Nigeria State Health Investment Project (NSHIP)

Qualitative Study on Key Differentiating Factor for Performance

Under Performance Based Financing (PBF) Approach

March, 2015
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1. Background

1.1. Introduction of PBF in Nigeria

Despite rapid economic growth, Nigeria has made limited progress on improving MCH services. Nigeria is an economic giant in Africa with GDP $414.5 billion, and the economy has been consistently growing with the growth rate 7%. Comparing the data from 2003, 2008 and 2013 Demographic and Health Surveys (DHSs), however, it is evident that Nigeria has made limited progress in delivering critical health services. Overall progress in key maternal and child health (MCH) indicators is not sufficient to achieve the health millennium development goals (MDGs) (Table 1).

<table>
<thead>
<tr>
<th>Indicator (%)</th>
<th>2003</th>
<th>2008</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contraceptive Prevalence Rates (Modern)</td>
<td>8.2</td>
<td>10</td>
<td>9.8</td>
</tr>
<tr>
<td>Antenatal Care Coverage</td>
<td>60.1</td>
<td>58</td>
<td>60.6</td>
</tr>
<tr>
<td>Delivery in a Health Facility</td>
<td>32.6</td>
<td>35</td>
<td>35.8</td>
</tr>
<tr>
<td>Skilled Birth Attendance</td>
<td>41.8</td>
<td>39</td>
<td>38.1</td>
</tr>
<tr>
<td>DPT3 Coverage</td>
<td>20.1</td>
<td>35.4</td>
<td>38.2</td>
</tr>
</tbody>
</table>

Source: Nigeria Demographic Health Survey, 2003, 2008 and 2013

PHCs have been suffering from very low utilization and quality: Outpatient visits to public PHCs with catchment population average 7,600 is typically around 1.5 per day even when the health center has more than 10 staff (World Bank, 2014). This serious low utilization appears to be partly related to poor quality of care. A large percentage of PHCs do not have basic drugs in stock. More than 50% of the households were dissatisfied with the services in public facilities (World Bank 2012).

Nigeria’s health system is decentralized and fragmented, leading to poor coordination and accountability. In Nigeria, three levels of government – federal, state and local government area (LGA) – are responsible for tertiary, secondary and primary health care respectively. In reality, however, responsibilities for PHCs are diffused and overlapping – each of the federal, state and LGA has some role in PHC service provision, financing, human and other resources, and supervision. While the LGA level in principle enjoys a high degree of autonomy in all aspects of PHC service provision, effective control over the release of budgeted funds, and major human resources functions for trained/ technical staff, are concentrated at the state level (Oxford Policy Management, 2011). This “fundamental problem of the lack of clarity in responsibilities for PHC between state and local government” (Oxford Policy Management, 2011), coupled with poor focus on results in the health system creates poor accountability and motivation towards results.

Little money is spent for daily operational cost, with no money flowing into health centers. Overall, large share of the recurrent/salary expenditure and capital expense leaves no funds available for PHCs for daily operational expenses. For example, in Ekiti State, 78% of the state health expenditure accounts for salaries, and 13% for capital expenditure, while expense for drugs and supplies is only 3% (Ekiti State, 2010). Without the funds for drugs, essential
equipment and supplies and for reaching out communities, PHCs cannot provide sufficient services to their catchment population.

**PBF in Nigeria aims to improve health results by providing health facilities autonomy and make them accountable and motivated for results.** In the World Bank funded Nigeria State Health Investment Project (NSHIP), roles of the states and LGAs are clearly defined with their result indicators, and the financial incentives are provided on the achievement of the indicators. PBF also provides direct finance to health centers based on the quantity and quality of services delivered\(^1\), and the PHCs have autonomy in using it to improve health services and allocate it to health workers. PBF has been pre-tested in 33 primary PHCs in Adamawa (Fufore LGA), Nasarawa (Wamba LGA) and Ondo (Ondo East LGA) states since December 2011. These three LGAs were purposefully selected by the state governments, and the model PHCs for each ward\(^2\) in the LGAs were selected. The project was scaled up to the randomly-selected additional six LGAs in Nasarawa, 10 LGAs in Adamawa and nine LGAs in Ondo, covering in total about 276 PHCs in 2014 for the next 2.5 years. PHCs in the other LGAs (about 276 PHCs) will be under the decentralized facility financing (DFF) scheme where fixed amount of financial incentives (on average the same level as PBF) will be provided without linkage to performance.

**1.2. Performance Variations among Health Centers under PBF**

**Large variation in performance exists in pre-pilot PBF facilities.** Preliminary results of the pre-pilot PBF activities in Adamawa and Nasarawa states suggest that the PBF created large variations in performance among the participating PHCs\(^3\). Figure 2, 3, 4 and 5 compare the total PBF earnings as a reward of improved service utilization and quality scores\(^4\) (Figure 2), outpatient visits (OPDs) (Figure 3), institutional delivery (Figure 4) and consolidated quality score assessed with quality checklist (Figure 5) among PHCs in Fufore LGA in Adamawa (14 facilities) and Wamba LGA in Nasarawa (10 facilities). The data (except for the quality score) is standardized to the average catchment population of the PHCs (i.e., 7,633 people) for comparison. These graphs show that the total earnings and uptakes of essential services were equally low across health centers when the PBF started in December 2011, and began to vary greatly between good and poor performers over time. For example, in total earnings, Mayo-Ine health center in Fufore received over nine times more performance bonuses than the worst performing health centers in September 2012\(^5\). Also in Wamba, the best performer earns about four times more than the worst performers in September 2012 (Figure 2). Ondo East LGA lagged

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\(^1\) Quantity bonus is calculated by the number of 21 basic health services (Annex 1 for the list) delivered multiplied by incentive for each service. Quality bonus is calculated by the percentage (out of 100%) achieved in the quality checklist multiplied by 25% of total quantity bonuses of the quarter.

\(^2\) There is one model PHC for each ward in Nigeria.

\(^3\) Large variations in performance between different LGAs in different states may relate to several factors, including: (i) leadership (e.g., Adamawa has a strong Executive Director (ED) of SPHCDA, while Nasarawa experienced the change of the ED and Ondo did not have the SPHCDA until recently); (ii) type of LGA (e.g., Ondo East is very rural); (iii) performance payment (e.g., Ondo experienced long delays of performance payment). However, the difference in performance across states/LGAs is out of scope of this research.

\(^4\) Total earnings are calculated as the sum of quantity of a service delivered in a month * predetermined fees for the service (based on importance) for each of the 21 services + quality of services * 25% of the total quantity bonus.

\(^5\) The validity of catchment population needs to be carefully examined, as underestimated catchment population can increase the standardized performance significantly.
behind the other two LGAs due to delayed performance payments. However, it recently started to improve performance, with the large variation in performance between high and low performers. The range of scores has not been as wide in the quality score as the other quantity scores (Figure 5). However, there are still some PHCs that improved the quality score significantly while the quality improvement in other PHCs is limited.

**Figure 2: Total PBF Earnings (Naira) Dec 2011 – Sep 2012** (standardized to average catchment population)

**Adamawa (Fufere LGA)**

**Nasarawa (Wamba LGA)**

Source: PBF Portal (http://nphcda.thenewtechs.com/)

**Figure 3: Outpatient Visits (Unit) Dec 2011 – Sep 2012** (standardized to average population)

**Adamawa (Fufere LGA)**

**Nasarawa (Wamba LGA)**

Source: PBF Portal (http://nphcda.thenewtechs.com/)
This variation in performance is consistent across indicators. This suggests that good performers achieve high uptake in most indicators by using PBF wisely, while poor performers struggle with low uptake in most indicators. Figure 6 shows the ranking of the PHCs in Adamawa and Nasarawa states for the standardized uptake of the three key indicators for the project, as well as the total earnings as a combined result of the utilization of 21 indicators and quality score. It shows that top three PHCs in total earnings also have high uptake in the three key indicators, whereas worst three PHCs in total earnings also have low uptake in the three indicators. This suggests the consistent variations in performance between the PHCs.

Location and number of staff does not seem to be a major explanatory factor of this variation. In Fufore, two of top three PHCs only have three qualified staff, and all are very rural facilities. The top three PHCs in Wamba are also all rural, with less than average number of qualified staff.
Figure 6: Ranking of the Health Centers in Four Key Indicators (Performance in September, 2012, standardized to the average catchment population)

<table>
<thead>
<tr>
<th>Fufole</th>
<th>Total Earning</th>
<th>Delivery</th>
<th>OPD</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mayo-Ine HC</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Kabilo HC</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Ribadu HC</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Choli HC</td>
<td>4</td>
<td>9</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Wuro Bokki HC</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Karladi HC</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Pariya HC</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Furore MCH HC</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Farang HC</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Chigari HC</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Malabu HC</td>
<td>11</td>
<td>12</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Saint Mary's Clinic HC</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Gurin HC</td>
<td>13</td>
<td>13</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Dasin Hausa HC</td>
<td>14</td>
<td>11</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wamba</th>
<th>Total Earning</th>
<th>Delivery</th>
<th>OPD</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arum Chugbu HC</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Woyo Matti HC</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Nakere HC</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Wamba HC</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Kwabe HC</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Yashi Madaki HC</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Zalli HC</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Gwagi HC</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Mararaba Gongon HC</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Kwarra HC</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: PBF Portal (http://nphcda.thenewtechs.com/)

2. Hypothesis and Research Questions

Such consistent large variations in the results among the PHCs under the PBF scheme suggest that some facilities used the PBF scheme well and improve performance significantly while others struggle to do so. Understanding the key factors that differentiate the good performers and poor performers will provide insights on the implementation challenges of the PBF approach, and on effective additional interventions to maximize the impact of the PBF.

One of the hypotheses on the key differentiating factors of good and poor performers in PBF is management practices at the PHCs. As discussed above, the PBF provides PHCs autonomy to plan and implement their activities using incentives based on performance. In such circumstances, how they set targets, analyze issues in improving utilization and quality of services, plan and implement effective activities, review their performance regularly and carry out quick corrective actions can determine the performance.

This research aims to understand the key differentiating factors of performance between the PHCs under the PBF scheme. Furthermore, this research specifically looks into the relationship between the management practices and the performance in the PBF facilities.

The following overall Research Questions will be explored in this research. Specific questions for each paper will be presented in the following sections:

- What differentiates the good and poor performers among the PHCs under the PBF scheme?
- Particularly, what management factors differentiate the performance of the PHCs?
- Through what mechanisms do these factors affect the performance of the health centers?
3. Conceptual Framework

3.1. Literature Review

The determinants of health worker performance in poor resource setting have not been studied well (Marchal et al, 2010), and there is a dearth of evidence on what works to improve health worker performance (Dieleman et al, 2009). Also, researches on management practices in primary health centers in developing countries primarily focus on the effects of the management support interventions (Bradley et al, 2008; Conne et al, 1996; Perry, 2008; Rowe et al, 2005; Rowe et al, 2010; Twum-Danso, et al, 2012). In order to have sufficient ideas about the potential influencing factors on health center performance in developing countries, it would be necessary to review broader examples including hospital settings, developed country settings and other industries.

(1) Determinants of health worker performance

Dieleman et al reviewed published studies on interventions that improved health worker performance in low and middle income countries. Critical aspects identified included: (i) involvement of local authorities, communities and management; (ii) adaptation of interventions to local situation; and (iii) active involvement of local staff by programs to identify and implement solutions to problems. Mechanisms that triggered change were increased knowledge and skills, feeling obliged to change and health workers' motivation. Mechanisms to contribute to motivation were health workers' awareness of local problems and staff empowerment, gaining acceptance of new information and creating a sense of belonging and respect. In addition, staff were motivated by visible improvements in quality of care and salary supplements (Dieleman et al, 2009).

In addition, supervision appears to be critical in improving the management practices of the health facilities. Randomized trials have shown that supportive supervision can improve performance, at least in the short term (Loevinsohn et al, 1995; Rowe et al, 2005). It was also found that better performance after training was associated with supervision (Amaral et al, 2004; Pariyo et al, 2005).

Rowe et al also reviewed published studies on the determinants of health worker performance in low and middle income countries. They identified a wide range of factors or environments that may influence health worker practices: (i) health worker factors such as knowledge, motivation and experience; (ii) patient factors such as patient’s demands; (iii) attributes of the work such as clarity of guidelines; (iv) health facility environment including leadership of the director, supervision, peer pressure, and health worker participation in planning and organizing work; (v) and other environments such as professional, educational, administrative environments (e.g., incentives, salary, job security, and decentralization), employment, commercial, community, sociocultural, economic and political environments (Rowe et al, 2005). This framework suggests a dynamic situation where health workers face changing environments and adapt their practices. However, it does not explain what factors tend to be more critical than others, or how these factors interact with each other.
Through their research in the industrial, commercial and service sectors, Pfeffer & Veiga identified a bundle of seven elements as attributes of good organizational performance, which they claim is universally valid: (i) providing employment security, (ii) ensuring comparatively high compensation contingent on organizational performance, (iii) instituting training and development, (iv) putting in place selective hiring, (v) instituting self-managed teams and decentralization, (vi) reduction of status differences and (vii) information sharing (Pfeffer & Veiga, 1999). On organizational culture, Cameron and Quinn emphasize the importance of the coherence between the vision of the managers on their role, the practices they choose to implement, and the perception of their employees of these practices (Cameron and Quinn, 2006).

Building on these elements, Marchal et al found three additional practices in a well-performing hospital in Ghana: (i) teamwork; (ii) strong perceptions of support by the management team, and (iii) recognition and trust. They also considered the ‘decision space’, the margins of freedom of health service managers at the operational level, as a potentially important context factor for the high commitment of hospital management (Marchal et al, 2010).

(2) Management Practices and Performance

There are a few empirical studies in developed countries that explored the relationship between the health center management practices and performance. In a study on hospitals in the US and UK, a group of economists developed a set of 18 indicators for: (i) operations management (admitting the patient, standardization and protocols, coordination on handoffs, communication among staff, patient focus, discharging the patient), (ii) performance management (technology adoption, monitoring errors/safety, continuous improvement, performance review, performance dialogue), (iii) target management (target balance, target interconnection, target stretch) and (iv) talent/people management (rewarding high performers, removing poor performers, managing talent, retaining talent) to measure excellence in management practices. They identified the strong association between the management practices scores and hospitals’ performance such as lower heart attack mortality rate, more income per bed, shorter waiting lists, higher patient satisfaction and better adoption of clinical best practices (Dorgan et al, 2010; Bloom et al, 2010). They also found a strong relationship between several contextual factors and effective management practices, such as competition, clinically qualified managers, level of autonomy of hospitals and scale of the hospitals (Dorgan et al, 2010). McConnell et al also used the same (slightly modified) 18 indicators in 590 cardiac units in the US hospitals and found that these management practices correlate significantly with mortality and all of six process measures (McConnell et al, 2013).

Another empirical study on the management practices and performance is related to the Baldrige healthcare criteria for performance excellence. The Baldrige criteria were developed based on the criteria for manufacturing, services and small business in 1955, and tens of thousands of copies of the healthcare criteria have been distributed in developed and some developing countries (Meyer & Collier, 2001). It consists of seven criteria: (i) Leadership; (ii) Strategic Planning; (iii) Process Management; (iv) Human Resources (HR) Development and Management; (v) Information and Analysis; (vi) Focus on and Satisfaction of the Patients and Other Stakeholders, and (vii) Organizational Performance Results. Meyer and Collier translated these criteria into specific indicators and questions and verified the validity and reliability of the scores in the US hospitals. Their analysis demonstrated that the “Leadership” and “Information
and Analysis” have direct significant causal link to the “Organizational Performance Results” such as medical outcomes, costs and efficiency. It also suggested that the “Process Management” and “HR Development and Management” have direct significant causal link to “Focus on and Satisfaction of the Patients and Other Stakeholders” (Meyer & Collier, 2001).

There are also several literatures in developed countries that examined the association between organizational attributes including management practices and performance. For example, Shortell et al suggested that in the ICUs in the United States, caregiver interaction comprising the culture, leadership, coordination, communication and conflict management abilities of the unit was significantly associated with lower risk-adjusted length of stay, lower nurse turnover, higher evaluated technical quality of care and greater evaluated ability to meet family member needs (Shortell et al, 1994). However, such available literatures are mostly focused on the hospital environment in developed countries (Shortell and LoGerfo 1981; Shortell 1985, 1990; Davies and Ware 1988; Shortell, O’Brien et al. 1994; Shortell, Zimmerman et al. 1994; Shortell et al. 1998; Mitchell and Shortell 1997; Davies and Nutley 2000; Donaldson et al. 2000; Ferlie and Shortell 2001).

(3) Competencies of Health Center Managers

Given the growing awareness of the importance of management practices in health facilities, there are many literatures that discuss the health facility or nurse managers’ desirable competency and management capacity. The review of over 40 relevant papers through Pubmed and Google Scholar searches identified 13 articles that define the list of health facility or nurse managers’ competencies. The competencies in these articles can be grouped into common categories, as summarized in Table 2.

Table 2: Categories of critical health facility/nursing manager competencies

<table>
<thead>
<tr>
<th>Categories</th>
<th>Synthesized Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solving</td>
<td>Analyze issues and make decisions systematically using evidence, encourage staff and achieve results.</td>
</tr>
<tr>
<td>Communication</td>
<td>Communicate facility’s vision, values and key decisions and influence health workers, while engaging in frank, two-way communications.</td>
</tr>
<tr>
<td>Staff and team management</td>
<td>Create opportunities for learning, motivate and coach health workers and promote cohesion and team work. Assign appropriate roles and responsibilities.</td>
</tr>
<tr>
<td>Planning</td>
<td>Set clear target, and plan resources efficiently and effectively within a specified time frame. Co-ordinate and schedule activities.</td>
</tr>
<tr>
<td>Performance management</td>
<td>Measure performance, conduct formal performance reviews, mobilize resources and lead on proactive improvements.</td>
</tr>
<tr>
<td>Relationship building, resource mobilization</td>
<td>Develop and manage networks and relationships. Can mobilize necessary resources such as human resources, equipment and supplies when necessary.</td>
</tr>
<tr>
<td>Integrity and credibility</td>
<td>Committed, accessible, fair, supportive and be a good role model to other health workers.</td>
</tr>
<tr>
<td>Clinical knowledge</td>
<td>Have clinical practice and service quality orientation.</td>
</tr>
<tr>
<td>Financial management</td>
<td>Record, manage and balance revenue and expense to enable continuous improvement.</td>
</tr>
</tbody>
</table>
(4) PBF Conceptual Framework

In order to utilize these findings on the key factors that influence organizational and health worker performance in the actual operations and interventions in developing countries, they need to be examined in developing countries context, and organized in an overarching framework. The World Bank initiated the efforts to understand the influencing factors for the health center performance and health outcomes under the PBF approach. A conceptual framework developed by Hasan et al (2013) considers behavioral, organizational and program factors at the health facilities, as well as the broader factors at the health systems, community and political economy levels (Figure 8). This framework has several advantages in understanding the determinants of performance of health facilities under PBF. First, it captures multiple levels of relevant factors for developing country context, including community and health systems factors. At the community level, several factors such as remoteness, cultural values, attitudes and perceptions and socioeconomic status can influence the demand of services, thus the utilization of health services. Also, health systems factors such as human resources and financing and governance can influence the availability and quality of service delivery at the health facility level. Likewise, how a PBF program is designed and implemented can affect the ability of health facilities to improve their performance. Second, as indicated in the arrows in the Figure 7, the framework aims to specify the pathways through which the factors influence performance. It helps understand the mechanisms of the key factors and performance.

