

CAMEROON: MIDLINE QUALITATIVE STUDY FINDINGS REPORT

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Summary

Cameroon is currently implementing a large-scale impact evaluation to investigate the effects of Performance-based Financing on health outcomes within the specific country context of Cameroon. While the impact evaluation is based largely on quantitative analysis using baseline and endline surveys, the impact evaluation team proposed to introduce a qualitative component to the overall evaluation to probe deeper for explanations or explore specific issues that are relevant to the piloting of PBF in Cameroon. The roles of qualitative research imbedded within a PBF impact evaluation are numerous: (i) to determine the set of issues that are relevant to the specific country context; (ii) to construct relevant quantitative measures; (iii) to explore relevant issues in greater levels of depth and detail; (iv) to understand the role of place, time, practices and processes; and (v) to enhance interpretation of quantitative results.

The PBF Cameroon midline qualitative study was focused upon two primary objectives:

- 1. Experiences in the piloting of PBF at the central, regional and district level: perspectives of *decision-makers*, *policymakers*, *and providers*.
- 2. Experiential elements of health service delivery at the operational level: perspectives of *community leaders and members*

The midline qualitative data collection aimed to answer two separate but complementary sets of research questions that addressed the learning objectives of the study:

- 1. What has been the experience of piloting performance-based financing at various administrative and operational levels of the health system in Cameroon?
- 2. What has been the experience of health service delivery for *health workers* and *community members* during the first two years of performance-based financing?

The midline qualitative study was conducted from July 2013 – September 2014. A total of 128 interviews (112 in-depth interviews and 16 focus group discussions) were collected across four regions of Cameroon: the Anglophone-dominated Northwest and Southwest regions and Francophone Littoral and East regions from January to March 2014. In-depth interviews were conducted with central, regional, and district-level health officials in addition to health providers and leaders at PBF-participating health facilities in addition to civilian leaders of communities served by PBF health facilities. The focus group discussions were held at the community level with female adults who resided within communities served by PBF health facilities.

The in-depth interviews and focus group discussions focused around experiences and perspectives of stakeholders regarding their reactions and perceptions of PBF implementation in the targeted regions. Findings and results were organized into two separate categories of perspectives, 1) *Healthcare System and Provider-based perspectives* drawing from the central, regional, district, and health facility levels and, 2) *Community-based perspectives* drawing from community leader interviews and community member focus group discussions.

From a regional and district health official/health facility leader perspective, the **most common obstacle** encountered during PBF implementation was the **initial reluctance and**

adjustment of health facility staff to the program requirements. The majority of health facility staff members were initially reluctant or disbelieving of the PBF program's promises and deliverables, particularly of receiving individual monetary bonus subsidies. Health facility workers were hesitant to accept the drastic work-style changes required by the PBF program before receiving the initial payments for their performance ("seeing is believing"). However, once the initial PBF payments were received, staff members were enthusiastic to embrace and adapt workflows to the standards set by PBF parameters. Obtaining strong initial buy-in and support of government health officials and health facility managers is essential in motivating health workers, particularly at the PBF program's onset and prior to receipt of PBF subsidies. Necessitating and overcoming long delays (such as the delays in obtaining the initial PBF payments that occurred in Cameroon) for PBF payment subsidies is essential in maintaining health personnel buy-in, enthusiasm, and support for PBF initiatives.

Overall, respondents overwhelmingly indicated **positive reactions and reception** of PBF implementation in their regions and facilities and expressed the desire for continued sustainability of the PBF program. **The majority of positives expressed were related to the increase in resources available for health care providers**: i.e. health work payments and bonuses, purchases of new equipment, development of facility and building infrastructure. A focus on resource needs was extended to questions pertaining to the future of PBF programming, with the majority of health facility leaders and community members expressing a desire for the program to continue, for "the money to never run out". With few exceptions, it was only at higher hierarchical levels (at the central and regional levels) where the need for more logistical and programmatic outputs (such as needing change at the level of policy or expressing a desire to maintain program sustainability through means beyond continuing financial subsidies) were expressed.

In general, health facility leaders, community leaders and members of C3 health facilities and communities (full control group in the impact evaluation) expressed overall positive reaction to and satisfaction levels with their health facilities, despite the fact that they were not included in the PBF pilot. However, when pressed on health system and facility needs and desires, across the board, interviewees spoke of a variety of needs, many of them of a severe level (for example, having no running water at the health facility, a lack of a doctor at the facility, no equipment or resources available at the center).

One of the benefits of PBF highlighted across multiple perspectives (government, health facility, and community) is the increased collaboration occurring through the various stakeholders that comprise Cameroon's health sector. The project either forged or strengthened already developed ties between regional and district supervision teams with health facilities and between health facilities and the community members they were serving. Through the reporting requirements of the PBF program, stakeholders were compelled to collaborate together more cohesively, as opposed to working as separate independent entities within a larger system.

"**PBF contamination**" was an interesting, though not highly prevalent result emerging from the control group health facilities.

Context

Cameroon's Health Sector

Despite progress in some areas, several aggregate health indicators in Cameroon have deteriorated over the last decade. Life expectancy has decreased from 55 years in 1990 to 51 years in 2011, while the mortality rate (among the population aged 15-60 years) increased from 321/1000 in 1990 to 403/1000 in 2008. Despite a continual regression of the HIV prevalence over time (5.3% in 2004 to 4.3% in 2011), the prevalence remains higher than the majority of neighboring countries in West and Central Africa. The mortality rate for malaria-related deaths (116/1000) also exceeds those of the African region (104/1000), as well as neighboring countries such as Central African Republic (World Bank, 2014).

Disparities between the rural and urban areas are significant for all health indicators, with mortality levels higher among lower socioeconomic groups. All mortality indicators are lower in rich households than in poor households. Only 80 in 1,000 children born in the richest quintile die before the age of five. However, the under-five mortality rate is more than twice as high in poor households. The age of the mother is also a determining factor. One in six children born to mothers under 20 years of age dies before the age of five, while one in eight children of mothers aged 20 to 29 years dies during childbirth (World Bank, 2014).

In Cameroon, one woman dies every two hours from complications of pregnancy or childbirth, and one in 127 pregnancies is fatal. Cameroon has the 18th-highest maternal mortality rate in the world, ranked just between the Republic of Congo and Angola. An analysis of disparities based on place of residence also shows that death of women during childbirth is more common in rural than urban areas. Close to 40 percent of women were still giving birth at home, with the percentage increasing to 81.8 percent in the poorest quintile of the population. Regional disparities show that the level of attended childbirth coverage in the Far North in 2011 was barely half the level of coverage achieved in the other regions twenty years prior (1991). Overall, little progress has been made in recent years with respect to access to childbirth services at a proper health facility. In 2011, 61 percent of births took place in a health facility, which means that around 40 percent of women were still giving birth at home (World Bank, 2014).

While Cameroon's annual per capita health expenditure is US\$61, its epidemiological profile corresponds more to that of countries with extremely low per capita expenditures (US\$10-15 per person per year). This situation reflects a deep-seated inefficiency in the use of available health care resources, and leads to significant inequities based on geography and the socioeconomic status of the household in terms of access to health services. The burden of health care financing is largely borne by households in Cameroon. With regard to total expenditures on health, out-of-pocket spending in 2010 accounted for 51.4 percent (including 94.5 percent in the form of direct payments) (Ministry of Public Health, 2014).

Resource allocation in the health sector is both highly unpredictable and prone to leakage (money, medicines, and supplies), which undermines the operational capacity of health services. Centralization and vertical allocation and management of financial and human resources were supposed to channel resources in a controlled way. However, health facilities do not always receive the operating budgets or supplies they need to provide proper services, leading them to find alternative options outside of the health system (purchase of

medicines in parallel circuits, improper use of "authorizations," etc.). Health facilities' resource management at the peripheral level is often far from transparent, especially where fees and medicines are concerned.

Governance problems are another key constraint in improving the performance of the health sector. An excessive focus on controls without a corresponding focus on results creates few incentives for health workers to deliver good quality health services or promote service use. Furthermore, non-transparent human resource management practices combined with low salary levels drive health workers to abuse public funds by charging informal payments or over-billing patients for services and, ultimately, to deter use by the poor.

