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Performance-based financing, health sectors, and health seeking behavior of women attending antenatal care and skilled birth delivery: evidence from Cameroon

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ABSTRACT

Introduction: High maternal mortality rates (up to 536/100,000 live births) remain a concern in Cameroon, despite multiple intervention strategies targeting antenatal care (ANC) and delivery. Up to 90% of women attend at least one ANC appointment, but only about 40% have 4 or more ANC visits, and some women who receive ANC prefer to deliver using a traditional birth attendant. Improvement in the quality of care by providers, incentivised by performance-based financing (PBF), could affect women's health-seeking behaviour over time and have an impact on the utilisation of services.

Material and methods: We conducted a cross-sectional survey of 848 pregnant women attending antenatal clinics in 3 districts in the southwest region of Cameroon in April-August 2021. The survey and the qualitative questions were informed by the Andersen behavioural model. Descriptive analyses were conducted, together with logistic regression analysis. Follow-up focus-group discussions were conducted with a subset of the women from the survey responses who had used ANC and delivery services before and after the implementation of PBF, and there was an exploration of providers' experiences of health-seeking behaviour of women attending ANC in the time of COVID-19.

Results: Responses from 735 women were included in the quantitative analysis. Cost and quality of care are important determining factors in the choice of seeking care for antenatal care and skilled birth delivery; however, quality of care (with a focus on patient-provider communication) is important in women's decision to use the same health facility for subsequent skilled birth delivery.

Conclusions: The heterogenous nature of health-seeking behaviour calls for specific intervention strategies tailored to specific health facilities and districts. PBF has the potential to improve quality of care to stimulate behaviour change in seeking care amongst poor and vulnerable women, but there is a need for proper definition and identification of the poor and vulnerable.

KEY WORDS: Cameroon, quality of care, maternal health, health-seeking behaviour, performance-based financing.

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INTRODUCTION

Health-seeking behaviour is a form of social behaviour defined as any action or inaction undertaken by an individual with the primary aim of finding an appropriate solution to a health problem or illness [1-4].

It encompasses the socially constructed health behaviours that are influenced by the social determinants of health [1-5]. For example, an individual's health-seeking behaviour can be influenced by cost, distance, quality of care, and cultural and societal beliefs [1-4, 6].

It is a dynamic process that involves the use of several modalities at one time and allows the individual to navigate the health system for treatment, diagnosis, or other health-related services [1-4, 6-8].

Women can be at higher risk of maternal morbidity and mortality due to health-seeking behaviours and lack of access to health care [1, 9-11], while poor-quality roads and a lack of transportation systems can compound this issue. The assumption that women will seek care in the health facilities closest to where they live – or, in other words, that people living in the catchment area of a facility will obtain care from that facility – is not true in most settings [6, 9-12]. Empirical studies suggest that women will bypass their local facilities to obtain better services, and the quality of care provided in the health facility plays an important role in their decisions [6, 7, 10, 11, 13]. This “shopping” behaviour can be costly for women, both financially and in terms of travel time [6-8]. Financial costs may include additional out-of-pocket (OOP) fees for services, transportation, and other incidentals [6, 8].

Shopping for healthcare services is a common phenomenon in Cameroon and in most sub-Saharan African countries [6-13]. Evidence indicates that up to 4 antenatal care (ANC) visits (revised to 8 ANC visits as recommended by the World Health Organization) [14] and the use of skilled birth delivery can reduce maternal mortality [1, 2, 6, 9]. However, some women do not attend ANC due to costs and other related factors, and access to skilled birth delivery is reported to be influenced by cost, quality, and cultural practices [1, 6-11]. Studies of health-seeking behaviour suggest that these shopping decisions generally reflect a search for higher quality services at affordable prices [6, 8-11]. This indicates that health interventions such as performance-based financing (PBF), which aim to improve service quality across health facilities and an equity aspect on subsidizing user fees to reduce OOP expenses to stimulate demand, may influence health-seeking behaviour because the standards of local facilities are likely to improve as a result of change in providers’ behaviour incentivized by PBF strategies [5, 6, 14-16].

In 2012, Cameroon implemented a PBF programme for improving quality of care, with a focus on maternal and child health services [12]. The PBF impact evaluation assessment in Cameroon reported this aspect of shopping for health services by women, which was not influenced by the PBF intervention [12], but the evaluation did not examine potential underlying factors that may have influenced the shopping-around attitude. The assessment reported that only 52.3% of women sought antenatal care in their assigned treatment group, and a similar pattern was reported for deliveries and postnatal care [12]. In 2017, the country extended the PBF programme to all health facilities and across all health sectors.

The heterogeneous nature of health-service delivery in Cameroon (public, private, and confessional sectors) could potentially influence the health-seeking behaviour of women in relation to ANC and skilled birth delivery. These sectors have different organisational cultures, and the costs vary substantially by sector [17]. There are also differences in quality of care by sector. A post-PBF study in Cameroon found that women reported financial barriers to the use of healthcare facilities [18]. In addition, the ongoing conflict in Cameroon coupled with the current pandemic are likely to have influenced the way women seek antenatal care and skilled birth delivery [19].

High maternal mortality rates (up to 536/100,000 live births) remain a concern in Cameroon, despite multiple intervention strategies targeting antenatal care (ANC) and skilled birth delivery [12]. Up to 90% of women attend at least one ANC appointment, but only about 40% have 4 or more ANC visits [20], and some women who receive ANC prefer to deliver using a traditional birth attendant [12, 18, 20, 21]. Although the PBF impact evaluation concluded that there was no effect on these 2 indicators [12], improvement in the quality of care by providers, incentivised by PBF, could affect women’s health-seeking behaviour over time and impact on the utilisation of services [5, 14-16].

A recent study on the effect of PBF on OOP expenses for ANC and skilled birth delivery across sectors in Cameroon suggest that, in this attempt to improve quality of care, the cost of the first ANC increased due to additional laboratory tests and varied by sector [17]. In addition, PBF marked an innovative approach to providing free or subsidised services for “poor and vulnerable” women, which could influence their health-seeking behaviours, because women in this group are more responsive to price changes [5, 17, 22]. Also, the introduction of home visits was reported to cause an increase in the use of family planning in the PBF areas as compared to the control areas [23]. Because maternal health-seeking behaviour is a complex phenomenon, influenced by other socio-determinants of health, coupled with the heterogeneous nature of health care delivery in Cameroon, it is important to understand the contextual setting, because factors vary from one culture and setting to another. Given that all health facilities are enrolled into PBF, it is important to understand the health-seeking behaviour of women in the post-PBF setting and to design interventions based on this, because this could help increase access to and utilisation of ANC and skilled birth delivery. Intervention strategies may differ depending on the choices made at various levels when seeking care, and there is a need to prioritise intervention strategies according to the identified need to improve access.

The first objective of the present study was to understand the health-seeking behaviour of women in terms of ANC and skilled birth delivery across health sectors in a post-PBF setting. In addition, in the context

of the ongoing COVID-19 pandemic and the associated limitations on movement, it was understood that health care-seeking behaviour might change [19]. This, coupled with an ongoing conflict in the study region, is creating uncertainties and impeding access to health facilities. Given that the study was conducted during the COVID pandemic, the second objective was to understand the health-seeking behaviours of women and the experiences of providers during the pandemic.

MATERIAL AND METHODS

STUDY DESIGN AND SETTINGS

This study has 3 components: (1) a cross-sectional survey of pregnant women attending an ANC clinic; (2) follow-up focus-group discussions (FGDs) with a subset of the women from the survey who had used the services before and after the implementation of PBF; and (3) an exploration of providers' experiences of women attending ANC and skilled birth delivery in the time of COVID-19.

In Cameroon, health care is delivered in both the private and the public sector, and PBF has been implemented in all health facilities across all sectors. The private sector is comprised of private, for-profit health facilities and confessional and traditional health services. Women constitute 50% of the population of Cameroon, and their life expectancy at birth is 55 years [21, 24, 25]. The study was conducted in 3 districts in the southwest region, in which there has been armed conflict since 2017. According to information obtained during the study from the PBF regional office and the district health bureau and regional delegation, the population of the 3 districts is as follows: Buea (184,601), Limbe (211,186), and Tiko (161,063).

