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Can Performance Based Financing Improve Quality of Healthcare in Nigeria?

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Introduction

- Performance based financing (PBF) also known as results based financing (RBF) schemes are increasingly adopted in many low and middle-income countries (LMICs) to improve health services across different contexts and different clinical areas
- RBF is a system of health financing that employs the transfer of money or/and material goods conditional on taking a measurable action or achieving a predetermined goal (Eichler, 2006).

Models

- **Supply side RBF/PBF (payment of incentives to healthcare providers)**
- Demand side RBF (with no supply component e.g. Conditional cash transfers/voucher schemes)
- Demand side RBF (with a supply component)

How PBF works

--A strategy to improve health care delivery that relies on the use of market or purchaser power using financial incentives that reward providers for the achievement of a range of objectives, including delivery efficiencies, submission of data, and improved quality and patient safety (McNamara, 2006)

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Evidence

- **Mixed results**- Systematic reviews and primary studies show mixed results: improves some indicators but not others e.g. Rwanda. Also no evidence of effectiveness in Uganda (Van herck et al., 2010; Witter et al., 2013; Ssenoogba et al., 2012; Basinga et al., 2011)
- Effectiveness **likely dependent on design features, contexts, and implementation factors** (Van herck et al., 2012, Ogundeji et al. 2016)
- Poor evaluations studies **(lack of adequate/convincing controls**) especially in developing countries (Witter et al., 2013)-evidence suggests such evaluations are likely to show **exaggerated positive** effects (Ogundeji et al., 2016)
- Sparse evidence on cost effectiveness-heavy investments but what is the **Value for money**???
  - Unanswered questions about financial sustainability and sustainability of effect

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Context: the Nigerian journey

- A Large scale PBF scheme also known as the Nigerian State Health Investment Project **(NSHIP)** through a **World Bank Credit (150 million USD)** was implemented by the National Primary Health Care Development Agency **(NPHCDA) as a 6 year pilot scheme** starting 2012 in 3 States (Adamawa, Ondo, and Nasarawa)
- Implementation was in response to accelerating the rate of meeting the health related MDGs (now SDGs) targets, particularly **maternal, child and other primary health care services**
  - *Nigeria has widely documented poor Maternal and child health outcomes and low utilization rates (MMR-567 per 100,000 births, U5 mortality-128 per 1000, institutional deliveries-36%, SBA-38%) (NDHS, 2013)*
  - *Core challenges persist in the Nigerian healthcare system, such as poor health worker motivation, absenteeism, inadequate infrastructure, lack of transparency and poor record keeping (Okafor 2009; Akinwale 2010)*

Figure 1 Map of Nigeria

MDGs: Millennium development goals SDGs: Sustainable development goals MMR: maternal mortality ratio U5: under 5 SBA: skilled birth attendance

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Context: the Nigerian PBF model is 'well designed'

Core design feature	Description
Who receives the incentive	Health facilities (PBF): incentives paid based on performance 50% earned by individual health workers as bonuses based on 'performance'; 50% of funds for operational expenses Health facilities (DFF): incentives paid regardless of performance; 100% of funds for operational expenses State and Local Government: Incentives also known as DLIs based on indicators such as early disbursements of incentive payments to health facilities and quarterly supervision visits
Type of incentive	Bonuses
Type of payment	Monetary (Cash)
Size of incentive	Large
Payment mechanism	Absolute targets (pay per increase in incentivized activity or quality measure e.g. availability of drugs at the health facility)
Performance measure	Absolute: only the performance score of the health facility is considered
Domain of performance measured	Within clinicians control (Processes e.g. health service delivery such as ANC and hygiene/cleanliness of the health facility)
Timing of payment	Quarterly: health facility, Monthly: health workers

- The main aim of the Nigerian PBF scheme is to increase the delivery and utilization of high impact maternal and child health services and to improve the quality of primary care at selected health facilities in the participating States (NPHCDA, 2012).
- The PBF strategy has the potential to address the core challenges that persist in the Nigerian healthcare system, such as poor health worker motivation, inadequate infrastructure, lack of transparency and poor record keeping
  - *Encouraging' preliminary results has spurred expansion to a few more states in Nigeria…..*

5 DFF: Decentralized Facility financing DLI's: Disbursement Linked Indicators

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We explored trends in improvements and sought explanation for changes observed (Methods)

RATIONALE

- Given the mixed evidence on effectiveness and the paucity of systematic research on why (or why not) PBF works in Nigeria and LMICs in general, this study sought to address this gap in evidence.

AIM

- This study investigates improvement trends in 4 key indicators (new out patient consultations, fully vaccinated children, Antenatal care, and institutional deliveries) and reasons for changes observed in the PBF scheme implemented to improve quality and utilization of basic health services in Nigeria.

