Measuring Health System Efficiency in Low- and Middle-Income Countries: A Resource Guide

Why this resource guide?
One of the most common issues facing JLN country members is how to assess the efficient use of resources within their health care systems – a challenge that has been magnified by the COVID-19 pandemic and attendant fiscal constraints. While the main sources of inefficiency have been widely discussed in the literature, what is less available is a practical approach that policy makers can use to assess and address these inefficiencies. Traditional methods used by economists (for example, stochastic frontier analysis or data envelopment analysis) are often time consuming, data intensive, and require particular expertise. In addition, they do not necessarily identify the truly efficient behavior, nor do they help inform a process for improvement.

What is the focus of the guide?
This guide provides a general introduction to the concepts and principles of efficiency, highlighting some of the main sources of inefficiency in the health sector and why the health sector is more prone to such inefficiencies compared to other sectors. In particular, it focuses on “technical efficiency”, that is, inefficiencies that result from facility- or physician-level decisions linked to poor incentives or lack of accountability measures. Examples include unnecessary or inappropriate care, suboptimal quality of care or medical error, underuse of generic drugs, irrational use of drugs, or more nefarious behaviors such as fraud. In the absence of traditional efficiency metrics, it spells out a six-step process to pinpoint areas of inefficiency, stimulate dialogue, and identify the appropriate policy action. It includes several fact sheets meant to inform practitioners on how best to formulate and interpret indicators.

How was it developed?
The development of this guide and the final list of proposed indicators was the result of an iterative process between technical facilitators and country participants from 11 countries (Bangladesh, Ethiopia, Ghana, India, Indonesia, Kenya, Malaysia, Mongolia, Nigeria, Philippines, Vietnam) over a series of in-person meetings, webinars, and pilots to test out the validity and feasibility of the approach. The final product reflects the realities of many low- and middle-income countries in attempting to measure health system efficiency.


A BENCHMARKING PLUS APPROACH TO EFFICIENCY ANALYSIS

The most basic definition of efficiency is

OUTCOMES relative to INPUTS

MAXIMIZING

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There are two key characteristics of efficiency analysis:

1. **Efficiency requires information on both inputs and outcomes**
   - **If only inputs**, the analysis is a resource mapping exercise that answers the question “What resources do I have and how are they distributed?”
   - **If only outcomes**, the analysis is an effectiveness analysis that answers the question “Does this intervention work?” or “Is it doing what it is supposed to do?”
   - **Efficiency analysis** looks at both inputs and outcomes and answers the question “Are we achieving maximum benefits at cheapest cost given our resources?”

2. **Efficiency involves making a comparison**
   - Efficiency analysis attempts to explain the unexplained variation across accountable entities – that is why some individual providers, facilities, or health systems perform better than others.

   **Benchmarking makes a comparison based on average performance, relative to the best performer, relative to a clinical norm or target, or relative to past performance.**

   **Inefficiencies can occur at any point in the results chain which transforms inputs into outcomes**

   **The ‘plus’ in benchmarking plus…**
   - Benchmarking is helpful at detecting emerging issues such as stagnating outcomes, outliers, or significant changes from one period to the next. However, on its own, it is not enough.
   - As specific issues emerge, additional indicators and key informant interviews may be necessary to better understand whether an issue is truly an inefficiency or not.

   **…allows more actionable policy recommendations**
   - Policy makers have a range of policy levers to influence the behavior of accountable entities. Together, they affect how resources are allocated to different goods and services and how inputs are used to produce a given set of goods and services.