Performance-Based Financing pilot in Cameroon

The Health Sector Support Investment Project (HSSIP) in Cameroon is currently implementing Performance-Based Financing (PBF) in public, private and faith-based organization (FBO) facilities across 26 districts in the Littoral, Northwest, Southwest and East regions of Cameroon covering a total population of approximately 3.0 million. The objective of the Performance-Based Financing (PBF) pilot is to enhance the quality and quantity of health care by paying health care providers and regulatory bodies based on their performance, as measured against predetermined targets, and formalizing this financing by a contract between the service provider and a purchaser. The intervention aims to increase providers' accountability with regard to their mission and give them the autonomy and financial incentives necessary to achieve these targets, in particular by enhancing motivation among health personnel. The earliest experience with PBF in Cameroon was in East region of Cameroon, beginning in 2006 with a pilot implemented by CORDAID. Through the World Bank's Health Sector Investment Support Project, PBF was scaled-up in 2011 in four districts in Littoral region, and in 2012 in the North-West, South-West, and East regions.

PBF Impact Evaluation

An impact evaluation of the PBF program in Cameroon is currently underway. As PBF has never been implemented in Cameroon on any meaningful scale and has never been systematically evaluated, the impact evaluation's policy objectives are to: (a) identify the impact of PBF on maternal and child health (MCH) service coverage and quality; (b) identify key factors responsible for this impact; and (c) assess cost-effectiveness of PBF as a strategy to improve coverage and quality. In doing so, we expect that the results from the impact evaluation will be useful to designing national PBF policy in Cameroon and will also contribute to the larger body of knowledge on PBF. The impact evaluation included a midline qualitative component to probe deeper for explanations or explore specific issues that are relevant to the piloting of PBF in Cameroon and will implement an endline qualitative component further analyze results of the the impact evaluation.

The study is a blocked-by-region cluster-randomized trial (CRT), having a pre-post with comparison design. Individual health facilities in the 14 districts from the three impact evaluation regions (Northwest, Southwest, and East) were randomized to one of the four study groups during public randomization ceremonies. This process of random allocation seeks to ensure that the four study groups are comparable in terms of observed and unobserved characteristics that could affect treatment outcomes so that average differences in outcome can be causally attributed.

Table 1: Regions and districts to be covered by the PBF pilot in Cameroon

	Region	District	Population (2011 est.)	Impact
				evaluation?
1	Nord-Ouest	Fundong	122,160	Yes
2	Nord-Ouest	Kumbo East	166,979	Yes
3	Nord-Ouest	Ndop	198,356	Yes
4	Nord-Ouest	Nkambe	117,541	Yes
5	Sud-Ouest	Buea	133,089	Yes
6	Sud-Ouest	Kumba	250,048	Yes
7	Sud-Ouest	Limbe	141,466	Yes
8	Sud-Ouest	Mamfe	63,365	Yes
9	Est	Doume	41,177	Yes
10	Est	Abong-Mbang	65,392	Yes
11	Est	Lomie	36,260	Yes
12	Est	Messamena	32,554	Yes
13	Est	Nguelemendouka	30,628	Yes
14	Est	Kette	40,677	Yes
15	Est	Batouri*	81,157	No
16	Est	Mbang*	26,840	No
17	Est	Moloundou*	37,124	No
18	Est	Ndelele*	44,318	No
19	Est	Yokadouma*	83,802	No
20	Est	Garoua-Boulai*	43,008	No
21	Est	Betare-Oya*	78,624	No
22	Est	Bertoua*	164,948	No
23	Littoral	Cité des Palmiers**	403,174	No
24	Littoral	Edea**	130,955	No
25	Littoral	Loum**	81,625	No
26	Littoral	Yabassi**	17,447	No

*Note- 19 districts in the East, North-West and South-West will participate in the second phase of the PBF pilot. However, 5 of these districts – Batouri, Yokadouma, Mbang, Mouloundou, Ndelele – have already begun implementing PBF in FBO facilities. The impact evaluation will therefore exclude these districts, although implementation of PBF in facilities will be financed in these districts through the larger project. A remaining 14 districts will be included in the Impact Evaluation.

After completion of the baseline survey in June 2012, PBF was rolled-out in the 14 health districts covered by the evaluation, launched by holding public randomization ceremonies in each region where each primary health care facility was randomly selected into one of the four evaluation groups (see Table 2). The endline survey will be completed in early 2015.

Table 2: Study groups

T1: PBF with health worker performance bonuses	C1: Same per capita financial resources as PBF but not linked to performance; Same
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^{**}The project began implementing PBF in 4 health districts (Cité des Palmiers, Edea, Loum and Yebassi) in Littoral Region as of January 2011. These four districts will also be excluded from the PBF Impact Evaluation due to the introduction of PBF prior to the IE Baseline Survey.

	supervision and monitoring and managerial autonomy as T1
C2: No additional resources but same supervision and monitoring as PBF arms and T1 and C1	C3: Status quo

The Midline PBF Qualitative Study Methodology

Research Themes and Questions

Within the context of the PBF pilot and impact evaluation, a midterm qualitative study was conducted. The PBF Cameroon midline qualitative study focused on two primary objectives: (i) to capture experiences in the piloting of PBF at the central, regional and district level (perspectives of *decision-makers*, *policymakers*, *and providers*); and (ii) to capture experiential elements of health service delivery at the operational level (perspectives of *community leaders and members*).

The midline qualitative study aimed to answer separate but complementary sets of questions that address the learning objectives of the study:

1. What has been the experience of piloting Performance-Based Financing at various administrative and operational levels of the health system in Cameroon?

- a. How do policymakers, administrative leaders and development partners at the central and regional levels of Cameroon's health system view the development and piloting of PBF during the first two years of operations?
 - i. What have been the challenges, bottlenecks and successes during the preparation of the pilot and first year of implementation?
- b. How do these actors perceive performance-based financing within the context of Cameroon's health sector challenges, specifically limited health service coverage, inefficiencies in resource mobilization and allocation, suboptimal human resource management, poor governance, and poor quality of care?
 - i. How has PBF addressed these challenges?
 - ii. Is PBF working as expected?
 - iii. How can PBF be reformed to better address the Cameroonian context?
- c. How have PBF implementers at the **operational level**, such as the *district health management teams*, experienced PBF during the first year of operations?
 - i. What have been the challenges, bottlenecks and successes during the preparation of the pilot and first year of implementation?
 - ii. What changes (positive or negative) have they witnessed in health service organization and delivery?
 - iii. How can PBF be improved to respond to the specific health sector needs of Cameroon?

- 2. What has been the experience of health service delivery for *health workers* and *community members* during the first two years of Performance-based financing?
 - a. How have providers' experiences with quality of care changed since the introduction of PBF?
 - i. In particular, in relation to, facility staffing and opening hours, infrastructure, drugs supply, equipment, supervision, HMIS reporting and management, user charges, facility revenue, personal motivation and professional satisfaction, staff dynamics, relations with Performance Purchasing Agencies (PPA), district health Management Team, Regional Health Delegation, patients and the local community?
 - b. How have community members' experiences with quality of care changed since the introduction of PBF?
 - i. In particular: financial and physical accessibility of services, facility staffing and opening hours, drugs and equipment supply, cleanliness of facility, user charges, reception by providers, quality of care, patient satisfaction, providers' community outreach work, and socio-cultural accessibility of services?
 - ii. How have care-seeking behaviors changed in the community? What are some of the barriers or facilitators for using facility-based health services?
 - c. How have community leaders and community health workers experiences with quality of care changed since the introduction of PBF?

Target Populations

The qualitative study was conducted in all four regions where PBF was being implemented under the Health Sector Support Investment Project. These include North-West, South-West, East and Littoral regions. Though the Littoral region is excluded from the impact evaluation study, it was included in this qualitative study to better understand processes and outcomes in the PBF districts in the region.

The qualitative interviews investigated the viewpoints and perspectives of performance-based financing from two groups:

- 1) Provider-based perspectives: Comprising health officials from the central, regional, and district levels in addition to health facility leaders and staff in the four PBF regions.
- o 2) *Community-based perspectives:* Comprising community leaders and members from PBF facility catchment areas in the four PBF regions.

Table 3 illustrates the two target groups in greater detail.

Table 3: Target groups and sampling methodology

Target Population	Stakeholder	Description	
Target Population	Level	Description	

	Vov odministrative and nalisy	Central	Ministry of Health and Development Partners	
	Key administrative and policy leaders at the central, regional	Regional	Regional Health Delegates	
1	and district levels of Cameroon's	District	District Medical Officers	ral
	health system; Health facility leaders and providers at the health service delivery level	Health Facilities	Health Facility Leaders and Staff at PBF-Participating District Hospitals and Health Centers (Including Private, Public, and Confessional Health Facilities)	NW, SW, East, and Littoral Regions Only
2	Community members engaging in PBF at the health service delivery level	Community	Community Leaders and Groups	NW,

Sampling Methodology

At the **Central Level**, a total of four in-depth interviews were held, two with Ministry of Health officials and two with members of development partners intervening in the health sector. For each of the four regions included in the study, the following interviews were held:

- At the **Regional Level**, each Regional Health Delegate were interviewed (4 total)
- At the **District Level**, two randomly selected District Medical Officers of districts implementing PBF were interviewed (8 total)
- At the **Health Facility Level**, *64 total interviews* were held at 64 unique health facilities throughout the country, targeting each of the four IE study groups (T1, C1, C2, and C3) in order to ascertain different perspectives and reception of the PBF program amongst the four groups and within a variety of types of health facility. The research team wanted to obtain particular emphasis at the T1 level, where the full PBF intervention was being carried out and thus determined a sampling strategy that focused interviews within all potential public, private, and confessional health facilities at both urban and rural localities. **Table 4** illustrates the breakdown of health facility level interviews, with the exception of the Littoral region which only had PBF (T1) and non-PBF (C3) health facilities.

