Increases in Part B Drug Utilization at Enrolling 340B Hospitals

PREPARED BY:

Eleanor Blalock
eblalock@thinkbrg.com
202.480.2772

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Background

The 340B Drug Discount Program has expanded significantly in recent years. In 2017, 340B covered entities purchased more than $19 billion in drugs at the 340B price, representing 114 percent growth since 2014.[1] Against this backdrop, the program has come under increased scrutiny from legislators, government agencies, and independent researchers.[2]

In June 2015, the Government Accountability Office (GAO) observed that per-beneficiary spending at 340B Disproportionate Share Hospitals (DSH) exceeded spending at non-340B hospitals by a wide margin.[3] In summarizing its findings, GAO noted that the difference between Medicare reimbursement and the 340B acquisition cost creates a "… financial incentive at hospitals participating in the 340B program to prescribe more drugs or more expensive drugs to Medicare beneficiaries."[4] GAO noted that this incentive could have negative financial implications for Medicare and its beneficiaries. In March 2018, researchers at Milliman found that per-patient pharmacy spend at 340B hospitals exceeded spend at non-340B hospitals within the commercially insured population as well.[5]

Our study seeks to build upon the GAO and Milliman findings and explore whether hospitals that enroll in the 340B program exhibit increases in drug spend per beneficiary after enrolling. This study benchmarks changes in spending at 340B hospitals against a control group of non-340B hospitals to help ensure that perceived behavior changes are not simply the result of broader changes in the market (new therapies, inflation, etc.). Further, this study limits the beneficiaries analyzed at each enrolling 340B hospital to those seen at the 340B hospital before and after enrollment. In this way, the analysis focuses on actual changes in prescribing behavior at switching hospitals rather than a changing patient population.

Results

This analysis examines 379 DSH hospitals enrolling in the 340B program between January 2009 and January 2016. Using a combination of Medicare fee-for-service (FFS) hospital outpatient claims and US Health Resources and Services Administration (HRSA) Office of Pharmacy Affairs (OPA) data, we isolate those patients seen at least once at each "switching" hospital in the twelve months before and after 340B enrollment. Collectively, the analysis encompasses 1.9 million patients at enrolling 340B hospitals. For each switching hospital, we calculate average drug spend per patient in the twelve months before and after 340B enrollment, as well as the growth rate between the two periods.

Across the 379 switching hospitals, we calculate a weighted average increase in per-patient drug spend before and after enrollment, weighting by the number of patients analyzed at each hospital. The weighted average increase is **32.4%**, meaning that on average, patients at enrolling 340B hospitals saw their total drug spend increase by nearly a third in the year following the hospital's enrollment. To account for factors unrelated to 340B enrollment, we also calculate the increase in per-patient drug spend for a control group of patients seen at non-340B hospitals over the same period. Similar to the enrolling 340B hospital group, we also calculate a weighted average increase in drug spend across the control group at **13.4%**.

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1 Adam J. Fein, "Exclusive: The 340B Program Reached $19.3 Billion in 2017—As Hospitals' Charity Care Has Dropped" Drug Channels (May 7, 2018), accessed at: https://www.drugchannels.net/2018/05/exclusive-340b-program-reached-193.html

2 US Government Accountability Office (GAO), *Medicare Part B Drugs: Action Needed to Reduce Financial Incentives to Prescribe 340B Drugs at Participating Hospitals*, GAO-15-442 (June 2015), accessed at: http://www.gao.gov/assets/680/670676.pdf; Rena M. Conti and Meredith B. Rosenthal, "Pharmaceutical Policy Reform—Balancing Affordability with Incentives for Innovation," *N Engl J Med* 374:8 (February 25, 2016); GAO, *Drug Discount Program: Federal Oversight of Compliance at 340B Contract Pharmacies Needs Improvement*, GAO-18-480 (June 2018), accessed at: https://www.gao.gov/assets/700/692697.pdf; Susannah Luthi, "Senate Lays Groundwork for 340B Reporting Legislation," Modern Healthcare (March 15, 2018), accessed at: http://www.modernhealthcare.com/article/20180315/NEWS/180319937