All health facilities are assigned specific equity status, based on their accessibility and level of poverty of the people in the district. This is used to determine the equity incentives to be provided to the health facility as a way of subsidising care to attract clients and stimulate demand, especially among those considered poor. The equity status for health facilities is rated between 1 and 5, where 1 indicates low-level accessibility for the health facility in all seasons (rainy and dry), sparsely populated, very poor, and far from the district health facility, while 5 is very accessible, wealthy, well-populated, and closer to the district health facility. This equity incentive for health facilities is intended to encourage the provision of services at an affordable rate and to stimulate demand for services, which can influence health-seeking behaviour. The data-collection period for this study was from April 2021 to August 2021.

FRAMEWORK

The use of health services, as described by Andersen's behavioural model of health care utilisation, is a function of a woman's propensity to use the services, which is determined by predisposing factors including her age, marital status, occupation, and income [26]. Enabling

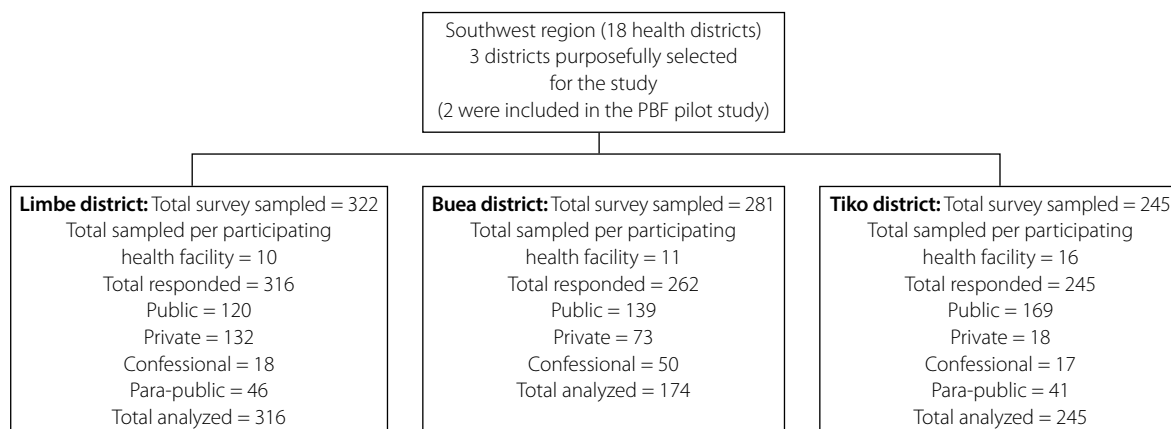
factors are those that facilitate access and the use of services [26]. Contextual factors, defined by Andersen's model as the circumstances and the environment in which health care is accessed, including organisation level factors (health-sector- and provider-related), individual characteristics factors such as health belief perspectives, attitudes towards ANC and skilled birth delivery, and values concerning the health system [26]. Enabling factors are the characteristics that can facilitate the utilisation of services – for example, financial and geographical access and distance of the home from the facilities [26].

SURVEY DATA COLLECTION

The survey comprised 37 questions. The first questions concerned the respondents' demographic characteristics (6 questions). These demographic characteristics were also considered predisposing characteristics in the Andersen behavioural model [26]. They were potential confounders (e.g. age, marital status, education, income level, etc.). The second part of the survey focused on health-seeking behaviour, as informed by the Andersen behavioural model (28 questions). The questions primarily concerned health-service characteristics, which were contextual and/or individual explanatory factors associated with the performance of a health facility or health system that could influence health-seeking behaviour (e.g. cost, quality of care, distance, accessibility, availability of equipment). The survey employed a 5-point Likert scale. To assess the readability, applicability, understanding, timing, and validity of the survey items, they were tested with 10 women who were attending the antenatal clinic and not selected for the study sample. Minor adjustments were made based on their feedback. The questionnaire was designed to take approximately 25 minutes to complete, and research assistants assisted in administering the surveys at the health facilities. Health administrators also assisted in identifying eligible pregnant women attending ANC or women who had delivered and were hospitalised and had used the service before 2018 (or before the facility was enrolled into PBF), as well as identifying those considered poor and vulnerable. To ensure the quality of the findings, training was provided (by the principal investigator) to the data collectors (who were all master's students with experience in data collection) on the procedure to collect consent and on the objective of the study. The principal investigator supervised the data collection daily to identify any incomplete and incoherent responses. Each completed survey was verified for completeness as the data were being entered into Excel. The data were then coded, cleaned, and exported to SAS for analysis.

STUDY POPULATION AND SAMPLING

The southwest region has 18 health districts. This study was conducted in 3 of the 18, namely Limbe, Buea, and Tiko. Based on the PBF registered health facility



FLOWCHART 1. Sampling of health facilities for the three districts

record at the time of the study, these 3 districts are collectively home to about 90 health facilities (Flowchart 1). All 90 health facilities were eligible for the study. A cross-section of 848 women were sampled from the population of women attending ANC at the time of the study. The assumed proportion of women attending ANC and skilled birth delivery at the time of the study was 0.50, at a 95% confidence level and a 5% margin of error, and the estimated design effect was 2 [27-29]. To account for potential nonresponse, the sample size was inflated by 10%. This ensured that the reported experiences of women were representative of women attending antenatal clinics and engaging with skilled birth delivery at the time of the study. Given that the proportion of women attending ANC and skilled birth delivery varies per district, a sample size of 848 was allocated using proportionate allocation, based on the total number of expected deliveries for 2021 (see Flowchart 1).

SELECTION AND DEFINITION OF VARIABLES

The outcomes in this paper are women’s satisfaction with the care received for ANC and skilled birth delivery, which is defined in this study as the intention to use ANC and skilled birth delivery in the same facility for subsequent pregnancy. Socio-economic and demographic-related variables, quality of care (as defined by the respondents), cost, and distance were the independent variables. The outcome variable “ANC” was defined as any ANC visits, and “skilled birth delivery” was any delivery at a health facility (public, private, or confessional) that was attended by a skilled attendant. These outcomes were classified as binary variables with a “Yes” or “No” response.

STATISTICAL ANALYSIS OF SURVEY DATA

Descriptive statistics analysis was performed to summarize the variables, generating the percentages across sectors. The chi-square test was conducted to identify any associations between categorical variables. Logistic regression was performed to determine associations

for the outcome variables ‘intention to use ANC and/or skilled birth delivery services’ at the same facility for subsequent pregnancy and associated factors. Selection of variables was as follows: we first conducted an unadjusted bivariate model for each covariate and selected all covariates that were moderately associated with the outcome considering the p-value less than 25% as recommended by Hosmer and Lemeshow [30]. This was included in the multivariable-bivariate model. We used a sequential approach to select the model by first fitting a model with all the covariates (unemployed, quality, income, education, age, marital status), and we used a stepwise approach to eliminate non-significant covariates at a 5% significance level and determined the best-fit model based on the AIC values, where a lower AIC value was considered to be a better fit. Bivariate correlation included in the analysis are shown in Supplemental Tables 1 and 2. A logistic regression model could not be fitted for Limbe due to limited variations in the dataset, nor for Tiko district, due to low cell count and missing cells for the subsequent use of ANC. Therefore, logistic regression was conducted in Buea for both outcome variables: ANC and skilled birth delivery, in Tiko only for skilled birth delivery, and none for Limbe district.

QUALITATIVE DATA COLLECTION

Focus group discussions were conducted with women and community health workers and structured interviews with health care providers.

