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**Effect of supply-side and demand-side financial incentives on utilization of maternal and newborn care in rural Malawi**

Promotionsfach: Public Health

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I conducted a study that aimed at assessing the effect of financial incentives on the use of maternal and newborn care in Malawi. With a background of high maternal and newborn mortality, the Ministry of Health implemented an intervention that combined supply-side and demand-side incentives in four districts between 2013 and 2015. The aim of the intervention was to improve the quality of care and encourage more women to use it. On the supply-side, the intervention upgraded health facilities by conducting facility renovations. Secondly, the intervention provided performance based financing (PBF) incentives to providers for achieving a given set of targets. On the demand-side, the intervention provided conditional (CCTs) to women who delivered at a health facility. The intervention, the Results-Based Financing for Maternal and Newborn Health (RBF4MNH) was started in 2013 with 18 facilities. In 2014, the RBF4MNH was scaled –up to ten more facilities making a total of 28 facilities.

We designed a quasi-experimental pretest posttest with independent controls impact evaluation study to measure the effect of the intervention on the use of targeted services such as use of facility-based delivery service and the use of non-targeted services such as use of ANC and PNC. I used DID estimation to measure the impact. Moreover, an analysis was conducted to understand migration behaviour from control-catchment areas to seek care at intervention facilities. I also measured the impact of the intervention on household OOP expenditures incurred for using the different services. An analysis of barriers to facility-based delivery was conducted before the inception of the intervention to understand factors that prohibited women from using care so as to inform the impact evaluation. Lastly, we analyzed the efficacy of the CCTs.

The study found that the RBF4MNH had no effect on use of facility-based delivery but had a minimal effect on 48-hour stay at a health facility postpartum. The study further observed that at midterm there was substantial migration of women from control-facility-catchment areas to intervention facilities seeking care. Stratified analysis by district, distance to facility, and socio-economic status yielded similar results to the overall results. Even after adjusting for migration, the sensitivity analysis found similar results. On impact on OOP expenditure, the study found no effect on the probability of incurring expenditure for using facility-based delivery and also using of ANC. However, there was a negative impact on the likelihood of incurring OOP expenditures for use of PNC services at midterm. The study further observed that, before the intervention was rolled out, women who were unmarried were more likely to deliver outside a facility, while women from households with higher SES and residing in urban areas were less likely to deliver outside a facility.

Of those women who were living in catchment areas of intervention facilities and who delivered at the intervention facilities, about half got registered to received CCTs and of these, 74% actually received the incentives. Those women who were from urban areas, whose household head was someone else (not themselves nor their husbands), least poor, were living far away from the facility, or were living in Dedza, Mchinji, and Ntcheu, were less likely to register for the incentives. And those women who were living in urban areas and from Dedza and Mchinji districts received relatively lower amounts of money.