Patient Contribution Margin:
Understanding the Path to Revenue Growth

University study quantifies the financial benefit of high-value patient transfers

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CentralLogic

For years, the financial benefit of a high-performing transfer center has been demonstrated in health systems nationwide: the ability to drive revenue growth by increasing referrals from a health system's potential service area and by retaining current patients who might have otherwise been transferred to other health systems when requiring more advanced or specialized care.

However, the question frequently arises: What is the dollar value of an incremental transferred or retained patient? The answer is vitally important to any health system that's considering an investment in staffing, infrastructure or transfer center technology.

Central Logic commissioned a study of the contribution margin per inpatient admitted through a hospital's transfer center. The intent was to provide a number that health system leaders could use to project the cumulative revenue impact and return on investment (ROI) for their own organization.

Research fueled by a comprehensive set of data

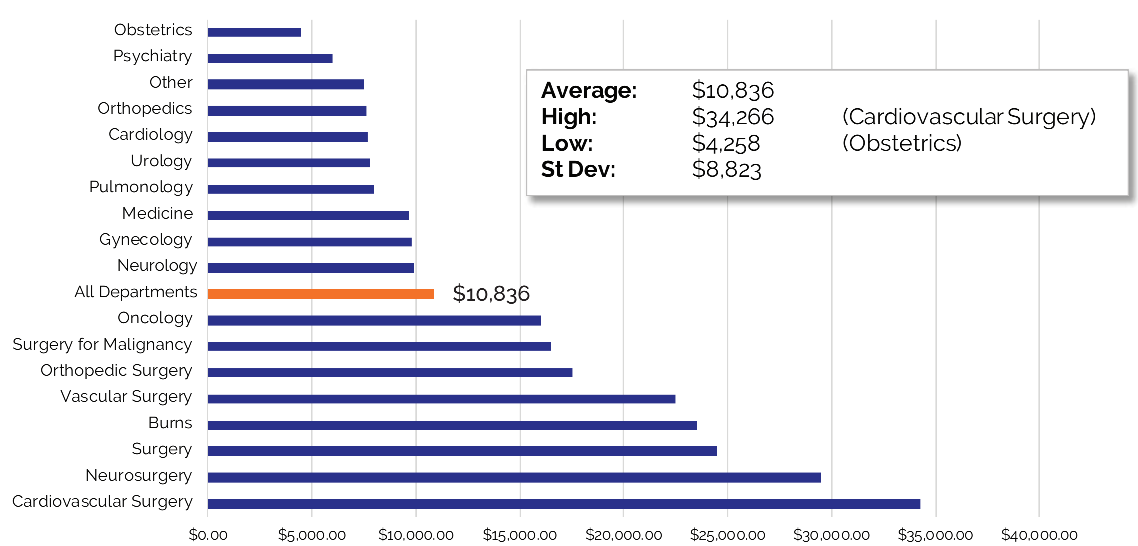
Researchers at the University of Utah David Eccles School of Business relied on nationwide data from a variety of sources, including AHA Hospital Statistics and AHRQ Online Database. Key inputs for their analysis included net patient revenue, hospital fixed and variable costs, and number of discharges by diagnosis-related group.

Key finding: $10,836 average contribution margin

On average, each additional patient generates $10,836 for health systems across the country, the research team concluded. Further analysis revealed substantial differences in contribution margin by state, with a range of $8,000 between the highest and lowest state averages. Other factors affecting actual contribution margin included payer mix, hospital department/ service line, and patient acuity.

The most significant variance was the $30,000 range in contribution margin by hospital department or service, from obstetrics at the low end ($4,258) to cardiovascular surgery at the high end ($34,266).

Contribution Margin by Hospital Department



Contribution margin calculations: 2014 AHRQ HCUP Data

Understanding the real-world financial implications

How should health system leaders interpret the University of Utah's research findings? And how does this translate to cumulative financial results and, ultimately, return on an organization's investment in its transfer center?