Focus group discussions (FGDs) with women who had used ANC and skilled birth delivery before and after the introduction of PBF

To supplement the quantitative data and to minimize recall and response bias, we conducted FGDs with women identified during the survey process who had used ANC and skilled birth delivery before and after the introduction of PBF (Figure 1). Theoretical sampling was used to identify the women, based on their responses to the survey in relation to themes from the Andersen

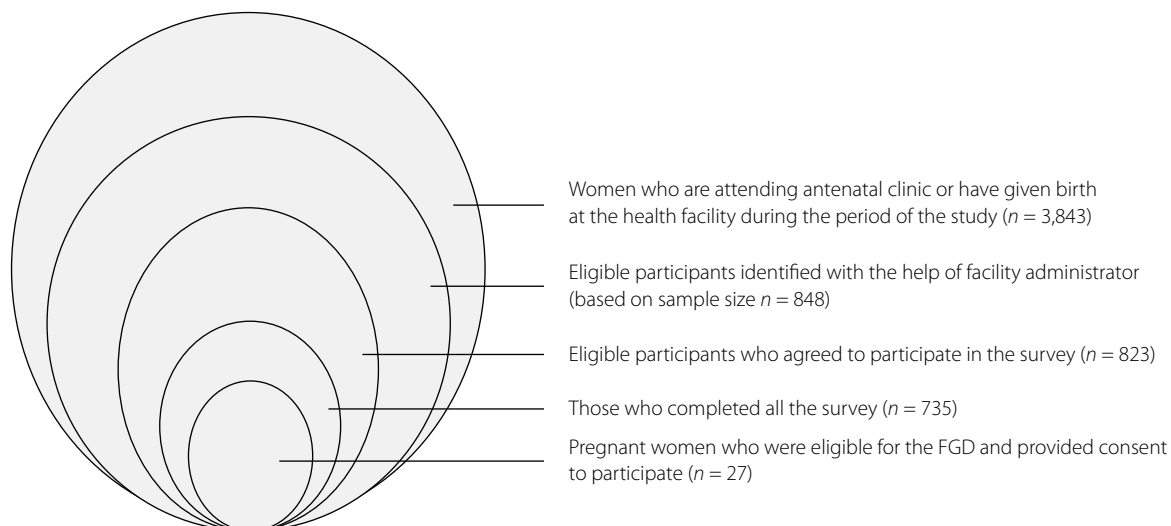


FIGURE 1. Sampling frame for participants (pregnant women)

model, for example cost, distance, quality of care provided, and facility type. There were 6 FGDs, each of which included 4-10 participants. The 6 FGDs included 2 for each district, one for participants deemed “poor and vulnerable” and another for those who were not. Based on the responses from the FGDs, we then sampled women who were not currently attending ANC, with the goal of understanding the factors influencing their health-seeking behaviour to use traditional birth attendants. The interview questions were the same as those asked in the survey but modified to allow for probing.

Interviews and focus group discussions with health care providers in the context of COVID-19

Given that the data were collected in the time of COVID-19, we conducted interviews with health providers and FGDs with community health workers to understand health-seeking behaviours of women for ANC and skilled birth delivery seen during the pandemic. The aim was to gather nuanced insights into the uptake of ANC and skilled birth delivery – as well as the reasons underlying these health-seeking behaviours – in the context of COVID-19. A semi-structured interview guide was used in the individual and group discussions. Purposeful sampling was used to identify participants for interviews and FGD, and a snowballing technique was used to further identify participants for the interview. The interview questions were the same as those asked in the survey, with a focus on choice of health facility in the time of COVID-19. The FGD was focused on community health workers. Each FGD commenced with a section encouraging the participants to talk, followed by an introduction that laid out the topic and asked the participants to think about and connect with the topic. There was then a transition, which allowed more conversation into the key research areas of the study. This section included probing questions in relation to specific

aspects of seeking care, such as the timing and priorities in the care-seeking process for ANC and skilled birth delivery in the time of COVID-19. This approach was also used for the FGD with CHW and probing to understand from CHW women’s priority in seeking care during ANC and skilled birth delivery. The FGDs each lasted for about one hour. They were conducted in the local spoken language (pidgin English) and chaired by the principal investigator (MN). The discussions were audio-recorded and transcribed with the help of research assistants. Field notes and observations were documented throughout.

QUALITATIVE DATA ANALYSIS

The interviews were transcribed (verbatim) in MS Word by the project investigator and a research assistant and then exported into MaxQDA [31]. A thematic analysis of the processes uncovered during the FGDs was coded using a modified grounded theory approach that employed themes from the Andersen behavioural model, which are categorised as contextual or individual characteristics. The themes aligned to the domains reported in the survey. Two independent coders coded the transcripts and assessed for consistency and reliability. The results were retrieved and exported as code books for reporting. The findings were reported using the STROBE guidelines for reporting observation studies [32] and the COREQ criteria for qualitative interviews [33].

ETHICS

The Bruyère Research Institute at the University of Ottawa approved the study (#M16-18-057), and administrative clearance was obtained from the Faculty of Science, University of Ottawa (#H-02-19-2829). In Cameroon, we obtained ethical approval from the University of Buea Faculty of Health Sciences (Ref 2020/1342-02/UB/SG/IRB/FHS) and administrative clearance from the regional delegation of public health in the southwest

region (Ref R11 MINSANTE/SWR/RDPH/PS864/715). We obtained informed consent from all participants.

RESULTS

SURVEY RESULTS: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

A total of 848 women were sampled, and 823 women attending ANC visits and/or who had delivered at the time of the study responded to the survey (97% response rate). Ultimately, 735 responses were included in the final analysis (86.6%; Flowchart 1). Most of the incomplete data were from the Buea district (Flowchart 1); thus, data on 88 participants were excluded from the analysis. Most of the survey respondents from Tiko were self-employed, and Buea had more students compared to other districts. Most responses were from public facilities, followed by private, confessional, and then para-public facilities (Table 1). In Limbe, 23.4% of the participants were deemed poor and vulnerable, compared with 7.4% in Buea and 36.5% in the Tiko district. However, most of the PAV were reported from public and private for-profit facilities. Confessional facilities reported less of PAV. Most women were married, and the mean age group ranged from 25-34 years. Most women had either primary or secondary education or no education, and reported income varied, with respondents from Tiko reporting more income than other districts.

Most respondents came from highly accessible facilities across all districts. In Limbe, 55% of the respondents were from health facilities considered highly accessible (with an equity score of 5), and 16% were from poorly accessible facilities that were difficult to access during all seasons (equity scores of 1). These difficult-to-access health facilities were especially common among the parapublic. There was a similar pattern in Tiko; however, in the Buea district, 86% of the respondents were from very accessible facilities, while none were from an inaccessible facility (Supplemental Table 2). Confessional and private facilities in all the districts were typically very accessible. In Limbe, 26% of the women had not had an echography in the same facility as their ANC visits, with reasons including a lack of equipment, poor-quality of echography results, and sometimes referrals. This was similar across districts.

Socio-demographic and economic characteristics of the respondents and the association with utilization of antenatal care and skilled birth delivery

The respondents were asked whether they intended to use the same facility for ANC during any subsequent pregnancies, and most women (91% in Buea and 99% in Tiko) said that they would – with employment, income, quality, and distance having a statistically significant influence on their decision (see Table 2). Those in Buea who reported that they would not use the same facility cited cost and the likelihood of displacement amidst the ongoing conflict, while in Tiko the reasons were pri-

marily cost and distance (Table 2). In Buea, income, distance, and quality were associated with a decision to use the same facility for subsequent skilled birth deliveries, while in Tiko, employment, quality, income, and distance were associated with the decision. In Buea and Tiko, students, farmers, and those with no formal education were most likely to report an intention to use the same facility for future ANC and skilled birth deliveries (Table 2).