However, this conceptual framework does not fully take account of the potential influencing factors within the health facility. The model assumes that the organizational and behavioral changes will occur at the PHCs when the PBF is designed and implemented appropriately and key behavioral attributes such as understanding, expectancy, valence, buy-in, and perceived fairness exist. However, it does not explain: (i) how such key attributes can be formed among the health workers; and (ii) what differentiate the level of organizational and behavioral changes brought to the PHCs. Combining this conceptual framework with the other factors at the PHC level such as health center management can provide a more comprehensive view of potential influencing and differentiating factors of PHC performance.

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Understanding: The knowledge of PBF incentives and other design features; Expectancy: Health facility staff’s belief that they can do things that will achieve the targets; Valence: The belief that the incentives are sufficiently valuable or substantial to inspire responses predicted by the theory of change; Buy-in: Acceptance of the program and its criteria; Perceived fairness: Staff believe the program features and implementation are fair (Hasan et al 2013).
3.2. Conceptual Framework of the Research

Figure 8 provides a conceptual framework of the health center performance improvement under PBF in this research. This builds on the Hasan et al’s framework (Figure 7), and included health center management from the literature review. It consists of four components: (i) community; (ii) health systems; (iii) PBF design and implementation; and (iv) health center management.

(i) **Community**: Cultural values and perceptions, information on health services, access to health centers and affordability of the community influence the demand for utilizing services at health centers to receive essential health services. Also, how community support or voice can influence directly the management of the health centers.

(ii) **Health systems**: Factors such as involvement of local authorities, supervision and training, employment security and selective hiring are health systems related issues managed by LGAs and states in Nigeria. Health systems performance influences both PBF implementation and health center management. For example, frequent and high-quality supportive supervision to the PHCs can improve their planning, problem-solving and
performance management. Conversely, too many assignments of unskilled workforce to a health center through nepotism reduce the bonus amount each individual can receive through the PBF and can make PBF incentive less effective in motivating health workers.

(iii) **PBF design and implementation**: Factors such as decentralization and decision space/autonomy and high and timely compensation contingent on organizational performance are the factors that the PBF is supposed to address. For example, delayed payment of performance incentive can lead to lack of operational cash for the PHCs to operate and reduce the level of trust to the PBF scheme among health workers.

(iv) **Health center management**: Factors that the PHC can control by mobilizing their resources under the PBF including the management practices that Dorgan et al 2010, Bloom et al 2010 and McConnell et al 2013 developed, and the Baldrige criteria in the section 3.1.1.

The above four factors influence the quality services, skills and motivation of the health workers and relationship with the communities. This influence the demand of receiving services at the PHCs, and the increased demand improves the uptake of essential health services at the PHCs thus leads to better health outcomes and more performance bonuses to the PHCs. The increased performance bonuses in turn creates the PHCs more fiscal space to improve their services and engagement with the communities further, and motivate health workers with more rewards. The aim of the PBF is to drive this virtuous cycle of continuous improvement at the PHCs.

**Figure 8: Conceptual Framework of Health Center Performance Improvement under PBF**

- **Community**: Cultural values, relationships and perceptions
  - Geography and access to health centers
  - Affordability to receive services
  - Lack of information/knowledge about health services

- **Health Systems**: Leadership and governance
  - Human resources (e.g., staffing, salary payment)
  - Financing
  - Supply chain (e.g., vaccines supply)
  - Stewardship (supervision, training)

- **PBF Design and Implementation**: Autonomy to health centers
  - Performance based payment to health centers and LGAs
  - Verifications

- **Health Center Management**: Target setting and planning
  - Communication of target, issues, solutions and rewards
  - Problem solving
  - Performance management (e.g., data tracking/review)
  - Team management, evaluation, rewarding and coaching
  - Involvement of communities and local authorities
  - Other management areas (e.g., financial)

- Increased demand to receive services at health centers
- More uptake of essential health services
- More performance bonuses
- Better health outcomes
- Better equipped facilities
- More skilled and motivated health workers
- Better relationship with communities
- Better quality score
- More finances to improve health centers and motivate health workers (virtuous cycle through PBF)
4. Research Methodology

4.1. Approach to Inquiry

(1) Case study approach

In order to understand the differences between good performers and poor performers, this research used case study approach. Case study is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (Yin, 2009). In contrast to experimental designs that seek to test a specific hypothesis through the comparison of treatment and control groups, the case study approach lends itself well to capturing information on more explanatory ‘how’, ‘what’ and ‘why’ questions (Creswell & Plan, 2010). This research aims to explore the reasons of the different performance among the PHCs participating in the PBF. For this purpose, the qualitative case study approach is more suitable than the experimental design approaches.

(2) Extreme or deviant case sampling approach

This case study is informed by the extreme or deviant case sampling approach. This approach focuses on unusual cases that provide rich information (Patton, 1990). The focus of the research in this sampling approach is to “understand under what conditions programs get into trouble and under what conditions programs exemplify excellence” (Patton, 1990). A particular benefit of this approach is that this allows researchers to integrate organizational contextual factors in thinking of what works (Bradley et al, 2009). It requires concrete and widely endorsed performance indicators for comparison. As discussed above, the project (NSHIP) measures the uptake of the critical health services as concrete and endorsed indicators, and allows the comparison between good and poor performers.

4.2. Data Collection Procedures

(1) Selection of cases

Number of cases and duration of the case study:

Two teams of two researchers who speak local languages stayed in two different LGAs under the pre-pilot PBF and analyzed in total eight PHCs (Table 3). As Adamawa state has been under the “state of emergency” due to the frequent attacks by insurgency, this research was carried out in Nasarawa and Ondo states.

Table 3: Number of cases for the case study

<table>
<thead>
<tr>
<th>LGAs</th>
<th>High performing HCs</th>
<th>Low performing HCs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wamba/ Nasarawa</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Ondo East/ Ondo</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
The number of cases was determined within the staffing and financial constraints, considering the transferability of the findings to other PHCs. Although PHCs in the target LGAs are mostly rural and have small number of staff, the contextual factors and management practices of the PHCs can be diverse. By having more than one high and low performers in each LGA, the research can have good understanding of what are common and varying factors that influence performance. A team will spend about one week per PHC.

**Selection of the High and Low performers**

The cases were selected based on the extreme or deviant case sampling approach. In understanding the key themes that distinguished the performance of primary health care units (PHCU) in Ethiopia, for example, Bradley et al selected two PHCU with consistently higher performance, three with most improved performance, and two with consistently lower performance (Bradley et al, 2009). In order to clearly understand the differentiating factors of performance, this research also compared best practice cases with the poor performing cases. In defining the best and poor performers, the following approach has been used.

- **Indicator**: Use total PBF earnings per month that aggregates quantity and quality performance as a proxy indicator to measure performance;

- **Timing**: Serious delays in performance payment led to the significant drop of utilization of services in all participating PHCs since October 2012 until March 2013. The performance in August and September 2012 would be the most appropriate results to see the performance under PBF. However, recent data would be most appropriate to understand the latest performance. Considering this, both data in August/September 2012 and February/March 2013 was analyzed to compare the performance.

- **Ranking**: The performance should be standardized by catchment populations to compare the performance of the PHCs with different catchment populations in the same scale. However, the catchment population data may not always be reliable. The PHCs therefore were ranked in the following steps:
  - Rank PHCs based on improvement (%) from Baseline (Dec 2011-Jan2012), for both Aug/Sep 2012 and Feb/Mar 2013;
  - Rank PHCs based on standardized total earnings, for Aug/Sep 2012 and Feb/Mar 2013;
  - Rank based on absolute total earnings, for Aug/Sep 2012 and Feb/Mar 2013;
  - Select the best and poor PHCs that are in the rankings consistently across the three above ranking process.

Among the 12 consistently high or low performing PHCs identified, eight PHCs in Nasarawa and Ondo have been selected. The selection has been done through the discussion with SPHCD A staff, LGA PHC Coordinator and PBF consultant in each state who have been supervising the PHCs for more than two years. The PHCs that recently experienced changes (e.g., change of OICs) were excluded. Also, particularly large PHCs that are not comparable with other facilities (e.g., Wamba HC) were excluded. The selected PHCs are summarized in the Table 4 below.
Table 4: Selected PHCs for the Case Study

<table>
<thead>
<tr>
<th>Performance</th>
<th>Selected PHCs</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Wayo Matti HC</td>
<td>Located in a rural area. Community is relatively close. OIC is very committed and put in place right strategies. Received some external support.</td>
</tr>
<tr>
<td></td>
<td>Zalli HC</td>
<td>Very remote with scattered community. Sub-contract to other health facilities to increase utilization.</td>
</tr>
<tr>
<td>Low</td>
<td>Kwarra HC</td>
<td>There are management issues. Not close to the general hospital and sufficient number of staff is available.</td>
</tr>
<tr>
<td></td>
<td>Kwabe HC</td>
<td>Catchment population is far. Does not have sufficient staff. No outreach activities have been carried out. Not close to general hospitals (c.f., Gwagi HC is close to GH).</td>
</tr>
<tr>
<td>High</td>
<td>Orisumbare HC</td>
<td>Consistent top performer both in standardized and absolute data. Small number of staff. Rural.</td>
</tr>
<tr>
<td></td>
<td>Owena Tepo</td>
<td>Community is spread over a large area. OIC lives within a community.</td>
</tr>
<tr>
<td>Low</td>
<td>Oboto HC</td>
<td>Consistently low performance for both standardized and absolute data. Very rural. With potential staffing issues.</td>
</tr>
<tr>
<td></td>
<td>Owena bridge</td>
<td>Rural. OIC changed but still struggling to improve performance.</td>
</tr>
</tbody>
</table>

(2) Data collection approaches

Use of multiple sources: In order to develop a thorough understanding of the cases and increase credibility of a study, the case study approach usually involves the collection of multiple sources of evidence, using a range of quantitative and more commonly qualitative techniques (Creswell & Plan, 2010). This study collected information from the following sources (Table 5).

Table 5: Data that will be collected in the case study

<table>
<thead>
<tr>
<th>Type</th>
<th>Data</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational data from PBF reporting system</td>
<td>Monthly quantity of the selected package of 21 services (e.g., OPD, vaccination, institutional delivery) for all the PBF PHCs verified by an independent agency.</td>
<td>Analyze the performance (utilization) of the health centers and select cases.</td>
</tr>
<tr>
<td></td>
<td>Quarterly quality assessment score verified by local authority and counter-verified by the NPHCDA for all the PBF health centers (Since the launch of the PBF pre-pilot).</td>
<td>Analyze the performance (quality) of the PHCs and select cases. Use management indicators in the quality checklist to verify their management practices.</td>
</tr>
<tr>
<td>Interview data</td>
<td>OIC/ manager for the selected PHCs (transcribed)</td>
<td>To understand specific organizational contexts, management practices at the PHCs, and the support received from supervisors and communities.</td>
</tr>
<tr>
<td>Interview and Group Discussion</td>
<td>A group interview with 2-3 health workers (e.g., nurses, midwives, or community health extension workers) per case (transcribed)</td>
<td>To triangulate what OICs explained (e.g., check their understanding of PBF targets to assess the effectiveness of OIC’s communications); To understand the health workers’ perception of the health centers practices and changes observed (e.g., their perception on communication with the OIC).</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>A chairperson of WDC per case (transcribed)</td>
<td>To understand the community involvement practices by health centers, and the activities of the community and their effects.</td>
</tr>
<tr>
<td></td>
<td>Group discussions with LGA PHC Department supervisor and PBF consultant who visit the health centers regularly (not transcribed)</td>
<td>Pre-case study: To understand the variation in frequency and quality of their performance supervision, and verify the OIC interviews. To elaborate the hypothesis on the key differentiating factors based on their experiences. Post-case study: To verify the research findings and discuss any sensitivity in findings (if any).</td>
</tr>
<tr>
<td>Documentary data</td>
<td>Review of reports and tools used at the health centers, including: (i) business plan, (ii) financial statement (indices tool), (iii) PBF invoices, quality checklist, and HMIS report, (iv) drugs records; (v) notices and graphs on the wall, (vi) staff evaluation sheet, and (vii) minutes of the health facility committees and other meetings.</td>
<td>Triangulate the responses of the OICs and other stakeholders, and assess the management practices at health centers (e.g., review meeting minutes to see if the PHCs analyze issues, conclude with clear actions with deadlines, and review the progress of what are agreed in previous meeting).</td>
</tr>
<tr>
<td>Observations</td>
<td>Observation of (i) facility, equipment, drugs and waste management and (ii) monthly meetings at health centers.</td>
<td>Triangulate the performance data by looking at the conditions of and services provided by the health centers; Observe the meetings to see how performance and issues are discussed, actions are agreed and assigned, such actions are reviewed in the meeting, and health workers and communities are actively involved in open discussions.</td>
</tr>
</tbody>
</table>

**Screening of participants to interviews:** All OICs and skilled health workers (OICs, nurses, midwives and community health extension workers) who have been in their current posts for at least one year in the selected PHCs were included in the study. When there are more than 3 skilled health workers in a PHC (which is not likely in most of the PHCs in the target states), participants of the group interviews were randomly selected through ballots. The WDC chairpersons were automatically selected for the interview as we selected the PHCs (there is only one WDC chair per PHC). No other inclusion or exclusion criteria were used.
(3) Case study instruments

Interviews: Draft case study template and an interview guide for the OICs are attached in the Annex. The instruments were developed based on the conceptual framework (Figure 8). The case study template will guide the local researchers in collecting data and writing up case notes. The template and interview guides will be reviewed and revised during the data collection as needed based on the new information from the field work.

Documentary Data and Observations: A protocol for document review and observation is developed for the field researchers. The protocol specifies the key questions in analyzing the documents and observing meetings. The local researchers will provide their observation and assessment for each key question. An example of the key questions is in the next section.

4.3. Data Analysis

(1) Date recording and processing

Interview and meeting data: The analysis of data will follow the following steps described in Yin 2009 and Marchal et al 2010.

Coding of the interview data will be done in the following steps:
- Digital recordings of interviews to OICs, health workers and WDC chairpersons will be transcribed by the local researchers who conducted the interviews. The transcripts will be developed in English by translating the interview data recorded in local languages. The interview data and transcripts;
- A codebook with themes will be developed through discussion among the team. Coding will be done based on the conceptual framework (Figure 8) and potential influencing factors described in the case study template (Annex). Additional themes that emerge during the field work was also be added to the codebook;
- Coding of each transcript in the eight PHCs was done using Nvivo software.

Documentary Data: Each document was evaluated against the key questions in the document review and observation protocol. For example, the business plan will be reviewed with the following questions:
- What is the date of the latest business plan?
- How often has the plan been updated?
- Does the latest plan include specific performance targets?
- Does it analyze issues and their root causes in improving the quantity and quality of health services?
- Is the action plan linked with the issue analysis?
- Does it specify timeline, cost and responsibility?
- Have some of the activities already been implemented?
**Observation Data**: Regular meetings at the PHCs will be observed to verify how the PHCs do target setting, performance tracking and review, problem solving, planning and financial and drug management. Research team used an observation questions in the document review and observation protocol and case study template (Annex) to record the observations.

(2) **Data Analysis**

- **Coding of interview data**: interview data has been coded in the following steps:
  - Digital recordings of interviews to OICs, health workers and WDC chairpersons were transcribed by the local researchers who conducted the interviews. The transcripts were developed in English by translating the interview data recorded in local languages;
  - A codebook with themes has been developed through discussion among the principal investigator and a local researcher who lead the interviews. Each code specified: (i) definition; and (ii) inclusion and exclusion criteria. Coding was done based on the conceptual framework (Figure 8) and potential influencing factors described in the case study template (Annex). Additional themes that emerge during the field work were also added to the codebook;
  - Coding of each transcript in the eight PHCs has been done by the principal investigator and the local researcher, using Nvivo software (Annex).

- **Cross-case analysis**: The coded data for each facility was used to synthesize the findings across the eight PHCs. The following approach will be used:
  - **Pattern matching across cases**: The coded data was compared between high-performers and low-performers for each theme to identify the different and common features. Both the frequency and consistency of the differences or commonalities and intensity of the difference or commonalities was analyzed.
  - **Cross-case synthesis**: The findings on common and different factors for each theme was analyzed to see what seem to influence the performance of PHCs and how.
5. Findings

5.1. Summary Findings

Key themes were adjusted slightly from the Conceptual Framework in Figure 8, based on the analysis of interview data and observations. First, “PBF Design and Implementation” was integrated into “Health Systems” as it turned out to be mostly the same across high- and low-performers. There is no major differences in the level of autonomy under the same PBF scheme, and performance-based finance and verification can be integrated into stewardship and bonus administration in the “Health Systems” theme. Instead, “Community Engagement” and “Staff Management” became one of the independent themes rather than being a part of the sub-themes in “Health Center Management” (though they are part of the health center management practices), given that they are found to be significantly different between high- and low-performing PHCs, and that there are many sub-themes to look into under these themes.

Table 6 summarizes the identified commonalities and differences between high- and low-performing PHCs for each sub-theme.

Table 6: Summary of Comparison between High- and Low-Performing PHCs

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-Theme</th>
<th>Difference between high- and low-performers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context/ Community</td>
<td>(1) Distance and accessibility</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(2) Community income</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(3) Security</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>(4) Cultural and social norms</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>(5) Competition from other providers’ or government’s program</td>
<td>Somewhat similar</td>
</tr>
<tr>
<td></td>
<td>(6) Support from other partners’ or government’s program</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(7) Qualification of OIC</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>(8) Other contextual factors</td>
<td>Somewhat different</td>
</tr>
<tr>
<td>Health Systems</td>
<td>(1) Stewardship</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>(2) Human resources and staffing</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(3) Supply chain management</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(4) Health center infrastructure</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(5) Bonus administration</td>
<td>Mostly similar</td>
</tr>
<tr>
<td>Health Center Management</td>
<td>(1) Planning and Communication of the Plan</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(2) Target Setting and Communication of the Target</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>(3) Performance Tracking</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>(4) Performance Review</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>(5) Problem Solving</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>(6) Pricing of Services</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>(7) Use of Performance Bonus</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>(8) Financial Management</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>(9) Drugs Management</td>
<td>Mostly similar</td>
</tr>
</tbody>
</table>
(1) Context/Community

Having community and WDC leaders’ commitment to support the PHC (e.g., banning quacks), cultural and social norms to support PHCs (e.g., local law to use the PHC in delivery, and penalties in not doing so) are significantly different between high- and low-performers. In some high-performers, proactive engagement by PHCs to community and WDC leaders appears to have contributed to the high level of commitment and strong norms to support the PHC. In other case, spontaneous support from the community and religious leaders seems to exist. In contract all low-performers had neither of the proactive engagement by PHCs or spontaneous support from the community leaders (see Community Support section for details). Also, the PHCs close to the center of LGA in front of accessible roads tend to have security challenges such as theft and robbery, and this demotivated staff and discouraged them to stay in PHCs at night to enable 24 hour services.

