

REDUCING INPATIENT LENGTH OF STAY: THE TIME HAS COME TO REVISIT THIS DISCARDED STRATEGY

by Greg Herrle, *Principal and Consulting Actuary*

Over the next several years, hospitals will experience increasing financial pressures and will find it extremely difficult to raise needed capital. In response to these pressures, successful hospital trustees and executives will proactively identify and implement operational and financial management strategies to reduce costs and increase margins. One such strategy is to lower inpatient lengths of stay.

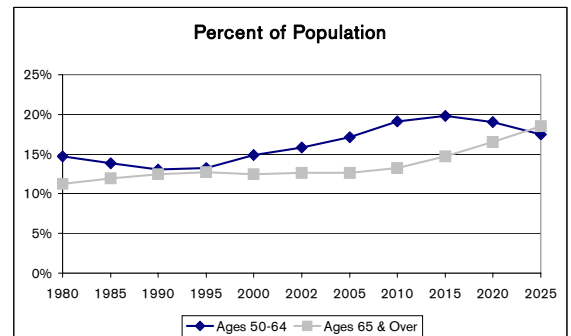
AN ERA OF RESTRICTED REVENUE, RISING COSTS AND TIGHTER CREDIT REQUIREMENTS

Record federal and state budget deficits will limit reimbursement increases from government programs. Escalating medical costs have created severe financial hardships for the business community making it far more difficult for hospitals to shift revenue shortfalls from government programs to the private sector. Frustrated employers are fighting back and are pressuring health plans to rein in costs. In response, health plans are introducing tiered hospital products and consumer driven health plans. These strategies will increase hospital bad debt and may encourage patients to avoid or postpone hospitalizations. The business community wants hospitals to demonstrate value and clamors for transparency. Hospitals that continue to employ the cost shift strategy may tarnish their public image and lose market share.

Hospitals also face severe cost pressures. Hospital trustees are faced with the difficult task of allocating scarce capital between replacing or expanding physical plant and enhancing information technology. Many hospitals suffer from aging physical plants at a time when expected

demographic shifts and relaxed managed care protocols have increased inpatient utilization. Table 1 illustrates the aging of the United States population. Assuming no other factors change (e.g. technology, medical management, care delivery patterns, etc.), this aging of the population is estimated to increase inpatient utilization by about 10% to 20% over the next 10 years to 20 years, respectively.

Table 1
Aging of the U.S. Population



Hospital technological capabilities are woefully behind most other industries and need to be upgraded since many hospitals support their clinical operations with pre-computer technology. The business community has made it clear, through initiatives like the Leapfrog Group, that it wants their employees to use hospitals with current digital technology.

Shortages of nurses, therapists, technologists and medical records personnel will also increase costs and make it difficult to staff additional bed capacity. The cost of complying with HIPAA's privacy and transactions and coding requirements adds to these cost pressures. It is inevitable that hospitals will need to raise capital at record

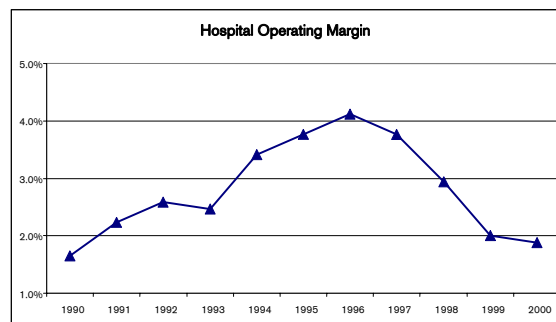
levels. In fact, hospital capital spending is expected to rise 14% annually over the next five years according to a recent survey by the Healthcare Financial Management Association.

Compounding these revenue and cost pressures, debt and equity creditors have tightened their underwriting requirements and are now demanding higher hospital margins and more detailed financial reporting.

Historically, hospital operating margins, as shown in Table 2, averaged about 2% to 4% of net revenues.

Hospitals now need margins of 4% to 6% to raise capital at an affordable cost and to finance their operational needs.

**Table 2
Historical Hospital Profit Margins**



Hospital executives must develop creative capacity-management strategies to facilitate better patient flow. Recent efforts to manage the hospital revenue cycle are helpful but not enough. Executives should re-visit another strategy to improve their margins: lowering inpatient lengths of stay.