When asked why they would choose to use the same facility again for future deliveries, the survey respondents from Buea cited the opportunity to pay in instalments and quality of care (which they defined as good nurses in relation to their communication pattern, cleanliness of the hospital, friendly and experienced midwives, proper patient care, and the presence of a specialist). Those who said that they would not use the facility again for skilled birth deliveries reported rudeness and insults from the nurses, the distance from their homes, staff negligence, and increases in cost. In Tiko, most women who intended to use the facility again for delivery cited affordability, noting that it was now cheaper than it had been previously, with others mentioning distance and quality. In Limbe, all the women reported that they would use service again for ANC but not for skilled birth deliveries. Therefore, a chi-square test was not conducted for this district. However, respondents in Limbe who reported that they would not use the service again for delivery explained that “[The] nurses were just adding prices; [they were] negligent and didn’t follow-up properly. [There was a] long wait time, [it is] too expensive, and [there are] very rude nurses”. Neither marital status nor religion had any association with the decision to use a specific facility for ANC or skilled birth delivery.

REASONS FOR CHOICE OF HEALTH FACILITY FOR ANC AND SKILLED BIRTH DELIVERY

The respondents were asked to provide the reasons for their choice of health facility. In the Limbe district, quality of care was the main reason, cited by 85.7% of respondents, of whom 38.3% came from public facilities, 44.3% from private, and 2.8% from confessional. However, for those attending parapublic facilities, distance was the main reason given for their choice. Participants from the parapublic reported that they had no choice because the facility was provided for them (as staff of the Cameroon Development Cooperation). In addition, the facility was closer to their houses. However, in Buea, 42.2% cited distance, 30.9% quality of care, and 16.5% cost. In Tiko, 37.2% reported distance, 36% quality, and 23% cost (Table 3).

Among those who would use the same facility for skilled birth delivery in Limbe, quality of care (78.4%) was the most common reason, followed by distance (7.3%). In Buea, quality of care (42.6%) was the main reason, followed by distance (41.8%); in Tiko, quality was reported as the main reason (42.6%), followed by distance (37%).

TABLE 1. Socio-demographic and economic characteristics of respondents from the 3 districts

Factor	Limbe district, N = 316			Buea, N = 258			Tiko, N = 249				
	Public (n = 121), n (%)	Private (n = 140), n (%)	Confessional (n = 9), n (%)	Para public (n = 46), n (%)	Public (n = 132), n (%)	Private (n = 76), n (%)	Confessional (n = 50), n (%)	Public (n = 173), n (%)	Para public (n = 41), n (%)	Private (n = 18), n (%)	Confessional (n = 17), n (%)
Age											
18-24	35 (11)	52 (16.4)	3 (0.9)	13 (4.1)	103 (43 (16.6)	18 (7)	7 (2.7)	50 (20)	6 (2.4)	3 (1.2)	9 (3.6)
25-34	73 (23.1)	67 (21.2)	5 (1.6)	31 (10)	176 (70 (27.1)	40 (15.5)	34 (13.2)	92 (37)	31 (12.4)	15 (6)	3 (1.2)
≥ 35	13 (4.1)	21 (6.6)	1 (0.3)	2 (0.6)	37 (19 (7.4)	17 (6.6)	9 (3.5)	30 (12)	4 (1.6)	0 (0)	5 (2)
Education											
No education	0 (0)	0 (0)	0 (0)	0 (0)	0 (5 (2)	7 (2.7)	12 (4.6)	2 (0.8)	0 (0)	0 (0)	0 (0)
Primary and secondary	99 (31.3)	132 (41.7)	5 (1.6)	46 (14.5)	281 (81 (31.4)	27 (10.4)	8 (3.1)	145 (58.2)	38 (15.2)	16 (6.4)	15 (6)
High school	18 (5.7)	6 (1.9)	3 (0.9)	1 (0.3)	28 (10 (3.8)	4 (1.5)	9 (3.5)	25 (10)	3 (1.2)	2 (0.8)	1 (0.4)
University	4 (1.2)	2 (0.6)	1 (0.3)	0 (0)	7 (36 (14)	38 (14.7)	21 (8.1)	1 (0.4)	0 (0)	0 (0)	1 (0.4)
Employment											
Employed	25 (7.9)	58 (18.3)	1 (0.3)	46 (14.5)	130 (55 (21.3)	57 (22)	41 (16)	103 (41.4)	34 (13.7)	14 (5.6)	11 (4.4)
Not working	19 (6.0)	5 (1.6)	2 (0.6)	0 (0)	26 (41 (16)	12 (4.6)	9 (3.5)	19 (7.6)	4 (1.6)	3 (1.2)	3 (1.2)
Student	0 (0)	0 (0)	0 (0)	0 (0)	0 (5 (2)	4 (1.5)	0 (0)	21 (8.4)	2 (0.8)	1 (0.4)	3 (1.2)
Farming/self employed	77 (24.4)	77 (24.4)	6 (1.9)	0 (0)	160 (31 (12)	3 (1.1)	0 (0)	31 (12.4)	0 (0)	0 (0)	0 (0)
Income											
No income	0 (0)	0 (0)	0 (0)	0 (0)	0 (16 (9)	7 (4)	1 (0.5)	0 (0)	1 (0.4)	0 (0)	0 (0)
< 30,000	3 (0.9)	2 (0.6)	0 (0)	0 (0)	5 (20 (11.2)	12 (6.7)	8 (5)	24 (10.2)	3 (1.3)	3 (1.3)	2 (0.8)
30,000-59,000	86 (27.3)	124 (39.3)	7 (2.2)	45 (14.2)	262 (8 (3.1)	19 (10.6)	15 (8.4)	73 (31.2)	26 (11.11)	7 (3)	8 (3.4)
60,000-89,000	17 (5.4)	12 (3.8)	1 (0.3)	1 (0.3)	31 (16 (9)	11 (6.2)	7 (4)	45 (19.2)	6 (2.5)	5 (2.1)	3 (1.3)
90,000	14 (4.4)	2 (0.6)	1 (0.3)	0 (0)	17 (8 (3.1)	19 (10.6)	11 (6.2)	23 (9.8)	2 (0.8)	1 (0.4)	2 (0.8)
Equity status											
PAV	17 (5.4)	55 (17.4)	1 (0.3)	1 (0.3)	74 (14 (5.4)	5 (2)	0 (0)	64 (25.7)	12 (4.8)	9 (3.6)	6 (2.4)
NPV	104 (33)	85 (26.9)	8 (2.5)	45 (14.2)	242 (118 (45.8)	71 (27.5)	50 (19.3)	109 (43.8)	29 (11.6)	9 (3.6)	11 (4.4)

Income for Buea only 178 responded, and Tiko 234.

TABLE 2. Association between utilization of services for ANC and skilled birth delivery and socio-demographic characteristics in the Buea and Tiko districts