Furthermore, the qualification of the OICs appears significantly different – OICs of all of the high-performers except one with a community health officer as OIC are community health extension workers (CHEWs) as OIC who are close to community, whereas high-performers tend to have higher cadre (e.g., CHO, BSc). This suggests that the having high cadre as an OIC is not associated with high-performance, and it can even influence negatively without close relationship with community.

In contrast, both high-and low-performers suffer from long distance and poor access to community, competition with quacks, traditional healers and hospitals, and to some extent benefit from other government programs. On distance/access, unexpectedly, high-performers tend to be in remoter communities than low-performers. The location appears to be linked with other critical factors that can differentiate the level of community patronage – the more isolated a community is, the more staff have to commit to long, continuous periods of residence in the PHC premises, and the fewer the options for modern health care are available to community members. In contrast, several low-performers are in central areas of the LGA with easy access to paved

<table>
<thead>
<tr>
<th>Community Engagement</th>
<th>1) WDC engagement</th>
<th>Somewhat different</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2) Community leader engagement</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>3) Client recruitment and retention</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>4) Health communication</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>5) Relationship with community members</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>6) Other community engagement</td>
<td>Mostly similar</td>
</tr>
<tr>
<td>Staff Management</td>
<td>1) Staff involvement</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>2) Staff motivation</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>3) Role modeling</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>4) Team building</td>
<td>Somewhat different</td>
</tr>
<tr>
<td></td>
<td>5) Staff rotation and availability</td>
<td>Significantly different</td>
</tr>
<tr>
<td></td>
<td>6) Staff assignment</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>7) Staff training</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>8) Staff coaching</td>
<td>Mostly similar</td>
</tr>
<tr>
<td></td>
<td>9) Performance evaluation and bonus allocation</td>
<td>Somewhat different</td>
</tr>
</tbody>
</table>
road, which leads to shorter time commitment by health workers, and exposes the PHCs to the threat of theft and robbery. However, it was also the case that PHCs with distance and access has very different performance, which suggests the importance of other factors.

(2) Health systems

Health systems performance appears to be mostly similar between high- and low-performers, except for stewardship, i.e., frequency of supervision visits. Supervisors tend to visit high-performers more frequently, but whether frequent visits improved performance or supervisors preferred to visit high-performers is not clear. Some high-performing PHCs, however, built good relationship with the supervisor and very proactively sought their advice and support.

Staffing level is equally low or even lower in high-performers (e.g., only two regular staff including OIC in two of the high-performers) than low-performers (three low-performers have three staff, the other has four), distribution of free drugs from the government and other programs are equally unstable, level of infrastructure in the PHCs are equally low, and performance bonuses from PBF at the time of the case study had been delayed in all PHCs. What are different between high- and low-performers were the ways they dealt with these challenges using funds from PBF, including the hiring of staff from community for outreach and to engage with TBA, use of PBF to continue affordable pricing of drugs and services when free drugs from the government ran out, and effective improvement of PHC infrastructure (For details see ‘Health Center Management’ section).

Two major areas came out of the study as significant factors that appears to have differentiated the performance of PHCs are: (i) health center management; and (ii) community support to the PHC.

(3) Health Center Management

The way high-performers manage their PHCs in several areas appears to be significantly different from low-performers:

- **Target setting and communication of the targets:** There seems to be clear difference between high- and low-performing PHCs in their attention to targets, review of the targets achievement and actions to achieve the targets. Both OIC and non-OIC in all high performing PHCs know the target and actual quantities of the key indicators per month. They also update or increase their monthly targets based on the results in previous months. Several staff from the high performing PHCs described how they compare the last month performance, target of this month, and performance of the week against the target, and discuss activities to further improve the performance. In contrast, most low performing PHCs just continue to use the targets provided by LGAs through the PBF training at the beginning of the pre-pilot, and did not communicate the target frequently to their staff – as a result, none of the non-OIC staff interviewed in the low-performing PHCs could not explain the target numbers.
• **Performance review and problem solving**: All the high- and low-performers carry out monthly performance review meetings with WDC members as instructed by the project. However, there appears to be significant difference between high- and low-performers in the level of investigation of the reasons and actions to address the stagnated performance. Among the four low-performing PHCs, only one mentioned that they reached out religious leaders to address the competition with quacks and encourage the community members to register with the PHC, and even in this case, how the PHC followed up with the religious leaders for their actions was unclear. In contrast, three of the four high-performing PHCs explained concrete examples where they investigated the reasons for performance drop, acted on it, and followed up on the results. In addition, high-performers seem to receive more direct support from community members in solving problems – e.g., countering a bad rumor that the PHC killed a baby by a religious leader, and establishing a rule that community members will lose lands when they do not come to the PHC for delivery. Moreover, high-performers’ use of performance bonuses appears to link more directly to problems related to the utilization and quality of services such as affordable pricing of drugs and services, hiring of workers from the community, and purchase of motorbikes and fuel to strengthen outreach.

• **Staff motivation and team building**: In high-performing PHCs, OICs proactively make efforts to motivate staff through multiple approaches such as informal financial incentives, gifts, coaching, and public recognition (e.g., nominate staff for award), while such efforts were observed in only one low-performing PHC. Further, all the OICs in the high-performing PHCs exhibit characteristics that could have contributed to setting positive standards for their staff. These characteristics include: punctuality; consistency; dedication to duty; prioritization of the PHCs’ objectives over other interests, including personal ones; and a willingness to personally pick up the slack left by other members of staff. Some differences are also found in team building and openness, transparency, and democratic process of staff performance evaluation bonus allocation.

In contrast, no much differences have been observed in planning, financial management and drugs management. In planning, unlike an initial hypothesis of the research team, even high-performers do not create and update monthly, weekly or daily plans, and they did not update business plan frequently. They rather relied on daily rosters, and plan and implement additional activities to solve daily issues in dynamic ways, without developing written formal plans.

These findings suggest that building OIC’s and other staff’s management capacity focusing on target setting, performance review and problem solving, and team building can improve performance of PHCs. Further research will be needed to verify the relationship between the management capacity of PHCs and PHC performance, and impact of management capacity building interventions on performance.

**(4) Community Support to the PHC**

As suggested in the Context/Community section, there appears to be significant differences between high- and low-performers in community patronage to PHCs. In this case study, three different patterns have been observed:
**Strong engagement to community leaders and community members by PHCs:** The OIC of one of the high-performers in Ondo went beyond periodic solicitation of support to fostering enduring relationships with various categories of community leaders (e.g., by staying in their community, giving them gifts (e.g., canned malt), buying some buckets of beans and sending to the Imams during fasting, packaging money to send to them, or giving them free drugs as a token of appreciation). In contrast, all of the OICs in low-performing PHCs visits community leaders to solicit their support only when they need help. The OIC in the high performing PHC in Ondo also explicitly targeted not only existing clients but also prospective clients through incentives to all pregnant women within the PHC’s catchment area, and carry out intensive individual follow-up of its ANC clients to make sure that they deliver in the PHC. Other high-performers sends out motorbikes to ferry women in labor to the PHC, and conducts deliveries with a TBA in attendance, to gain the confidence of women who feel safer with them.

**Spontaneous strong support from community leaders:** A high performer in Ondo did not particularly actively seek advice/feedback and build team relationship with the community leaders. However, it was supplemented by strong spontaneous support from traditional leaders who set rules of collecting lands from the community members who do not come to the PHC for delivery and charge fines to those who throw household waste into the bush around the PHC. On the contrary, in one of the low-performing PHCs, “[the traditional leader] tries to appear cooperative. But after you leave, he’s not active” (interview).

**Support from WDC as an intermediary:** One of the high performers in Ondo informs the WDC of every little operational detail and goes out of her way to give symbolic in-kind and cash incentives as a token of appreciation to WDC members. Further, the WDCs of two high performers including the one in Ondo balance PHC and community interests in performing their duties, essentially facilitating high levels of team relationship between both parties.

Depending on cases, some of these three pathways to gain community support to the PHCs work more strongly than others, and there was no single pattern through which high-performers gained high patronage from community members. Contextual factors also plays some role – e.g., as explained above, high-performers in remote community received high patronage because health workers committed to stay 24 hours in the PHCs, which enhanced the availability of PHCs and communications with community members. In contrast, all of four low-performers fall short in all of the three elements. Engaging in the above three pathways/levers based on the community situations will be critical to improve utilization of PHCs.

### 5.2. Context/Community

This section examined how contextual factors surrounding the communities and PHCs affect performance of each PHC. These factors include: distance and accessibility of PHCs to populations; levels of community income; security; cultural and social norms; competition posed by other health care providers; support from other government or donor programs; and the level of qualification of OICs.
(1) Distance and accessibility (Mostly similar)

The condition of the roads linking the PHCs to the different communities within their catchment areas is perhaps the most noteworthy common challenge across high- and low-performing PHCs with regard to accessibility: the roads in all the communities are in varying states of disrepair, with road conditions generally growing worse with increasing remoteness. Interestingly, some of the most remote (and toughest-to-reach) communities are also the highest performers. One of the high performers in Ondo state, for instance, can only be reached via a smattering of tortuous paths, some of which become totally impassable during the rainy season.

Interestingly, some of the local government supervisors and PHC staff interviewed suggested a positive relationship between remoteness and performance: the more isolated a community is, the more staff have to commit to long, unbroken periods of residence in the PHC premises, and the fewer options for modern health care are available to community members. Conversely, some of the most easily accessible PHCs in the sample are some of the least patronized by communities.

However, even within high-performing remote communities, there are differences among groups in the frequency of visit to the PHCs. Perhaps unsurprisingly, the highest patronage tends to come from the communities within which the PHCs are located, where a walk from residents’ homes to the PHCs can take as little as five minutes. Nonetheless, where similar conditions apply in low-performing PHCs, they have not been able to convert proximity into patronage to the same extent as the high-performers. This disparity under similar conditions suggests that there are other factors besides proximity that encourage PHC patronage.

The groups that tend to lose out the most, whether in high- or low-performing PHCs, are those that are located farther out: generally, the more sparsely distributed and farther away that communities are within a given catchment area, the less likely it is that residents patronize the PHC. In theory, residents in most communities have the option to travel by private or commercial motorcycle, but that option is often not taken up in practice. While some PHCs in both categories try to mitigate the effects of distance by going on periodic outreach visits, even high-performing PHCs cannot totally eliminate the impact for certain groups, notably pregnant women who go into labor in those faraway communities.

Summary: High- and low-performing PHCs face similar constraints with regard to distance and accessibility, with high performers being at an even greater geographical disadvantage in many cases. However, a combination of demand- and supply-side factors (e.g., difficulty of access to other modern health care facilities and higher incentives for PHC staff to stay within the communities for extended periods) seem to contribute to greater client retention in high-performing PHCs.

(2) Community income (Mostly similar)

All the PHCs in the sample are located in rural and peri-urban areas that have agriculture as their main economic activity. Generally low levels of income in all the host communities, but similarities in income level are more evident along regional lines than within performance
categories. In Ondo, the PHCs in both the high- and low-performing categories are located within the cocoa-growing region, so income levels in all four communities are comparable. Though yields and revenues from cocoa in the region have declined in the past few decades, there is evidence of relative wealth (especially among elite groups) in those communities. Nasarawa communities, on the other hand, do not have a similar source of income from cocoa or any other cash crop.

Nonetheless, the presence of a relatively lucrative cash crop, with the implied difference in general levels of wealth, does not appear to significantly influence communities’ propensity to utilize PHCs. The high-performing PHCs in Nasarawa, for instance are located in lower-income agrarian communities compared to the high-performing PHCs in Ondo. The low-performing PHCs in Ondo, on the other hand, despite having seasonal income boosts from cocoa harvest and sale, perform as poorly as the other two low-performing PHCs in Nasarawa that do not have a similar cash-crop advantage. Indeed, it is precisely during the cocoa harvest season that PHC attendance in the low-performers in Ondo is likely to be lowest.

**Summary**: High poverty levels are cited in all the communities (notwithstanding the periodic boosts with cocoa incomes in Ondo), but income levels are not necessarily correlated with PHC use. The fact that PHCs with poorer communities are high-performers (and vice versa) indicates that the overall effect of income levels on PHC use is contingent on other factors.

**(3) Security (Somewhat different)**

There is a visible distinction between the security situation in high-performing PHCs and that in low-performing ones. While there is no reference whatsoever to security problems in the high-performing PHCs in both Ondo and Nasarawa, acute security hazards persist in both of the low-performing PHCs in Ondo. There appears to be a direct link between the low levels of security experienced in these PHCs and their location just off the main highway linking Akure and Ondo towns, respectively the political capital and the ancient commercial capital of the state. The ease of access to (and exit from) both communities has apparently contributed to making them a target of armed robberies and associated killings in successive cocoa harvesting seasons, despite several efforts by community leaders to secure their territories. These security problems appear to outweigh the advantages of proximity to the local government headquarters and relative ease of accessibility that the PHCs might otherwise be able to leverage to improve their performance.

One of the most notable effects of the security situation on PHC operations in both communities is a reluctance among staff to stay on the premises overnight, resulting in extended periods of staff absence, which in turn reinforces negative public perceptions of the reliability of PHC staff. The disinclination of community members to trust that PHC staff will be available when they need them is strengthened by the fact that unorthodox health care practitioners (‘quacks’) who live within the communities are always on hand to receive clients. Also, many former residents of both communities have migrated to nearby towns in search of safety and only use their hometowns as a daytime base for their economic activities. In one of the poor-performers in Ondo, WDC and community leaders also left with this emigration wave, which further weakened community cohesion and precluded their support that appears to have been so beneficial for high-performing PHCs.
Summary: The security problems in low-performing PHCs in Ondo have dire implications to the use of PHCs, through the emigration of community members and poor availability of health workers especially at night, which negatively influences the community’s trust to the PHC. However, they cannot be said to account exclusively for low levels of PHC performance, as low-performing PHCs in Nasarawa also perform poorly even though they operate under the same relatively tranquil circumstances as do the high-performing PHCs in both states.

(4) Cultural and social norms (Significantly different)
The socio-cultural norms influence PHC attendance in both Ondo and Nasarawa both in negative and positive way. The negative influences are more common within states than within performance categories. For instance, the norm to stigmatize family planning and encourage home delivery practices are found in all four Nasarawa communities. Women seeking family planning services tend to do so discreetly, without the knowledge of even their husbands, and the PHCs that have been able to reach these women have had to devise creative ways of doing so. In Ondo East LGA where the PBF pilot was implemented, there is a cultural tendency to use quacks and alternative medicine practitioners. The alternative medicine practitioners are often consulted when orthodox remedies have been deemed to be ineffective by community members.

An observed significant distinction between high- and low-performance is the presence of strong positive norms in the high-performing PHCs, which counters the negative norms and improves PHC patronage. For example, any tendencies for unorthodox health care providers to proliferate among high performers are restricted by traditional and religious leaders who commit to establishing PHCs as the default health care providers in their communities. This commitment appears to be most strongly expressed in one of the high-performer in Ondo, where community patronage of the PHC became a law and is protected by oath, with its violation punishable by a hefty fine or even exile. On the other hand, the community leaders in a low-performing PHC in Ondo did not establish clear boundaries for the quacks operating in the community, instead adopted a non-confrontational, even conciliatory, stance toward them. Such positive norms in high-performing PHCs are sometimes established through the proactive community leader engagement by PHCs, and sometimes emerged spontaneously from community leaders. However, neither of the active engagement by PHCs and spontaneous support by community leaders were observed in low-performing PHCs.

Summary: Negative cultural and social norms such as home-based delivery and use of quacks and alternative medicine practitioners exist to varying degrees in all the communities. However, strong positive norms and attitudes to increase PHC patronage tend to exist concurrently in the communities hosting high-performing PHCs.

(5) Competition from other providers (Somewhat similar)
All the PHCs, regardless of whether they are high- or low-performing, face competition from other health care providers around them. These providers range from licensed public and private health care facilities, to local drug stores (‘chemists’) and patent medicine vendors, quack clinics and traditional birth attendants. The exact nature and intensity of the competition vary across the PHCs, but there generally seems to be lower prevalence, especially of quacks and TBAs, in the
high-performing PHCs. A similar trend is observable with respect to licensed health care providers and chemists, but this is partly explainable by the tendency, highlighted earlier, for high performing PHCs to be located in more remote locations than their low-performing counterparts.

Although some degree of competition is present everywhere, the extent to which each PHC survives the competition seems to be a result of community members’ perception on the value the PHC offers over the value proposition of competing alternatives. Crucially, high performers have been able to harness PBF and government/donor resources to enhance their relative value in their respective communities, while the low performers have not been as successful in this regard. This observation seems to hold regardless of whether the main competition in a given community is an orthodox or an unorthodox health care provider. In one of the low performers in Ondo state, for example, the material and financial resources of the highly popular quack clinic so visibly outweigh those of the PHC that community members conclude that the quack clinic is superior to the PHC, notwithstanding attempts by PHC staff to convince them to come to the PHC. In the other low performer in Ondo state, where an array of licensed private and public hospitals can be reached just as easily from communities as the PHC, many residents take the former option because they believe it offers them better value for the money and effort expended.

Summary: Both high- and low-performing PHCs face competition with orthodox or traditional providers, and try to survive the competition. It was not clear whether the difference in result is because of the difference in the levels of effort they put in or the strengths of the competitors.

(6) Support from other partners’ or government’s program (Mostly similar)

All the PHCs in the study receive some form of assistance with drugs and other supplies, most notably from the NHIS in Ondo and the SURE-P/MDG programs in Nasarawa. The supply of such consumable items is typically sporadic, but it tends to give a noticeable boost to PHC operations and client patronage while it lasts. Staff in all the PHCs complained the arbitrary nature of drug donations, especially under the NHIS program in Ondo, but low-performing PHCs are far more likely to cite the fluctuations in supply as an impediment to client retention than their high-performing counterparts. Furthermore, PHCs in the low-performing group are more likely to view the fee-paying requirement of the PBF scheme as obfuscating the objectives of government-sponsored drug programs. However, such requirement is the same across the high- and low-performers, and there is no evidence that high-performers received more and stable drugs supply from the donor/government programs.