METHODS

- Improvement trends were explored using before and after method using quarterly time points ranging from 2012 to 2016 in the 3 States (Adamawa, Ondo, and Nasarawa). Trends were also compared with the National average.
- **Semi-structured interviews with 36 health workers** in 2 states (Nasarawa and Ondo state) were used **to investigate reasons and explanations for observed changes**

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Findings: Significant improvements in Key indicators over time but dips also observed

Average state quantity per Local Government area

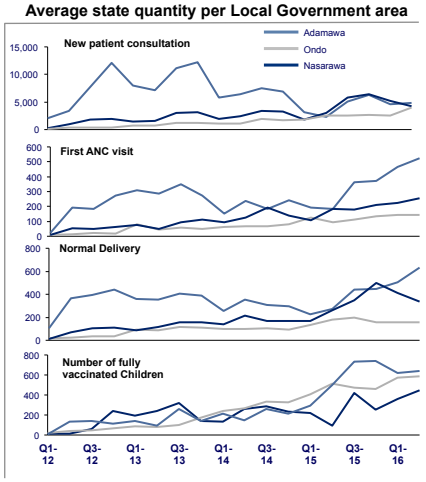


Figure 2 performance on 4 indicators across all 3 States

Improvements appear to be driven primarily by availability of funds for operations

- *"A lot has changed, in the sense that before PBF, we were short of drugs and other equipment, but since PBF, the facility can afford to buy those things now. No shortage of drugs now. The patients are happy now that they can come and they will not hear some story about how we don't have drugs in the health facility and this has caused a very rapid great change in the health workers. There has been a massive improvement in punctuality and coming to work." –**Nurse, health facility in Nasarawa State***

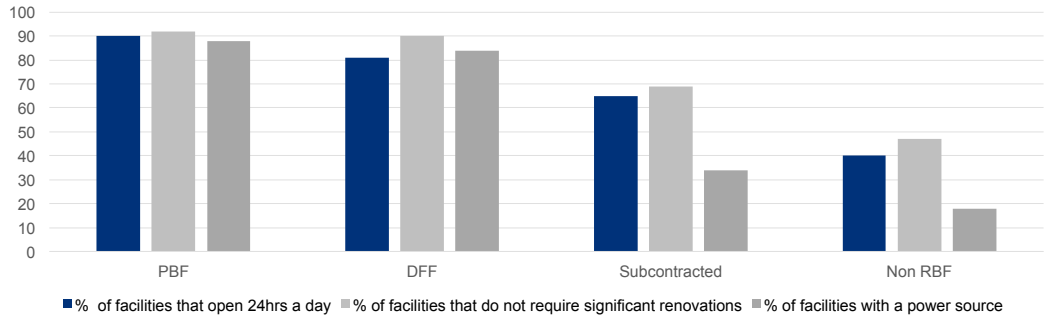
Dips in improvements appear to be driven primarily by health workers uncertainty and distrust in the payment system

- *. .they (health workers) started saying that I have received the money and I have spent it instead of sharing it with them. But I told them no, it is not like that, keep working the money will come. But they said they will not work extra hard and not get the money. So they stopped working. . . and when they money finally came it was small and they were sad, saying look at what we could have gained. So it really affected us, you can see the fluctuation* ***-OIC, health facility Nasarawa State***

7 Source: http://nigeria.openrbf.org/ Interviews with health workers

In addition, RBF facilities within States appear to be performing better compared to non-RBF facilities

A snapshot of assessment across categories of facilities in Nasarawa State



8 DFF: Decentralized Facility financing; Subcontracted facilities: these are facilities contracted by PBF facilities to provide services and are in turn paid some of the incentives earned by the contracting PBF facility
Source: HSDF. (2016). Nasarawa State Facility Survey. Health Strategy and Delivery Foundation

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Findings: States improvement trend over time are similar to the National average

State total quantity and National average

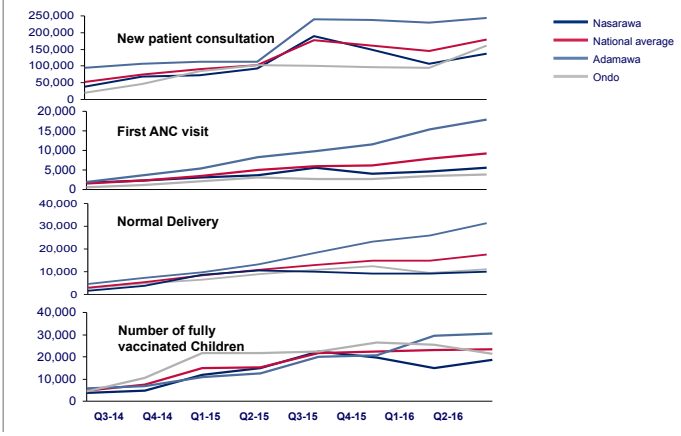

Figure 4 State performance on 4 indicators vs. National average

- **There is also a similar improvement trend on the national average on all indicators-with similar or better utilization rates**
- **PBF schemes require rigorous evaluations**

Source: http://nigeria.openrbf.org/

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Conclusion and implications for future research

- PBF has shown potential in improving quality of care and utilization rates of health services in Nigeria. However, **PBF should be scaled-up with careful consideration, using optimal design features and contextual conditions and evaluated with adequate control groups.**
- To ensure maximum effectiveness and cost effectiveness of PBF schemes, there are still a number of **unanswered questions** which present opportunities for **future research** and/or debates
  - Why do PBF interventions work/why not? **Questions about what the main driver of behavior change or improvement are left unanswered**. Given the multifaceted nature of PBF- bonuses, funds for operational expenses, increased supervision, record keeping (perhaps a combination of all). **More PBF case studies** are needed to enrich the evidence base
  - **Fiscal sustainability and cost effectiveness**: most PBF schemes in LMIC are run on donor funds/loans. Given its potential of effectiveness and **high cost implications**, it is important to have policy debates and dialogues on how to ensure that **funding is sustained** even after donor funding runs out. In addition, more evidence on cost effectiveness needs to be generated to ensure **value for money**

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