The Impact of Fee-for-Service Schemes on Health Service Utilization in the Democratic Republic of Congo

Researchers:

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Sector(s): Health, Political Economy and Governance

Location: Haut-Katanga, DRC

Sample: 152 health facilities in 96 sub-districts

Target group: Health care providers

Outcome of interest: Transparency and accountability Service provider performance

Intervention type: Monetary incentives

AEA RCT registration number: AEARCTR-0000386

Notes: This evaluation was started while Juliette Seban was a staff member at J-PAL.

Partner organization(s): Government of the Democratic Republic of the Congo, Health Authorities of Haut-Katanga, World Bank

While many developed and developing countries have implemented performance-based payments to improve health worker efficiency and therefore health service utilization, there is limited evidence of the impact of such efforts. Researchers tested a fee-for-service scheme, a type of performance pay, at health facilities in the Democratic Republic of Congo to evaluate its impact on health service utilization. While fee-for-service facilities invested more effort in attracting patients, this increase did not translate into higher levels of service utilization or better health outcomes. Additionally, health workers in fee-for-service facilities became less intrinsically motivated and less satisfied with their jobs compared to their counterparts in fixed payment facilities.

Policy issue

In an effort to increase the utilization of available health services, improve health outcomes, and increase the effort and output of healthcare providers, many developed and developing countries have turned to performance-based payment schemes, which tie health worker payments to either the volume or quality of services. Performance-based payments could increase public health service utilization by rewarding and therefore reinforcing health workers' efforts to increase demand for healthcare. On the other hand, performance-based payments could also have negative effects if, for example, health workers focus on providing a set of targeted services and reduce their attention to non-targeted services. Additionally, performance-based payments may not be effective if health workers are not equipped to identify successful strategies to increase demand for their services. Rigorous research is needed to better understand whether performance-based payment schemes can improve the utilization of public health services.

Context of the evaluation

The Democratic Republic of Congo (DRC) has the fourth largest population in Africa, with 66 million people at the start of 2012, and is one of the poorest countries in the world. The country had an estimated per capita income of US$220 in 2012.

The Haut-Katanga district has poor health status, quality of health services, and utilization of health services. In a baseline survey conducted in 2009, researchers found that 29 percent of births that had occurred over the previous year took place outside a formal health facility, 24 percent of mothers did not attend a prenatal care visit during their most recent pregnancy, and 72 percent of mothers did not visit a health facility following childbirth. Only 12 percent of children under five years had an immunization card. Local health facilities often suffered from inadequate water and electricity infrastructure, and some lacked basic medical equipment such as scales or examining tables. Health workers at these facilities saw approximately seven patients per working day, indicating that they were not overworked. About 30 percent of these health workers had a job in addition to their position as a health worker.



A health worker with a patient.

Photo: Thomas Chupein, J-PAL/IPA

Details of the intervention

Researchers partnered with health authorities and the local government in the Haut-Katanga district of the DRC to evaluate the effect of a fee-for-service scheme on health worker performance and health service utilization. They randomly assigned 96 sub-districts encompassing 152 health facilities and nearly 1.3 million people to one of two payment systems: fixed payment or fee-for-service. The fixed payment group served as the comparison group in the intervention.

In the sub-districts assigned to the fixed payment system, health facilities received funding based on their number of staff, commensurate with their staff's experience levels. In the fee-for-service sub-districts, health facilities received payments based on their volume of service provision in seven target areas at the primary care level and three additional areas at the secondary care level. The targeted services at the primary care level included: outpatient first curative consultations, prenatal consultations, deliveries, obstetric referrals, children completely vaccinated, tetanus toxoid vaccinations, and family planning consultations. The targeted services at the secondary care level included C-sections, blood transfusions, and obstetric referrals to hospitals.

Researchers measured the number of services provided and used, health outcomes, health facility revenue, worker attendance, and motivation of workers. They used administrative data from 2010 to 2012, and qualitative interviews, random checks, and an end line survey all conducted in 2012 and/or 2013.

Results and policy lessons

Overall, while fee-for-service facilities invested more effort in attracting patients, this increase did not translate into higher levels of service utilization or better health outcomes. Additionally, health workers in fee-for-service facilities became less intrinsically motivated and less satisfied with their jobs compared to their counterparts in fixed payment facilities.

Health Service Utilization: Overall health service utilization decreased in fee-for-service areas, measured by visits to a health facility in the last twelve months, by 6 percentage points relative to a base of 50 percent in fixed payment sub-districts (a 12 percent decrease). This reduction in overall service utilization occurred in spite of lower prices for targeted services in fee-for-service areas than fixed payment areas. Researchers hypothesize that utilization decreased with price because the less expensive services may have unintentionally signaled a decrease in service quality for patients.

The decrease in utilization was driven by curative and prenatal services: visits to a clinic dropped in the fee-for-service group by 5 percentage points for sick people relative to a base of 62 percent utilization in fixed payment areas (an 8 percent decrease) and by almost half a visit per woman for prenatal visits.

Fee-for-service had no impact on utilization for other services such as child immunization, attended delivery, postnatal services, and family planning.

Population Health Status: The average weight-for-age of children ages 0-5 decreased by 0.16 standard deviations compared to the average weight-for-age of children from fixed payment clinics. This may be due to the decrease in prenatal care utilization seen in fee-for-service areas.

Health Facility Revenue: Due to decreases in both service utilization and pricing, health facility revenue in fee-for-service clinics was half that of revenue in the fixed payment clinics. This decrease in revenue had a substantial negative impact on the quality and quantity of health facilities' infrastructure and equipment as well as on health workers' salaries.

Staff Effort, Well-Being, and Motivation: Overall, health workers at facilities with fee-for-service payments invested more effort in providing the seven targeted services, and this increase in effort did not come at the expense of lower effort on non-targeted services. These health workers' attendance increased by 14 percentage points relative to a base of 58 percent attendance in the fixed payment group (a 24 percent increase). Similarly, community visits for targeted services by health workers increased by 60 percent in the fee-for-service group compared to the fixed payment group.

However, staff at fee-for-service facilities were less satisfied with their jobs relative to those at fixed payment facilities, perhaps due to decreased revenue. Health workers at fee-for-service facilities were also more extrinsically and less intrinsically motivated: they were more likely to emphasize the material returns (as opposed to social recognition or health benefits) of their work compared to staff at fixed payment facilities.

Overall, results from this study suggest that while financial incentives such as fee-for-service schemes could increase health workers' efforts, increased efforts may not result in increased service utilization or improved health outcomes. In this case, the

incentivized health workers' increased efforts focused largely on affordability and publicity, which were not effective methods of increasing utilization and therefore did not affect health outcomes. Fee-for-service schemes are thus likely ineffective in situations where health workers are unable to determine which factors positively affect demand for health services.

Huillery, Elise, and Juliette Seban. "Financial Incentives are Counterproductive in Non-Profit Sectors: Evidence from a Health Experiment." Working Paper, June 2015.