3 GAO (2015).

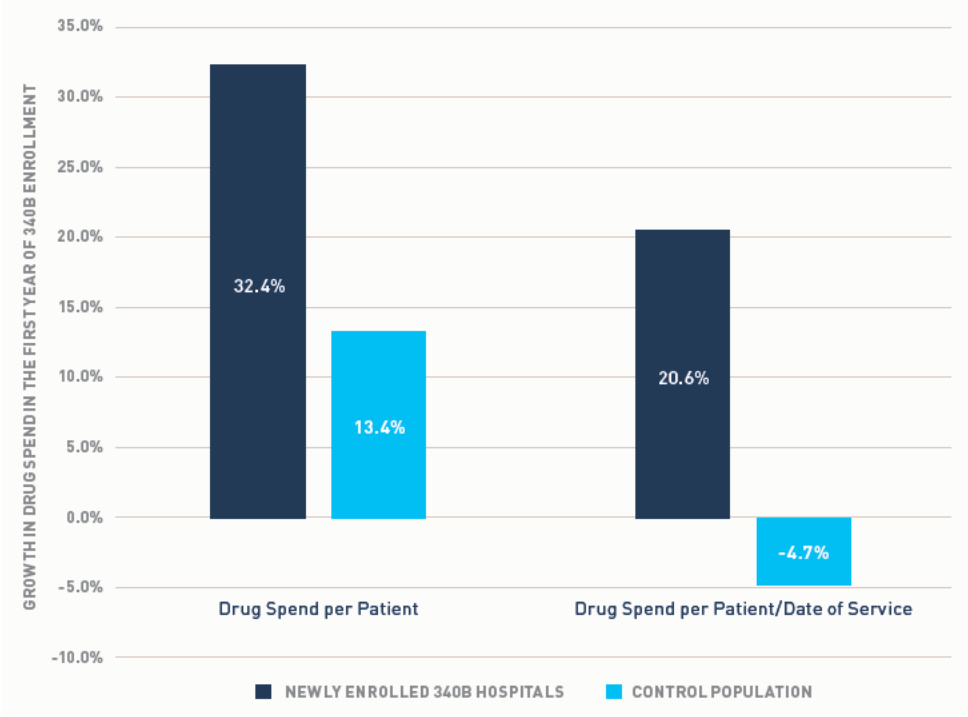
4 GAO (2015).

5 Michael T. Hunter, Jason Gomberg, and Carol Kim, *Commercial Payers Spend More on Hospital Outpatient Drugs at 340B Participating Hospitals*, Milliman white paper (March 2018), accessed at: http://www.milliman.com/uploadedFiles/insight/2018/commercial-payers-spend-more-hospital-outpatient-drugs-340B-hospitals.pdf

We repeat this same analysis (for the treatment and control groups) at the per-patient, per-date-of service level to account for patients who may have begun treatment at the hospital immediately prior to its 340B enrollment and thus have a shorter claims history in the pre-enrollment period. Per-patient, per-date-of-service drug spend increases by 20.6% for 340B hospitals in their first year of 340B enrollment as compared to the year prior. This compares to a *decrease* of 4.7% for the control group. Although the growth in drug spend is smaller for both the treatment and control groups when calculated on a per-date-of-service basis, the differential between 340B-enrolling hospitals and non-340B hospitals persists.

FIGURE 1:

Comparison of Growth in Drug Spend for Patients at Enrolling 340B Hospitals versus Control Group



We note that while not all enrolling 340B DSH hospitals increase their drug spend at a faster rate than non-340B hospitals, faster growth is the case for the majority of entities analyzed. Of enrolling 340B DSH hospitals, 63% have a growth rate at least two percentage points higher than the control group. No clear trends emerge from comparing the faster-growing 340B enrollees to the slower-growing enrollees. Both groups are equally likely to be teaching hospitals (33% of the faster growth group and 38% of the slower growth group) and equally likely to be located in an urban area[6] (74% of the faster growth group and 73% of the slower growth group). The slower growth group tends to be larger on average (current average annual outpatient revenue of $430 million for the faster-growing group compared to $533 million for the slower-growing group).

We also calculate average patient risk scores for the enrolling 340B hospital populations and the control group populations to assess whether the growth in drug spend at enrolling 340B hospitals could be due to a population growing sicker at a faster rate. Using the Charlson Comorbidity Index, a scoring methodology that predicts the likelihood of patient mortality based on diagnosed health conditions, we calculate an average risk score of 1.38 for the enrolling 340B population prior to 340B enrollment, increasing to 1.51 following 340B enrollment (increase of 9.9%). For the control population, we calculate an average risk score of 1.07 during the pre-enrollment period, growing to 1.18 following 340B enrollment (increase of 10.7%). Although, on an absolute basis, patient risk scores tend to be higher at enrolling 340B hospitals than at non-340B hospitals, they tend to grow faster at non-340B hospitals.

Last, we analyze the ratio of per-beneficiary Part B drug spending at the newly enrolled 340B hospitals as compared to control group hospitals (see table 1). The newly enrolled 340B hospitals have higher per-beneficiary spending than the control group even before joining the 340B program ($350 compared to $197, a difference of 77%). In percentage terms, the difference between per-person spending exceeds the difference in average risk score between the two populations (1.38 compared to 1.07, a difference of 29%). Even before enrolling in 340B, 340B hospital per-beneficiary spending exceeded that of the control group by an amount beyond what would be expected based on the differences in patient population. This suggests that the increase in drug spending following 340B enrollment is likely not a function of insufficient drug utilization prior to 340B enrollment.