Despite the tendency of low-performing PHCs to fixate on the irregularity of recurring donations, fixed assets like outreach vehicles and staff tend to have a greater positive impact on PHC performance in the long term. The nature and level of fixed asset support vary across the PHCs – while it is clear that one of the high-performing PHCs has received substantive asset donations over time, this cannot be the case for all high performers. Indeed, it seems that there are more similarities in the level of support received within states than there are within performance categories. To illustrate, a high-performer in Nasarawa has 9 skilled members of staff, 3 of which were donated to the PHC by SURE-P. This has clearly helped the PHC to improve its efficiency and performance; however, a high-performer in Ondo has also thrived despite having only 2
skilled staff members. Further, a low Performer in Nasarawa has a staff strength comparable to the high Performer in Nasarawa (8 skilled staff, 5 of them donated by MSS), but it has not been able to match their performance.

Summary: The nature and level of external support received by the PHCs have been shown to matter for short- and long-term boosts in individual cases, but they do not seem to be correlated with overall performance.

(7) Qualification of OIC: (Significantly different)

The OICs in the high-performing PHCs tend to have accumulated long years of experience in primary health care (as many as 33 years in one case in Ondo), but all but one of them were serving in the capacity of OIC for the first time and had no more than a couple of years on the job at the time of the interview. In contrast, all the OICs in the low-performing PHCs had been in charge of other PHCs prior to arriving at their current stations, with two of them having worked as OICs at least three times previously. Irrespective of the length and breadth of their work experience, the majority of the OICs claimed not to have undergone dedicated management training up until the time of interview, with only the OIC of a low-performing PHC in Ondo having had access to such training nearly two decades ago.

The clearest distinction between the OICs of high- and low-performing PHCs occurs in the area of their highest educational attainment and cadres. With the exception of the OIC of one of the high-performers in Nasarawa who is a Community Health Officer (CHO), all the OICs in the high-performing PHCs are Community Health Extension Workers (CHEWs). The opposite is the case in the low-performing PHCs: one of the four OIC is CHEW, while the qualifications of the other three OICs range from CHO to BSc. Community Health to registered nurse. These findings suggest a negative association between the cadre of OICs and PHC performance. This suggest that level of education and cadre does not matter, and may also suggest that those close to community can do better in attracting patients.

Summary: Low levels of formal education and cadres, leadership experience, and management training do not seem to significantly restrict OICs’ ability to deliver on the job. Rather, the OICs who are close to the community seem to be able to do better in attracting patients.

(8) Other contextual factors (Somewhat different)

Both high- and low-performing PHCs face a range of other unfavorable contextual conditions. Among the most common of these are poor community infrastructure (particularly water and electricity) and the resistance of certain groups to PHC use.

However, as was observed in the earlier discussion on cultural and social norms, the impact of these common problems on PHC performance seems to be significantly reduced among high performers by the existence of a strong community support system jointly created by PHCs, community leaders, WDC members, and community members. Within the low-performing category, on the other hand, there are indications that community-wide commitment to the cause of the PHCs generally does not go beyond the call of duty. For example, in response to a call made by the OIC in a high performing PHC in Nasarawa, WDC members at one time agreed to make personal financial contributions towards structural repairs in the PHC. This is in contrast to
the situation in a low-performer in Ondo, where WDC members have not shown up for meetings in the past because they believe they ought to be compensated for their service by the government and, as the committee chairman put it, they ‘do not believe in labor done for charity’.

Summary: Unfavorable contextual factors in both the high- and low-performing categories pose real constraints to PHC operation and performance, but having community leaders and members who are highly invested in supporting PHCs can reduce these problems, as the experiences of high-performing PHCs show.

5.3. Health Systems

This section describes how key aspects of the broader health systems in which the selected PBF facilities operate affect their output and analyses the degree to which each of those aspects is consequential to PHC performance. The aspects considered include: the role of supervision by local government authorities and dedicated PBF consultants (stewardship); levels of staffing and human resource development; the functioning of the government drug and vaccine supply chain and its impact on performance; the state of health center infrastructure; and the administration of PBF bonuses.

(1) Stewardship (somewhat different)

Routine supervisory visits by local government officials and PBF consultants were found to be more frequent among the high-performing PHCs in both states than among their low-performing counterparts: the reported rate of such visits by the former over the life of the PBF scheme was 87.5 percent, compared to 57.5 percent for the latter. This difference in visitation rates is mostly attributable to Nasarawa, where LGA and PBF staff pay markedly greater attention to the high performers than to the low performers. Accordingly, the spread of supervision visits in both categories of PHC differs: monthly or bi-monthly on the average in high-performing PHCs and as low as once a quarter (or not at all) in the low-performing PHCs, particularly in Nasarawa. Visits to all the PHCs are mostly initiated by the supervisors, but both of the high performers in Ondo take the initiative to contact supervisors when they need guidance.

The OICs in the high-performing Nasarawa PHCs in particular are quite clearly better informed of good practices in health center management under the PBF scheme (e.g., planning, target setting, performance tracking and review) than the low-performing PHCs within the same state. Both of them explained that supervisor instructions contributed to their ability to understand and practice those concepts. Nonetheless, familiarity with the good practices may not be a necessary pre-condition for success, as the high performers in Ondo do not apply those concepts to the same degree – for example, neither of them utilizes business plans or does visual tracking performance on the wall. However, it appears to be the case that supervision yields at least some benefits for all the PHCs, regardless of the frequency of visits: all the OICs report getting useful feedback from supervision using quality checklist which they use to make positive changes and refine their activities.
Summary: The frequency of routine and/or additional supervision visits appears related to PHC performance, but whether its causal relationship is not clear. Also, the frequent supervision does not seem to be pre-condition for success.

(2) Human resources and staffing (Mostly similar)
The numbers of ‘permanent’ skilled staff, i.e. health workers employed and remunerated directly by the local government, are similar for high- and low-performing PHCs. Among the high performers, two had two such staff, one had three, and the other had four. Comparably, three of the low performers had three permanent skilled workers, while the other had four. Some PHCs receive staff through external support programs (e.g., the government-run Midwives Service Scheme and SURE-P program). These workers substantially boost the supply of permanent staff in many cases, bringing the total number of skilled staff to as high as nine in one high-performing and one low-performing PHC.

To compensate for the staff shortage, high-performing PHCs hire health assistants from community, who often prove extremely valuable for community engagement. Permanent skilled staff in high-performing PHCs also compensate for the shortage of personnel by taking on extra responsibilities and extending their shifts by several days at a time. Low-performing PHCs, on the other hand, do not attempt to make up for staff shortages in this way, resulting in extended staff absences and consequently undermining public confidence in the PHCs’ effectiveness.

It is interesting to note that, irrespective of the absolute number of health workers present in each facility, PHC staff and community leaders in both the high- and low-performing categories complain of being short-staffed to the point that they are unable to operate effectively. This common perception however appears to exist independently of reality, as staff numbers vary widely across the PHCs, and some of the highest-performing PHCs are those with the lowest staff numbers. Overall, the data suggest that staff management practices (which will be discussed in a later section) contribute more to PHC performance than sheer staff numbers.

Summary: The difference in accomplishment between high- and low-performing PHCs in spite of similar levels of staffing suggests that the actual resource levels do not relate to performance.

(3) Supply chain management (Mostly similar)
As with the issue of staffing discussed above, PHCs in the high- and low-performing categories face comparable challenges with regard to obtaining drugs and other supplies distributed freely by government programs, most notably the National Health Insurance Scheme in Ondo state and the SURE-P scheme in Nasarawa. Regardless of source, the supply of these free drugs is almost uniformly arbitrary and sporadic.

Where high and low performers differ again is in the response of PHC staff to the same prevailing conditions, leading to divergent outcomes. Whereas high-performing facilities are able to sustain client demand by switching seemingly seamlessly to supplies purchased through PBF bonus when free government drugs run out, low performers complain of not being able to get clients to pay even small amounts of money for drugs under the same circumstances. Not surprisingly, PHCs in the latter group tend to draw a much stronger connection between stock outs of the free drugs supplied externally, and drops in client patronage.
The situation with government-supplied vaccines is more positive. Central storage locations, typically the local government headquarters, are usually well stocked; and each of the PHCs, including the low-performing ones, has worked out a system to get the vaccines in time for immunization campaigns. In Ondo, for instance, even the most remote locations have standing arrangements to pay for vaccine transportation with PBF or other funds, whether or not government comes through with the transport subsidy promised to such locations. Other logistical challenges are overcome in creative ways, such as one PHC making private arrangements with a non-PBF PHC nearby to store vaccines in the latter’s refrigerator overnight.

The low-performing PHCs in Ondo also show considerable commitment to fetching and storing vaccines for immunization, even though the degree of resistance they have to overcome is much lower than for the remotely located high performers. As indicated in earlier sections, the low-performing PHCs in the state happen to be within close range of the local government headquarters, and as such only pay minimal amounts (a few hundred naira per trip compared with thousands for the remote high performers) for transportation. In addition, these PHCs do not have to make elaborate storage arrangements for the vaccines collected because trips can easily be made to and from the local government close to the time they are needed.

Summary: Drug supply from the government programs are equally sporadic and vaccines supply is equally better than drugs supply between high- and low-performers. The difference was in the ability of high-performing PHCs to better maintain client patronage despite being faced with similar supply constraints as low performers.

(4) Health center infrastructure (Mostly similar)

Three major aspects of health center infrastructure are identifiable from the data: the condition of the PHCs’ accommodations; the availability of transportation for outreach activities; and the presence of ‘extra’ amenities for the provision of services such as water and electricity. PHCs in both the high- and low-performing categories operate under largely similar conditions in all these areas.

Many of the high-performing PHCs recently moved to new locations with improved structures and more space compared with their previous ones. Even so, staff in at least a couple of those PHCs find their new facilities restrictive and are convinced that their operations would run more efficiently with more space. The low-performing PHCs also operate out of decent structures, but again staff complain of being constrained by lack of space and equipment, especially compared with other health care providers in their immediate environment. In Ondo, for instance, one of the reasons why quacks pose such a huge threat to low performers is that the former often boast more attractive surroundings and better equipment than the latter. The same is generally true of the general hospitals situated within close proximity of the PHCs, further aggravating the competition.

With respect to the availability of outreach vehicles, both high- and low-performing PHCs report only partial access, with two PHCs in each group citing a lack of appropriate means of transport (specifically motorcycles and canoes) as hampering their outreach efforts. To address this issue, some of the high-performing PHCs invest in motorbikes and petrol.
For other amenities, most of the high-performing PHCs (three out of four) have purchased add-on equipment like boreholes and generators using donor and PBF funds. Staff in those PHCs link the acquisition of such assets with increased patronage, noting in one case that “there was nothing that could attract patients to the health center before PBF”. Most of the low-performing PHCs also own such assets, and some report similar outcomes with client patronage – though not all visits to the PHCs to use the borehole or generator-powered waiting area by community members translate into clinical consultations.

Summary: The infrastructural challenges faced by high- and low-performing PHCs are similar, as are the opportunities presented by the PBF and other programs to counter some of those challenges.

(5) Bonus administration (Mostly similar)

Even though PBF bonus payments in Nasarawa were slightly ahead of those in Ondo at the time of the study, patterns of payment were the same for high- and low-performing PHCs within each state. In both states, PBF bonuses were paid retroactively in 6-month rather than the 3-month tranches stipulated by the scheme, and then only after a significant delay. For example, in Ondo, the last bonus payments were made in June 2013 for the period July to December 2012, while in Nasarawa bonuses had been paid up only until June 2013, nearly six months prior to the time of the study. OICs in both high- and low-performing PHCs attempted to sustain staff morale during those extended periods of non-payment by reassuring them that their bonuses would eventually be paid notwithstanding the delays.

Nonetheless, even staff in the high-performing PHCs were able to point out some unfavorable impacts of the delays on their operations. For example, one of the facilities was unable to complete structural renovations on time because the PBF funds for the work came late, while the OIC in another facility was unable to make regular payments to voluntary staff who rely on the bonus for their remuneration.

Similar challenges were also cited by staff in the low-performing PHCs; however, as with their response to the deficits in the government drug supply chain, low-performing PHCs were more likely than their high-performing PHCs to point out the negative effects of payment delays on staff motivation and to cite them as a reason for low performance. The small size of bonus payments was also cited by the low performers as a source of demotivation, especially with the relatively recent reductions in the unit fees allocated to minimum package activities by the scheme. With little funding to work with per quarter, the performance of those PHCs will likely remain at low levels in subsequent quarters, further demotivating staff and creating a vicious cycle in the long run.

Summary: Both high- and low-performing PHCs are experiencing the same delays in the payment of PBF bonuses. This suggests that the effect of the bonus on performance becomes only in combination with other factors.

(6) Other health systems factors: (Somewhat similar)
Both high- and low-performing PHCs derive some benefit from the intervention of local government authorities and members of the broader health community, though the nature of such intervention varies from one state to another. In Nasarawa, local government staff provide oversight to the PHCs on financial and technical matters. In Ondo, intervention by government authorities mainly takes the form of ‘community dialogue sessions’ initiated by the SPHCDA to engage PHC staff and community members on pertinent issues. Beyond such intervention, both high- and low-performers did not receive other non-supervisory support from local government authorities, and ask instead to community authorities for help.

One limiting health systems factor that applies equally to high and low performers in Ondo is the recent campaign by the state government to screen out disqualified health workers, resulting in severe staff shortages in PHCs across the state. Low-performing PHCs in both states explained an array of additional health systems challenges, such as political manipulation of staff training opportunities (resulting in well-connected staff being sent on training courses that are not necessarily relevant to their work, at the expense of more qualified staff); failure of government to carry through on promises to the PHCs, such as the promise to provide free healthcare for pregnant women and children; failure of local government intervention to significantly influence community norms and health-seeking behavior; lack of responsiveness of local government authorities to basic PHC needs such as electricity and security. However, it is not clear whether these conditions are actually different between high- and low-performers.

Summary: Both high and low performers experience a mixture of favorable and unfavorable conditions within the context of local, state and national health systems. Low-performing PHCs explained a broader array of constraining health systems factors than the high-performing ones, but whether they are actually different across high- and low-performers is not clear.

5.4. Health Center Management

The factors considered under this category are based on the literature review on the management competencies and management factors that influence performance, including: planning and communication of the plan; target setting and communication of the targets; performance tracking; performance review; and problem solving. It also includes specific factors under the PBF approach including: pricing of services; use of performance bonuses; financial management; and drugs management. Other critical management factors such as staff management and community engagement were separated as independent themes due to their importance identified through the case study.

(1) Planning and Communication of the Plan (Mostly similar)

All the PHCs, both high and low performing ones use the roster/shift/schedule of duty as daily plan. Further, all of the high performing PHCs discuss how to achieve targets and plan activities, such as outreach to specific villagers who are not likely to come to the clinics at least every quarter as instructed by the project. They also involve WDCs for the quarterly meeting. However, it is difficult to understand the difference in quality of the planning meeting across the high and low performing PHCs. None of them develop monthly, weekly or daily plan explicitly except for the roster.
One of the low-performers in Nasarawa seems to have the most robust planning process among the high and low performers. They use health indicators, make staff and WDC members responsible for the data they are in charge, assess the situation with WDCs and plan activities. All activities are recorded in record books for monitoring and planning. However, health workers from the PHC interviewed did not know about the plan; communication of the plan to staff and staff involvement in planning may have been insufficient, which could have reduced the effectiveness of the approach.

Summary: Overall, there seems to be no significant difference between high and low performing PHCs in the level of planning. The meticulous planning based on data does not seem to be in place in any of the PHCs, even in high performing ones. Also, good planning alone does not seem to produce favourable results.

(2) Target Setting and Communication of the Target (Significantly different)
There seem to be clear difference between high and low performing PHCs in their attention to targets, achievement against the targets, and actions to achieve the targets. Both OIC and non-OIC in all high performing PHCs know the target and actual of the key indicators per month. They also update or increase their monthly targets based on the results in previous months. Several staff from the high performing PHCs described how they compare the last month performance, target of this month, and performance of the week against the target, and discuss activities to further improve the performance. One of the high-performer in Ondo, for example, prioritized ANC, observed that women are reluctant to open up about or admit their pregnancy due to cultural reasons until they are tested positive, and decided to do outreach for pregnancy test.

In contrast, most low performing PHC just continue to use the targets provided by LGAs through the PBF training, and did not communicate the target frequently to their staff – none of the non-OIC staff interviewed could not answer the target except for immunization where there is different formal process to review targets under Expanded Program on Immunization (EPI). These differences in attention to targets and actual results may contribute to their daily activities to improve their performance.

Summary: There seems to be a visible difference between high- and low-performing PHCs in their attention to targets, actual performance against targets, actions to achieve the targets, and the update of the targets to further improve performance.

(3) Performance Tracking (Somewhat different)
As a part of the PHC approach, all of the high- and low-performing PHCs are tracking utilization of essential services every month, using the monthly report they are required to submit to receive performance based finance. Some facilities, both high- and low-performers put some result indicators on the wall to visualize the performance and trends.

The difference between the high and low performers appears to be the understanding of the performance by non-OIC health workers who are supposed to know the performance and work to improve it. Non-OIC health workers in all of the low-performing PHCs answered that they know
the facility is tracking performance but they do not know the performance. In contrast, Non-OIC health workers in most of the high-performing PHCs explained the current performance in numbers, and some even tracked their own performance when they are on duty. This suggests that staff involvement in performance tracking, and quality of performance tracking meetings are different between high and low performers.

Summary: Performance tracking appears to be common in PBF facilities, given the program’s requirement to record performance data. However, as suggested in the previous section, the attention and ownership to the tracked performance seem to be different between high- and low-performers.

(4) Performance Review (Significantly different)

As explained above, all the high- and low-performing PHCs carry out monthly performance review meetings with WDC members as instructed by the project, review the monthly utilization data, and discuss actions to improve the utilization.

However, there appears to be difference between high- and low-performing PHCs in the level of follow-up investigation of the reasons and actions to address the stagnated performance or drop in performance. Among the four low-performing PHCs researched, only one PHC mentioned that they reached out religious leaders to address the competition with quacks and encourage to register with the PHC. However, how they followed up with the religious leaders on their actions was unclear.

In contrast, three of the four high-performing PHCs explained concrete examples where they actually investigated the reasons for performance drop, acted on it, and followed up on the results. For example, one of the high-performers in Ondo discussed the decrease in antenatal care with community members, and community members researched the reason in the community and found out that a quack reached out to pregnant women faster. The PHC then made a plan to reach out to pregnant women faster and register them at the PHC, using community leaders and members. Almost the same story of problem solving were found in another high-performing PHC.

Also, an OIC in another high-performing PHC explained that if the low turn-around is attributed to specific families, they follow up with these specific families individually using the patient records. Also, performance review meeting was highly valued in a high-performing PHC. The OIC pays transport cost for the health workers who are off-duty during the performance review meetings.