Table 4: Breakdown of sampling strategy for health facilities within North-West, South-West and East regions

rest und Last regions								
	T1		C1		C2		С3	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Public	1	1	1	1	1	1	1	0
Confessional	1	1	1	1	0	1	1	1
Private	1	1	0	0	1	0	0	1
Total	Total 6 4 4 4							
18 total in-depth interviews (IDI) per Northwest, Southwest, and East								
Regions								
10 total IDIs for Littoral Regions (T1 and C3 health facilities only)								
64 total IDIs countrywide at the Health Facility Level								

There were a total of 18 health facilities targeted for in-depth interviews within each of the three regions included in the impact evaluation (North-West, South-West and East), and 10 in Littoral region. A purposive selection of districts, district hospitals and health facilities were sampled with the collaboration of the Regional Health Delegations and Performance Purchasing Agencies within each targeted region in order to ensure that the learning objectives and desired sample of the study were appropriately and comprehensively met. Both the Regional Health Delegations and Performance Purchasing Agencies of each PBF region assisted with the selection of health facilities to target during the data collection process.

At the **Community Level** a combination of in-depth interviews and focus group discussions were held. T1 and C3 catchment area communities were specifically targeted to best capture differences seen within communities served by health facilities experiencing the full PBF program as compared to communities whose health facilities were not. The community level focused on communities based in T1 and C3 urban/rural catchment areas, whose selection typically aligned with T1 and C3 health facilities that had also been selected and targeted for health facility leadership in-depth interviews. Communities attached to C1 and C2 health facilities were not conducted as the objective was to compare communities using health facilities under the full PBF package versus communities visiting facilities in the pure control group. Urban and rural localities were added to the community sample stratification criteria in order to best capture any differences within community perspectives that might relate to that urban or rural locality.

In-depth interviews were held with community members selected from two populations, 1) the president or leader of the community's women's group and 2) the community member who serves as the community representative on the health center committee. With maternal health being a key focus of the overall impact evaluation, the research team selected the leaders of community women's groups as key informants in order to ascertain any potential changes or effects of PBF to maternal health-related matters in the community. Community health center management committee members were selected as key informants to allow for the research sample to reflect community viewpoints from individuals likely to be familiar with health center activities within their designated T1 or C3 groups. The sample of community leaders was sampled and interviewed within the same communities where focus group discussions were conducted. **Table 5** illustrates the sampling strategy for IDIs at the community level, which included a total of *32 total community leader in-depth interviews*.

Table 5: Community leaders in-depth interview sampling

	T1		C3		
	Urban	Rural	Urban	Rural	
Women's Group Leader	1	1	1	1	
Community Member of HCC	1 1 1		1		
8 total IDIs per region					
32 total IDIs countrywide at the Community Leader Level					

Focus group discussions were conducted within the same T1 and C3 catchment area communities where community leader in-depth interviews were held. Focus group discussions were held only at the community level as a way to best capture a variety of community members' perceptions and viewpoints within a limited timeframe for data

collection. FGDs participant sampling was restricted to all-female adult groups of 6-10 participants given the maternal and child health focus of the overall impact evaluation study. **Table 6** illustrates the sampling strategy for FGDs in the midline qualitative study, with stratification by impact evaluation study groups T1 and C3 and urban/rural locality. A total of *16 total community focus group discussions* were conducted.

Table 6: Community focus group discussion sampling

T1		C3		
Urban	Rural	Urban	Rural	
Female	Female	Female	Female	
1	1	1 1		
4 FGDs per region				
16 FGDs countrywide at the Community Level				

Qualitative Study Personnel

The midline qualitative coordinator was hired in June 2013 to initiate development and design of the midline qualitative study. Qualitative research experts from the University of Yaoundé I, Faculty of Medicine in Cameroon were also hired to provide support to the development and implementation of the study. Eight local interviewers were hired to carry out the data collection phase of the project. The eight interviewers were organized into two teams (an Anglophone team and a Francophone team) to conduct fieldwork in the assigned regions (North-West and South-West regions for the Anglophone team and Littoral and the East for the Francophone team). The interviewers hired all had prior experience conducting and facilitating in-depth interviews and community focus group discussions in Cameroon and multilingual capabilities to lead interviews in either French, English, or Pidgin English, as was necessary within the regions that they are assigned to.

Data Collection and Transcription

Data collection occurred in the field from January to March 2014, under the supervision and direction of the local consultants and research experts of the University of Yaoundé I. Interview protocols were developed in English, translated and back translated into French, with separate protocols developed and specified for each set of stakeholders.

This resulted in a total of nine interview questionnaires for the midline qualitative study:

- 1) Central Level Interview Guide
- 2) Regional Health Delegate Interview Guide
- 3) District Medical Officer Interview Guide
- 4) T1 Health Facility Leadership Interview Guide
- 5) C1 Health Facility Leadership Interview Guide
- 6) C2 Health Facility Leadership Interview Guide
- 7) C3 Health Facility Leadership Interview Guide
- 8) Community Leader Interview Guide
- 9) Community Focus Group Discussion

Copies of each interview protocol can be found in the Appendix. All health administration and provider-based interview protocols, with the exception of the C3 health facility leader

interview guide, followed a similar structure of delving first into the key informant's role and perceptions of the PBF project, followed by questions on any perceived changes due to PBF, and finally ending with a discussion on how key informants felt that the PBF program could be improved or reformed. Interviews at the regional and district levels also included a section asking about supervisory roles and training that key informants at that level received in regards to the PBF program. For the Health Facility Leadership interview guides for T1, C1, and C2 facilities, an additional section was included that specifically asked key informants about perceived benefits, likes, and dislikes about the T1, C1, or C2 interventions. Given that C3 health facilities operated at status quo, with no interaction from PBF personnel, the C3 Health Facility Leadership interview protocol focused upon any changes or improvements seen by key informants within the past year, keeping respondents within a recall period that matched with the PBF implementation timeframe occurring at the other T1, C1, and C2 health facilities.

At the community level, for both community leader key informants and adult female focus group participants, the interview protocols were fine-tuned to focus upon health-seeking behaviors within the community and asking community members to recall good and bad experiences with their healthcare facilities in the past year. While the overall goal of PBF is to improve healthcare services and quality for users, the research team determined that most community members might not necessarily know specifically of the PBF program itself. However, capturing community members' perspectives of what they are experiencing at their health facilities was determined to be an important factor in investigating the effects of PBF implementation within the country.

Following the hiring and training of the interviewing team, the interview guides and instruments were pre-tested in the field in mid-December 2013 with the Anglophone team conducting pre-tests in the North-West Region and the Francophone team conducting pre-tests in the East Region. Following the pre-test phase, the interview guides and tools were further revised and refined in order to ensure capture of all discussion topics relevant to the study. Interview protocols were also reviewed and vetted by a senior research consultant familiar with PBF-related qualitative research.

The interviewer teams spent approximately eight weeks in the field, spending four weeks in each assigned region interviewing key informants at the regional, district, health facility, and community levels. The four central level interviews were conducted and transcribed by a team at the University of Yaoundé I following completion of data collection. The research team accompanied interviewer teams during the first week of data collection in the field to insure coordination and quality of the data collection process. At the beginning of each team's arrival to a PBF region, interviewers would meet with the Regional Health Delegate and PBF Performance Purchasing Agency, to facilitate introductions to the region as well as gain assistance from PPA verification agents who would assist and facilitate introductions between interviewers and selected key informants. All interviews were recorded, following a consent process, with the recordings and interviews labeled with pre-assigned codes to insure organization and management of all data. Each team of four individuals had one designated team manager who was in charge of organizing and securing storing interview materials and recordings.

A midpoint study check-in meeting occurred during the halfway point of data collection, where both Anglophone and Francophone teams met to recap the first stage of data collection as well as submit the first set of interview recordings to the data transcription team. The

interview and focus group recordings were stored on secure flash drives, which were then transferred to a hired consultant transcription firm located in Yaoundé, Cameroon where all interviews for this study were transcribed in English and French. Interviews that had been conducted in Pidgin English were translated into English during this process.

