











Health facility capacity and technical efficiency in the provision of adolescent sexual and reproductive health (ASRH) services in Niger

Nassirou Ibrahim^{1,2,*}, Roxane Borgès Da Silva¹ Irene Akua Agyepong³ Jacob Novignon⁴ and Tim Ensor⁵

Background:

- Efficiency in the use of resources for ASRH services can affect policy implementation in resource-constrained contexts of developing countries and capacity to lead and manage facilities can potentially influence efficiency.
- However, very few studies have been conducted to understand this situation.

Objectives:

- To estimate technical efficiency primary health care (PHC) facilities that offer ASRH services in Niger
- To explore the relationship between the capacity of health facilities and their level of technical efficiency.

Methods:

 Data: Cross-sectional survey of 71 PHC facilities providing ASRH services in Niger in 2022.

First stage analysis

- Model: Stochastic Frontier Analysis with a Cobb-Douglas specification.
- Outputs: Number of ASRH consultations.
- Inputs: Number of providers trained in ASRH; amount of equipment for ASRH services; number of condoms available; number of pills available; number of injectable available.

Second stage analysis

- PHC capacity variable (i) operational (ii) managerial (iii) adaptive and (iv) leadership.
- Multiple correspondence analysis was used to generate the level of capacity for each of the four dimensions and a composite variable for the level of health facility capacity.
- Model: Tobit regression

Findings:

The average technical efficiency score of health facilities offering ASRH products and services was 58%. In other words, given available resources, additional 42% of adolescents SRH consultations could have been provided with efficient resource use.

Disaggregated analysis revealed that the average score was greater in health facilities where a woman was the primary in charge (60%) compared to where the primary in charge was a man (53%).

Our estimation confirmed a positive association between health facility capacities and the technical efficiency score. However, the levels of association differed from one dimension of facility capacity to another.

Recommendations

- Strengthening the capacity of health facilities in terms of resource utilisation and leadership would enhance their ability to use available resources to provide the maximum number of SRH services to adolescents.
- Additionally, improving the efficient use of health facilities that provide ASRH services requires giving women more responsibility for these facilities.

¹Ecole de Santé publique de l'Université de Montréal (ESPUM), Montréal, Canada. ²Laboratoire d'études et de recherches sur les dynamiques sociales et le développement local (LASDEL), Niamey, Niger. ³Ghana College of Physicians and Surgeons, Accra, Ghana. ⁴Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. ⁵University of Leeds, Leeds, United Kingdom. *Information contact: ibrahim.nassirou@gmail.com