Summary: There appears to be clear differences between high- and low-performers in how they take actions to investigate the reasons for stagnant of dropped performance and address the problems. Most of the high-performers explained concrete examples of problem-solving, while none of the low-performers could not explain their actions clearly.

(5) Problem Solving (somewhat different)

Both high- and low-performing PHCs try to solve problems by involving WDC and/or community leaders. However, high-performers seem to receive more direct support to increase
utilization by community members. For example, a religious leader stepped in to protect a high-performing PHC in Ondo when a woman experienced stillbirth in the PHC, by placing a curse on anyone who spread bad rumour that the PHC killed the baby. Also, when a quack took patients from the other high-performing PHC in Ondo, with a request from the OIC through WDC chairman, a traditional leader established a rule that community members will lose lands when they do not come to the PHC for delivery. These levels of patronage from the traditional and community leaders are not seen in any of the low-performing PHCs.

In addition, OICs of two high-performing PHCs also have close relationships with the LGA supervisor and contact him whenever they have questions or need support. This is not the case in any of the low performing PHCs.

It is, however, not clear: (i) whether high-performing PHCs are doing well in getting support from community and traditional leaders; (ii) simply community and traditional leaders of the specific areas are good and supportive, which leads to their high performance; or (iii) they are supportive because the performance of the PHCs are high.

Summary: In addition to the rigor in problem solving explained in the previous section, level of support high-performing PHCs are receiving from WDC and community leaders in solving problems appears to be more than what low-performing PHCs receive. However, the reasons behind the different levels of support between high- and low-performers are not clear.

(6) Pricing of Services (Somewhat different)

Pricing seems to be important to attract community members, and lack of access to free drugs while the government announced them as free seem to be a larger binding factor in low performing PHCs than in high performing ones. All of the four low-performing PHCs explained that the people will come if the services are free. However, it is not clear whether there is difference in the supply of free drugs between low- and high-performers, or the low-performers use the pricing as an excuse of their low utilization. Indeed, two of the four low-performers also explained that community members go to more expensive health facilities or traditional providers, which suggest other reasons for their low utilization.

Also, there seems to be some differences between high- and low-performers in dealing with the pricing issue. All high-performing PHCs make explicit efforts to provide free or discounted services to delivery, antenatal care and treatment of under-five children, using performance bonus they receive from the project, while only two low-performing PHCs make explicit efforts to do so. A high-performing PHC also treated a patient even though they did not have sufficient money, while three low-performing PHCs shared their experiences where they refused to treat them at discount price. The patient in the high-performing PHC came back for other treatment and paid in full, whereas the patients in the low-performing PHCs that refused to offer discount prices left and did not come back to the PHCs.

Summary: All low-performing PHCs pointed out the insufficient support from the government on free drugs as a main reason of their low utilization. However, they lose patients to other providers that charge higher rate, and their level of efforts in accommodating the community’s affordability of payment seems lower than those by high-performing PHCs. This may not be the
largest factor but be part of the difference in the client recruitment efforts between the high- and low-performers.

(7) Use of Performance Bonus (somewhat different)
Both high- and low-performing PHCs follow the project guideline that 50% of the performance bonus should be spent on improving services while the rest 50% can be allocated among workers based on their individual evaluation score. On the allocation of bonuses among workers, none of the health workers interviewed complained about its fairness. In a high-performing PHC in Ondo, a health worker expressed how she was motivated to see her extra hours of work were reflected to the bonus, which was about the same level as what the OIC receives.

Both high- and low-performing PHCs used the performance bonus to buy drugs and supplies, and some goods to attract patients, particularly pregnant women. The incentives to attract community members included discounted or free drugs and services, bowls, maternity pads, detergents, and biscuits for children. However, high performing PHCs appear to use the performance bonus to make pricing affordable to communities (See the Pricing of Services section) and to invest in the activities that can improve quantity and quality of care. Three of four high-performing PHCs hired staff as volunteer or paid staff who are necessary but whose contract with an LGA is expired, as community workers who engage with quacks, lab technicians, a gardener, etc. Some of the high-performing PHCs also invest in motorbikes and petrol for outreach activities, and generators, fans and patient beds that improves service quality directly. Other creative items purchased by high-performing PHCs include passport photographs of each patient – they printed two photos per patient and used one for incentive to the patients and kept the other for recording at the PHC. In contrast, several low performing PHCs invested funds heavily for buildings and plastering of walls, instead of quick wins that can be linked directly to more utilization by patients.

Summary: Use of performance bonus seems to be fair and transparent across high- and low-performers. Although it is not obvious, high-performers appear to use performance bonuses in the areas that can directly improve patient use or quality of services such as additional staffing, vehicles, generators, and creative incentives for the community members, rather than large scale building refurbishment.

(8) Financial Management (Mostly similar)
All the PHCs keep simple revenue and expense records, and updates it monthly or quarterly. The quality of the recording varied but generally not very good. In many of the PHCs, OICs do the accounting due to lack of accountant. The training they received is mostly PBF training only. There appears to be no difference in the quality of practices between high- and low-performing PHCs.

(9) Drugs Management (Mostly similar)
Both high and low performing PHCs manage drug stocks by OICs or one of the staff through bin cards. There is no sophisticated system to update the stock levels. However, since staff can inform when stock level of essential drugs is low and they can purchase drugs through certified local pharmacies in the LGA, none of the high-performing PHCs and two of four low-performing PHCs had experienced the stock out since the PBF started. Two low-performers
experienced the stock out of ACT and some other drugs, because of mismanagement, and of the absence of a WDC chairman who needs to approve the purchase.

There is no clear difference in the availability of free drugs from other programs between high- and low-performers – some high performers had not received any from other programs (e.g., NHIS, MDGs) and some low performers received such free drugs.

5.5. Community Engagement

The factors considered under this category include: the nature and degree of WDC (as well as other community leader) involvement in PHC operations on the one hand, and their representation of community members in PHC-specific affairs on the other; the content and impact of the overt strategies deployed by PHC staff in their attempts to attract clients to the health centers; the effectiveness of health-related messages communicated by the PHCs as a client recruitment strategy in the various communities; and the general constitution of the relationship between PHC staff and the people/groups they aim to reach in their host communities. This was originally a part of the health center management, but stood out during the case studies as an independent key theme given its importance.

(1) WDC engagement (Somewhat different)

The nature and depth of engagement of the PHCs with WDC members can be broadly stratified into three levels, from least engaging to most engaging, each of which occurs with varying degrees of intensity across the PHCs: (i) information sharing (such as OICs sharing details of their PHCs’ revenue and expenditure plans with the WDC); (ii) seeking advice/feedback (i.e. the WDC reciprocating with information and advice incorporating essential feedback from community members); and (iii) building team relationship (this involves efforts by OICs in particular to build and sustain long-term alliances with WDC members).

While higher levels of WDC engagement clearly enhance PHC performance, the relationship between the two is not uniform. One of the high performers in Ondo has embraced all three levels of engagement with the utmost intensity, with the OIC informing the committee of every little operational detail and going out of her way to give symbolic in-kind and cash incentives to WDC members. Further, the WDCs of two high performers including the one in Ondo balance PHC and community interests in performing their duties, essentially facilitating high levels of team relationship between both parties. In contrast, the other high performer in Ondo exhibited one of the lowest levels in seeking advice/feedback and building team relationship. However, this is supplemented by strong support from traditional leaders who set rules of collecting lands from the community members do not come to the PHC for delivery and charging fines to those who throw household waste into the bush around the PHC.

Among the low performers, in contrast, engagement with the WDC is almost uniformly low, with only one seeking advice/feedback, and two work on building team relationship only to the degree that WDC members explicitly demand compensation for carrying out their duties.
Summary: All the PHCs have a common understanding of the role of the WDC in PHC operations; however, the level of engagement with WDC tend to be higher in high-performers, and engagement with the WDC among low-performers is uniformly low. Relatively low level of WDC engagement by one of the high-performers were supplemented by strong engagement and support from the community leaders.

(2) Community leader engagement (Significantly different)
Those regarded as community leaders within this study consist of rulers with traditional authority and general community oversight (such as village heads, chiefs, tribal leaders, and district heads) and leaders in charge of smaller interest groups within host communities (for example, religious leaders, women leaders, youth leaders).

Significant aspects of community leader engagement include the depth and substance of the relationship between OICs and various community leaders, the responsiveness of community leaders to the needs of the PHCs, and the level of cooperation between the community leaders and WDCs (though membership of the two overlaps in some cases).

All the PHCs routinely enlist the help of community leaders especially in client recruitment and resolution of conflicts with community members, but as in the case of WDC engagement the OIC of one of the high-performers in Ondo is again notable for going beyond periodic solicitation of support to fostering enduring relationships with various categories of community leaders (e.g., by staying in their community and eat their food even though she is from outside the community, giving them gifts (e.g., canned malt), buying some buckets of beans and sending to the Imams during fasting, packaging money to send to them, or giving them free drugs). In contrast, as explained in the WDC section, the traditional leaders in the other high-performer in Ondo rule community by fiat and seem to support the PHC strongly even without PHC’s active engagement to them.

Regardless of the source of motivation, it is clear that a high degree of responsiveness of community leaders to the PHC’s priorities is favorable to PHC performance. The importance of community leader support is clearly observed among the low-performing PHCs, where requests by the PHCs for community leader interventions often do not yield desired results. There is a variety of reasons for this: low-performers in Nasarawa seem to have low levels of interaction with community leaders to begin with (as one of the OICs put it, ‘we are not close to any of the traditional leaders’). Although there are generally more layers of traditional authority within Nasarawa than in Ondo, both of the high-performing PHCs in Nasarawa led by their OICs have succeeded in utilizing it to their advantage.

The OICs in the two low-performing PHCs in Ondo approach traditional leaders more often with their concerns, especially regarding alternative health care providers in the community. However, the response in both cases falls short of what is required to effectively prohibit the competition. This lack of effectiveness is borne out by the testimony of the Owena Bridge OIC: ‘[the traditional leader] tries to appear cooperative. But after you leave, he’s not active’. Further, the range of leaders with which these OICs interact directly is limited in comparison to what obtains in the high-performing PHCs in both states: whereas the latter interface regularly with
community leaders at all levels, the former mostly rely on the highest authorities to act as gatekeepers to lower-level leaders, with decidedly poorer outcomes.

Summary: Compared with WDC engagement, there is more of a direct positive correlation between community leader engagement and PHC performance, though there is variations on who drives such engagement and how.

(3) Client recruitment and retention (Somewhat different)

The factors that appear to be most significant for client recruitment among high performers vary from one PHC to another. The OIC in the high performing PHC in Ondo (the OIC with strong WDC and community engagement) casts a wide net in her recruitment efforts, explicitly targeting not only existing clients like all the other PHCs do, but also prospective ones – for example, through the giving of incentives to all pregnant women within the PHC’s catchment area, and not just the ones who have registered at the PHC. The PHC in a high-performing PHC in Nasarawa, on the other hand, makes little or no room for such personal touches in its recruitment strategy but seems to have won clients over anyway – including those in faraway settlements – by using PBF and donor resources to provide a variety of free services (such as laboratory tests and a mobile outreach clinic) that have high value for both clients and the PHC. All of the high-performing PHCs and two of four low-performing PHCs, employ palliative strategies such as discounts or fee waivers and short-term credit facilities to clients.

Again, although above two PHCs stand out in their dedication to client recruitment, all the PHCs in the study direct a considerable amount of effort and resources toward it, variously drawing from a standard toolbox of informal home visits, formal outreach programs and WDC/community leader engagement in recruiting clients for a range of minimum package activities. However, the main determinant of performance (in PBF bonus terms) between high and low performers seems to be the extent to which the PHCs in either category have been able to get pregnant women, including registered ones, to deliver in their facilities. All the PHCs realise the importance of this component to their assessment, performance and bonus levels, and they generally pursue similar strategies to recruit women for institutional delivery: free antenatal and delivery services as well as incentives for registered women who actually turn up at the PHC for delivery.

However, there is a range of additional strategies that seem to have enhanced better outcomes across high-performing PHCs: One in Ondo embarks on intensive follow-up of its ANC clients individually to make sure that they deliver in the PHC; The other high-performer in Ondo relies to a large extent on societal laws mandating institutional delivery, but also sends out motorbikes to ferry women in labor to the PHC; and the one in Nasarawa conducts deliveries with a TBA in attendance, boosting the confidence of women who feel safer with them. Low-performing PHCs, in contrast, cite fewer examples of such ‘add-on’ strategies. Furthermore, one of the low-performing PHC in Nasarawa for instance has also offered a small incentive to TBAs who would work with them in institutional delivery, but the response has not been as encouraging as in a high-performer in Nasarawa who used the same strategy. The reasons for the poorer outcomes in the low-performing PHC are not clear, but it is probably useful to view those outcomes against the backdrop of the lower levels of community leader support and staff attendance cited for low-performing PHCs previously.
Other factors that seem to enhance client recruitment among the high performers include the use of community members as outreach workers, especially to track pregnant women, and round-the-clock availability of PBF-enabled inputs such as drugs – although the presence of similar conditions in some low-performing PHCs indicates that they do not guarantee favorable outcomes.

**Summary:** All the PHCs do the required minimum to recruit clients for a range of services; however, high performers stand out not only for their higher use of innovative recruitment strategies, especially for enhancing institutional delivery services, but also for their ability to convert these strategies into increased patronage.

**(4) Health communication (Somewhat different)**
Most of the PHCs incorporate health education (focusing mainly on preventive health messages) into their home visits and outreach programs in some way. In addition to this, some of the high performers focus on certain target groups to enhance outcomes in particular areas: a high-performing PHC in Nasarawa for instance has been able to increase patronage of family planning services by including men in family planning education, and the an OIC in a high-performing PHC in Ondo holds scheduled ‘health talks’ with secondary school students around personal hygiene and nutrition issues. There is no mention of targeted messaging among the low-performing PHCs; in two of the four low-performers, there was no reference at all to any kind of deliberate health communication strategy.

**Summary:** Health communication appears to be higher prioritized and better targeted in high-performing PHCs than in their low-performing counterparts.

**(5) Relationship with community members (Somewhat different)**
The nature of the relationship between each of the PHCs and members of their host communities can be broadly described as either transactional or interpersonal. Transactional relationships are those in which community interactions with PHCs are mostly instrumental, such as interactions at the point of delivering a service or community members rallying to provide free labor to the PHCs on special projects such as road and building construction. Interpersonal relationships, on the other hand, de-emphasize material or other support from community members and focus more on nurturing long-term connections with them at various levels.

In a high-performer in Ondo, for instance, in addition to the generous gift-giving culture instituted by the OIC, she has established meet-and-greet relationships with a range of individuals and groups within the community, following up with phone calls when physical meetings are not possible. Although all the PHCs claim to have cordial relationships with community members regardless of their approach, this PHC stands out for the community-friendly atmosphere it has created with its extraordinary attention to interpersonal relations. In contrast, a high-performer in Nasarawa achieves high patronage by focusing on more transactional relationships with their community, partly because of the culture of regarding PHCs as community/self-help projects, making community members willing to pull together to support the PHCs (sometimes even with financial contributions) under the leadership of community leaders.
In any case, reliance on one approach rather than the other does not seem to significantly impact performance one way or another. Also, one of the low performers in Nasarawa failed to turn their good relationship with the community into increased patronage. Perhaps more significant is the effect of taking *neither* approach in dealing with the community outside of clinical relations: two of the four low-performing PHCs fall into this category, with the result that non-clinical interaction between the PHCs and community members in both cases is almost non-existent. *Summary:* There are variations in the PHC’s strategy to build relationship with community members, and PHCs’ relationship with host community members does not always lead to high performance. However, there are strong indications that failure to establish even the most transactional or non-clinical relationships with those communities can link to low-performance.

(6) Other community engagement (*Mostly similar*)

Apart from the standard home visit and outreach sessions carried out in all the PHCs, those in Ondo hold periodic ‘community dialogue sessions’ convened by local government staff to sensitize community members to PHC operations and respond to their concerns. These sessions appear to be similar in form and function to town hall meetings also attended periodically by the Nasarawa PHCs, though these are organized by community without local government’s intervention. Participation in these sessions, however, does not seem to differentiate performance: both low- and high-performers are similarly exposed to the broader forms of engagement facilitated by these general forums.

The other significant aspect of community engagement has to do with the nature of the relationship between PHCs and the quacks/TBAs operating in their communities, and the impact this might have on performance. However, as with the community-wide forums described above, the main differences seem to be between states rather than across performance categories. With an exception of one of the high-performers (the one with high levels of community engagement), the PHCs in Ondo are either antagonistic or ambivalent toward quacks, but the success or failure to survive the competition with them does not seem be related to their attitudes towards quacks. In Nasarawa, in contrast, both high- and low-performers strive to build cordial, non-confrontational and collaborative working relationships with TBAs in particular, probably in the knowledge that there will always be community members who will be more comfortable patronizing the TBAs. As indicated earlier, it is not clear why this pragmatic and results-oriented strategy has delivered better institutional delivery outcomes for high performers than the low performers within the same state/LGA; other factors may have contributed to the outcomes in each case.

*Summary:* High- and low-performers take similar approaches in dealing with quacks and TBAs, and other factors combined with such approaches seem to differentiate outcomes.

5.6. **Staff Management**

This section analyses aspects of OIC practices around the management and mobilization of staff and their impact on PHC performance. These aspects include: involvement of staff in health
center management; activities to motivate staff and modelling good behavior for them; activities to enhance team spirit; staff assignment; training and coaching of staff; and evaluation and rewarding of the performance of individual staff.

(1) Staff involvement: *(Mostly similar)*
Both high- and low-performing PHCs, to varying degrees, involved staff in many areas of PHC management in: planning of activities to achieve set targets; planning of outreach activities; staff evaluation and allocation of PBF bonuses among staff; and meetings with community leaders. Good practices of staff involvement can be found in both categories of PHCs – such as the OIC of a high-performing PHC allowing her one skilled staff to take a lead in making spending decisions and sharing PBF bonuses, and the OICs of two low-performing PHCs giving their staff a significant degree of control over the PHC’s finances, particularly in the area of accounting for user fees.

Difference in staff involvement appears to be more evident between LGAs or states (Nasarawa vs. Ondo) than between high- and low-performers. The PHCs in Nasarawa, whether high- or low-performing, tend to engage their staff more than those in Ondo in technical functions such as drug pricing; performance tracking and review; strategic problem solving; and participatory skill building, e.g., engaging staff in collaborative problem-solving sessions to facilitate mutual learning. These activities observed in the PHCS in Nasarawa typically take place during technical committee meetings that are attended by staff. This difference between the LGAs may be explained in the coaching by supervisors and PBF consultant.