Data Analysis

Analysis began with a list of potential broad themes as drawn from the research questions on the process and reaction to PBF implementation in a process of open-coding. The inductive development of codes followed a modified grounded theory approach which incorporated thematic coding based on the research questions. This allowed attention to be paid to interpretations which emerged from the data but pertained to the themes specific to the research questions (Glaser, 1965). Strategies for identifying themes included identifying repetition, typologies and categories grounded in the data, transitions, similarities and differences, linguistic connectors, missing data and theory and research question-related material (Ryan & Bernard, 2009). Codes developed in open coding were then organized and synthesized into a codebook (Glaser, 1965; Strauss & Corbin, 1998). The next step was to draw on the themes identified using axial coding and selective coding (Miles & Huberman, 1994) which connected different parts of the data in ways salient to the research questions. Given the structure of interviews capturing stakeholder perceptions across a vast range of viewpoints, interview data was organized into two separate codebooks for analysis, reflecting the categorizations of the original research themes of this qualitative study; (1) Healthcare system and Provider-based perspectives and (2) Community-based perspectives. The first codebook drew data from the interviews with central, regional, and district-level health officials and health facility leaders while the second codebook drew data from the community leaders IDIs and community members FGDs. Data triangulation was then applied to analyze for comparative measures and inconsistencies found between the two interview groups. This coding and analytical process was conducted using the qualitative analytical software NVivo 10.

Results

Part I: Provider and Administrative Perspectives on PBF implementation

Successes of Implementation of PBF in Cameroon (Healthcare system and provider-based perspectives)

Overall, health officials and health facility stakeholders that were interviewed described **overwhelming positive reactions towards the implementation of PBF** within their regions, with no substantial differences found across regions. A majority of positive feedback centered on the increase in resources available at the health facility. Examples of these benefits included updating or purchasing equipment for health facilities, infrastructure improvements in the form of increased cleanliness, maintenance and painting, and expansion of facilities.

"If you see, see yourself we have already made the fence ... it is from the subsidies that we have also bought a TV set which is also helping to distract some of our patients; it is still from that funds, there are very minute things that we are doing. It is very insignificant but it has helped to change the place. If you had come here once before you would have really confirmed with me that there is a big change, they are things that you do without really noticing that they are doing something now but it is really helping." (Health Facility Leader; Southwest Region, Rural Health Facility)

"We did the construction of this canteen as I was saying, and we painted the hospital as you can see. Some of the walls we even cracked and re-cement it because they were cracked. Those are some of the indicators and we are now going gradually. We started from the maternity we did the painting in and out and we went on the admission ward, we did the painting in and out. My own section here, this building, is not yet painted we are still planning to paint externally because inside we are still somehow a bit clean." (Health Facility Leader; Northwest Region, Urban Health Facility)

"We are able to work; I mentioned the vehicle that were able to repair up to two million francs at once because of PBF funding; I've made mention of the our leaking roof which we have been able to repair otherwise it should have been standing there waiting. We have been able to...create a filing system now where one can, the records keeping has improved." (District Medical Officer; Northwest Region)

"We are trying to beautify the compound; we want to plant...the edge that we plant around those yellow bush, we want to plant in the whole compound so that it should look nice and attract more people coming in and we are trying to make roads better... And then we are trying to also build gutters for drainage, we started with the frontage where you were sitting there were flowers we tried to cement that and as the means is we continue to extend to other places and even around the building and the other innovation we painted the maternity section and the laboratory leaving this side to do it as the means is there." (Health Facility Leader; Littoral Region)

"The hygiene and sanitation of the health units is very improved and more attractive." (*Regional Health Delegate; Southwest Region*)

"The infrastructure has improved, the office we are sitting inside, if you see this office about...two years before the project came we could not imagine that the office of the district medical officer even the old vehicle I'm using it was an abandoned vehicle. Because of the finances that we had from PBF we could rehabilitate the vehicle and it can at least help us go to a few places for supervision. and...if you go to the other health units you would see that it has really come to improve so much on the infrastructure the health units and the equipment most health units have been able to purchase basic equipment." (District Medical Officer; Southwest Region)

Following infrastructure enhancements, **improvements in staff attitude and morale** was the next most positive benefit of PBF implementation cited by interviewees. Like infrastructure improvements, this improvement in staff attitude and morale is closely linked to the increase in resources, goods and equipment acquired through PBF funds. The financial bonuses received by health facility staff served as a strong motivator for staff members to meet and work to exceed the expectations given to them via their assigned designations and roles within the health facility. Improved staff attitude and morale was noted not only at the health facility level but within supervisory teams at the regional and district levels as well. Of note, however, was the observation by some health facility leaders that PBF funds and staff bonuses actually served to remind staff of their duties – that staff members in actuality were underperforming in their roles prior to and at the beginning of the PBF program.

"Team spirit has also increased tremendously and corrupt practices like parallel sales of drugs under table charges are drastically minimized. So I think, above all, the staffs are more motivated to do their work and also have job satisfaction because of the enabling environment." (Regional Health Delegate; Northwest Region)

"With time people started to see into it that it was something worthwhile and that they could really benefit from it and especially when the first payments came people were really happy with the money." (Health Facility Leader; East Region, Rural Health Facility)

"In each ward, especially for the quantities that I bought, the staff are well trained on how to document; for instance, the doctors had to be given, to be reminded of their functions. I think PBF brought nothing new but reminded people of what they were doing but were neglecting." (Health Facility Leader; Littoral Region, Urban Health Facility)

Additional successes attributed to the implementation of PBF included improvements in the quality of health services provided, increases in the availability and use of healthcare services, and improvements in patient satisfaction. Those interviewed closely linked these successes with the greater autonomy, both in financial and managerial terms, afforded to health facilities with PBF contracts. Prior to PBF, T1 and C1 health facilities relied upon central authorities to determine how to use and distribute funds, with those funds oftentimes being promised but never materializing in actuality. The extra funds allowed health facilities to allocate resources towards priority areas, as determined by the facilities' management and personnel themselves as opposed to relying upon or requiring central authorization or direction for facility expenditure and investments.

"And in the domain of usage, health staff are generating their finances and using it according to needs: local needs rather than stream lining them to physical needs or the running of the state budget as prescribed by budgetary rules and regulations." (*Regional Health Delegate; Southwest Region*)

"This idea of giving money, of giving you financial autonomy and you have your black box in which you sit in committee and decide on what to do in your health unit, which is not what used to happen. We know that with the government, they give you a carton that is written in three hundred thousand but you might not end up even realizing one hundred thousand from that. Therefore it was not readily available for you to use so I think it is a big innovation because we have...money comes into the health units and we have the autonomy we decide on what to do with the money. Health facility staff use it on the spot and decide on how much you want to put in the health units as far as infrastructural development is concerned." (District Medical Officer; Southwest Region)

"The other very positive aspect of PBF it is not only what we are receiving because normally according to the norms of PBF we are not supposed to use more than 50% to motivate ourselves. Here in the hospital, this is one of the rare hospital where we have jointly agree sometimes even not to use the money to motivate... ourselves and from time to time, not even when we want to motivate ourselves, we don't even go up to the 50% that they allow us to do. This one is jointly decided with the heads of units. Why? Because the other positive aspect of the PBF is improving on the quality and quantity of equipment and we have been doing a lot in this hospital with that." (Health Facility Leader; East Region, Urban Health Facility)

"Well we have moved from less than 40% growth to about 80%. That is our first success; the utilization of the health center has increased. We usually consult about 30 to 40 patients before but now we are having above 100. Even women that come for clinic they have increased therefore our income. Even the income of the health center has increased; so even without PBF today we will be happy that our income has increased and it will continue to increase if we continue to work the way we are working now with PBF our income will continue to increase." (Health Facility

Leader; Northwest Region, Rural Health Facility)

"As I was saying there is a great improvement. If you look at my register now, this is the register that I started with PBF but if you look at the other one, I never used to consult more than forty...but now my consultations are more than a hundred at least. I've even gone up to two hundred some months...so the services have improved, deliveries have improved, ANCs have improved; all these things have improved. (*Health Facility Leader; East Region, Rural Health Facility*)

"In line with mother and child health let me start first with ANC and delivery. In the past in a month we could deliver maybe one child or two. But with PBF and social mobilization, averagely we can deliver five children in a month. Last December we delivered nine children. In my last PBF report, I told them that since I came here this is the highest number of children that I have delivered in a three month period – 21 children! In the past it was not going at all. Some people did not even know that they could conduct a delivery here. So now they are coming for ANC, Today was an ANC day - I had three women for ANC. In the past you could stay here for one month with two women for the whole month but just this month we have about 9 cases of ANC already." (Health Facility Leader; Northwest Region, Rural Health Facility)

"The number of patients has increased. The appreciation is... you can hear it in their voices. Because usually when it is bad they don't or they talk very far but when it is good they are happy to say it to you. That one it is clear. Here, we are getting patients who are really coming and thanking us for all what is going on. To me, the quantity, the number of patients who are visiting the hospital is increasing." (Health Facility Leader; East Region, Urban Health Facility)

One more positive success of PBF implementation highlighted by a great majority of interview participants was the **vast improvements in supervision** brought about by the PBF intervention. This improvement in supervision was found to be at the heart of the PBF program – with enhanced supervision by central, regional, and district levels allowing greater collaboration between regulatory bodies and the health facilities they were supervising. At the health facility level, increased supervisions by both staff and PBF performance purchasing agency verification agents served to keep health staff on notice, meeting, improving, and working to exceed their requirements and position expectations. Many of the successes and positive outcomes highlighted above can be linked to improved supervision brought about by the PBF program.

