How To Quantify and Solve Health System Capacity Challenges?

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High hospital occupancy rates and demand that exceeds available resources are here to stay and will collapse health systems that don't make the right choices quickly.

Regardless of whether you manage inpatient beds, ED pods or clinical staffing, you are experiencing the pressure of how to do more with less (and this has been true for a while). Nothing in your near-term horizon indicates the mismatch between demand and capacity will disappear soon, but you have seen very few (if any) signals that the senior leadership at your organization has a plan to solve these issues.

A recent **piece** in Becker's Hospital Review gives an indication that capacity challenges finally made it onto the list of C-suite priorities for 2025. One can't help but wonder what took so long, albeit also feeling that ***'better late than never'*** is preferable to ***'too little, too late.'***

While the story of demand overwhelming acute care capacity has been the norm in the US since the COVID pandemic, it is worthwhile acknowledging most OECD countries have experienced shortages far longer. In the Becker's piece mentioned above, author **Laura Dryda** highlights the example of a pediatric hospital operating "at 110% [of] capacity most days, reaching 120% during peak times." Chief Medical Officers in Ontario, Chief Nursing Officers in most NHS Trusts, as well as Patient Flow Coordinators in New South Wales (to name but three out of many examples) could have quoted similar occupancy rates ten, fifteen or twenty years ago.

The US no longer being an international outlier in terms of hospital occupancy qualifies as interesting, while the persistence of demand levels that exceed capacity under current operating conditions can safely be considered a certainty. Nothing in the demographic analysis of the US patient population signals the return to hospital occupancy rates similar to those experienced before COVID. An aging and increasingly

multimorbid patient population guarantees overcrowded EDs and hospitalization units, unless two radical changes take place soon:

- De-localizing care away from the hospital setting whenever possible, which will take time,
- Understanding the causes of bottlenecks in inpatient throughput and solving the most blatantly inefficient processes that force everything else to slow down.

Both changes need to happen, but the second one will yield tangible benefits in less time and do much for the health and safety of frontline clinical teams. Going after quicker operational gains on throughput will ease the pressure currently felt in EDs and operating rooms all over the country. Aside from improving the financial situation of health systems that make these changes, it will also give credibility to C-suites devoted to longer-lasting strategic developments.

As promising as focusing on improving patient throughput is, it can only be done effectively within health systems that gain a clear understanding of what is broken within their processes and how to prioritize what to fix. I have experienced multiple improvement projects that were based on good intentions but were also hindered by the absence of disciplined and systematic root-cause analyses. Somewhat paradoxically, healthcare is far behind other industries when it comes to reliably diagnosing its own operational weaknesses. I have lost count of how many times I was called in to *'fix an underperforming ED'*, only to find that the ED was actually operating at optimal efficiency while also serving as the most painful symptom of a serious problem in that hospital's discharge process. The reality as reflected by data is counterintuitive more often than not.

Tackling patient throughput successfully does not hinge on getting more data. I'd be hard pressed to find a single hospital executive who doesn't have enough data. The most common source of frustration among them is that they are drowning in an ocean of information that makes no sense and cannot guide their actions. The solution depends on the maturity of their data analytics capabilities, evolving from the descriptive stage (where many health systems still are), through the diagnostic stage (where they understand why something happened) towards the predictive and prescriptive stages. Health systems that find the right partners for that journey will also differentiate themselves from those that struggle with capacity challenges.