Is your Hospital suffering from Capacity Disease?

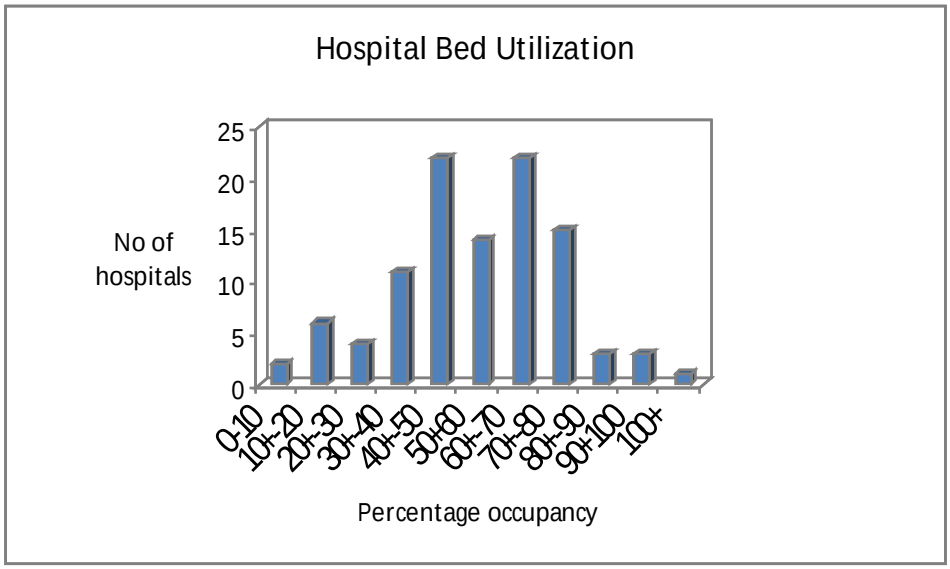
By Ernest Glad

Capacity disease is the non-utilization of capacity and a lot of hospitals may be ill with the "excess capacity" disease. This disease without proper treatment may cause suffering, maybe terminal and will be a continuous burden. It will cause structural damage to the financial well-being of a hospital as it continues to absorb financial resources and provide no outputs. Few organizations can operate indefinitely at unacceptably low capacity levels and hospitals are no exceptions. Excess capacity ingrains structural waste into the hospital costs and no matter how efficiently it operates, it may eventually lead to financial disaster and closure of the facility. Many a hospital has already died form this "disease" and often the cause was unknown to management or the community.

For example, Texas hospitals (100 – 300 beds) were used to analyse capacity utilization. This population contains 103 hospitals of which 40 were making losses based on latest available results. These "lossmakers" were compared to the other profitable hospitals (the "profitmakers").

The "lossmakers" had an average bed utilization of 51% compared to a 63% rate for the profitmakers. Loss makers were making gross revenues of $1.6m per bed per annum compared to the profit makers' $2m. Loss makers were reporting a 29% net patient margin (after deductibles) while profit makers reported 33%. Loss maker hospitals reported gross revenue of $5657 and profitmakers $5834 per Inpatient day. In total 5.4m patient bed days are available, in these specific Texas hospitals, of which, only 3.2m were utilized implying a surplus capacity of 2.2m bed days. What makes these low capacity figures worrying for Texas is that Texas as a state has generally had positive demographic growth in the last number of years.

Capacity Utilization of Texas hospitals:



Assuming the conceptual argument that capacity can largely be filled at marginal cost, there is an enormous opportunity cost in improving capacity utilization (or minimizing the capacity waste). Also assuming the argument that hospitals practically can only operate at about 90% capacity, this was used to determine an opportunity cost based on the reported margins and revenue per Inpatient day. Based on these numbers, the cost of wasted capacity is as follows:

	Current profit/loss	Wasted capacity	Potential profit
Loss makers	-223,790,000	1,186,500.000	863,121,000
Profit makers	693,379,000	2,309,062,000	3,002,993,000
Total	470,552,000	3,495,562,000	3,966,114,000

These figures, even though somewhat subjective, are staggering and have massive implications. It is logical to deduce that capacity utilization must be one of the biggest causes of low profitability in the hospital industry in Texas and is probably the major cause of financial failure.