"I think...I used to tell my DMO when he comes for supervision...I say chief, 'na PBF don make you so you did come'. I think I stayed here for three years I never knew the DMO. He has not been changed, he is the very one but now there's a supervision register there. Every time he supervises, he comes and supervises and sign. Every time he comes, he supervises. But before, nobody knew the DMO here, so now; he has to come for supervision because when he doesn't supervise, PBF will also tack him." (Health Facility Leader; Northwest Region, Urban Health Facility)

"Supervision is the greatest aspect of PBF. It's not even the money, money just comes that...when they supervise you, you are tired, you can have a certain motivation but I think... the supervision aspect of it, it needs close supervision because here, if I am not there to supervise the counting and the clarification, the wrong figures come." (Health Facility Leader; Littoral Region, Urban Health Facility)

"We did not go to supervise units to help them develop business plans. So now with the coming of the PBF, we do that. We didn't use to supervise to see the level of implementation of objectives,

now we do that. We carry out quality assessment at the end of every three months and apply the quality assessment checklist; we did not used to do that." (District Medical Officer; East Region)

"I think one of the big results at the region we are getting which is very positive is district supervision. Before now the issue of supervision is always a problem." (*Regional Health Delegate; Littoral Region*)

"At least now we have supervisory visits...which we were not having before which to me it's good because it comes to help, to enlighten on certain things that you have neglected, you know, and make you to sit up; at least when you know that somebody will come and make a check and follow up your activities. You try to do your best such that when he comes, you don't let yourself down. That was not happening before but with the PBF program that is going on and personally, I appreciate it. I appreciate it. (Health Facility Leader; Southwest Region, Rural Health Facility)

Obstacles and Challenges in Implementing PBF in Cameroon (healthcare system and provider-based perspectives)

From a health official/provider standpoint, the most common obstacle encountered during PBF implementation was the **initial reluctance and adjustment of health facility staff** to the program requirements. The majority of health facility staff members were initially reluctant or disbelieving of the PBF program's promises and deliverables, particularly of receiving individual monetary performance bonuses. Health facility workers were hesitant to accept the drastic work-style changes required by the PBF program before receiving the initial payments for their performance.

"At the beginning it was not easy because I was now trying to force them to put in place the principles of PBF with only promises because they were saying <<you are asking us to do this and that money will came this will came this will came will it not be as the other programs that they are coming and promising and we stay for 5-10 years nothing is coming>>? And honestly speaking it was not easy; it was really really difficult." (Health Facility Leader; Littoral Region)

"It was difficult breaking through because [the staff] did not come for the briefing so we came for the training and when we went back at one moment they were calling me 'Doctor PBF, that your thing like that is going to disturb us, we want things to move faster after all what is our benefit in it? They come and disturb us every day that we must wear uniform that you do not give us soap and so on'. So when it just started it was a little bit difficult because when they conceived it, they matched it with money." (Health Facility Leader; Southwest Region, Urban Health Facility)

"The general response is that when it started, people were very negative because they thought that PBF it has come to play on stickiness, people used to come to work at any time that they want and disappear at any time." (District Medical Officer; East Region)

However, once the initial PBF payments were received, staff members were enthusiastic to embrace and adapt workflows to the standards set by PBF parameters. This process of adapting to and accepting the PBF program was slightly impeded by the long delays in disbursing initial payments, with health facility leaders serving as both authority and motivational figures in the lead-up towards receiving payments. Upon receipt of payments, staff members were then more eager to abide by and work towards exceeding the standards set by PBF parameters for their health facilities.

"Now the challenges that we have faced, you see it is a new project that came in and... it came in and people from the beginning were not really believing that it was something that would work especially our mission hospitals and the rest they were not really believing that it would work and

so...they were some few tracking and the people were not really sure that it would work and so.. it started off very slowly but with time people started to see into it that it was something worthwhile and that they could really benefit from it and especially when the first payments came people were really happy with the money and...the staff too knew that what they were saying...it was something worth happening." (District Medical Officer; Northwest Region)

"So the check for the first four months, three months without money they, they...were a little bit, at one point, they certainly became reluctant but once the money started flowing, the motivation was coming, everybody stood up." (Health Facility Leader; East Region, Urban Health Facility)

"Well, at the implementation level, usually one of the challenges is the funds maybe will not come on time; there are facilities which I've complained about which could be due to bureaucracy and bottlenecks of our administration." (Regional Health Delegate; East Region)

In addition to the initial reluctance and adjustment of health facility staff, mixed messages were considered to be another major challenge experienced by PBF stakeholders. Health administration actors (at the regional and district levels) would sometimes encounter PBF parameters that would or were perceived to go against directives they had received from the central-level of the Ministry of Health. When such conflicts occurred, health officials would typically disregard any PBF directives that went against the central level. As highlighted in the prior section, supervisions were a key part of the PBF program found to be of substantial benefit to improving infrastructure and services, particularly with the establishment of strong supervisory systems during the implementation phase. However, a challenge often faced by health facilities was in receiving conflicting or mixed messages by supervisory officials regarding aspects such as reporting indicators or how facilities should be allocating and distributing PBF funds. Several study respondents at PBF health facilities noted that Performance Purchasing Agency staff used different standards to tally up indicators that would lead to differences in monthly reports, thereby affecting subsidy amounts that health facilities would receive. Different orientations were also given in regards to how health facilities ought to use PBF funds, with conflicting messages given in regards to what percentage of funds ought to be allocated to staff bonuses and what percent of funds would go towards infrastructure and investment purposes.

"If you come here and insist that PBF principles says for instance; they said all money generated from the health units has to be put together so that they can spend it together. But if you look at the health policy, that's not what the health policy says to do. If you put that money there and the controllers come, nobody will listen to you. And I have been put here by the health policy and not PBF. So I will not do it. (*District Medical Officer; Northwest Region*)

"There are certain policies that don't tie with PBF that have to be changed but at the higher level. And those are the bottlenecks that would hamper us moving, that made me not to be able to do certain things; certain things that are related to the autonomy. The higher level has to do it and it is within the powers of the Ministry of Health to do that because of the autonomy. That is where we have the difficulty but then we had to push it on because PBF was now being done as a pilot so with piloting you can overrun rules and regulations." (Regional Health Delegate; Northwest Region)

"I have a problem with the peer-review team. Because they never sat down to come out with standards of each, quality. When they come, some people come with their own opinions about the quality of a particular thing. So my point is the peer-reviewers ought to sit together and come up with a common standard and then we are able to see those standards. The peer-review team should

come up with common standards so that independent of who comes for the quality check, what is correct is correct and what is wrong is wrong, and not because different perceptions of quality." (Health Facility Leader; East Region, Urban Health Facility)

"I don't think that [the verification process] is very transparent because when this person will come, the person will really validate and say this thing is okay but another person will come and the thing will be off. At times we are just dancing as fools. So it would be good to have something very direct and dynamic so that if you are putting this one in place, you know that it is right. Like the last time a verificator came for supervision, for the kitchen they had been coming and scolding us but yet she still gave us zero. I said 'How can you just give me zero when I have a kitchen with the necessary thing that they want?' and she said that I have not plastered my kitchen, I have not cemented. She gave me zero and went so I had to abide by it." (Health Facility Leader; Northwest Region, Urban Health Facility)

"For the supervisory aspect what I would like is that they should be uniform. Because they bring us, like let me say today, this supervisor will come and tell me to do a thing and when I do it, the next supervisor will come and say it is not correct. So they should be uniform." (Health Facility Leader; Littoral Region, Rural Health Facility)

"Like the last meeting we had – at the beginning of the PBF – they gave the impression that when they buy, 50% of the fees fund is for the motivation of the staffs. Then later on, we were told that no more to give 50% of this motivation to the staffs. So the thing brought some problem so even the staffs who were there, they said 'Ha! This type of thing when you go back now and you want to tell them so they will say no! You want to manipulate with the money. Why is it that you people have come and told us from that it will be 50%? Why are you changing it again?' They said, 'No, we want that the money should be used for investments rather than motivating the staffs. But from the onset this is what you people said and now you are changing so it brings some misconception." (Health Facility Leader; Northwest Region, Urban Health Facility)

IE Control Group-Specific Findings (healthcare system and provider-based perspectives)

One of the main struggles for health facilities was to operate under the parameters of their assigned IE control group – whether their facility was randomly selected and assigned to the T1, C1, C2, or C3 groups. **Health facilities operating at differing baseline levels of capacity** was a key complaint and obstacle expressed by health facility key informants in terms of being able to meet PBF goals, regardless of which IE group they had been designated to. Differences across facilities were often attributed to varying levels of management, facility catchment areas, or difficulties in access.

