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How Much Do U.S. Hospitals Spend on Medical Supplies?

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Abstract

What will you learn?

This note summarizes a recent published article by Yousef Abdulsalam and Eugene Schneller (2017). Supply expense is a substantial category of hospital costs, particularly for hospitals with complicated case mixes.[1]

What is the evidence?

Statistical study based on recent AHA data.

[1] Article summary prepared by Will Mitchell, University of Toronto.

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How Much Do U.S. Hospitals Spend on Hospital Supplies?

We know intuitively that hospitals spend a lot of money on supplies. But just how much is "a lot"? A recent publication by Yousef Abdulsalam and Eugene Schneller (2017) set out to answer this question. The results are important.

What Are Hospital Supplies?

The authors focus on tangible supplies, separate from labor and services required to manage supply chains. They use data from the American Hospital Association (AHA) Annual Survey for 2013. The data encompass all tangible expenses for goods and services, including freight, distribution costs, and sales tax. This measure covers all supplies, including medical supplies (about 60% of total supply expenses), plus pharmaceuticals, physician preference items, nonclinical supplies, and other relevant items. The authors also gathered data from supply chain executives at three large health systems to validate the measures, finding a very high correlation between the AHA survey and the hospitals' internal numbers.

How Much Do Hospitals Spend on Supply Expenses?

The study found that, indeed, supply expenses are substantial, both in magnitude and in share of total costs. In 2013, U.S. hospitals on average spent $3.8 million on supply expenses, with a median of $9.1 million. Supply expenses averaged 15 percent of total hospital expenses, with the middle 50 percent of hospitals ranging from 9 to 19 percent. The average patient admission required $4,470 of supply expenses. These are highly relevant costs.

The numbers ranged substantially by hospital specialty, correlating strongly with the case mix index. *Children's psychiatric* and *Rehabilitation* specialties were at the low end, with 5 percent ($1,095 per admission) and 6 percent shares of total expenses. *Surgical* and *Orthopedic* specialties were at the other end, with 36 percent ($17,566 per admission) and 34 percent shares. *General medical and surgical*, *Children's general and surgery*, and *Obstetrics and gynecology* were in the middle, with 11 to 16 percent shares. For 8 of 11 measured specialties,

supply expenses reached at least 10 percent of total expenses. The authors' full article provides tables with more detail. Again, in almost all cases, the supply expense numbers are substantial.

Why Does This Matter?

Clearly, managing such a large and diverse category of expenses is important for hospitals. Yet supply chains in health care are both complex and fragmented and complex, commonly lagging well behind other industries in how effectively they are managed (Schneller and Smeltzer, 2006; Landry, Beaulieu, and Roy, 2016). The scale of the expenses—and the strong pressure that hospitals face to control costs—underlines the need to seek improvements in managing hospital supply chains. With many hospitals having operating margins in the low single digits (Ellison, 2015), even a 10 percent reduction in hospital supply expense could significantly impact total net revenues. Supply spend is only part of the cost: a total cost of ownership analysis also captures maintenance, service and device-hospital interdependence.

References

Abdulsalam Y, Schneller ES. Hospital supply expenses: An important ingredient in health services research. *Medical Care Research and Review*. 2017; 1–13. https://doi.org/10.1177/1077558717719928. Published online July 24, 2017.

Ellison A. 200 Hospital benchmarks. *Becker's Hospital Review*. http://www.beckershospitalreview.com/lists/200-hospital-benchmarks-2015.html. Published Online September 29, 2015. Accessed Online March 3, 2017.

Landry S, Beaulieu M, Roy J. Strategy deployment in healthcare services: A case study approach. *Technological Forecasting & Social Change*. 2016; *113*(Pt B):429–437. doi:10.1016/j.techfore.2016.09.006

Schneller ES, Smeltzer LR. *Strategic Management of the Health Care Supply Chain* (1st ed.). San Francisco, CA: Jossey-Bass; 2006.

[1] Article summary prepared by Will Mitchell, University of Toronto.