However, there were visible differences in staff involvement in decision making around spending – only one of the four low-performing PHCs substantially incorporates staff input, and even then the final decision rests with the OIC and the WDC chairman. The other three low-performing PHCs engage their staff to a lesser degree – two of them plan spending through a steering or technical committee that includes only few selected staff, and the decisions reached in the committee are not always shared with the other staff. In another low-performing PHC, staff seem to be even more detached from the decision making process – according to one of them, ‘[the OIC] does not discuss those things with us’ – leaving spending decisions largely in the hands of the OIC and the WDC. Recommendations by staff such as purchasing a television set to attract clients to the PHC and holding monthly get-together events in a bid to enhance team spirit at the PHC were disregarded by the OIC.

Summary: Both high- and low-performing PHCs involve their staff in different aspects of PHC management to varying degrees. The level of involvement seems to be different more between LGAs than between performance categories. However, there is an important area (decision making around spending) where level of involvement is visibly different between high- and low-performers. The impact and reasons of this difference is unclear.

(2) Staff motivation: *(Visibly different)*
Both high- and low-performing PHCs used PBF bonus allocation as an incentive to motivate staff, which works to a varying degree in all facilities. However, high-performing PHCs showed different additional approaches and pathways where staff get motivated. In one PHC in Ondo, the OIC has built a high degree of trust and loyalty with her staff over time, partly by giving...
them small incentives (such as food items or, in the case of cash gifts, sums in the order of a few hundreds of naira) that are not necessarily tied to specific tasks from her personal resources on routine basis. She in turn uses the legitimacy she has thus earned to elicit support from her staff. In another high performing PHC in Nasarawa, the OIC reworked the sharing formula prescribed by the project to provide higher bonuses for its staff by reducing the bonus to the OIC and other senior staff, support his staff by providing money to solve their private issues, and share ideas and coach staff.

In contrast to the above two examples where OICs made special effort to motivate staff, in the other high-performing PHC in Ondo, non-OIC staff is highly motivated by a desire to give back to her community, and goes to great lengths to honour that commitment – a mother of twin babies who leaves her home at dawn at the beginning of her week-long shifts (which she routinely extends as needed) with her maid and children in tow, so she can make it to the remote PHC on time. It is important, however, to note that she was further motivated by the OIC’s recognition and strong public proclamation of her outstanding achievements and dedication to duty (i.e., by proactively nominating and pushing for award for her).

Within the low-performing category, PBF bonuses are acknowledged as an ‘extra motivator’ in low-performing facilities when they do arrive. Conversely, however, the bonus payments constitute a source of demotivation in low-performing PHCs when they are delayed, which is often the case. Furthermore, there is one case where the OIC believes that PBF bonuses are not sufficient to motivate staff. In contrast to high-performers, there is only one PHC in which OIC’s proactive engagement with staff such as verbal encouragement and the occasional cash incentive for a job well done compensates for some of the loss in motivation among PHC staff. Overall, staff in the low-performing PHCs are more likely than high performers to attribute dips in motivation and performance to the irregularity of PBF bonus payments. Given that payment delays the PHCs experienced are exactly the same between high- and low-performers, this suggest that proactive staff engagement by OICs or other factors differentiate the level of motivation.

**Summary:** In high-performing PHCs, OICs proactively make efforts to motivate staff through multiple approaches such as informal financial incentives, gifts, coaching, public recognition (e.g., nominate staff for award). In contrast, in low-performing PHCs, only one PHC make such efforts to some extent. In low-performers, delays in PBF money demotivated staff whereas it was not the case for high-performers. This suggests that the proactive engagement by OICs may be making differences in motivation, together with other factors.

(3) **Role modelling: (Visibly different)**
There are no references to deliberate attempts by any of the OICs at modelling good behavior for their staff. However, all the OICs in the high-performing PHCs exhibit characteristics that could have contributed to setting positive standards for their staff. These characteristics include: punctuality; consistency; dedication to duty; prioritization of the PHCs’ objectives over other interests, including personal ones; and a willingness to personally pick up the slack left by other members of staff.
Among low-performing PHCs, on the other hand, such positive behavior was cited in only one PHC, where the OIC steps in to do the most menial of tasks in the absence of the junior staff responsible, and encourages other members of staff to do the same. In addition, the OIC stayed several times with his staff in the PHC overnight to address their concerns over the spate of robbery attacks in the area. Conversely, the only other OIC whose facility faces the same security threat has not made any such attempt to forge a sense of solidarity among her staff.

Summary: There is greater evidence of OICs in high-performing PHCs modelling positive behavior than there is for their low-performing counterparts, though how such differences affected the motivation and performance of staff is not very clear.

(4) Team building: (Somewhat different)

Several aspects of individual interaction and general PHC operations were identified as being important for building team spirit and fostering a sense of belonging among staff. These include: the regularity of staff meetings; the ability of staff to manage internal conflicts, with or without the intervention of the OIC; the ability of the OIC to boost staff morale in the face of adverse circumstances, either verbally or with the aid of material tokens; evidence of the OIC’s investment in staff welfare (for example, an OIC retaining staff previously laid off by the government and paying them out of PBF funds); evidence of staff commitment to one another’s welfare (for example, covering for one another during absences, pitching in during exceptionally busy periods even when off duty, helping one another out on difficult clinical tasks, or making monthly financial contributions to pay volunteers pending the arrival of PBF bonuses); and transparency of performance evaluation, PBF bonus allocation, and general PHC operations. The commitment of OICs and staff to the practice of these key variables was found to be similar across high- and low-performing PHCs. Some of these approaches are common between high- and low-performing PHCs, including managing internal conflicts, payment of PBF funds, covering one another during absences, and helping one another out on difficult clinical tasks. As described in “staff motivation” section, high-performers are engaging in various activities to improve motivation of staff compared with low-performers.

In addition to the common activities, unique expressions of team building practices can be found among high performers, such as the establishment of a communal living and cooking regime, largely funded by one OIC; another OIC taking an especially unassuming stance in dealing with junior staff; and yet another OIC deliberately cultivating a paternalistic relationship with her staff in a bid to win their cooperation. Similarly, unique examples of team-building behavior exist among OICs in low-performing PHCs – one of them, for instance, organizes small parties for staff at Christmas and extends concessions to those among them who bring their sick children to the PHC for treatment.

One area in which PHCs in the two categories differ to some extent is how frequently they hold staff meetings: staff in high-performing PHCs mostly meet on a monthly basis (the specially designated ‘technical committee meetings’ in Nasarawa are illustrative of this), and where remoteness makes it impractical for off-duty staff to attend meetings, the OIC takes advantage of chance encounters at central locations (such as the local government headquarters) to convene ad hoc meetings. These meetings serve as an important forum for mutual encouragement, conflict resolution, and operations planning. Low-performing PHCs on the other hand, particularly those
in Ondo, are less likely to prioritize staff meetings: one of the PHCs held only one meeting within a nine-month period and made no attempt to compensate for missed opportunities with ad hoc meetings.

**Summary:** High-performing PHCs are more committed to staff meetings than their low-performing counterparts, but this is a small difference both in light of the broader array of team-building strategies they have in common and of the impact the practice has on PHC performance.

(5) **Staff rotation and availability:** *(Mostly different)*

Since the introduction of the PBF scheme, skilled staff in the high-performing facilities have been working almost round the clock. Three of the four facilities run a full 24-hour service, which in principle means that there is at least one skilled staff in the PHC at all hours of the day. In the fourth PHC, staff only run shifts ‘from morning till evening’ and do not stay in the facility overnight; however, they sleep within the community and can be summoned by the security guard if clients show up at night.

The low-performing PHCs, on the other hand, have not been as consistent in providing 24-hour service post-PBF; two of them were not running overnight shifts at the time of the study, though arrangements were in place in one of them for the guard to alert staff to night time client visits. Even during their daytime shifts, skilled staff in these PHCs are often absent for several reasons ranging from official outreach campaigns to unofficial holidays, sometimes leaving the PHCs completely unattended. Staff in these PHCs cite low staff strength as the reason for their extended periods of absence.

However, the high-performing PHCs have similar staffing constraints: two of them have only two members of skilled staff each. What differentiates PHCs in the two categories is the way they respond to the common challenges they face. Staff in the high performing PHCs, unlike their low-performing counterparts, have devised ways of coping with lack of staff. Common strategies involve the OIC stretching to fill the absences created by uncommitted staff, as well as taking care to always leave at least one skilled staff behind at the PHC when the others have to go out on duty.

The impact of staff availability on public trust, and ultimately community patronage of the PHCs, appears to be high. Even a relatively brief disruption of full-time operations can be sufficient to undermine a PHC’s reputation – two low-performing PHCs that were running a 24-hour service at the time of the study were just trying to rally after two months of absence due to security threats in the area, but they were struggling to recover damaged reputation. It seems that consistent availability of staff and services is a large part of perceived reliability of health services among community members. Several responses from PHC staff and community leaders buttress this point – one WDC chairman attributes the high performance of his community’s PHC partly to the post-PBF consistency of staff availability; another chiefly blames community members’ seeming preference for quacks (who are available around the clock) on the inconsistency of staff attendance; and one OIC identifies the same factor as being responsible for community members’ preference of local patent medicine vendors.
Summary: Though high- and low-performing PHCs face the same staffing challenges, the former appear to be more proactive in adapting staff schedules to provide 24 hour health services, with positive impacts on community members’ perception and patronage of the PHCs.

(6) Staff assignment: (Mostly similar)
Two of the high-performing PHCs operate based on static, general job descriptions rather than on dynamic, specific activity plans. Nonetheless, staff in those PHCs are quite clear about what their roles entail – in the words of one OIC, ‘[staff]… know what they are supposed to do per time’. In particular, the boundaries between the duties of skilled, unskilled and support staff are clearly defined, at least in principle. One of the other two high performers operates based on monthly work plans, while the other takes an even more granular approach, drawing up schedules of duty in which staff responsibilities for every shift are clearly delineated. This fourth PHC is distinctive for its high number of staff with ten skilled and four unskilled staff and up to four staff members on duty at a time, it is practical to have granular schedules for each member of staff.

The situation is quite similar among the low performers, with three of the PHCs operating based on general job descriptions but staff knowing what is expected of them on a daily basis. Only the fourth, a highly staffed PHC with nine skilled and eleven unskilled staff, operates according to periodic work schedules prepared by the OIC based on staff members’ ‘area of specialisation’.

It is clear from the above that, for both high and low performers, granular work plan and assignment is only enabled by having sufficient number of staff embodying a considerable range of expertise. Otherwise, there tends to be frequent assignment combination (staff routinely incorporating multiple duties into their job descriptions) and substitution (staff stepping in to fill gaps occasioned by shortages of workers or expertise), as is the case in most of the PHCs. More generally, substitution occurs within comparable skill levels, such as a CHEW standing in for an absent midwife.

Summary: Staff strength seems to be a significant determinant of specialization in both high- and low-performing PHCs, but not of overall. No visible differences between high- and low-performing PHCs are found in staff assignment.

(7) Staff training: (Mostly similar)
Two distinct types of training opportunity can be identified from the data: internal and external. Internal training opportunities consist of formal or informal sessions convened by the OIC (or other PHC staff) to share knowledge gained from outside sources, while external training opportunities take the form of sessions organized by relevant authorities in the health system (usually government or donor organizations) and attended by the OIC and/or other staff in locations outside of the PHC.

The PHCs in Ondo, whether high- or low-performing, rely mostly on informal modes of internal training. Such training is usually delivered through ad hoc sessions that have no particular structure to them. The most common platforms for informal training across the PHCs include self-education through radio programs, Internet sources, books and other published material – and subsequently sharing the knowledge gained during informal discussion sessions with other
members of staff; tacit observation and assimilation of clinical procedures carried out by senior members of staff; and periodic ‘step-down’ training sessions in which staff who have gone for external training programmes return to share the information gained with their colleagues. The Nasarawa PHCs also employ these informal strategies, but in addition, they hold formal ‘clinical lectures’ on a monthly basis in which members of staff take turns to present research on pre-assigned topics and brainstorm ideas with the group.

External training opportunities are largely distributed in the same way across both categories – usually by local government authorities on a hierarchical basis; or else by the OIC, either according to job fit or on a rotational basis. However, low performers are far more likely to point out the inadequacy of such opportunities for their staff, in terms of both quantity and quality. Accordingly, two of the four low performers linked the dearth of external training opportunities to poor PHC performance, particularly in the area of bookkeeping – and three of the PHCs were certain that having more of such opportunities to go round staff on a consistent basis is essential for high performance. Staff in the high-performing PHCs, by contrast, made no mention of such inadequacies or opportunities for improvement in the training schedule, even though they are subject to the same limitations within the state and national health systems.

Summary: There appear to be more regional differences than difference between high- and low-performers in the training opportunities. Also, there are no clear differences in the allocation of the training opportunities to staff. However, the low-performers are far more likely to point out the inadequacy of training opportunities than high-performers.

(8) Staff coaching (Mostly similar)
This refers to attempts by OICs in particular to instruct their staff about clinical procedures on a one-on-one rather than a group basis, as is the case with training initiatives. Only two PHCs, one high-performing and the other low-performing, make no reference to any OIC activity on staff coaching. All the other OICs in both categories carry out activities that constitute elements of coaching with some degree of regularity. Such activities take the form of ‘on-the-job training’, albeit with diverse expressions: some OICs observe their staff at work and give them immediate feedback on the job; others wait till traffic is light at the PHC to correct earlier mistakes made by staff; and yet others take advantage of downtimes or breaks in activity to guide individual staff through procedures such as drug prescription and drip setting. What these activities have in common is that they involve the direct supervision or oversight of the OIC and incorporate real-time feedback on technical issues.

Summary: OICs in most of the PHCs show some degree of sensitivity to the individual coaching needs of their staff, though this does not have any discernible impact on overall performance levels.

(9) Performance evaluation and bonus allocation: (Somewhat different)
Across high- and low-performing PHCs, it is clear that PBF-specific assessment criteria are complied in staff performance evaluation. In translating these evaluations into individual bonuses, however, another factor – professional rank, or ‘cadre’ – seems to overshadow actual performance in significance. Bonus calculation is generally done according to standard formulae which involve multiplying evaluation scores by fixed percentages corresponding to staff
hierarchy (the percentages are as high as 95 for OICs and as low as 20 for health assistants). The result is that bonuses are distributed on a sort of sliding scale which makes it difficult for junior members of staff to earn as much as, or more than senior staff, no matter how well they perform in reality. This caveat notwithstanding, staff, including those who do not perform very well, generally perceive the bonus allocation regime to be fair.

Regarding evaluation and bonus allocation process, in closer look, the process is more open, transparent and democratic in the high-performing PHCs than it is in the low-performing ones – open as all evaluation documents are accessible to all staff; transparent as all staff members understand what attributes are being measured; and democratic as staff jointly deliberate on their performance and the corresponding bonuses, usually around a table. Another important quality of bonuses in these PHCs is that they are inclusive, i.e., they are shared among all members of staff, including so-called volunteers and those kept on by the OIC despite being laid off by the government.

In the low-performing PHCs, on the other hand, the evaluation process is open and transparent only to a limited degree – as one OIC put it, ‘so that there will be no grudges’ – and it is mostly undemocratic, involving only two members of staff in one case and just the OIC in the other three. Not surprisingly, some of the staff members express discontent at being left out of the process and ‘just [being] called upon and given any amount’, though there are others who claim to take no exception to the status quo.

Summary: High- and low-performing PHCs have comparable approaches to the technical aspects of individual bonus allocation. However, they seems to be different in the degree of openness, transparency, and democratic process in evaluation and bonus allocation.
Annex

1. Interview Guide

Interview Guide - Health Center Officer in Charge (OIC)

I. Introduction

[Greeting.] I am a researcher who seeks to better understand how the performance based financing (PBF) scheme supported by the World Bank influences health facilities’ efforts to improve the quantity and quality of health care services delivered to the communities they serve. The goal of the research is to understand the key factors that determine the performance of Primary Health Centers (PHCs) under the PBF scheme, so that the Nigerian Government and the World Bank can know the areas in which the PHCs need further support to perform better.

We ask you to help us in our research study because of your knowledge and experiences working for or with the PHCs that participate in the PBF. You do not have to participate in this study; it is your choice.

If you agree to participate, we will request an interview lasting about 1-1.5 hour in a location of your choosing. We will ask questions about how the PHCs are managed, what support the PHCs receive and other important factors that affects their performance. You do not have to answer all the questions and you may stop at any time. We will do an audio recording of the conversation if you permit, strictly for reference purposes.

There is a risk that someone outside the study will see your information. We will do our best to keep your information anonymous and confidential, by storing your contact information separately from interview transcripts and with a password. Your name will not appear in any of the research reports and papers.

You will receive no direct benefit from this study, although we will use the lessons learned to improve the government’s and the World Bank’s support to the PHCs participating in the PBF. We are not offering payment to participate in this study.

Do you have any questions? You may contact Ayodeji Oluwole Oduolu (234 (0) 805 633 6614, aodutolu@worldbank.org), our Co-Investigator about your questions or problems with this work. You may also contact the National Health Research Ethics Committee which approved this study about any problems or concerns at 234-9-523-8367, deskofficer@nhrec.net)

May I begin?

I would like to start with some personal questions and general information about the PHC
1) Are you a member of this community?
2) What are your qualifications?
3) How long have you been working at this PHC as the OIC?
4) Before the work as the OIC at your PHC, where did you work, in what capacity, and for how many years? (Ask for management experience)
5) Did you receive any training for your role as the OIC at this PHC? If yes, what type? (Ask for management training)
6) How many staff do you have in your PHC? How many are health workers vs. support staff?
II. Key Factors for Performance

Now, I would like to ask some questions about the performance of your PHC and some of the factors that affect it.

7) How do you think your PHC performs in comparison with others?
   i. (For best performers) Which PHC is not doing well compared to your PHC?
   ii. (For poor performers) Which PHC is doing better than your PHC? [If the respondent is unable to identify a better-performing PHC, probe for specific indicators, e.g. number of institutional deliveries, until you find an area in which their assessment aligns with the official rankings.]

8) [For high-performing PHCs] What do you think make your PHC perform better than xxx [the PHC you specified in the previous question]?
   i. Are there certain practices you or your health workers carry out?
   ii. Who or what prompted you to start these practices?
   iii. How do these practices help you achieve particular PBF targets?
   iv. Are there other reasons why this PHC performs well? If yes, what are they?

9) [For low-performing PHCs] What do you think make your PHC perform lower than xxx [the PHC you specified in the previous question]?
   i. What are the issues that your PHC needs to improve?
   ii. What are other reasons why this PHC performs lower?
   iii. What can be done to address these issues you have raised?

III. Management and Support to the Health Centers

I would like to delve more into how you manage activities at the PHC including how you plan, set targets, review performance and assign responsibilities to staff.

10) Planning: How do you plan activities of the health center?
    i. How do you set targets for your health service plans?
    ii. How did you use the last performance bonus you got from PBF? How did you decide on spending? Who did you speak with?
    iii. Can you explain today’s plan (if any) or this week’s plan? How did you plan these? How does this daily/weekly plan move the PHC towards its quarterly target?

