The Three-Gap Model of Health Worker Performance

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Fabliha Ibnat
University of Maryland College Park

Kenneth Leonard
University of Maryland

✉ kenneth@umd.edu *Corresponding Author*
ORCID: <https://orcid.org/0000-0002-0785-7774>

Luke Bawo
Ministry of Health and Social Welfare

Rianna Mohammed-Roberts
World Bank

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Abstract

Background: Improving process quality remains a significant opportunity to improve outcomes in many low resource settings, however a continued focus on improving knowledge through increased training has proven ineffective. In this context, we introduce a methodology for diagnosing the causes of low quality care, including not only low knowledge, but also infrastructure and material as well as motivation.

Methods: The Three-Gap Model uses four measures of performance — target performance, actual performance, the capacity to perform and the knowledge to perform — to define three gaps for each health worker: the gap between target performance and what they have the knowledge to do (the know gap); the gap between their knowledge and their capacity to perform (the know-can gap) and the gap between their capacity and what they actually do (the can-do gap).

Results: Using data on pediatric care from hospitals in Liberia, we illustrate how the model can be used to investigate the potential for improvements in the quality of care from several possible policy interventions

Conclusions: The analysis of the relationships between these gaps across health workers in a health system help to paint a better picture of the determinants of performance and can assist policymakers in choosing relevant policies to improve health worker performance.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed.

However, the manuscript can be downloaded and accessed as a PDF.

Figures

Figure 1

The Three-Gap model in pediatric hospital care, Liberia The relationship shown as dashed lines is derived from non-parametric representation of each health worker in the respective two-dimensional spaces. We used locally-weighted kernel regression with a bandwidth of 10 percentage points and the Epanechnikov kernel. Graph 1 shows the relationship between capacity (Can) and Performance (Do) and the translated levels of knowledge to perform, capacity to perform and performance which demonstrate the know gap, the know-can gap and the can-do gap. Graph 2 shows the relationship between knowledge and performance, Graph 3 shows the relationship between knowledge and capacity and Graph 4 serves as a “reflector” for capacity, shifting it from the vertical to the horizontal axis.

Figure 2

The Three-Gap Framework with multiple types of motivation The relationship between capacity and performance is shown for two virtual experiments. Panel A compares those who have a score at or above the 90th percentile for facility values worker (the dotted line) to those who have a score at or below the 25th percentile for the same measure (the solid line). Panel B compares those who have a score at or above the 90th percentile for positive worker behavior (the dotted line) to those who have a score at or below the 25th percentile for the same measure (the solid line).