First, it's important to remember that an individual health system's per-patient contribution margin could be significantly higher or lower than the $10,836 national average, depending on the factors discussed above, as well as wide variations in how different health systems account for fixed and variable costs.

Secondly, while certain elements, such as geographic location, are not modifiable, health systems looking to increase the reach of their mission have an opportunity to focus their efforts on transferring patients to their centers of excellence. This targeted approach requires coordinated initiatives, such as aligning physicians and high value service lines within the organization, educating providers about the availability of these services, and marketing to consumers in the health system's service area.

Identifying **per-patient contribution margin is key to understanding the potential bottom-line impact and ROI of a transfer center.** The next step: determining how many patient admissions can be generated by a high-performing transfer center.

Calculating the cumulative impact

There are a number of possible methodologies for forecasting the number of transfers produced by a mature transfer center operating at an optimal level.

To arrive at a reliable answer, Central Logic examined national data from Becker's Hospital Review, coupled with information supplied by more than 500 Central Logic clients. Central Logic conducted its analysis independent of the University study.

On average, **transfer center activity accounted for about 22% of patient admissions** in these hospitals, all of which are using the Central Logic Transfer Center solution (with the other main admission sources being a hospital's own emergency department and scheduled procedures).

Central Logic applied this percentage to the hypothetical example of a 500-bed hospital. Based on the national average occupancy rate of 70% and a typical length of stay (LOS), a facility of this size would have about 2,275 patient admissions each month. Multiplying that number by 22% amounts to roughly 500 transfers per month.

A hospital with a mature, high-performing transfer center should be able to generate **one transfer per bed per month.**

But what if the hospital used in our example falls far short of its potential of 500 transfers per month, because its transfer center is underperforming (or nonexistent)? A logical response may be the establishment or enhancement of a transfer center with sufficient investments in staffing, process improvements, and technology.

If the hospital is capturing only 200 transfers per month, it's reasonable to expect an additional 300 transfers. Using the average per-patient contribution margin of $10,836, the **cumulative net impact would be $3.25 million monthly or $39 million annually.** Even if the number of additional transfers is half that (150), the numbers remain impressive: $1.6 million monthly or $19.5 million annually.

The other side of the equation—what it costs to implement and operate a high-performing transfer center—will vary from one organization to the next. However, the experiences of many health systems across the country point to a very strong ROI (5-10x and more) and ample justification for investing in the people, infrastructure, and technology necessary to operate a transfer center that consistently delivers on a health system's referral expectations.

Key takeaways

A high-performing transfer center can deliver numerous clinical, operational, and financial benefits to a health system. On the financial side, health system leaders want reasonable assurances that their transfer center will enable them to increase incoming patient transfers and yield a sufficient return on their investment. Based on University of Utah research, coupled with Central Logic's own analysis, the following conclusions can be made:

- On average, each additional patient represents a contribution margin of $10,836.
- To maximize contribution margin and ROI, transfer centers should focus on capturing patient volume in the highest margin service lines and extending the reach of their referral catchment area.
- A mature transfer center operating at optimal levels should be generating one transfer per bed per month or more.
- Based on the methodologies discussed in this document, a 500-bed hospital that captures 150 additional inpatient admissions per month will, on average, realize an incremental increase in contribution margin of $1.6 million monthly or $19.5 million annually.

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Request a no-obligation assessment and ROI analysis

Central Logic welcomes the opportunity to perform a no-charge assessment of your health system's current situation and an analysis of the ROI potential, along with the clinical and operational impacts, of transfer center technology.

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About Central Logic

Managing patient transfers is a life-saving endeavor. Central Logic is a pioneer in the space and was founded to support this mission. Our flexible, purpose-built solutions provide superior real-time visibility and unmatched business intelligence to optimize the operations of health system transfer centers. Clients count on Central Logic to deliver strong growth, find new ways to improve patient outcomes and make their operations more effective, today and into the future. Based in Utah, Central Logic is an industry leader with a 95% customer retention rate. The company has been named a "fastest growing private company" by both Inc. 500 and Utah Business Magazine. For more information, visit www.centrallogic.com.

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