Factor	Buea district, N = 235				Tiko district, N = 243				χ^2 p-value
	Use ANC facility again		Use facility again for SBD		Use ANC facility again		Use facility again for SBD		
	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	
Age*									
18-24	52 (22.4)	8 (3.4)	52 (22)	8 (3.4)	66 (27.1)	0 (0)	58 (23.8)	7 (2.8)	0.24
25-34	123 (53)	9 (3.9)	123 (52.1)	9 (3.8)	137 (56.4)	2 (0.8)	129 (53)	11 (4.5)	
35-45	34 (14.7)	6 (2.6)	34 (14.4)	6 (2.5)	38 (15.6)	0 (0)	38 (15.6)	0 (0)	
Education									
No education	19 (8)	0 (0)	26 (11)	0 (0)	2 (0.8)	0 (0)	2 (0.8)	0 (0)	
Primary and secondary	119 (50.4)	11 (4.6)	108 (45.8)	18 (7.6)	237 (97.5)	2 (0.8)	221 (90.9)	18 (7.4)	0.68
University	78 (33)	8 (3.4)	80 (33.9)	5 (2.1)	0 (0.8)	2 (0.8)	2 (0.8)	0 (0)	
Employment									
Employed	134 (56.7)	7 (3)	124 (52.5)	15 (6.3)	158 (65)	2 (0.8)	143 (58.8)	18 (7.4)	0.09
Not working	23 (9.7)	9 (3.8)	64 (27.1)	4 (1.7)	29 (12)	0 (0.8)	28 (11.5)	0 (0)	0.006
Student	7 (2.9)	0 (0)	8 (3.4)	0 (0)	27 (11.1)	0 (0.8)	27 (11.1)	0 (0)	
Farming	52 (22)	4 (1.7)	52 (22)	4 (1.7)	27 (11.1)	0 (0.8)	27 (11.1)	0 (0)	
Income (household)									
No income	18 (11.11)	3 (1.8)	18 (7.6)	3 (1.3)	-	-	-	-	0.46
< 30,000	25 (15.4)	11 (6.8)	25 (10.6)	11 (4.6)	32 (14.2)	0 (0)	32 (14.2)	1 (0.4)	0.001
30,000-59,000	34 (21)	5 (3.1)	34 (14.4)	5 (2.1)	110 (48.9)	1 (0.4)	106 (47.1)	6 (2.6)	0.004
60,000-89,000	34 (21)	0 (0)	32 (13.5)	1 (0.4)	58 (25.8)	0 (0)	57 (25.3)	1 (0.4)	0.001
> 90,000	26 (16)	6 (3.7)	30 (12.7)	2 (0.8)	23 (10.2)	1 (0.4)	15 (6.6)	10 (4.4)	0.016
*Quality (n = 224)	205 (91.5)	19 (8.5)	22 (9.9)	200 (90.1)	241 (99.2)	2 (0.8)	225 (92.5)	18 (7.5)	0.001
*Distance (n = 223)	210 (93.7)	13 (5.8)	197 (90.8)	20 (9.2)			223 (92.2)	19 (7.8)	0.016

²Fisher's exact test; Pearson's chi-squared test

*In Buea, n for quality 224, distance 223, age 232, and income 162. In Tiko, income (n) = 225

TABLE 3. Determining factors for choice of health facility for ANC and skilled birth delivery across sectors

	Limbe district (N = 316), n (%)			Buea district (N = 237), n (%)			Tiko district (N = 243), n (%)				
	Quality	Distance	Cost	No choice	Quality	Distance	Cost	Quality	Distance	Cost	No choice
Choice of health facility to use for ANC again											
Public	121 (38.3)	0 (0)	0 (0)	0 (0)	26 (11)	64 (27)	35 (14.8)	47 (19)	78 (31.6)	56 (22.7)	0 (0)
Private	140 (44.3)	0 (0)	0 (0)	0 (0)	38 (16.1)	27 (11.4)	0 (0)	13 (5.3)	4 (1.6)	1 (0.4)	0 (0)
Confessional	9 (2.8)	0 (0)	0 (0)	0 (0)	33 (14)	9 (3.8)	4 (1.7)	12 (4.8)	5 (2)	0 (0)	0 (0)
Parapublic	1 (0.3)	22 (7)	0 (0)	23 (7.3)	-	-	-	17 (6.9)	5 (2)	0 (0)	19 (7.7)
Choice of facility to use delivery again											
Public	110 (34.8)	11 (3.5)	0 (0)	0 (0)	18 (7.5)	82 (34.3)	22 (9.2)	70 (28.2)	71 (28.6)	19 (7.6)	
Private	130 (41.1)	10 (3.2)	0 (0)	0 (0)	24 (10)	40 (1.7)	3 (1.2)	12 (4.8)	6 (2.4)	0 (0)	
Confessional	7 (2.2)	2 (0.6)	0 (0)	0 (0)	30 (12.5)	14 (5.8)	2 (0.8)	10 (4.0)	7 (2.8)	0 (0)	
Para public	1 (0.3)	0 (0)	45 (14.2)	0 (0)	-	-	-	14 (5.6)	8 (3.2)	0 (0)	19 (7.6)

The women were also asked if they were happy with the ANC and skilled birth delivery services being provided to them at the time of the study. In Buea, of the 229 respondents, 95 (41.5%) said they were happy with the public facilities, and 18 (7.8%) said that they were not. From the private facilities, 55 (24%) said that they were happy and 13 (5.7%) said that they were not. Regarding confessional facilities, 40 (17.5%) said that they were happy and 8 (3.5%) said that they were not. For the delivery services in Buea, 237 women responded, with 216 (91%) saying they were happy and 21 (9%) saying they were not – of whom 9 (3.8%) were using public facilities. Those who said they were not happy reported that the facilities were too costly. In the Tiko district, there were 248 responses for both ANC and delivery. In both cases, 232 (93.6%) of the women were happy with the services and 16 (6.4%) were unhappy.

When asked if they would like to use the same facility for skilled birth delivery, of the 233 in Buea who responded, 213 said yes (91.4%) and 20 (8.6%) said no. Of those who said no, 13 (5.6%) were from public facilities and gave reasons including rudeness from the nurses, the distance of the facility from home, unwelcoming staff, negligence, and increases in cost. Those who said yes cited the good staff and midwives, friendliness, and caring nurses. Regarding ANC in Buea, there were 236 responses: 216 (91.5%) said they would be happy to use the same facility and 20 (8.5%) said that they would not. The latter cited the absence of a specialist at the health facility, cost, long waiting times, poor follow-up, distance from the homes, and rudeness of nurses.

Logistic regression was performed to assess factors associated with the intention to use same health facility for ANC for subsequent pregnancy, and assessed the effect of income, education, marital status, age, and quality of care on the likelihood that a respondent would choose to use the same services again. Quality of care was grouped into poor versus good, and those who reported poor quality of care in Buea were less likely to use the same facility for subsequent ANC (OR= 0.015 95% CI: 0.001-0.153), and those who had primary education were less likely to use the same facility for delivery again (OR= 0.21 95% CI: 0.068-0.671) compared to secondary education (Tables 4A-B). The unadjusted bivariate analysis model (Tables 5A-B) indicates that those who ranked quality of care as poor were less likely to use the services again for antenatal care and skilled birth delivery. After adjusting for covariates, quality of care was no longer statistically significant; this probably reflects the limited statistical power.

QUALITATIVE STUDY RESULTS

Six FGDs were conducted with women: 2 for each district, one for PAV women, one for NPAV women, and 3 with CHW, one per district (total of 26 women). We identified 6 additional women who had not used the health facility for skilled birth delivery and who pre-

TABLE 4A. Logistic regression for Buea district

	Use facility for ANC				Use facility for delivery			
	OR	95% CI		p-value	OR	95% CI		p-value
		Lower	Upper			Lower	Upper	
Income: > 60,000 vs. < 60,000	–	–	–	–	0.786	0.267	2.318	0.66
Unemployed vs. employed	0.417	0.136	1.276	0.125	–	–	–	–
Quality of care: poor vs. good	0.015	0.001	0.153	0.0004	–	–	–	–
Education: high school vs. secondary	0.280	0.067	1.166	0.080	0.279	0.067	1.166	0.080
Education: primary vs. secondary	0.623	0.151	2.579	0.514	0.214	0.068	0.671	0.008
Marital status: unmarried vs. married	–	–	–	–	0.781	0.272	2.241	0.64
Age: < 36 vs. > 36	–	–	–	–	3.629	0.745	17.67	0.110

TABLE 4B. Logistic regression for Tiko district

	Use facility for delivery			
	OR	95% CI		p-value
		Lower	Upper	
Income: > 60,000 vs. < 60,000	0.439	0.156	1.237	0.119
Marital status	2.830	0.592	13.54	0.192

ferred to use the traditional birth attendants. However, 4 of these women refused consent for an interview or FGD. We interviewed the 2 who provided consent because the numbers were not sufficient for an FGD. Each FGD ranged from 4 to 10 participants (Tables 5A-B). Nine providers were interviewed across the 3 districts. Three FGD for CHW, one from each district, for a total of 24 CHW. Some of the CHW were not contracted by health facilities under the PBF program; therefore, they were not earning regular compensation. The following paragraphs explain the discussion in relation to the contextual, individual, and cultural characteristics and implications of COVID-19.