TABLE 1:

Comparison of Growth in Drug Spend for Patients at Enrolling 340B Hospitals versus Control Group

Metric	Newly Enrolled 340B Hospitals	Control Population	Difference (%)
Average Risk Score Pre-Enrollment	1.38	1.07	29
Per-Beneficiary Drug Spend Pre-Enrollment	$349.5	$197.3	77
Average Risk Score Post-Enrollment	1.51	1.18	28
Per-Beneficiary Drug Spend Post-Enrollment	$440.5	$224.0	97

Conclusion

The results of this analysis suggest a behavior change in the prescribing of physician-administered drugs after a hospital enrolls in the 340B program. As noted by GAO and Milliman, the 340B program structure (in which providers retain the majority of the difference between payer/patient reimbursement and the discounted acquisition cost) may create incentives to use more expensive treatments, driving up program costs for taxpayers and Medicare beneficiaries.[7] Given that the patients analyzed in this study are Medicare Part B beneficiaries for whom drugs were reimbursed (during the period analyzed) at the average sales price (ASP) plus 6%, it is unlikely that the growth in drug spend is driven by prior affordability issues on the part of the hospital. We note that, while we have accounted for certain factors such as shift in site of care and innovation of new treatments that could cause drug spending to rise, other underlying factors may exist that contribute to the trend.

In 2018, the Medicare hospital outpatient prospective payment system reduced reimbursement for Part B 340B prescriptions from ASP plus 6% to ASP minus 22.5%. While this change reduces 340B hospitals' incentives to prescribe more medicines or more expensive medicines in order to increase their 340B profit, past analysis from BRG shows that the cut in reimbursement will still leave substantial profit opportunity for hospitals.[8] Specifically, the Medicare cuts do not directly change reimbursement from commercial or Medicare Advantage plans. Even within FFS Medicare Part B, profit opportunities for 340B hospitals remain. We therefore expect

6 Urban area defined by inclusion within a Metropolitan Statistical Area (MSA).

7 GAO (2015), Milliman (2018).

8 Aaron Vandervelde and Eleanor Blalock, *Site of Care Shift for Physician-Administered Drug Therapies*, BRG white paper (October 2017), accessed at: https://www.thinkbrg.com/media/publication/943_943_Vandervelde_Site-of-Care-Oct-16-2017_WEB_FINAL-2.pdf

that patterns similar to those shown in this report (and previously reported by GAO and Milliman) likely still exist.

Appendix: Methodology

To conduct the analyses presented in this report, we use the following data sets:

Medicare Outpatient Limited Data Set (LDS) for 2008 to 2016: These data sets provide 100% of Medicare FFS claims submitted by institutional outpatient providers. These data sets are used to:

- Identify patients visiting an enrolling 340B DSH hospitals in the twelve months before enrollment and the twelve months after enrollment
- Identify patients seen exclusively at non-340B hospitals over the same time period
- Calculate total Medicare payments and Medicare Beneficiary payments for drugs

OPA 340B Covered Entity Database: This database includes registration information for 340B covered entities, including the timing of the registration and the eligibility pathway (e.g., DSH hospital, Ryan White clinic, etc.) used for the registration. This database is used to identify 340B hospitals over time and distinguish between DSH, critical access, sole community, and freestanding cancer hospitals

Our analysis is limited to enrolling 340B DSH hospitals and excludes hospitals that changed entity type during their time enrolled in the program. We also exclude hospitals that left the 340B program less than a year after enrolling. Our control group excludes any hospital that was ever enrolled in the 340B program during the period from 2008 to 2015.

We define a patient visit as any claim within the Medicare Outpatient LDS with bill types beginning with "13" (outpatient hospital) or "85" (critical access hospital). Drug claim lines were defined as those with a Healthcare Common Procedure Coding System (HCPCS) code beginning with "J," "Q," "A," or "P" and Revenue Center Code 0636 ("Drugs requiring detailed coding"). To calculate spending for these drug claims, we include payments by Medicare as well as beneficiary coinsurance.

When calculating average drug spend before and after enrollment at 340B enrolling hospitals, we evaluate all hospital outpatient drug claims for a given patient rather than only drug claims at the enrolling 340B hospital. This is intended to address an observed dynamic where patient drug utilization shifts from a non-340B hospital to a 340B hospital within the same health system. This dynamic represents a shift in site of care rather than a true change in prescribing behavior, which was the focus of this analysis.

The results of this analysis suggest a behavior change in the prescribing of physician-administered drugs after a hospital enrolls in the 340B program.

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