



# Estimation of Hospital Share of Gross Profits for Physician-Administered Medicines Reimbursed by Commercial Insurers

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## Summary

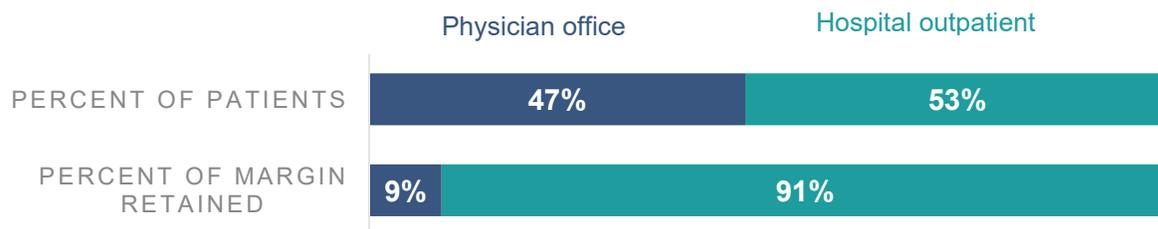
In the commercial market, hospitals retain a disproportionately large share of the gross profit margin in the supply chain for physician-administered medicines relative to physician offices. Hospital profit margins can also result in hospitals retaining more than the biopharmaceutical manufacturer.

## Background

Injectable and infused drugs—such as those for rheumatoid arthritis and oncology—are typically administered in an outpatient setting by physicians, either in a physician office or at a hospital outpatient clinic. Research indicates that commercial payers reimburse hospital clinics at a higher rate than physician offices.<sup>1,2</sup> Hospital clinics also are eligible for discounts not offered to physician practices, such as the 340B Drug Pricing Program.<sup>3</sup> Prior estimates of margins in the pharmaceutical supply chain do not disaggregate hospitals and independent physician practices. The aim of this analysis is to estimate the share of physician-administered medicine gross profits retained by hospitals in the commercial market using publicly-available data sources and transparent calculations.

## Results

**Physician offices and hospital clinics treat similar numbers of patients in the commercial market, but hospitals receive a larger share of the gross profits.** Hospitals collect 91% of the gross profit margin while serving 53% of patients receiving physician-administered medicines.



**Hospital clinics retain more than biopharmaceutical manufacturers for medicines administered in the outpatient setting.** For every \$100 spent on physician-administered medicines in the hospital outpatient setting, the hospital retains \$58, while the manufacturer receives less than \$42.<sup>4</sup> This suggests that hospitals are earning more from administering medicines than the manufacturers who created the medicines and is consistent with recent research published by the Moran Company, which found that in the commercial market hospitals retain 2.40 times their acquisition cost for a basket of 20 brand medicines.<sup>5,6</sup>



<sup>1</sup> Winn AN, Keating NL, Trogon JG, et al. Spending by Commercial Insurers on Chemotherapy Based on Site of Care, 2004-2014. *JAMA Oncol.* 2018;4(4):580. doi:10.1001/jamaoncol.2017.5544

<sup>2</sup> Kalidindi Y, Jung J, Feldman R. Differences in spending on provider-administered chemotherapy by site of care in Medicare. *Am J Manag Care.* 2018;24(7):328-333.

<sup>3</sup> Health Resources & Services Administration. 340B Drug Pricing Program. Available at: <https://www.hrsa.gov/opa/index.html>

<sup>4</sup> Other intermediary payments that reduce manufacturer retained amount (such as GPO administration fees) are not included in analysis making this estimate conservative.

<sup>5</sup> The Moran Company. Hospital Charges and Reimbursement for Drugs: 2019 Update Analysis of Markups Relative to Acquisition Cost. July 2019. Available at: <http://www.themorancompany.com/wp-content/uploads/2019/07/Hospital-Charges-Report-July-2019.pdf>

<sup>6</sup> The ratio reported by The Moran Company (2.40) indicates that for every \$1 of medicine spending in the hospital outpatient department, hospitals would retain 58.3%. Calculated as:  $[2.40 / (2.40 - 1.00)]$

## Methods and Calculations

The table below lists inputs used for the calculations.

Data Input	Base Case Value	Source
Profit margin on physician administered drugs – hospital outpatient department	1.40	Yu et al., 2018 <sup>7</sup>
Profit margin on physician administered drugs – physician office	0.16	Yu et al., 2018
Proportion of patients receiving care at a hospital outpatient department <sup>a</sup>	0.53	Magellan Rx, 2016 <sup>8</sup>
Proportion of patients receiving care at physician office	0.47	Magellan Rx, 2016

<sup>a</sup> Adjusted proportionally to account for 2% of patients receiving physician-administered medicines in the home setting.

The hospital share of total physician-administered margin was calculated as the ratio of the amount retained by hospitals to the total amount retained by providers.

$$\text{Hospital Share of Margin} = \frac{1.40 * 0.53}{[(1.40 * 0.53) + (0.16 * 0.47)]}$$

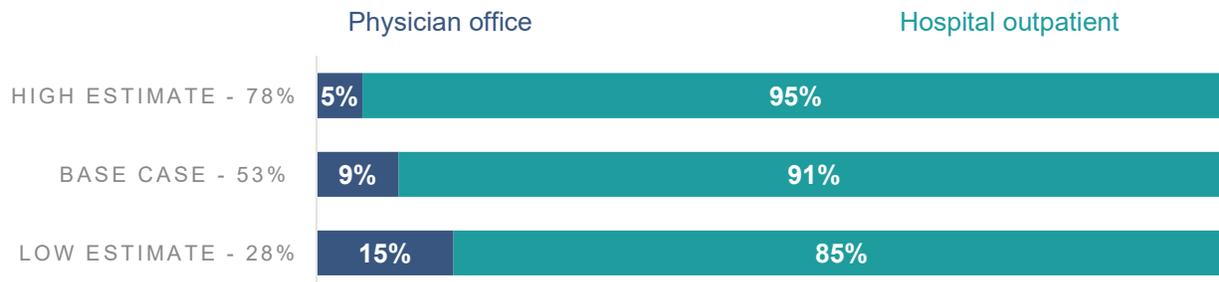
The hospital margin relative to the cost of medicine to hospitals was calculated as the ratio of the hospital markup to the total amount spent. As a note, this estimate is conservative as it ignores all other intermediaries and assumes manufacturers retain all other revenues.

$$\text{Hospital Share Relative to Cost of Medicine} = \frac{1.40}{[1.40 + 1.00]}$$

## Sensitivity Analyses

### Estimates are robust to changes in assumptions

**Percent of Margin Retained:** In the base case, results were calculated assuming that 52%, 46%, and 2% of patients received physician-administered drugs in a hospital outpatient clinic, in a physician office, and at home, respectively. A 25% change in the relative shares of office and clinic-based care would result in 85% to 95% of provider margins on physician-administered medicines retained by hospitals, compared to 91% in the base case.



<sup>7</sup> Yu NL, Atteberry P, Bach PB. Spending On Prescription Drugs In The US: Where Does All The Money Go? *Health Affairs*. <https://www.healthaffairs.org/doi/10.1377/hblog20180726.670593/full/>. Published July 31, 2018. Accessed March 27, 2019.

<sup>8</sup> Magellan Rx Management. Medical Pharmacy Trend Report. Seventh Edition (2016).

**Profit Margin:** In the base case, results were calculated assuming profit margins of 140% and 16% for drugs administered in hospitals and physician offices, respectively. A 25% change in hospital markup would result in \$51 to \$64 retained by hospitals for every \$100 spent on physician-administered drugs in the outpatient setting, compared with \$58 in the base case.