The Business Case For Lowering Inpatient Lengths Of Stay

The question of whether lower lengths of stay actually reduce hospital costs has been debated for quite some time. Many hospital CFOs believe that length of stay has little impact on reducing costs and improving operating margins. I disagree.

The incentive for hospitals to lower length of stay began

with the advent of Medicare DRG reimbursement in 1983. This new reimbursement methodology spawned many coding initiatives designed to optimize revenue from the hospital industry's largest single payer. Many state Medicaid programs also use DRG reimbursement. Some hospitals viewed fixed DRG reimbursement as an incentive to lower lengths of stay, however over 20 years later, there is still tremendous variation in performance among hospitals and the performance of most hospitals is no where near the experience of best-practice hospitals. Moreover, length of stay and resource use can vary by two or three times among physicians at the same hospital. This practice variation is unacceptable to the business community, which views the minimization of variation as a key indicator of quality.

Table 3 shows the percentage of potentially avoidable Medicare acute inpatient hospital days in selected states. These potentially avoidable days are based on comparing the actual risk-adjusted experience of each hospital in the United States against benchmarks, by APR DRG, based on the actual experience of the best-forming hospitals. In aggregate, the best performing hospitals have about 15% to 20% potentially avoidable days, when measured across all their admissions (i.e., one hospital is not the best performer on each APR-DRG).

**Table 3
Percentage of Potentially Avoidable Medicare Acute Inpatient Hospital Days**

Arizona	26%	North Carolina	31%
California	34	Ohio	28
Florida	31	Oregon	22
Illinois	31	Pennsylvania	36
Massachusetts	40	Tennessee	33
Michigan	32	Texas	38
Minnesota	26	Utah	24
Nevada	38	Virginia	32
New Jersey	42	Washington	28
New York	47	Wisconsin	28
U.S. Average: 34%			
<small>Source: Milliman Hospital Efficiency IndexSM</small>			

The focus on reducing inpatient length of stay began in earnest in the 1990s when managed care companies discovered they could achieve significant cost savings by

reducing the average length of stay on their commercial group per diem hospital contracts. However, this length of stay reduction actually hurt hospitals in many situations. A significant portion of many hospitals' costs were fixed, most hospitals had excess capacity and the reduction in variable costs due to lower lengths of stay was less than the reduction in per diem revenue.

In today's environment, reducing length of stay now provides the opportunity to increase revenue, lower costs, reduce clinical variation, enhance quality and improve margins. Times have changed. Fixed per diem contracts are not as prevalent in many markets and many hospitals are operating at or near capacity. The decline of managed care utilization management and aging demographics has increased demand, which creates a need for more hospital beds. However, acute labor shortages will make it difficult to staff any added bed capacity. The business community is demanding a reduction in clinical practice variation as evidence of quality. Lowering length of stay, based on evidence-based guidelines, frees up capacity to increase admissions, increase revenue (e.g., another DRG payment or a reduction in denials) and improve quality by reducing practice variation.

GETTING THE JOB DONE

Based on our experience, hospitals that successfully lower their lengths of stay adopt a process with many of the following features:

- Identifying clinical and financial opportunities associated with current experience based on a comparison to best-practice benchmarks,
- Obtaining the commitment of senior management to support, encourage and reward change,
- Engaging physicians and hospital staff and identifying champions for change,
- Establishing baseline performance,
- Setting objective and measurable performance targets,

- Creating quality processes built on evidence-based, best-practice clinical processes adapted to local conditions,
- Measuring and reporting results on a timely basis, and
- Linking target achievement to financial rewards in a legally sound manner.

SUMMARY

During the next several years, hospital margins will be under extreme pressure and it will become even more difficult for hospitals to meet their capital needs. Hospital executives will need to develop creative strategies to increase their operating margins. Given today's environment, there are many reasons to include length of stay reduction as one of the core strategies.

Milliman's unique combination of experienced actuarial and clinical professionals combined with our leading edge tools such as the Milliman *Length of Stay Efficiency Index* and the *Care Guidelines*TM can be used to develop and implement a successful length of stay reduction program that:

- reduces costs,
- adds potential bed capacity,
- increases revenue,
- reduces denials,
- improves quality,
- reduces practice variation, and
- enhances the perception of the hospital in the market place.

Please contact your Milliman Consultant or Greg Herrle if you would like to learn more about this issue.

Greg Herrle is a Consulting Actuary with the Milwaukee Office of Milliman. He can be reached by calling +1 262 796.3435 or emailing greg.herrle@milliman.com.