CONTEXTUAL CHARACTERISTICS

Quality of care

The attitudes of healthcare providers during ANC and skilled birth delivery can influence the health-seeking behaviour of women and create a desire to continue shopping around, looking for quality of care at an affordable rate. Some women reported that their privacy was not respected by health providers; this was reported in the FGD by women and CHW. Health care providers do not keep patient records confidential; this therefore encourages women to seek care for ANC at a health facility further away from their health area, and this practice was reported across all sectors in Tiko. Some women preferred to use the public health facilities for all their ANC and for skilled birth delivery because these facilities have skilled professionals, with a specialist present in case of an emergency during delivery or if there is a need for further assessment. However, others

said that they would prefer to go to private facilities, despite the cost, because of the rudeness of some nurses in the public facilities.

“Concerning the hospital, I love it because there is a lot of care, and moreover I take into consideration a situation where I have to go for CS, and since it is a public hospital, I am encouraged by them because they have doctors”.

FGD, Public, Tiko (PAV)

“Public hospitals are less expensive, so we go there, but private facilities have more quality care, because in public hospitals, I had a bad experience and I never returned. When I even gave birth, there was no bed, they said I had to hold the child”.

FGD Buea, Limbe Private (PAV)

“Yes, like the other experiences I had, when I went there, they wrote me a drug and the nurse writing didn’t care to ask me if I still have the drug, she just gave me and because of fear I couldn’t ask, only for me to find out that I still had the drug at home”.

Public NPV (FGD Buea)

“Well, I can register for ANC in three different hospitals, it depends on the care given to me and my baby”.

NPV (FGD Buea)

“The thing is that the public should increase their level of sanitation to that of the private”.

Tiko NPV

The women perceived that there had been changes in quality of care across all districts after the introduction of PBF. Some women reported that the quality of their care in public facilities had improved, but they said that not all the healthcare workers in the facilities had improved in their attitudes. Some healthcare workers

TABLE 5A. Socio-demographic characteristics of respondents for focus group discussion for women in the Buea, Tiko, and Limbe districts

Participants	Age	Level of education	Marital status	Household monthly Income	Employment status	Equity status	District
Code A	26	Primary	Single	< 30,000	Not working	PAV	Buea
Code B	29	Primary	Married	< 30,000	Not working	PAV	Buea
Code C	35	Secondary	Married	–	Housewife	PAV	Buea
Code D	35	Secondary	Married	–	Housewife	PAV	Buea
Code E	31	Secondary	Married	< 30,000	Not working	PAV	Buea
Code F	39	Primary	Married	< 30,000	Not working	PAV	Buea
Code G	38	Secondary	Married	–	Employed	NPAV	Buea
Code H	27	Secondary	Married	60,001-900,000	Employed	NPAV	Buea
Code I	26	University	Married	60,001-900,000	Employed	NPAV	Buea
Code J	28	University	Married	60,001-900,000	Employed	NPAV	Buea
Code K	33	University	Married	120,000-150,000	Housewife	NPAV	Buea
Code A	33	Primary	Married	–	Not working	PAV	Tiko
Code B	29	Primary	Married	< 30,000	–	PAV	Tiko
Code C	26	Secondary	Single	< 30,000	Not working	PAV	Tiko
Code D	28	Secondary	Married	–	Not working	PAV	Tiko
Code E	21	Secondary	Single	30,000	Not working	NPAV	Tiko
Code F	33	High School	Married	30,000-60,000	Not working	NPAV	Tiko
Code G	26	Secondary	Divorced	120,000-150,000	Self employed	NPAV	Tiko
Code H	26	High School	Married	120,000-150,000	Employed	NPAV	Tiko
Code A	38	Primary	Married	< 30,000	Not working	PAV	Limbe
Code B	37	Primary	Divorced	< 30,000	Not working	PAV	Limbe
Code C	41	No education	Widowed	< 30,000	Not working	PAV	Limbe
Code D	36	Secondary	Single	< 30,000	Not working	PAV	Limbe
Code E	36	Secondary	Single	< 30,000	Not working	NPAV	Limbe
Code F	38	Primary	Married	30,000-60,000	Self employed	NPAV	Limbe
Code G	41	Secondary	Married	–	–	NPAV	Limbe
Code H	39	Primary	Married	–	–	NPAV	Limbe

were still not working on their attitude towards women, and it varied by individual. However, one participant talked about her experience with a confessional facility and described how rude the nurses had been to her during her last pregnancy. As a result, she had decided to go to a private facility for her current pregnancy and would prefer a private or confessional facility over a public facility because staff at the former were negligent and did not take proper care of their patients.

There was an interesting heterogeneity in the responses; other women expressed that they would always use public facilities because they had qualified staff, while others said they would opt for the confessional facility because they provided the opportunity to pay in instalments.

“When I gave birth to my first child, there in 2012 (confessional), I was well taken care of but during the three

days, the services was poor care and it was more expensive, the second pregnancy, it was not expected of me to go through operation, but I did. The nurse in charge of me, refused me care because I vomited without telling her and she said I was dirty. So that is how I left confessional and came to Private hospital”.

(PAV) Buea

“At confessional, proper care is given to you first, then your bills are paid later, but in public facilities, you must pay first and at times you are sent to get your own drugs even when you are sick”.

PAV (Buea)

“Well, I have not really had bad experiences in public facilities, they have qualified staff, and you are normally advised to come along with someone, so the person does all the buying of the drugs”.

PAV (Buea/Tiko)

TABLE 5B. Socio-demographic characteristics of respondents for focus group discussion for CHW in the Buea, Tiko, and Limbe districts

Participants	Age	Level of education	Marital status	Employment status	District
CHW1 Male	39		N/A	Employed	Buea
CHW2 Male	28		N/A	Employed	Buea
CHW3 Woman	38		N/A	Not working	Buea
CHW4 Woman	39		N/A	Employed	Buea
CHW5 Woman	27		N/A	Not working	Buea
CHW6 Woman	34		N/A	Employed	Buea
CHW7 Woman	32		N/A	Not working	Buea
CHW1 Male	33	University	N/A	Employed	Tiko
CHW2 Male	41	High School	N/A	Employed	Tiko
CHW3 Woman	42	High School	N/A	Farming	Tiko
CHW4 Woman	43	Primary	N/A	Employed	Tiko
CHW5 Woman	39	Secondary	N/A	Employed	Tiko
CHW6 Woman	33	Secondary	N/A	Not working	Tiko
CHW7 Woman	29	Secondary	N/A	Employed	Tiko
CHW8 Woman	40	Secondary	N/A	Not working	Tiko
CHW9 Woman	26	University	N/A	Student	Tiko
CHW10 Woman	28	Primary	N/A	Not working	Tiko
CHW1 Male	28	Secondary	Married	Employed	Limbe
CHW2 Male	43	Secondary	Single	Self employed	Limbe
CHW3 Male	49	Primary	Married	Employed	Limbe
CHW4 Woman	28	Secondary	Married	Not working	Limbe
CHW5 Woman	38	Secondary	Single	Employed	Limbe
CHW6 Woman	42	Secondary	Single	Farming	Limbe
CHW7 Woman	47	Secondary	Single	Farming	Limbe

Not working implies they do not have a contract with a health facility under the PBF program.

Individual characteristics

Some women said that they had challenges in attending ANC in a timely manner due to cost. However, their OOP expenses for normal delivery following the implementation of PBF were moderate. The women who reported that the cost was high acknowledged that this was because it was the private sector, but they suggested that the cost should be reduced even if it is a private facility. Some women had borrowed money to attend their regular ANC or skilled birth delivery. Some suggested that, because they believed that confessionnal and private facilities were extorting money from them, if the cost of ANC were made universal or subsidised and transparent, this would change the way they used the health services and reduce their 'shopping around'. The women reported quality of care as the primary determinant – even ahead of cost – in their choice of facility in which to deliver their baby.

"If they can have a unique ANC card and cost it will be good for when I left BUEA health care centre and went to another, I had to open another ANC card so the cost can be reduced".

