Efficiency analysis of Advanced Medical Centers in Burkina Faso

Abstract

Introduction

Burkina Faso faces many challenges in the health domain with no real opportunity for an increase in public health expenditures. As in all low-income countries, health spending efficiency is crucial. The objective of this paper is to assess the efficiency of Advanced Medical Center (AMCs) – which correspond to district hospitals - in Burkina Faso over the 2017-2020 period and to identify the factors that spur, or on the contrary, limit the efficiency of these health structures.

Method

We first assess the efficiency level of the 45 AMCs running in the country between 2017 and 2020 using a bootstrap Data Envelopment Analysis (DEA) methodology. Inputs include the number of doctors, nurses, other medical staff, non-medical staff, and beds while output variables correspond to the number of inpatients, surgeries, outpatients, and inpatient days. In a second step, determinants of AMC's efficiency levels are explored using a double bootstrap procedure. The role of both AMCs' internal and environmental factors is considered.

Results

We found a mean efficiency score of 0.51 over the study period, indicating that AMCs could have almost doubled their healthcare production without additional resources. The size, education level, and health status of the covered population and the density of the healthcare supply in the district appeared as the driving factors of AMCs' efficiency.

Conclusion

Our results indicated that improving the efficiency of AMCs is a high-level priority for the Burkinabe health policy. Resources reallocation across AMCs could be operated to increase the overall efficiency of the health system.