"And the challenges of the district health system relies on the fact that formerly they used to create health units without taking into consideration the catchment area of the health facility. So you have some health facilities that are created in places where utilization is a problem irrespective of what you do. So these are some of the challenges that we face with PBF because, no matter what you do, the health unit was created where people are not found. So utilization would always be low and now they have linked our performance to the lowest. So you see, we will just be penalized because we don't see anything to change in those health units since from their inception, they were created at back places." (District Medical Officer; Southwest Region)

"What has not gone well with PBF is that there are certain things PBF wants us to do, like having a mortuary which is not within our reach; yes, an insinuator it's not within our reach; yes, a pipeborne water at the health facility; it's not within our reach, some of the activities. (Health Facility Leader; Northwest Region, C1 Designated Rural Health Facility)

"If PBF can really assess the health center that is involved and if they notice that it is an area with a difficult terrain and really see into it and consider such, then it will really help a lot. Because if you look at the health centers that are involved with PBF, you will see that some of the health centers are not really difficult as others but some are very difficult. So if they can look into such, then PBF will really prosper seriously." (Health Facility Leader; East Region, Rural Health Facility)

"If you take T1 facilities, all of them are not performing at the same level, again, based just on the management of these facilities." (Regional Health Delegate, Northwest Region)

"There is a lot of demand from the T1. They expect you to do even more than you could even do. That is the biggest challenge with the T1. They expect you to do more but at our level, at our community, we don't really have that population but we are trying our best." (Health Facility Leader; Southwest Region, T1 Designated Rural Health Facility)

Much disgruntlement was expressed from T1 facilities regarding C1 facilities receiving subsidies without having to put in efforts for performance as was expected by T1 facilities. Many T1 health facility leaders expressed envy or reported staff disgruntlement for the C1 position, often feeling that C1 health facilities were benefiting from their and their staffs' own hard work and efforts at improving performance. Interestingly, on the other hand, some C1 facilities expressed their own dissatisfaction with T1 facilities, complaining of poor performance by T1 facilities that led to C1 facilities receiving lower PBF bonuses than if they had been graded by their own performance.

"Sometimes we, as the T1, are holding some grudges because the C1s are just eating money like that and we are struggling. At first when they made the random sampling I was so happy but after some time I realize that for the C1s, just even though they also come and follow up with them, they don't struggle like us because we are putting more effort every month to see that we work. If not, we will not have anything. But the C1s can just sit there." (Health Facility Leader; Northwest Region, T1 Designated Urban Health Facility)

"For instance, we can do much work from their calculation, maybe we can do much work and you see that if you calculate the work that we have done in terms of money it could be about 400,000 CFA but because they are paying us based on the production of T1s, that money can become 330,000 CFA. So, in that kind of case, we don't really feel fine because you will really do your own and they are not paying you according to your production." (*Health Facility Leader; Southwest Region, C1 Designated Urban Health Facility*)

Many successes were noted and reported from key informants interviewed at C2 health facilities, with infrastructure and quality improvements strongly attributed to the strong supervisory nature of the PBF project. However, across the board, C2 health facility managers repeatedly expressed strong desires to also receive PBF payments or cited their lack of receiving PBF funds as the major obstacle preventing further improvements in health service delivery. Despite the overwhelming mindset on expressing a need for money, there were a few instances of personnel at C2 facilities who went above and beyond in utilizing the organizational and supervisory ideals taught by the PBF program in improving their health facility despite a lack of PBF funds.

"If I had to quote my colleagues, 'they disturb us for no good reason'. They incapacitate you with knowledge and supervision but yet you don't have the financial benefits. So they expect you to go to heaven when you have not died. They want you to do things when they don't give you the powers to do the things. So how do you do them?" (Health Facility Leader; Southwest Region, C2 Designated Urban Health Facility)

"The C2 people have been very reluctant but there are some C2 that are even working even harder than those people who are really having money, who are really trying to abide. For instance, the Baptist health unit – the Baptist health unit is not having any funds but they are working far better than even some units that are having funding." (*Regional Health Delegate, Northwest Region*)

Overall, all of the T1, C1, and C2 health facilities expressed some form of structural or quality improvements due to the implementation of the PBF program. As highlighted with the C2 group above, many of these improvements were attributed to the strong supervisory nature of the program which required facilities and staff to "sit-up" and begin organizing their registries or for nurses improve their appearances and attendance at their respective health centers. For those facilities within the C3 group, health facility leaders interviewed expressed satisfaction with the status quo, often speaking positively of their facilities and of their present levels of performance and user satisfaction. However, when probed about desired improvements, health facility leaders would express critical needs for their facilities, from having a lack of running water or basic equipment to the need for an on-site doctor to head the facility and see patients. Few key informants interviewed at the C3 health facility level seemed to be aware of the supervisory activities and general PBF program occurring at other TI, C1, and C2 health facilities within their region – resulting in little to no mention of desiring to be more included within the PBF program.

"PBF contamination" was an interesting, though not highly prevalent result emerging from the control group health facilities. In some cases, those in health leadership positions took it upon themselves to spread the ideas and concepts taught by the PBF program to non-PBF facilities. A few C2 and C3 health facilities also reported noticing a significant loss of patients from their own facilities to PBF-funded health centers, particularly in cases where their facility was previously considered of higher quality but had one or two detriments for users, such as longer distance or higher costs. Following the improvements in quality and competitiveness of PBF facilities, C2 and C3 facilities that had been previously attended were suddenly losing patients to those PBF facilities.

"I use the knowledge on PBF to improve on health care services in the region not only in the PBF health districts but also in other health districts... I make sure I share the knowledge that I have on PBF for them to be able to improve on their services. That is why I told you that PBF is already contaminating other health districts to other health units that are not in the PBF health district; because I share this knowledge with them. I make them to use it and I say that though PBF has brought some money to catalyze it, it is the principles that are more important because they are paying those services after you have produced them." (*Regional Health Delegate, Northwest Region*)

"In fact when I see the other friends and how they distribute money – some even have their staff motivations even more than their salaries and so I expect that if we could find ourselves in PBF it will be very wonderful for us because it will help us and help the institution. I have a nearby institution where maybe I am losing some of my customers because of the way the health center is operating. And I think nobody will like to come and lay on a bare bed when he knows that if he goes to the other health facility, he will have a bed there with mattress clean and many other things. So if PBF were to stretch a hand to us I think we will recover those our customers who are missing." (Health Facility Leader; East Region, C2 Designated Health Facility)

Regardless of intervention or control group designation, many health facility providers spoke of a fear of inertia or lack of healthcare improvements were it not for the implementation of the PBF program in their regions. If not for the PBF program, healthcare providers would be

unable to make the many infrastructure updates and community outreach efforts that many were afforded to with the monetary subsidies provided by the PBF program, as well as the greater autonomy allowed to health facility personnel in determining where to disburse and invest those funds.

"If there was no PBF, then this issue of giving free consultation free labs would not be existing. For everybody that comes here, most pay consultation fees whether you are orphan or not, whether you are epileptic or not; so we'll only collect that money from them in order to run our facility. So if there was no PBF, I can't lie you, we will not do anything for free to anybody." (*Health Facility Leader; Littoral Region, Rural Health Facility*)

"I have observed the other health units that are being financed by PBF. I think the way their health unit is looking is quite beautiful. So if the PBF did not come I don't think the health units would have been looking that beautiful because they will take the initiative now to make the health unit what they want it to be mad without depending on the government; because waiting on the government you may come one day and find the health center collapsing." (*Health Facility Leader; East Region, Urban Health Facility*)

Looking Ahead (healthcare system and provider-based perspectives)

In terms of looking ahead and considering the future of PBF, all interviewees unanimously expressed the desire for the PBF program to continue indefinitely. In particular, participants wanted for the PBF monetary subsidies and greater autonomy given to health systems personnel in utilizing those funds to continue, for the "money to never run out". With few exceptions, it was only at higher hierarchical levels (with central and regional health officials) where the need for more logistical and programmatic outputs, such as needing greater policy dialogue for reform, or expressing a desire to maintain program sustainability beyond continuing financial subsidies, were expressed.