(Buea and Limbe)

"Price should be reduced not only for internally displaced persons but at least everyone both in private and public facilities".

NPAV Buea

"For the ANC lab tests there is really not much difference, the thing is that in some public hospitals they do not really give those cumbersome tests like in the private".

Limbe

Some women argued that the numerous tests provided for first ANC visits were necessary because they helped to identify issues much earlier and provide better care. The women gave the example of sickle cell anaemia, because without those extra tests being done much earlier, it would not be possible to know if one's child was a carrier. Another woman reported that if it was your first pregnancy you would need to go through all the tests, and it also depended on the specific health facility attended.

"For me the prices have gone up because the first one I paid eighteen thousand something and something francs, but with current pregnancy, I paid twenty-three thousand

and something francs. I cannot forget because the first thing in mind was, I was like, why is the eighteen thousand so expensive? But this is even more expensive”.

(NPAV)

“For me it has changed, it has gone a little bit down, with my first child I spent about twenty-eight thousand something, but this one I spent almost nineteen to eighteen thousand”.

(PAV)(Buea)

It is expensive and not really easy because before I even raised the two hundred thousand for delivery the first time I and my husband entered into debt, which we had to pay after the pregnancy and everything”.

(PAV) TiKo

Another point made was about the government’s subsidisation of the delivery kit. The women questioned why, despite this subsidy, they were still expected to pay over 50,000 frs CFA for a caesarean section instead of approximately 40,000 frs including the delivery kit of 6000 frs. Some argued that the government should cover the total cost of any caesarean section, especially for complex cases and for poor women.

CULTURAL FACTORS

The discussion during the FGD revealed a need to explore the health-seeking behaviour of women not using a health facility for delivery. It was also observed that some women who did attend ANC did not deliver at a health facility. This group preferred to use traditional birth attendants during delivery – rather than a skilled birth attendant – but they attended ANC to ensure their babies were safe and to control for any complications.

“We do not go to the health facilities to deliver because when you go to the health facilities to deliver, they will keep you there for days and the time to take the child to the water will pass while you are still in the health facility. We go for ANC clinics to check if the baby is fine but when it is time to deliver, we do not go to the health facilities we use our women in the quarters”.

In interviews with the 2 women who provided consent, we probed to understand the reasons for their choices. They explained that they needed to attend the clinic to ensure that their babies were well-positioned and healthy. One woman said that if she were feeling unwell, she would go to the hospital, but she would not use a facility for delivery because of the need to respect tradition. Specifically, when a child is delivered, they must be taken immediately to the water to allow them to become familiar with it.

We further explored whether the women would be interested in attending the health clinic with their babies for vaccinations and check-ups after the baby had been taken to the water.

“Yes we can go to the hospital after the baby has been introduced to the water because this is tradition, the child needs to understand the water to know how to get to fetch fish when they grow up, so we cannot deliver in the hospital not because we do not want to deliver in the hospital

but because they will keep us in the hospital for several days and the time to go to the water with the child will pass while you are still in the hospital”.

(Tiko)

“We cannot change this tradition because we met the tradition, and it will be difficult because we need the child to get familiar with water and you can even get a divorce from your husband if you try to go against this tradition. We need to go to the water within the first three days, and this is when the hospital keeps you so we cannot go to the hospital the child needs to know water to fend for his family when the child grows up and this has nothing to do with the sex of the child, but it is the tradition”.

(Tiko)

It was reported by the PBF verification team in the Limbe district that, following the introduction of PBF, they observed equally that some women would attend for ANC, but they preferred to deliver with a TBA in their neighbourhood. This prompted the PBF team to introduce a mechanism to encourage TBAs to refer women to the health facilities and to encourage health facilities to partner with the TBAs. This experience was not reported in the Buea health district.

The impact of the COVID-19 pandemic on health-seeking behaviours among women seeking ANC and skilled birth delivery at the institutional level

At the individual level, women reported that the onset of COVID-19 and the uncertainty had left them frightened about attending their routine ANC, with some women anxious about using public transportation. In addition, some of the measures put in place were challenging and costly. However, the women ultimately had no choice but to attend their ANC. It should be noted that this study was conducted during a calmer period of the pandemic, when the vaccine was available from the health facilities. Therefore, the women attending ANC at the time of the study were relatively comfortable and better informed. However, from the perspective of the health providers, there was still much work to be done, and some complained that they had to engage in psychosocial counselling when dealing with patients. Some health providers also said that COVID-19 had negatively affected their home visits. The providers also reported that uptake of ANC had fallen considerably since the onset of COVID-19.

“Covid has come teach us more of hygiene. It affected us because before the treatment centre was in the middle of the health facility. Everybody coming here had the notion that if they go to the health facility with a bit of cold, they would be declared covid positive and quarantined. Even the pregnant women were running away because when you look at the proximity of the isolation ward to the maternity, it was a problem. But our numbers really dropped, from March to June 2020 when it was at the peak, I couldn’t boast of up to 90 deliveries, it was tough”.

(Midwife, Buea & Tiko)

“Covid has mostly impacted our outreaches like those who go out for home visits, have their challenges. At first people were very happy to receive nurses but now with covid they are not welcoming. It is like you are bringing the covid, the worst one doesn't even mention vaccine. They don't want to hear about the covid vaccine”.

(Nurse, Buea)

“Concerning the utilisation of health facilities, most patients have a preconceived idea and conclude that if they come to the hospital, they are going to be declared covid positive. At some point, the number of patients visiting our health facility reduced and we had to do some sensitisation. It is still timid but much better. Utilisation rate has reduced but I don't have the rate. We have had to deal with patient psychology more than before, counselling, psychotherapy more than you would do just to get the patient stable and accept the care you have to offer to them”.

(Doctor, Limbe)

We probed further to understand the women's rationale for not accepting the vaccines. Some women (and wider communities) believed that there was a hidden agenda behind the provision of the vaccine. This, coupled with the socio-political atmosphere that has increased mistrust, meant that they were not interested in being vaccinated; their perception about the virus had changed and they were able to attend ANC, but they did not want to hear about the vaccine.

“The reason for denial of vaccine is fear because of social media, most of these things is coming from social media. People say when you take it in about five years you will die, they believe that there is an agenda behind the vaccine. The agenda is to kill so they don't want to hear about it. They say they also want to reduce the population”.

(Nurse, Buea)

THE ROLE OF SOCIO-POLITICAL FACTORS ON HEALTH-SEEKING BEHAVIOUR

The current socio-political situation in the country has meant fewer patients. At one time, people were leaving Buea for Douala and other regions. However, the situation has now changed, and most have returned to Buea. This was reported in the FGD in Buea. In addition, some women highlighted the challenges of obtaining ANC and skilled birth delivery in the jungle in which they were hiding. The ability to seek care in their preferred facilities had been hindered by the ongoing conflict, which had led to an increase in the cost of ANC.

“I gave birth in 2011 and the medicines and everything were not expensive I spent about eleven thousand and for the baby things at the health facility it was about nine thousand but now, with this crisis, I spent close to thirty something thousand for this pregnancy and we had insecurity and an unclean environment during the pregnancy and the used traditional methods as it was in the bushes that I gave birth, and nurses just placed things on the ground. You go for your clinic and the call huge amounts of money,

but you do not even see what they are doing. Medicines that you buy outside will be five thousand and, in the bush, you could pay for the same medicine for fifteen thousand”.

PAV Buea

DISCUSSION

This study found that, for women attending ANC and skilled birth delivery at a health facility, the cost and quality of care is more likely to be a factor in shopping around across districts and sectors, but quality of care provided during delivery is an important determining factor in the decision to use the same facility for skilled birth delivery (followed by distance) as reported during FGD and also observed in their choice for health facility. However, in Tiko, the pattern was different for ANC, though cost was reported as a factor, privacy of patients' records was reported in the FGD to influence their search for better quality further from the health facilities closer to them. Distance may be a determining factor for delivery because women would prefer to deliver closer to their homes, as this allows family members to bring in food and other items, which is more cost-effective. However, women who were not attending ANC or using the health facility for delivery did not report cost or distance as their concern from the interview; rather, they said that the number of days that they would spend in the health facility after delivery would prevent them from performing some of their traditional rites. These women attended ANC but preferred a TBA during delivery.