11) Problem Solving: Could you tell me about a problem that you had at this PHC recently, and how you went about solving it?
    i. What were the reasons for the(s) problem(s)?
    ii. What did you do to address the reasons and improve the PHC?
    iii. Who did you involve in solving the problem(s)? How did you involve them?
    iv. What were the results?

12) Performance tracking: How do you track the performance of your health center under PBF?
    i. Do you track your PHC’s performance against your set target?
    ii. How do you check the progress of your health center? (Probe: Through PBF invoice? Putting some results of the indicators on walls? Anything else?)
iii. Who get to see these data? How frequently?

13) Performance review: How do you **review performance** of your health center?
   i. How often do you hold a meeting with health workers and/or community members? When was the last time?
   ii. Who is involved in the meeting and will know the results?
   iii. How do you review the progress and achievement of the health center in such meetings?
   iv. How do you plan the activities of the next month, week or quarter based on the review results? Could you explain the example from the latest meeting?
   v. How do you make sure that the agreed activities are carried out according to the plan?
   vi. Is there anything else that you do to review performance other than meetings?

14) Team building: How do you get your staff at the health center to work together to achieve your goals?
   i. What do you do to help build trust among staff? (If response is not sufficiently detailed, probe for examples such as regular meetings, role-modeling of good behavior)
   ii. (As a result) Can you describe the working relationship between your staff members? (probe for mutual support with examples)
   iii. What do you do to resolve conflict among your staff? (Please give examples)
   iv. How do your staff communicate work-related concerns to you? Please give examples of what you have done in the past to address such concerns.

15) Management of staff: How do you **manage your staff’s work and performance**?
   i. How do you assign responsibilities to your staff? (Probe for job description)
   ii. How do you plan the activities of individual staff? Could you explain one example? How do these activities link to the achievement of specific targets?
   iii. Do you assess the performance of your staff? If yes, how? (probe with an example)
   iv. What do you do with the assessment results you have on them?
   v. How did you determine how much to pay your staff as PBF incentive? Could you walk me through with the document if there is any? How important do you think these levels of incentive were in encouraging staff to pursue PBF targets?
   vi. Apart from PBF incentive, do you do anything else to reward good performers and address poor performers?

16) Training, coaching and mentoring: How do you **build skills** of your staff?
   i. How do you coach or mentor your staff?
      a. When, how often, to whom? Do you have a session with your staff specific for coaching?
      b. How receptive are staff to your direction and supervision?
   ii. How do you identify and distribute, if any, training opportunities among your staff?
   iii. How has the training helped staff to meet specific PBF targets? Give examples.
   iv. Have any aspects of the PBF influenced the appetite and access of staff to training?
   v. What else do you do to help your staff build skills and experiences? (probe for coaching)

17) Communication: How do you **communicate** the PBF approach and improved health services to your staff and community?
   i. What do you do to explain PBF approach and communicate the PBF indicators and targets for these indicators to your staff? How do you test staff understanding of these targets?
   ii. What do you do to create awareness of the improved health center services among different groups of people within the community and build good relationship or trust with them? Please give examples.
iii. What kind of relationship exists between the PHC and traditional health care providers in the community? How do you think this relationship impacts on the ability of the PHC to attract patients?

18) **External Support**: How did you **build relationship** and **seek support from outside** the health center?
   i. Who outside the health center helps you? (Probe for community/traditional leaders and Ward Development Committee, LGA supervisors, other providers such as traditional healers)
   ii. How did you build relationship with them?
   iii. How did you seek for help from them?
   iv. What are the examples of the support you received from them and what were the results? What benefits do they get from the PHC in return for, or acknowledgement of, their support?

19) **Financial Management**: How do you **manage income and expenses**?
   [Review this practice mainly by looking into the financial statement]
   i. Can I please look at the financial documents as we talk?
   ii. Who records revenues and expenses?
   iii. How and how frequently do you know how much you have left?
   iv. How do you manage different sources of revenues and expenses?

20) **Supply Chain and Drug Management**: How does your PHC **manage drugs** and what are the impacts of the supplies from state and other schemes on the drug availability in your PHC?
   i. Do you have dedicated staff for drug management?
   ii. How many drug schemes currently operate in this PHC? How does the supply of drugs from each scheme contribute to drug availability and service delivery at the health centre? How do you know the potential stock outs on each scheme?
   iii. How often have you experienced drug or vaccine stock outs since the PBF started? When was the last time you experienced the drug or vaccine stock outs? What were the reasons for the stock outs?
   iv. What other supports have you received from other government or non-governmental agencies since the PBF started? How did you come by this support? What impact has it had on the ability of the PHC to meet specific PBF targets?

21) **Supervision and other support**: How do you improve your health center based on the support from **supervisors and other external support**?
   i. How often does your health center receive supervisory visits by LGA supervisors?
   ii. Did you receive any suggestions or feedback from the visits?
   iii. What changes did you make based on their suggestions/feedback?
   iv. Have you experienced any barriers in contacting LGAs or getting them to visit? What have you done to overcome those barriers?
   v. What other supports have you received from other government or non-governmental agencies since the PBF started? How did you come by this support? What impact has it had on the ability of the PHC to meet specific PBF targets?

IV. **Other factors/Wrap up**
   To wrap up, I would like to ask you a few more questions on how to make the PHC better.
   i. What would help you to be more effective in running the health center?
ii. Is there anything else that I need to know about the things that affect the quantity of services you provided and quality of patient care at your Health Center?
Group Interview Guide - Health Workers (Non-OIC, 2-3 staff)

I. Introduction

[Greeting.] I am a researcher who seeks to better understand how the performance based financing (PBF) scheme supported by the World Bank influences health facilities’ efforts to improve the quantity and quality of health care services delivered to the communities they serve. The goal of the research is to understand the key factors that determine the performance of Primary Health Centers (PHCs) under the PBF scheme, so that the Nigerian Government and the World Bank can know the areas in which the PHCs need further support to perform better.

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If you agree to participate, we will request an interview lasting about 1-1.5 hour in a location of your choosing. We will ask questions about how the PHCs are managed, what support the PHCs receive and other important factors that affects their performance. You do not have to answer all the questions and you may stop at any time. We will do an audio recording of the conversation if you permit, strictly for reference purposes.

There is a risk that someone outside the study will see your information. We will do our best to keep your information anonymous and confidential, by storing your contact information separately from interview transcripts and with a password. Your name will not appear in any of the research reports and papers.

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May I begin?

I would like to start with some questions about your job at this facility.

1) Please tell me:
   i. What is your position and responsibilities at this Health Center;
   ii. When did you start working at this health center?
   iii. What did you do prior to joining this health center

II. Key Factors for Performance

Now, I would like to ask some questions about the performance of your PHC and some of the factors that affect it.

2) How do you think the performance of your PHC ranks in comparison with others?
   i. (For best performers) Which PHC is not doing well compared to your PHC?
   ii. (For poor performers) Which PHC is doing better than your PHC? [If the respondent is unable to identify a better-performing PHC, probe for specific indicators, e.g. number of
institutional deliveries, until you find an area in which their assessment aligns with the official rankings.]

3) [For high-performing PHCs] What do you think make your PHC perform better than xxx? [the PHC you specified in the previous example]?
   i. Are there certain practices your PHC carries out?
   ii. Who or what prompted you to start these practices?
   iii. How do these practices help your PHC to achieve particular PBF targets?
   iv. What are other reasons why this PHC performs well?

4) [For low-performing PHCs] What do you think make your PHC perform lower than xxx? [the PHC you specified in the previous example]?
   i. What are the issues that your PHC can improve?
   ii. What are other reasons why this PHC performs lower?
   iii. What can be done to address these issues you have raised?

III. Management of the Health Centers and External Support

I would like to delve more into how your PHC manages activities. I would also like to ask about the external support provided to the health center.

5) Planning: How are the activities of the health center planned?
   i. Do you know the target numbers of patients for various services or quality targets for quarter/month/week/day for your health center? Do you know how these targets were decided?
   ii. (if they know the targets) How does the OIC communicate the PBF approach, PBF indicators and targets for these indicators to you?
   iii. Do you feel that the targets are achievable and you can improve the health center according to the plan? Why?
   iv. How did the health center use the last performance bonus from the PBF scheme? How did the health center decide on spending? How were you involved in the process?
   v. Are you aware of the weekly and daily plan of the health center? (If yes) Could you explain this week’s plan or today’s plan? What is your role in developing such plans? Do you know how this daily/weekly plan moves the PHC towards its quarterly target?

6) Problem Solving: Could you tell me about a problem that your health center had at this facilities recently, and how you went about solving it?
   i. What were the reasons for the problem?
   ii. Who were involved, what was discussed, what you contributed, what was agreed as actions, and who was responsible for carrying out the actions?
   iii. How were the agreed actions followed up? What were the results?

7) Performance review: How does the PHC review the performance of the health center?
   i. How do you know the number of patients and quality of care of the health center?
   ii. How often do you participate in a meeting with the OIC, health workers and/or community members? When was the last time?
   iii. How are the progress and achievements of the health center shared and assessed in such meetings?
   iv. What did you discuss and agree to improve the performance?
v. How does the OIC make sure that the agreed activities are carried out according to the plan?
vi. Is there anything else that the PHC does to review performance other than meetings?

8) Team building: How do health center staff collaborate with each other as a team?
   i. Have you received any help with your activities from a colleague or offered help to other colleagues with their activities? How often? Please explain examples.
   ii. Are there any activities led by the OIC or other health workers that help build trust and collaboration with each other? (e.g., regular meetings, creating opportunities for staff to share experiences, role-modeling of good behavior)
   iii. What does the OIC do to resolve conflict among staff? (Please give examples)
   iv. How do you communicate work-related concerns to the OIC? Please give examples of what the OIC has done in the past to address such concerns.

9) Management of staff: How are your duties assigned, monitored and rewarded?
   i. Do you have job descriptions or defined responsibilities? (If yes) could you explain.
   ii. Do you have your own activity plan agreed with the OIC for today, this week and/or this month? (If yes) Could you explain the plan(s)? Do you know how these activities link to the achievement of specific targets?
   iii. Do you receive feedback from the OIC on your performance? If yes, how, and how regularly?
   iv. How did you apply the comments to improve your performance?
   v. Was the assessment linked with PBF individual bonuses to you? If yes, was the bonus calculation process explained to you? Do you think it was fair? Why?
   vi. What else, if any, has the OICs done to you or other staff to reward good performers and address poor performers? How did it affect your willingness and ability to work?

10) Training, coaching and mentoring: What opportunities exist for you to build your skills?
    i. How does the OIC coach you in your daily duties? Please give examples.
    ii. How regularly do you attend training programs? When was the last time you attended one?
    iii. How does the OIC distribute the opportunities for training among staff? (Probe: Equally? By performance? By needs? By relationship?) Does it change since the PBF scheme started?
    iv. Have any aspects of the training you have received so far helped you to meet specific PBF targets? Give examples.
    v. Are there any other opportunities for you to learn and gain skills?

11) Communication: How do you communicate the PBF approach and improved health services to your community?
    i. What do you do to create awareness of health center services among different groups of people within the community? Please give examples.
    ii. Have you changed the way you communicate with community members? If yes, how do you think this has influenced their perception and use of the health center?

12) External Support: Please describe the impact of the supervisory and external support?
    i. Who help/support your health center? How? (Probe for community/traditional leaders and Ward Development Committee, LGA supervisors, other providers such as traditional healers)
    ii. How did the health center build relationship and seek for help from them? What benefits do they get from the PHC in return for, or acknowledgement of, their support?
    iii. How often does your health center receive supervisory visits by LGA supervisors?
    iv. Did you receive any suggestions or feedback from the visits?
    v. What changes did you make based on their suggestions/feedback?
13) **Supply Chain and Drug Management**: How your health center manages drugs and what are the impacts of the supplies from the state and other schemes on the drug availability?
   i. How many drug schemes currently operate in this PHC? How does the supply of drugs from each scheme contribute to drug availability and service delivery at the health centre?
   ii. How often have you experienced drug or vaccine stock outs since the PBF started? When was the last time you experienced the drug or vaccine stock outs? What were the reasons for the stock outs?
   iii. What prevented you from restocking with the drug revolving fund the last time your supply ran out? What were the impacts of the stock outs?

**IV. Other factors/Wrap up**

To wrap up, I would like to ask you a few more questions on how to make the PHC better
   i. Are there any other issues you would like to raise about the OIC or other staff at the health center?
   ii. What would help you to be more effective in carrying out your duties at the health center?
   iii. Is there anything else that I need to know about the things that affect the quantity of services you provided and quality of patient care at your Health Center?

**Interview guide – Ward Development Committee (WDC) Chairman**

I. Introduction
[Greetings.] I am a researcher who seeks to better understand how the performance based financing (PBF) scheme supported by the World Bank influences health facilities’ efforts to improve the quantity and quality of health care services delivered to the communities they serve. The goal of the research is to understand the key factors that determine the performance of Primary Health Centers (PHCs) under the PBF scheme, so that the Nigerian Government and the World Bank can know the areas in which the PHCs need further support to perform better.

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If you agree to participate, we will request an interview lasting about 1-1.5 hour in a location of your choosing. We will ask questions about how the PHCs are managed, what support the PHCs receive and other important factors that affects their performance. You do not have to answer all the questions and you may stop at any time. We will do an audio recording of the conversation if you permit, strictly for reference purposes.

There is a risk that someone outside the study will see your information. We will do our best to keep your information anonymous and confidential, by storing your contact information separately from interview transcripts and with a password. Your name will not appear in any of the research reports and papers.

You will receive no direct benefit from this study, although we will use the lessons learned to improve the government’s and the World Bank’s support to the PHCs participating in the PBF. We are not offering payment to participate in this study.

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May I begin?

I would like to start with asking about your role in the community and involvement with the PHC.
1) What is your position in the community?
2) How long have you held this position?
3) What are your responsibilities, and which of them relate to the administration of this PHC?

II. Key Factors for Performance

We have set out to understand what differentiates best performers and poor performers among PBF PHCs in the same LGA. In this vein, we would like to know your assessment of this PHC – how well you think it is performing, and why. We would like you to help us understand critical factors for this PHC.

4) General factors: What factors contribute to making this PHC perform well/poorly?
   i. Have you noticed any increase/decrease/stagnation in the frequency of visits to this PHC in the last year by the community? What do you think is responsible for this situation?
   ii. Have you noticed any increase/decrease/stagnation in the quality of care provided at this PHC in the last year? What do you think is responsible for this situation?
[If the respondent’s assessment does not align with the official assessment, talk about the discrepancy by explaining the performance ranking of the PHC. Then focus the conversation on drawing out factors that the respondent thinks is responsible for the level of performance indicated.]

iii. For a best performer:
   a. What role do you think the OIC has played in bringing about the increase in frequency of visits and/or quality of care?
   b. Is there any other individual who contributed significantly to the increase in frequency of visits and/or quality of care? (Probe: Other health workers than OIC?)

iv. For a poor performer:
   a. What role do you think the OIC has played in bringing about the decrease or poor improvement in frequency of visits and/or quality of care?
   b. How well has the OIC addressed the issues that are responsible for the decrease or stagnation in the quality of care provided at this PHC?
   c. Is there any other individual/factor that negatively affected the frequency of visits and/or quality of care?

v. What roles have groups or individuals in the community played in bringing about the increase/decrease/stagnation in frequency of visits and/or quality of care?

5) **Community factors**: What **community factors** impact on the PHC’s performance?
   i. How easy is it for people in surrounding settlements to visit the PHC? (If not easy) Have PHC staff or community leaders taken any steps to overcome this challenge? What has been the outcome?
   ii. Are there other health care providers people prefer? How do these providers affect the PHC’s ability to attract patients?
   iii. Are there any cultural or social reasons that affect community members’ utilization of PHC services? Do people trust the PHC or are satisfied with their services? How do they affect the use of the PHC?
      a. If there are barriers, have PHC staff or community leaders taken any steps to overcome this challenge? What has been the outcome?
   iv. Are there any other community factors that help/hinder the ability of this PHC to attract patients?

6) **Communication and Outreach**: How do PHC staff **build relationships and communicate** with community members?
   i. What steps has the PHC taken to build relationships with community/traditional leaders and members of the WDC? How effective do you think the PHC’s approach has been?
   ii. In what ways have community/traditional leaders and the WDC worked with the PHC to attract more patients and improve the quality of care at the health center? What were the results of these efforts?
iii. What kind of relationship exists between the PHC and traditional health care providers in the community? How do you think this relationship impacts on the ability of the PHC to attract patients?

iv. What does the PHC do to create awareness of health center services among different groups of people within the community? Please give examples.

v. Have you observed any recent changes in the way that PHC staff communicate with community members seeking health care? If yes, what impact do you think these changes have had on community members’ perceptions and use of the health center?

vii. Community Involvement: How does the health center involve the community in planning and reviewing its performance?
   i. How often do health center staff hold meetings with community members/representatives to set performance targets and plan activities to meet those targets? When was the last time?
      a. Which individuals or groups are usually involved, how often, and what activities are assigned to them?
   ii. Have there been any activities assigned to community representatives to address problems identified during such meetings? Could you give examples from the last meeting?
   iii. How do the OIC/other health workers follow up on activities assigned to community representatives?

III. Other factors/Wrap up
   i. Are there any other ways in which you think the community should be involved to improve the performance of the health center?
   ii. Is there anything else I need to know about the factors that affect the ability of this PHC to attract patients and improve the quality of care?
Interview guide - LGA/state supervisors and PBF consultant
(No formal interview to be carried out)

I. Introduction

I would like to start with some questions about your position. Please tell me about the work you do as a PBF supervisor/consultant.

1) How long have you worked in this position?
2) What does your job entail?

II. Key Differentiating Factors for Performance

We would like to understand what differentiate best performers and poor performers among the PBF PHCs in the same LGA. Out of the PHCs you know very well, we selected xx and xx as best performers and xx and xx as poor performers based on the PBF performance data. We would like you to help us understand critical factors for each PHC.

For Best Performers

Now I am asking questions about the best performers, xxx and xxx PHCs.

3) Overall: What would you think are the most important reasons why these health centers perform better than others?

4) Community Factors: What community factors impact on the PHCs’ performance?
   i. How easy is it for community members to access the PHCs? (If not easy) how did they get over the challenge?
   ii. Do the PHCs face cultural barriers?
      a. (If yes) Could you explain what the barriers are, how large they are compared with the PHCs in the same LGA, and what have been done in the PHC(s) to address them?
   iii. How supportive are the community leaders and Ward Development Committee (WDC) to the PHC(s)? How did the PHC(s) involve them and seek support from them?
   iv. Is there any other community factor that makes these PHCs perform well?