"We need to also ensure that after the end of the PBF pilot when the financial sources [from the World Bank] will disappear, that the same approach can continue, but with the support of the government. That's another thing, because we all know that health is a priority area for the government and something like the PBF program is expensive. Have we already thought of as an exit strategy? Once the World Bank is not there to pay, will the Ministry of Health be able to take over or will we suddenly cut and fall back into old ideas?" (*Central Level – Development Partners*)

"I think the results are encouraging, but it remains to be seen if PBF will have a real impact when there is a scale-up. Since we are only two years old I think that we have to think of sustainability, since currently we benefit from the WB financing. Do we prepare to take over? I do not know. I cannot answer and that is what worries me. Do we have the budget provisions and sufficient financials once the World Bank withdraws from the project in order to finance PBF? So that's a little problem." (*Central Level – Ministry of Health*)

"The principles of PBF applied to Ghana, to Nigeria, to Gabon, to Central Africa will very depending on local circumstances but the principles are the same. So it's a matter of adapting them to the realities of the different countries. So that is why I'm saying that what I can only say for PBF to go well within the Cameroon context is to reshape our policies. Our health policies, especially those that are related to finances, human resource management, and autonomy. We should reshape it to tie to the principles of PBF that allows for autonomy of management, a large

degree of influence on human resources at the local level and decentralized management." (Regional Health Delegate)

"PBF has really come to remove you from your mud and now that they have washed away my mud. I am just happy; I just wish that they should continue to me. PBF should be a program that should be for life. Yes, at first I had nothing, even registers it was not easy to buy, the people were not coming the community money was not there, so PBF has really done a good thing to this health center in particular." (*Health Facility Leader*)

Part II: Community Perceptions on Health Care Delivery

Healthcare seeking Practices, Access, and Barriers (community perspectives)

From the community leader IDIs and community focus group discussions, Cameroonians seemed to follow a basic routine of healthcare practices when they or one of their family members fall ill, with a preference to initially treat common maladies (such as fevers or coughs) at home with self-prescribed medications or home remedies. If symptoms did not abate within a few days, then interviewees would "rush to the health center". However, when probed further, community members would report hearing of friends or neighbors utilizing traditional healers or medicine practitioners to treat health problems. Interestingly, such reports were always from a third-party point-of-view with community member rarely admitting or disclosing their own use of charlatan or traditional medicine practitioners.

"Okay at home when they are sick, we first start to manage like administering some first aid before bringing the person to the hospital. For example, when a child has diarrhea we manage in the house by giving sugar, water and salt before rushing to the hospital." (FGD Urban Community Member; East Region)

"It has been proven that sometimes people think that they can find solace in traditional medicine. I personally don't see anything wrong with traditional medicine herbs because even the tablets that are given to us are products of herbs and barks of trees but the problem with this is that sometimes you see somebody who is treating what he or she does not know." (*Rural Community Leader; Littoral Region*)

Community members were overwhelmingly unanimous in stating **financial reasons as the most important barrier to their accessing the kind of healthcare that they desired**. High costs of healthcare services and a lack of discretionary income to cover unexpected healthcare costs were significant barriers for community members. Finances were also closely related to other significant barriers to accessing healthcare, such as having long distances between healthcare facilities and community villages, which required additional financial needs to cover the costs of transportation.

"Everything lies on poverty because you may have a sick family member that they will refer you to go to the big hospital and from there you will not have the means to go. Your patient will die here because you lack money to take him or her to the big hospital." (FGD Urban Community Member; Northwest Region)

"There are places you really like to go to but when you think of the financial status that you will go and meet there then you prefer to stay in the house." (FGD Rural Community Member; East Region)

In terms of social barriers, focus group participants did not think that family members, such as husbands or mother in laws, would prevent them to access healthcare for themselves or their children. Work reasons also did not seem to be considered a significant barrier in terms of healthcare access. However, focus group participants did speak of **women in the family taking the role of primary caregiver and caretaker** in terms of being expected to procure and provide funds for healthcare treatment for themselves and their dependents as well as be the sole family member responsible for transport to and seeking care at healthcare facilities, even if their partners often used money for more discretionary purposes, such as drinking and gambling, or were unemployed.

"When you are in the house is only mother even the father is in the house and there is no work; he sits in the house and look at the wife like the children. Children look at their mother and even their father does the same. So is only for the mother to go and work farm; products from the farm are bought at a very discouraging prices. The prices for the farming products are not even encouraging so when you bring a small quantity and sell in the market and come back home all the problems of the earth will just fall on the money that you brought from the market. Yes that is the thing that is disturbing us here is only poverty." (FGD Urban Community Member; Southwest Region)

"For where! He will instead ask that "better dey me?" Pa is interested in his palm wine. When he has his 50 francs he looks for where he can buy his palm wine. When you go to the farm and harvest vegetables in baskets and sometimes add firewood on it and come home pa doesn't even help relieving you of your load. He will be sleeping instead. Then you spend your time and prepare the vegetables sometimes without oil. Pa will even ask you that you cooked this vegetable without oil? It like a problem to us all. So when to the hospital and complain of back pain and you go to him he will ask you "you want to go to the hospital? "yes" "where will the money come from." Sometimes it is the money from the vegetables you sold that you will use in buying we call it "body pain". When it gets finished you will just sit again that is how it is." (FGD Rural Community Member; Southwest Region)

IE Intervention Group-Specific Findings (community perspectives)

Community members who lived within T1 catchment areas often spoke of tangible changes in their corresponding T1 health facilities over the past couple years of PBF implementation. During focus group discussions, community members were asked to speak about their experiences at the health facility they usually seek services from over the past two years and to speak about any changes they had observed during that time. Even though community members oftentimes did not know directly about the PBF program, changes and improvements in both health facility infrastructure and health personnel attitudes were highly noticeable. Prior to implementation, community members spoke of poor, unequal treatment by health facility workers, with nurses oftentimes selling drugs under the table or adding extra/hidden charges to already high medical bills or verbally abusing mothers while in labor. Community members discussed health facilities' poor infrastructure (lack of running water or updated equipment) that greatly discomforted them, such as having to labor and giving birth in a mixed-gender ward amidst sick patients not there for labor and delivery. Frequently, health facilities would not have a full-time doctor on staff, if one was present at all, and of those staff members who were supposed to be present, community members spoke of instances where they would travel to health facilities (at great cost, both in time and expense) to find health centers empty and locked up.

These described prior experiences contrasted greatly with what community members living in T1 facility catchment areas observed during implementation of the PBF program, with vast improvements noted. This included improvements in staff attitudes and behavior towards

patients, infrastructure improvements, reduced health costs, and increased community collaboration and outreach.

"Yes, things were different in the past. When you were admitted in the hospital, you come with your bathing's: your bucket to bed, your bathing's, your small fire wood if you are staying far. But now if I come, I will need no bathing's and I will be comfortable under a mosquito net. I will be comfortable. I have pipe born water, clean one. I don't have any problem. Cleanliness of the hospital is compared; you can see how the hospital is compared to the past years. I like the way nurses attend to patients compared to the past years. That is my point. Like the way nurses attend to patients because the last time I came here, they were not really hospitable, they were not really welcoming. But when you enter the hospital now feeling bad, someone can just come up to you; and a smile can make you feel at least better. When you don't know or confuse on which direction to take, someone will show you the way." (FGD Rural Community Member; Northwest Region)

"A nurse once treated me badly when I went to deliver. She doesn't take time and she hurries a lot then when you are at labor she will tell you to stop behaving like a small child. Meanwhile you are feeling pains she says that you are making like a small child." (FGD Rural Community Member; Southwest Region)

"Inside the ward the doctor wrote her own medicines that we have to go and buy, but the nurses force us to buy from them. It was said that we should not buy from them and if you don't buy the medicine from them, they just treat in a kind of way, yes, they just look at you in a kind of way...and for you to avoid problems you must buy the medicine from them so that they will not neglect your patient." (FGD Urban Community Member; East Region)