This situation of using TBAs during delivery was only reported in Limbe and Tiko, which is unsurprising because these 2 districts are close to the sea and fishing is a common activity for some of the population.

The limited echography equipment and the quality of the output was also found to influence the women's health-seeking behaviour in relation to ANC. For example, one woman expressed frustration with having been asked to attend an additional echography at 'Facility A', where the service was very expensive. As a result of the cost, she became frustrated and left the health facility and went home. However, her pain later became severe, and she decided that she needed the test. Shopping around, she found a much cheaper price at a different facility. She had the echography at the second facility and took the result back to Facility A.

One reason that many women prefer to use the confessional facilities – even when they cannot afford them – is payment consideration. Women are sometimes required to pay instalments or stay in a facility until they are able to pay their bills, being assigned tasks to complete as payment to cover their bills.

The participants' responses revealed a lack of trust in the system in terms of pricing of ANC and skilled birth delivery. The participants felt that the system or health facility could be exploiting them. Although PBF has helped to reduce the cost of some related services, such as drugs

and echography, the cost for the first ANC and skilled birth delivery (caesarean section) has increased [17]. It is possible that these factors may not have been considered when initiating the PBF quality indicators to have an effect on cost [17]. The delivery kit subsidised by the government does not seem to be effective, as those who have caesarean sections will ultimately spend at least 50,000 frsCFA. It should be noted that some of the women who participated in this study did not deliver in the same health facilities in which they had received their ANC. Some women cited quality concerns as the reason for this, while others had received referrals due to the nature of their pregnancies, and others cited cost as the reason. Therefore, quality of care and cost should be carefully examined, because subsidising skilled birth delivery without proper examination of the quality of care is unlikely to improve their health-seeking behaviour.

Previous studies have reported that many women preferred TBAs because of the distance and location of health facilities and the way they interact with and care for them [34, 35]. In Northern Ghana, despite provision of free health services for ANC and skilled birth delivery, due to quality concerns, some women still prefer to visit TBAs during delivery [34]. In Tanzania, one of the push factors for the use of TBAs was distance [35]. However, our findings in this study differ, as the length of stay in the health facility following delivery seems to be the most important factor for those women using TBAs, rather than distance or the attitude of the health providers.

Most women highlighted the need to educate providers, especially those in public settings, about the importance of communication during skilled birth delivery, as some had not changed. However, the women reported that there had been some quality improvements among providers, which corroborates the findings of a post-PBF study in Cameroon that women reported positive changes in family planning and vaccination [18].

Most of the quality expectations of the participants centred around communication strategies during skilled birth delivery. These communication strategies are a minimum quality standard that do not require technical know-how. However, poor women seek skilled birth delivery at expensive health facilities, despite their limited finances, due to the quality of care they can expect to receive there. This exposes women to financial burdens, obliging them to borrow money or stay in the health facilities to compensate for the cost of the services. Meanwhile, the services in public settings are more affordable, but the poor communication strategies there alienate the women who need them and increase their financial burden by forcing them to seek quality care in expensive facilities. Quality of care during skilled birth delivery – specifically in relation to communication approaches – determines whether a woman will use the same facility for subsequent deliveries. It should be noted that this issue of poor communication

reported by the women is more common among female nurses in the public health facilities.

POLICY IMPLICATIONS

The utilisation and uptake of ANC and skilled birth delivery services has been very low among those who would most benefit from them. This is especially true for services such as family planning, antenatal care, and skilled birth delivery in Cameroon. Subsidizing maternal services to increase access without improving and enforcing minimal quality is unlikely to have an impact on access [36]. One of the main objectives of PBF is to improve the quality of care [37, 38], but this quality has been observed more in structural than content quality [12]. Given the long-standing nature of the issue of quality of care in this context, especially in relation to communication approaches between providers and women, and consumers remain sceptical, despite some of the changes made by PBF. There is a need to focus on improving the content quality of care for ANC and skilled birth delivery. This may not only require a simple check list of quality indicators and verification process as employed by the PBF system, but also a more rigorous procedure that incorporates continuous training and strict supervision. When women must shop around for ANC in various facilities – and then deliver in another facility, without proper referral procedures in place – this can reduce quality and undermine the very essence of the primary healthcare system in place.

Advocating for some aspects of primary health care in a system that is financed primarily through OOP expenses and providing poor-content quality care can be challenging, because people make choices based on their purchasing power and the perceived quality of the care. Consumers make their choices based on their ability to pay for quality. The PBF system should advocate for continuity of care by encouraging providers to employ good communication strategies that ensure patient retention, and this should be considered in the quality checklist of PBF indicators. Strategies are needed to ensure continuity of care because this is vital for quality, especially for ANC and skilled birth delivery.

Quality of care has implications for both PBF and the health system more generally. PBF has the potential to improve quality of care, but the changes seen thus far have primarily affected structural quality. Gradual changes are being seen in providers' relationships with their patients, but there is still much work to be done. The issue of patient-provider relationship and communication patterns in care delivery, especially in public facilities, are a long-standing challenge in the health system in Cameroon. This is something that the system has failed to manage, and appropriate measures are needed to improve quality, especially in primary health care. The efforts to improve quality – and the use of a quality checklist and verification processes (which are not

rigorous) as standalone mechanisms – are not sufficient to ensure optimal quality services. Most importantly, respecting patients' privacy and confidentiality of their data is not only an ethical concern but critical throughout medical practice. There is a need for additional reinforcement, which may require (if necessary) a review of the curricula of medical students (especially nurses and midwives) trained in Cameroon.

PBF is a supply-side strategy that targets health professionals and has been adopted as a national strategy. The quality standards and expectations of PBF should be reinforced within the curriculum to better prepare healthcare workers, especially in terms of patient-provider communication during skilled birth delivery, privacy and confidentiality of patient records, and care in general. This is important because emphasising quality in practice at the level of PBF indicators and verifications without ensuring it is also emphasised in the mindset from the onset and the training programmes would be much like treating the symptoms of a disease without considering the cause.

STRENGTHS AND LIMITATIONS

The decisions made during the research process of this study – from the development of the research objectives to the interpretation of the findings – have been fully described to ensure the confirmability of the results. Feedback was received from all co-authors on the research objectives, questions, and analysis, as well as the interpretation of the findings. This was vital for establishing dependability and credibility because the co-authors were able to highlight factual errors and competing interpretations in the manuscript. We also employed various methods of data collection from different settings (public, private, and confessional facilities) and from 2 sources (the women and the health care providers). This use of multiple data sources helped to provide greater depth and breadth to the study findings. This study was limited to 3 districts in the SW region and was conducted in a conflict-affected region, which may have influenced the respondents' behaviour; however, multiple sources of data help to minimize bias in the results. In addition, this study is prone to recall bias, and the findings from the logistic regression analysis should be interpreted with caution because there was limited statistical power.

CONCLUSIONS

The heterogenous nature of health-seeking behaviours calls for specific intervention strategies tailored to specific districts. PBF has the potential to improve quality of care to stimulate behaviour change in seeking care amongst a certain group of women, but the changes seen thus far have primarily affected structural aspects of quality of care. Cost and quality of care are important determining factors in the choice of seeking care for antenatal care and skilled birth delivery; however, quality of care (with

a focus on the patient-provider communication pattern) is important in the decision to use a health facility for subsequent skilled birth delivery. In addition, hospital length of stay (after delivery) is a determining factor for some women to use traditional birth attendants for delivery.

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DISCLOSURE

The authors report no conflict of interest

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AUTHORS' CONTRIBUTIONS

MN prepared the research concept, collected data, conducted analysis and wrote the article. JL, SY critically revised manuscript. All authors approved final version of the publication.