5) External Support: What has been the level and impact of federal, state, LGA, and donor support on the performance of these PHCs?
   i. Have the PHCs received any special support from the government or non-government stakeholders? What has been the impact of the special support on their performance?
   ii. How many staff do the PHCs have? Do you think they are sufficient and/or qualified?
   iii. How would you rate the OIC’s skill level compared to other OICs?
      a. What is the OIC’s managerial skill level in particular? Please give examples.
      b. How does the skill level of the OIC relate to the ability of the PHC(s) to deliver on PBF targets?
   iv. How would you compare this PHC’s access to drugs or vaccines from the central medical store with that of other PHCs? What influences the allocation of drugs?
v. In the past three months, how would you compare the regularity of visits by you or other supervisors/SPHCDAs with that of visits to other PHCs? What makes you or others visit there more or less often?
vi. Is the timing of receiving PBF incentives different (e.g., earlier than others) for the PHC? (if yes) Why?

6) **Health Center Management**: How does the PHC manage their activities compared with others?
   
i. (If better) What are the main reasons why this PHC manages their activities better than others?
   
   ii. What activities does the PHC carry out to improve performance?
       
       a. What did they do to reach out and build trust with communities?
       
       b. What did they do to improve quality of care?
       
       c. How did they involve community leaders, supervisors and other external resources in their efforts to improve performance?
   
   d. What else do you know the PHC did well to improve performance?

**For Poor Performers** (ask the following questions for each poor performer)

Now I am asking questions about the poor performers, xxx and xxx PHCs.

3) **Overall**: What would you think are the most important reasons that these health centers underperform compared to others?

4) **Community Factors**: What aspects of community situation impact on the PHCs’ performance?
   
i. How easy is it for community members to access the PHCs? (If not easy) How bad is the situation compared to other PHCs that perform well?
   
   ii. Do the PHCs face cultural barriers? (e.g., home delivery as a norm, competition with traditional healers and TBAs)
       
       a. (If yes) Could you explain what the barriers are, how large they are compared with the PHCs in the same LGA, and what have been done in the PHC(s) to address them?
   
   iii. Have there been any issues regarding the support from community leaders and WDC? (If yes) What do you think are the reasons behind it?
   
   iv. Is there any other community factor that makes the PHCs underperform?

5) **External Support**: What has been the level and impact of federal, state, LGA, and donor support on the performance of the PHCs?
   
i. Has these PHCs received less support from government or non-government stakeholders than other PHCs? If so what do you think are the reasons?
   
   ii. How many staff do the PHCs have? Do you think they are sufficient and/or qualified?
   
   iii. How would you rate the OIC’s skill level compared to other PHCs?
       
       a. What is the OIC’s managerial skill level in particular? Please give examples.
       
       b. How does the skill level of the OIC relate to the ability of the PHC to deliver on PBF targets?
   
   iv. How would you compare this PHCs’ access to drugs or vaccines from the central medical store with that of other PHCs? What influence the allocation of drugs?
v. In the past three months, how would you compare the regularity of visits by you or other supervisors/SPHCDAs with that of visits to other PHCs? How do you think this has affected the performance of the PHC?
vi. Has the timing of receiving PBF incentives been different (e.g., delayed compared with others) for the PHCs? (If yes) Why?

6) **Health Center Management**: How do the PHCs **manage their activities** compared with others?
   i. (If badly) What are the main reasons why these PHCs struggle to manage their activities?
   ii. What activities do the PHCs carry out to improve performance?
      a. What did they do to reach out and build trust with communities?
      b. What did they do to improve quality of care?
      c. How did they involve community leaders, supervisors and other external resources in their efforts to improve performance?
      d. What other issues you know the PHCs have in managing their activities?

III. **Other issues/Wrap up**
   i. Are there any other issues you would like to raise about the key differences in performance among PBF PHCs and/or health workers?
2. Case Study Template

Determinants of Performance in PBF Research (Nigeria State Health Investment Project)

Case study template for each PHC

Use this template to synthesize your findings from the interviews, document reviews and observations for each PHC. The template is indicative. If you feel more information should be included to give a full picture of the key determinants of performance for PBF facilities, feel free to do so.

A. Contextual Factors

(1) Community Factors

a. Distance and Accessibility of the Facility

Explain: (i) the distance (hours) to the PHC from LGA and from community; (ii) the road condition from LGA and from community; (iii) cost of transport for community (if available); (iv) availability of transport options; and (v) how they affect the utilization of the PHC. (vi) Also describe, if any, the good practices observed to overcome these barriers.

b. Cultural and Community Barriers/Benefits

Explain: (i) what are the cultural barriers that the PHC faces (e.g., home delivery as a norm, competition with TBAs in the community); (ii) what are the impact of the barriers in utilization of the PHC; (iii) what are the activities by the PHC to address the barriers; (iv) how effective have the activities been.

c. Other Demand-Side Barriers/Benefits

Explain any other demand-side barriers including poor information, lack of trust to the PHC. Argue with interview data whether they are due to poor management/outreach or poor quality of services, or due to something that are not controllable to the PHC.

(2) Support from other partners or programs

Describe the supports, if any, from other partners or programs: (i) what they are (try to quantify); (ii) how they affect the performance of the PHC and management practices.

B. Health Center Management

(1) Planning

Explain how the PHC plans quarterly, monthly, weekly, and/or daily activities. Particularly mention the following:

- How did they use the latest quarterly performance bonuses? How did they decide on spending?
• How was their spending and activities linked with the quantity and quality of services they aim to improve?
• How do they plan weekly and daily activities?
• How do they plan the activities of individual staff?
• How was the community, supervisor and/or other external people involved in the planning?

Related documents: PBF Business Plan, financial statement, PBF indices tool, meeting minutes, assignment sheets on a wall.

(2) Problem Solving

Explain how recent problems were solved in the health center. Describe: (i) how they were exposed; (ii) how root causes were detected; (iii) how they addressed the root causes; (iv) who were involved in the process; and (iv) what were the results.

Related documents: PBF Business Plan, meeting minutes.

(3) Performance and Target Management

a. Target Setting

Explain: (i) how the PHC sets their targets in delivery of services and/or quality improvement for the week, month and quarter (ideally linked to the PBF indicators); (ii) how demanding and realistic the targets are; (iii) how the PHC shares and consults the targets with staff; and (iv) How these targets are cascaded down to the different staff groups or to individual staff members; (v) how much staff know about and act toward the target.

b. Performance Tracking

Explain how results have been tracked. Describe: (i) what kind of indicators are tracked; (ii) how frequently they are measured; (iii) who gets to see these data; (iv) how they are visualized and shared. Note that merely reporting the monthly results to SPHCDA does not mean “tracking”. The tracking should be for their own review and planning. For example, visualizing the performance using chart on a wall to share among staff is a good example (but not the only way) of tracking performance.

c. Performance Review Meeting

Explain how the health center reviews their performance. Describe: (i) how often performance is reviewed; (ii) who are involved and will know the results through the meeting; (iii) how they identify performance gaps and problems; (iv) how they analyze their root causes; (v) how they develop follow up plan with clear responsibilities; and (vi) how they follow up on the implementation of agreed actions; (vii) what are good examples of the actions that improved performance. Attend their meetings, review meeting minutes to get information. Ask about the recent examples.

Related documents: PBF Business Plan, meeting minutes, chart on a wall (if any), PBF invoices

(4) Staff and Team Management

a. Assignment of Staff and Responsibilities
Explain how the OIC: (i) select skilled or unskilled staff (if she or he can); and (ii) assign important work to capable staff.

Explain how well the roles and responsibilities (e.g., job description and specific tasks) of staff defined and understood by the staff for: (i) normal duties; and (ii) performance improvement activities.

b. Team building

Explain with examples how staff is helping each other and work as a team and the impacts of the collaboration. Also explain what the OIC or other health workers do to build trust and collaboration with each other.

c. Performance Management of Staff

Explain how the PHCs reward good performers and address under-performers. Describe: (i) how the OIC assesses the performance of staff; (ii) how good performers are rewarded (e.g., PBF bonus allocation, other rewards such as recognition award, more training opportunities, etc.); (iii) how poor performers are addressed; (iv) how such practices influence staff motivation and performance.

d. Training, Coaching and Mentoring

Explain: (i) how (if any) the OIC provides feedback of the performance assessment results to staff; (ii) provide coaching or mentoring opportunities to staff; and (iii) provide other skill building opportunities to staff including training. Double-check with both the OIC and health workers on examples of health worker evaluation and feedback, and the coaching to health workers. Also describe with examples how these efforts motivated the health workers.

Related documents: Job description, individual performance evaluation sheet, indices tool, training records (if any)

(4) Communication

Explain how the PBF system and process, indictors for the health centers, targets, action plan (e.g., PBF business plan) for the health centers, their performance and ranks (compared to peers – this is shared in LGA-level meetings) have been communicated to staff and communities. Also explain how well health workers understand them and are motivated to improve quantity and quality of services.

Related documents: Meeting minutes, notices on walls

(5) Relationship Building and Resource Mobilization

Explain the relationship between the PHC with: (i) local community including ward development committee (WDC); (ii) LGA supervisors, (iii) other health service providers such as hospital, traditional birth attendants, traditional healers, and (iv) and other stakeholders if any.

Describe: (i) what the PHC did to build relationship with them; (ii) how the health center use them as resources; (iii) as a result, what impact (both positive and negative) is observed in quantity and quality of services at the health center.
(6) Financial Management
Explain how the PHC manages funds. Describe whether they:

- Have a dedicated staff who is responsible for financial record keeping and management;
- Record all operational and capital expenses;
- Record all revenues including user fees and PBF bonuses;
- Review and project the revenue and expenses to plan capital investments and operational spending;
- Separate and keep drug revolving fund (DRF) functional;
- Allocate financial bonus to health workers based on performance evaluation results and by following strict rules.

**Related documents:** PBF Business Plan, financial statement, statement on DRF, PBF indices tool

(7) Drugs Management
Explain how the PHC manages drugs. Describe whether they:

- Have dedicated staff who record and manage drugs;
- Record stock levels of all drugs every day;
- Have a system to detect the potential stock out of the tracer drugs beforehand (describe what are the practices in the PHC);
- Maintain sufficient funds (ask how much) in the Drug Revolving Fund (DRF)

**Related documents:** Drugs and vaccines card/logs.

C. Health Systems and PBF Implementation Factors

(1) Key Stakeholder Support

Explain, if any, any special support that the PHC receives from the state, LGA or any other stakeholders. Explain how this complements or conflicts with the PBF scheme and how it impacts on the PHCs’ performance in comparison with other PHCs.

(2) Human Resources

Explain: (i) how many staff the PHC has by cadre; (ii) whether 24/7 services are provided; (iii) if staffing is really an issue how it affects performance of the PHC; (iv) (if the PHC is performing well despite shortage of staff) how they deal with the staff shortage.

Also describe quality (i.e., will and skills) of the OIC and skilled staff, and if possible how they were appointed and the impact of the staff quality on performance.

**Related documents:** Job descriptions, staff roster

(3) Supply Chain
Explain: (i) how government supply chain performance affects the PHC; (ii) the availability of certified pharmacies and drugs near the PHC and how it affects the PHC.

(4) Stewardship

Explain the frequency, quality and effect (examples) of the supportive supervision from LGA supervisors and other government staff. Ask about the latest experiences and review feedback note if any. Compare with other PHCs you carry out the case study.

(5) PBF verification and coaching

Explain the frequency and contents of the PBF verification and coaching from SPHCDA and consultant. Ask about the latest experiences and review feedback note if any. Compare with other PHCs you carry out the case study.

D. Any Other Factors Missed

Explain any other differentiating factors for performance missed above with examples.
3. Document Review and Observation Protocol

Exploratory case study on influencing factors of health center performance under performance based financing (PBF) scheme in Nigeria – Document Review and Observation Protocol

I. Document Review

A. Documents to Review

<table>
<thead>
<tr>
<th>Documents at the PHCs</th>
<th>Purpose of the Review</th>
<th>Health center management factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Business plan</td>
<td>To understand how a primary healthcare center (PHC) set performance targets, analyze issues, plan activities to solve the issues and fill the performance gaps, and act according to the plan.</td>
<td>Planning, target setting, problem solving</td>
</tr>
<tr>
<td>(2) Financial statement</td>
<td>To understand how income and expenses are recorded comprehensively and regularly at the PHC, and they are balanced. Also to review how expenses are linked with the business plan, and how funds for drugs (e.g., drug revolving fund) are maintained.</td>
<td>Financial management, planning</td>
</tr>
<tr>
<td>(3) PBF invoices, quality checklist, and HMIS report</td>
<td>To see how the PHC records and reports data regularly, and use the data to review performance of the PHC.</td>
<td>Performance tracking and review</td>
</tr>
<tr>
<td>(4) Drug records</td>
<td>To understand how stock levels of the drugs and supplies are recorded regularly. Also to understand how often the PHC experienced stock-outs of essential drugs.</td>
<td>Drugs management</td>
</tr>
<tr>
<td>(5) Notices and graphs on the wall (if any)</td>
<td>To see whether the performance of the health center has been tracked regularly in a visual way and shared with staff. To see whether the cost for drugs and services (if any) and other useful information presented clearly to the clients.</td>
<td>Performance tracking, communication</td>
</tr>
<tr>
<td>(6) Staff evaluation sheet</td>
<td>To understand how staff are evaluated regularly, feedback are provided to staff and the evaluations are linked with incentives (e.g., PBF individual bonuses).</td>
<td>Staff and team management</td>
</tr>
<tr>
<td>(7) Minutes of the health facility committees and other meetings</td>
<td>To review how the PHC meets regularly, reviews the periodic performance, involves key stakeholders, discusses issues, develops action plans to address the issues and follows up the action items of the previous period. Also to see how the PHC builds team and collaborate with each other.</td>
<td>Planning, problem solving, performance tracking and review, staff and team management.</td>
</tr>
<tr>
<td>(8) Supervision note (if any)</td>
<td>To validate the frequency of the supervision visits and assess how supervisors provide feedback to the PHC.</td>
<td>Supervision</td>
</tr>
</tbody>
</table>
B. Approaches to Review the Documents

The research team will review the following questions and provide comments.

(1) Business Plan
- What is the date of the latest business plan?
- How often has the plan been updated?
- Does the latest plan include specific performance targets?
- Does it analyze issues and their root causes in improving the quantity and quality of health services?
- Is the action plan linked with the issue analysis?
- Does it specify timeline, cost and responsibility?
- Have some of the activities already implemented?

(2) Financial statement
- Does the financial statement record all the incomes and expenses at the PHCs regularly, comprehensively and accurately?
- Were the incomes and expenses balanced last year?
- Do the expense items link with the business plan?
- Are the funds for drugs (e.g., drugs revolving fund) separated and maintained with sufficient cash?

(3) PBF invoices, quality checklist, and HMIS report
- Are the latest PBF invoices, quality checklist and HMIS report readily available?
- Are they updated up to the previous quarter?
- (verify through meetings) Does the PHC use any of the data to review their performance and discuss performance gaps and necessary actions?

(4) Drug records
- Are the drug records updated until the day of the case study?
- How many of the drugs are from the state and other schemes (e.g., by donors)? How many of the drugs have been purchased by the PHC?
- How often had the PHC experienced stock-outs of essential drugs listed in the quality PBF checklist?

(5) Notices and graphs on the wall (if any)
- Are there any graphs or other performance data on the wall or visualized in other ways at the PHC to share with staff, except for EPI related data?
- If yes, have they been updated?
- Is the price list for drugs on the wall and updated and share with clients at the PHC?
- Are there any other useful information shared with the clients?

(6) Staff evaluation sheet
- Have the staff been evaluated every quarter as planned under the PBF scheme?
• Have the evaluation been agreed with the staff and feedback been provided to the staff?
• Are the evaluation results linked with the PBF individual bonuses and other rewards/punishments?

(7) Minutes of the health facility committees and other meetings
• How often do the staff and stakeholders meet? (i.e., How often are the minutes of meeting recorded?)
• Who participated in the meetings? Who are the external participants?
• Are the performance results (quantity and/or quality) reviewed in the meetings?
• Do the meetings discuss critical issues, analyze root causes and agree on the actions to address the root causes?
• Are the due dates and responsibilities for agreed actions recorded in the minutes?
• Are the action items agreed in the previous meeting followed up in the meeting?
• Does the PHC also review finance (revenue and expenses and how much left) in the meeting?

(8) Supervision note
• How often did the supervisors visit the PHC and leave notes? When was the last visit to the PHC?
• Does the note provide achievements, issues, resolutions and action steps/recommendations clearly? Does it deal with issues related to the utilization and quality of services?
• Is the previous supervision note followed up in the next note?

II. Observation

A. Meeting

The research team observes regular meetings at the PHCs to verify how the PHCs do target setting, performance tracking and review, problem solving, planning and financial management. While recording the discussions, the following questions will be reviewed for each meeting.

• Who participated in the meetings? Who are the external participants?
• Do the staff and external participants actively participate in the discussions?
• Are the performance results (quantity and/or quality) reviewed in the meetings?
• Do the meetings discuss critical issues, analyze root causes and agree on the clear actions to address the root causes?
• Are the due dates and responsibilities for agreed actions recorded in the minutes?
• Do the actions involve external participants such as community leaders?
• Are the action items agreed in the previous meeting followed up in the meeting?
• Does the PHC also review finance (revenue and expenses and how much left) and level of drugs in the meeting?
• Does the meeting establish a sense of team, trust and energy?

B. Communications within the PHC
Observe the following communications. Try to make it informal, e.g., while reviewing documents, working with laptop, staying long in the same room, etc., so that we can observe their normal communications. Document findings, so that you can incorporate them into the case study template.

(1) **Health worker – patient communication (about 3 health workers)**

Avoid observing any sensitive communications such as the ones related to family planning, HIV/AIDS, etc. Example of the services to be observed include OPD, vaccination and other child care.

- Does the health worker listen to the patient well?
- Does the health worker explain the diagnosis and reasons sufficiently?
- What is the tone of the communication by the health worker? (caring, friendly, authoritative, rude)
- Does the health worker spend sufficient time with the patient?

(2) **OIC – health worker communication**

- Does the OIC communicate with the health workers frequently?
- Does the OIC listen to the health workers?
- Is the communication to the health worker clear and confident?
- What is the tone of the OIC in the communication? (friendly, authoritative, rude)
- How do the health workers receive the communications? (positively, negatively)

(3) **Communication between health workers**

- Do they communicate frequently?
- Do they help each other or work together?
- What is the tone of the communication?
- Are they focusing on patient care and/or other health service activities?

C. **Other Observations**

The team will observe **supportive supervision** if it was held during the team’s stay in the PHC. Same observation questions as A. Meeting is applicable for the supervisory meetings.

Other observation will include the **physical conditions of the PHCs, stock-outs of drugs and supplies, and cleanliness of the facilities**. Such information will not be used directly for the analysis of key differentiating factors, but help the researchers to verify the findings from the interviews and document reviews. The researchers will take pictures of facilities (e.g., delivery room), drug storage, waste management, etc.