conducted this study to better understand price variation for drugs covered under a patient's medical benefit, which are reimbursed by commercial payers at payment rates negotiated between the payer and provider.

## OBJECTIVES

Given that oncology drugs comprise a large and growing share of drug spending, and extending prior HPC work on price variation, the HPC explored variation in prices and utilization of chemotherapy drugs to better understand the market for these drugs in Massachusetts and implications for spending.

This work also sought to inform the relationship in the medical drug market between commercial pricing and volume, as well as between commercial pricing and 340B status.

## STUDY DESIGN

- We analyzed injection chemotherapy drug claims in the Massachusetts All-Payer Claims Database (APCD) that were billed by Massachusetts hospitals in 2014.
- We identified the 10 injectable chemotherapy drugs with the highest unit volume in hospitals among two of the state's largest commercial payers,<sup>1,2</sup> and limited the sample to claims with an oncology-related primary diagnosis code.
- We compared utilization and unit prices for these drugs by hospital, and compared unit prices between 340B and non-340B hospitals.
- We examined reimbursement for the drug alone, excluding administration fees, in order to compare

the price of the same commodity in different settings. Because a single claim often includes multiple units of a drug administered at one time, and the number of units per claim can vary for the same drug, we compared variation in price per unit of the drug, rather than price per claim.

- The final data set consisted of 14,369 outpatient chemotherapy drug claims from 35 acute care hospitals in Massachusetts, including one cancer hospital. The claims accounted for 1,600,390 units of these drugs. The median price per claim across all hospitals was \$3,788. The median price per unit was \$22.62.

## RESULTS

- **There was substantial variation by hospital in the prices received from commercial payers for each of these drugs.**

For eight of the 10 drugs examined, the price per unit at the highest-priced hospital was more than double that of the lowest-priced hospital. Furthermore, volume was highly skewed towards the highest-priced hospitals. Across the 10 drugs, 45% of units administered were priced more than 20% above the median price per drug, and 39% of units administered were priced more than 50% above the median price per drug.

- **Higher-volume providers received higher prices.**

The two hospitals that billed the highest volume of these drugs consistently received the highest prices. For the 10 drugs examined, these two hospitals billed 54% of total units and 55% of claims. They received higher prices than any other hospital for four of the ten drugs, and were among the top five highest-priced hospitals for five of the other drugs. On average, the two hospitals' prices per unit were 70% and 90% higher than the median drug price, respectively. The variation in unit price translated into comparable variation in payment per claim. (Figure 1)

- **Reimbursing all drugs at the median price would have reduced spending by almost one-third.**

Spending for all claims in the sample totaled \$46.2 million. If all drugs were reimbursed at the median price, spending would have been reduced by approximately \$14.7 million, or 32%.

- **340B and non-340B hospitals received similar prices on average.**

Excluding the two high-priced outlier hospitals, neither of which had 340B status in 2014, we found that the 17 340B-eligible hospitals in the data set received similar prices as those received by the 16 non-340B hospitals. This suggests that 340B discounts on drug acquisition prices are not typically passed along to commercial payers and consumers. (Figure 2)

FIGURE 1: Variation in Hospital Chemotherapy Drug Unit Prices and Volume

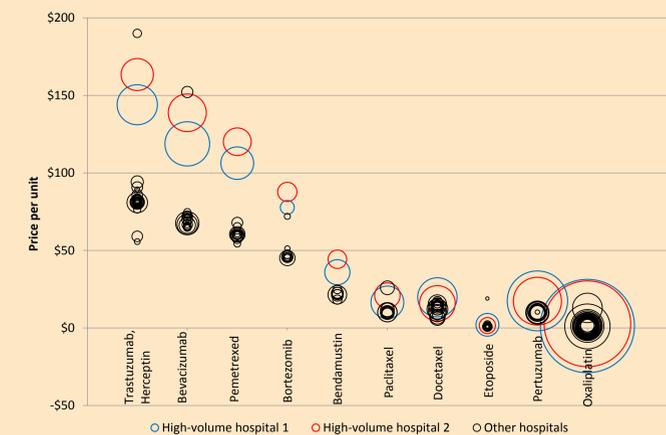


FIGURE 2: 340B and Non-340B Hospital Prices Per Unit



## CONCLUSIONS

We found that there is substantial variation in commercial hospital prices for the most frequently used injectable chemotherapy drugs, with the two consistently highest-priced providers billing a large share of the volume. This pattern is consistent with past HPC findings that service volume across a range of inpatient and outpatient services tends to be concentrated within higher-priced providers. It suggests that market leverage may allow higher-volume hospitals to obtain higher commercial prices for the same product.

The finding that 340B and non-340B hospitals receive similar prices for the drugs suggests that pricing is not directly related to acquisition cost. This suggests that consumers and commercial payers are not directly benefiting from the reduced acquisition costs available to 340B hospitals.

## IMPLICATIONS

These findings raise questions about what factors drive differential payment rates for chemotherapy drugs, and whether these differential payment rates contribute value to consumers seeking oncology care in Massachusetts.

As changes to Medicare Part B drug reimbursement and the 340B program continue to be debated at a Federal level, more transparency regarding hospital cost structures and use of the 340B program could also help public and private payers determine appropriate payment policies at a state level.

## CONTACT

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1. The 10 codes with the highest volume were J9033, J9035, J9041, J9171, J9181, J9263, J9264, J9305, J9306, and J9355.  
2. A third large payer and two hospitals were excluded from the data set due to coding anomalies.