Most hospitals can get out of the red by improving capacity utilization and generally the whole industry can improve returns dramatically. It appears as if low capacity utilization is endemic in the industry as only the top quartile of performers have a capacity utilization above 70% (and most of them are profitable).

The question can also be asked, "Why is capacity utilization is so low, and why does hospital costs continue to spiral upwards"? The answer to this is probably a result of aggressive expansion in the sector to offer so-called "full-service facilities" and also by patients gradually migrating away from hospitals with higher costs, even in some instances to foreign hospitals or possibly other states. Medical tourism has been in vogue in recent times and this situation offers an opportunity to possibly reverse the situation and attract patients to local hospitals (with attractive pricing).

Hospital treatment has changed dramatically in the last 20 years. Many more patients are treated as outpatients now and this ratio is consistently moving upwards. Currently 35% of patients are outpatients compared to about 15% 20 years ago. This trend will continue to put pressure on hospital utilization as it is already 50-60% for some hospitals.

Another factor that obviously has had an impact on capacity utilization is the drive to cut down length-of-stay (LOS). While LOS is commonly known to be a major driver of patient cost, it has now practically "engineered" the patient out of the hospital. With costs still continuing to spiral upwards, this has probably not had the desired effect with costs surfacing elsewhere in the form of higher complication costs as quality of care may have been impacted.

Competition is typically a "foreign" concept in hospitals and whether traditional hospitals like this or not, this will increase due to many more private clinics being opened and even other non-hospital players, such as Walmart, entering the fray with cheap and commoditized medical services. No doubt this will put more pressure on traditional hospitals and their capacity.

The bed utilization is simply one indicator of capacity in the hospital and utilization in individual departments may even be worse. Capacity problems may exist in operating rooms, laboratory or other facilities such as radiology and if the hospital capacity is not "balanced", bottlenecks in one area may seriously affect throughput and ultimately profitability. Anecdotal evidence exists about

very expensive equipment merely used a few hours a month. Most other organizations try and ensure a "balanced supply chain", clearly this should also be high priority for hospitals. Utilization rates of about 60% as evidenced in this study, however, indicates severe problems in the hospital supply chain.

Numerous new hospitals have been built in the State of Texas in the last few years, despite the massive surplus capacity. The government, communities and the private sector may need to seriously restrict the creation of new facilities in the future in order for population growth to catch up with available capacity. In the mean time, hospitals will have to look at non-conventional "traffic" or customers to fill capacity. In the mean time capacity waste will continue to chew away Hospital Funds.

The question is what can be done about the situation? Hospitals will have to approach this issue both strategically and operationally. It will seriously have to consider its pricing policies to see if a lowering in hospital prices can attract more patients. When prices are lowered by less than the incremental margin by patient, the bottom line will improve. Hospitals that operate below acceptable capacity may rather close and be used for other purposes than continue to operate an environment where it can not return to profitability, no matter how efficient they are. Hospitals, insurers, communities and the government must evaluate arguments that make economic sense for the well being of hospitals rather than be driven by political and one-sided arguments such as:

- All other hospitals offer this service, we should too
- Our community expect us to offer this service
- We can only attract certain doctors if we have these facilities
- Whatever the cost is we will find the money to operate this facility here, etc

The issue with the Capacity Disease is there is no ready thermometer or gauge that will tell hospital management what the impact of this is. Few hospitals operate costing systems that report cost of idle capacity or the opportunity cost around it. Capacity cost is a structural cost and few managers bother to consider this. Costing systems must be used to inform management and capacity modelling should be done to evaluate impacts. Without this, this disease will just continue to "eat away" at the body until it collapses like what has happened with many hospitals in recent times.

Can we end with a positive suggestion, solution or Steps for improvement?

Site source for data

About the Author

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