"Ooohh I hated... you come sometimes and the nurses have not come, sometimes the doctors are not there, But now the doctor is 24 hours on call. Now nurses are prompt because they are disciplined, doctors are there, there is nothing like Sunday or Saturday. But in the past you used to come here and you will not see a nurse on Saturday, Sunday and so on. Now it is round the clock." (*Urban Community Leader; Southwest Region*)

"Some drugs are expensive. In the past nurses used to keep drugs in their bags so that when a patient is lying there they will sell that drug higher than the pharmacy. But now no, we have refused that if we see any nurse or any person selling a drug out of a pharmacy, the person has to be dismissed. So now it has been brought to control." (*Rural Community Leader; Northwest Region*)

"The nurses' teachings are very good because we have improved like this because of them. They use to tell us that even if there is no oil in the house we can still cook and the children are well fed. We cultivate egusi and soya beans. We did not know that you can put soya beans and even groundnut in vegetable but now that they have taught us, we now know that these things can be put even when there is no oil. We pray that they should continue walking to houses to teach us. Because at first they used to sit only at the health center and so it did not matter if you came or not. But now that they have started going to houses, I pray they continue with that habit." (FGD Rural Community Member; Southwest Region)

Communities residing within C3 facility catchment areas reflected much of what C3 health facility leaders were saying during interviews, in that much positivity and levels of satisfaction were expressed with the state of their health facility but yet when probed on desired improvements, community leaders and members would speak of critical needs, such as needing a doctor at the facility or having a lack of running water.

I: "So for you whether you will wait for one hour or for two hours before they consult you, you don't have any problem?"

P: "Yes."

I: "Okay, why don't you have a problem?"

P: "I don't have a problem because I like the hospital. The hospital is a good hospital that I cannot speak bad about the hospital, yes." (FGD Urban Community Member; East Region)

"Our health center is not improved; they lack laboratories, they lack staff, we need an ambulance, a vehicle that can take referred patients to whoever and wherever. For instance if a woman is on the road which is far from here and the news comes to the hospital and there is no vehicle, then the option is for that patient to die. So we really need an ambulance for the hospital. Then we need more staff for the hospital and health centers. We don't have enough." (*Rural Community Leader; East Region*)

Even with the contrasts found between T1 and C3 catchment area communities, with T1s noting significant improvements in their health facilities and C3s desiring vast improvements, members of both community types still desired much change of their healthcare facilities. Community members described that many issues remain with personnel, in terms of manners and behaviors, as well as the need to reduce temporary workers and bring in more qualified, full-time staff members. Additional issues highlighted by community members included reducing health costs, continuing infrastructure and equipment improvements as well as great collaboration between communities and their health facilities, through community sensitizations and home visits.

Discussion

The findings outlined the themes and commonalities that resulted from an analysis of 112 indepth-interviews and 16 community focus group discussions. The interviews that focused upon provider perspectives – with stakeholders representing central, regional, and district levels of health governance in addition to further interviews at the health facility level with health center leaders – provided insights into how implementation of PBF occurred and was received within health structures. Community perspectives – as given by interviews with community leaders and focus group discussions with adult female community members of T1 and C3 health facility catchment areas – what changes, if any, that community members being served by PBF health facilities are noticing, even if they did not know about the actual PBF program itself. Community members were also able to provide an overall view of Cameroonian health-seeking practices and what barriers – be it financial or social – lay in accessing healthcare for themselves and their families.

From the findings, initial reluctance by health facility personnel to accept and adapt to the demands of the PBF program was the biggest obstacle faced by health facilities during the implementation phase. From this, it is evident that obtaining strong buy-in and support of government health officials and health facility leaders is essential in motivating health workers, particularly at the onset of the PBF program and prior to receiving the first monetary subsidies. Many health workers doubted the promises of the PBF program at its onset, a fear that was further augmented by the long initial delays in disbursing the first PBF payments as occurred in Cameroon. Avoiding such delays is essential in maintaining health personnel buy-in, enthusiasm, and support for PBF initiatives. Once initial payments were received, health workers were able to grasp the legitimacy of the PBF

program and were immediately more enthusiastic to improve performance and workflows at their specific health centers.

The enhanced supervisions were a major component of the findings highlighted by stakeholders across all levels and at all health facilities in the T1, C1, and C2 intervention and control groups as one of the most beneficial attributes of the PBF program. Health facilities in all three groups demonstrated marked improvements in performance and service delivery, as qualitatively reported by both providers and community members. The enhanced and strictly regulated supervisions proved to be one of the strongest attributes of PBF during the implementation phase, leading to a more cohesive and functioning health system. While there were certain hiccups – as highlighted by the mixed messages that occurred with verification agents using varying standards to judge supervisions or PBF policies conflicting with overall health policies - the enhanced supervisory nature of the program forces the health system to work the way it is supposed to, with increased collaboration amongst stakeholders within the health system as opposed to stakeholders operating in separate, dis-jointed spheres. The strong supervisory component of the PBF program can be linked to most benefits and improvements reported by stakeholders interviewed in the qualitative study, from health workers improving their attitudes and treatment of community members to the greater interaction and involvement of district medical officers and regional health delegates with their underlying health facilities. Given the vast improvements in staff morale, the progress made in enhancing and updating health facility and equipment infrastructure, the increases in clinic attendance in tandem with decreases in healthcare costs, and the overall greater collaboration now occurring between health sector stakeholders and between communities and health facilities, it appears that immediately following the implementation of PBF within health facilities in Cameroon has certainly made an initial immense and positive impact upon improving healthcare services throughout the four regions where PBF is being piloted.

From a community standpoint, community members being served by T1 facilities have noticed an improved difference in attitudes and treatment of healthcare workers in addition to an increase in services and decrease in health costs. By far, the most observed positive change noted by community members was the increased presence of health facility workers in their communities and villages through home visits and community sensitizations. Interestingly, community members residing in C3 catchment areas were also inclined to be satisfied with their health facilities – a trend generally attributed towards cultural tendencies of expressing goodwill and masking criticisms, particularly when being interviewed by noncommunity authority figures such as World Bank consultants. However, despite the high levels of satisfaction described, when probed further during discussions, women participants often expressed severe needs for improvement within the health facilities that they usually attend, regardless of T1 or C3 facility catchment area. No crossover effect was seen within focus group discussions, where participants noted any change in healthcare facility attended, due to any effect of the PBF program – though healthcare workers at C2 and C3-designated health facilities substantiated such an observation at the health facility level.

Study Limitations

A potential limitation of the study is the various languages used at various points of the study. While the interview protocols were available in English and French, interviews in the field were conducted in Pidgin English, in addition to English and French. A transcription firm with individuals who were not involved in the interview process, completed transcriptions of the interviews, possibly allowing for underlying context and meaning from interviews and focus

group discussions to be lost during the transcription process. Interviews that were conducted in Pidgin English were translated into English during the transcription process. Furthermore, the analysis and dissemination phase were conducted in English, lending a further potential loss of context and meaning conveyed within the French-language interviews.

Conclusions

It is important to keep in mind when assessing the overall success of PBF implementation in Cameroon that the program was introduced into a system that already poorly performing, which contributed to the significant positive benefits and improvements that were demonstrated in the first one to two years of implementation. As noted by several key informants, the true challenge will be to demonstrate continued improvement and overall sustainability of PBF efforts within the country. While those affected by PBF efforts have certainly voiced their desires for Cameroon to continue with the PBF program and roll it out throughout the entire country, it remains to be seen how sustainability of the program will be achieved. Many stakeholders interviewed in this study, particularly at the health facility level, expressed a desire for the PBF funds to "never end", though none offered suggestions for how to ensure that that happened. At higher levels of the health system, stakeholders such as Central-Level officials and Regional Health Delegates spoke about changes that needed to be implemented at policy-levels in order to create sustainability, but again, with no suggestions regarding what sort of change ought to be implemented. In hand with that sustainability is the question of will there be continued success and improvements demonstrated by health sector stakeholders as the PBF program progresses.

Despite these challenges, the results of the midline qualitative study nonetheless yield a strong picture of how implementation of PBF was carried out and perceived across the country and amongst the spectrum of stakeholders working within or affected by PBF programming in Cameroon's health sector. From central to community levels, stakeholders are benefiting from the strong supervisory nature of the PBF program and increased collaboration between all levels of the health system and have conveyed overall positive perceptions of the PBF program. Sustainability and continuity of the PBF program was an ardent wish expressed by all stakeholders, regardless of level, whether ranging from a wish for continued monetary support for performance-based efforts or expressing the need to instigate change starting at the policy level. Questions that emerge from the midline qualitative study include whether or not the strong positive reception towards and reported improvements attributed to the implementation of PBF by the key informants of this study will continue or possibly stagnate with the continuation of the PBF program in addition to whether such progress would be seen with the possible endline of the project.

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