

The Technical Efficiency and Total Factor Productivity Growth of Health Systems in African Least Developed Countries 2008 -2018

Abstract

Although 20–40% of health spending globally is wasted, the magnitude of this wastage in African Least Developed Countries (African LDCs) is unknown. The objective of this study is to examine the technical efficiency and total factor productivity growth of health systems in 29 African LDCs over the 2008-2018 period. Using data from the WHO, World Bank, and UNESCO, the non-parametric Data Envelopment Analysis is used to assess the technical efficiency of health systems; the random effects Tobit model is adopted to ascertain the determinants of the technical efficiency of health systems; and the Data Envelopment Analysis-based Malmquist productivity index is used to establish the total factor productivity growth of the health systems. The results indicate variations in the technical efficiency of health systems of African LDCs. The reduction in technical efficiency is attributed to political stability, voice and accountability, gross secondary school enrollment, unemployment and the prevalence of HIV/AIDS. However, the improvement in technical efficiency is attributed to regulatory quality, gross national income, and the adult literacy rate. There is also progress in the total factor productivity growth of health systems in African LDCs, which is mainly due to an increase in technical efficiency rather than technological change. Thus, African LDCs that have technically inefficient health systems and are demonstrating regress in the total factor productivity growth of their health systems need to benchmark on the African LDCs that have technically efficient health systems and those whose health systems are demonstrating progress in the total factor productivity growth. African LDCs need to improve political stability, voice, and accountability; improve the quality of education; create employment

and strengthen measures to fight HIV/AIDS. They also need to improve their level of technology to witness adequate progress in the total factor productivity growth of their health systems.