

The case for adding empirical data

For example, a health system that is specifying facility comparison group criterion may use classifications such as:

- Major teaching status with Level I Trauma Center and Level 3 or 4 NICU
- Major teaching status with Case Mix Index <1.40
- Teaching status with 1.10-1.60 CMI & 4,000-22,000 discharges
- Non-teaching status with Level I Trauma
- Non-teaching status with 1.15-1.50 CMI, 175-275 Beds
- Non-teaching status 1.20-1.60 CMI and 1.50-2.30 IP/OP Adj. Factor

The result is a comparison group that includes only 20 to 40 hospitals. The scope of the criterion used to establish operational benchmarks does not account for all the factors that impact operational performance. Decisions based on the results of these comparisons may not accurately reflect the true picture of how hospitals or departments are functioning or uncover opportunities for improvement.

Monitoring operational performance is a never-ending task for health systems and hospitals. It is a critical process that directly impacts patient outcomes and level of care. Administrators must be able to understand the current status of their health system's performance as well as recognize emerging trends to accurately identify areas that are performing well or that are lagging.

Establishing the right benchmarks to evaluate overall performance across the entire system can be difficult and time-consuming. Services provided at hospitals can vary greatly depending on location, resources and patient mix. Each hospital within a system likely has a different mix of departments to meet patient care needs. Hospitals may also operate multiple instances of a given department, such as several surgical units or general medical unit services. Health systems need to compare performance on a fair basis that considers the varied make-up of all their facilities.

Comparison group method

To capture a complete and accurate picture of overall performance, health systems roll-up inputs from all points of care and administrative functions. Traditionally, differences between hospitals and departments have been handled by a method that uses client-defined comparison groups, where hospitals and departments are compared to peer groups that they have identified as having similar characteristics. The health system specifies what criteria to consider based on their knowledge, expertise and beliefs.

This approach has proven useful because it enables health systems to build comparison groups based on key priorities. But it may also produce small sample sizes and introduce redundant criteria and measures that are unrelated to required work effort and expense. As a result, important criteria that strongly relates to work effort and expenses may be omitted. Health systems can level the playing field by adding a set of operational benchmarks that extends comparison to larger groups and account for strongly related criteria.

Augmenting the comparison group method

When health systems only use self-defined criteria to identify peer hospitals or departments that have similar characteristics to set operational benchmarks, it is possible that data is left out of the evaluation that could improve confidence levels. As a result, important decisions about resource allocation are based on smaller sample sizes. By adding empirical data to the benchmarks, more factors are included that are essential to drive operational performance.

Determining what criterion to include in these comparison groups can be a time-consuming task for health system administrators, especially when the task requires making subjective decisions based on the experience and perspective a group has about what factors affect work effort and expenses.

Tightly defined comparison groups may be limiting because:

- Data about the characteristics and performance of departments in other hospitals is not always readily available.
- Finding a suitable comparison group can be difficult. Key characteristics may not be obvious, or there may be few facilities or departments which match all of the desired criteria.
- Even for the most common types of hospitals or departments, specifying just a few criteria can result in a small comparison group; sometimes too small to be statistically valid.

Fostering comparisons with all types of hospitals

Using the comparison group method can make it difficult to directly compare hospitals with differing characteristics because they are assigned to different comparison groups. However, many health systems are composed of many types of hospitals located in different settings and service areas. A health system may operate major teaching hospitals, community hospitals and critical access hospitals. Hospital locations may be in urban settings, inner-city neighborhoods, smaller cities or rural areas. Some may be disproportionate share hospitals.

Health systems need to be able to make performance evaluations between all facilities within their system. While the comparison group method is a valid approach, the industry standard adjustments by case-mix and area wage index are not adequate for this purpose.

Why fair comparisons are important

In the quest to assess performance based on operational benchmarks, results that rely on comparison groups that are too narrowly defined can result in unfair assessments. Improvement opportunities in hospitals or departments that would benefit from additional labor or other resources may not be revealed. Instead, the funds to increase staffing, make facility upgrades, provide more supplies or other steps are allocated elsewhere.

One mission, different approaches		
 <p>Hospital 1</p> <p>Maintains a Level 1 Trauma Center that requires 24-hour surgical services.</p>	 <p>Department 1</p> <p>High-volume cardiology department is able to spread fixed resources across a large number of services.</p>	 <p>Nursing Unit 1</p> <p>Subject to mandatory staffing requirements set by the state.</p>
 <p>Hospital 2</p> <p>Operates a high-volume surgical practice with privileges for surgeons from multiple practices.</p>	 <p>Department 2</p> <p>Lower-volume cardiology department has a higher cost per unit of services.</p>	 <p>Nursing Unit 2</p> <p>Not subject to mandatory staffing requirements.</p>

The goal of all health systems is to provide excellent healthcare and positive patient outcomes. But similar facilities or departments that should be included in comparison pools may be left out because of differences in required levels of resources to deliver the same services.

Empirical method equalizes results

Leveling the playing field can be accomplished by adding comparison group criterion constructed on evidence-based data. By employing an empirical method, health systems can uncover improvement opportunities across all hospitals and departments. The empirical method leverages multiple years of data to identify factors that impact resource demand in a manner that is similar to the risk and severity adjustment method utilized at the patient level when benchmarking clinical performance.

Hospital and department operational benchmarks are based only on factors and criterion that are empirically proven to impact required work effort and expense. Data from multiple years is validated, and only data that reveal consistent effects are retained. Empirically-derived benchmarks for every hospital and department are generated based on many more factors than is possible using the comparison group method. The database is normalized to reduce redundancy and improve the accuracy of the data.

A comprehensive approach

By adding an empirical method to operational benchmarking comparison groups, health systems can identify improvement opportunities in hospitals and departments based on validated data from facilities that provide similar services but have different characteristics within their own system and from a larger data set.

The result is a comprehensive, data-driven analysis base from which to develop strategic action plans and measure success.

For more information about operational benchmarks based on empirical methods, read “Key elements of the empirical operational benchmarking methodology”

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