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Title: A comparative study of community verification processes in the context of performance-based financing in Mali and Burkina Faso

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Purpose: This article compares the processes of community verification (CV) and user satisfaction surveys during the implementation of performance-based financing (PBF) in Mali and Burkina Faso.

Design/methodology/approach: The authors adopted a qualitative approach based on a multiple-case study design. Data were collected from August 10 to 25, 2017, in Mali, and from January to May 2016 in Burkina Faso. In Mali, 191 semi-structured interviews were conducted with investigators (people who collect information from health centre users in the communities, using survey tools), users, users' relatives, and health workers in three of the 10 health districts in the Koulikoro region. In Burkina Faso, 241 non-participatory observation sessions were recorded in a research diary, and 92 semi-structured interviews and informal discussions were conducted with investigators, community verifiers, users, PBF support staff at the national level, and administrative staff in one of the 15 health districts involved in PBF. The data were analysed inductively.

Findings: In both Mali and Burkina Faso, the delayed availability of survey forms led to a delay in starting the surveys. In Mali, to get off to a quick start, some investigators went to health centres to conduct the sampling with their supervisors. In both countries, investigators reported difficulties in finding certain users in the community due to incorrect spelling of names, lack of telephone details, incomplete information on the forms, common or similar sounding names within the community, and user mobility. There was little interference from health workers during user selection and surveys in both countries. In both countries, many surveys were conducted in the presence of the user's family (husband, father-in-law, brother, uncle, etc.) and the person accompanying the investigator. Also in both countries, some investigators filled in forms without investigating. They justified this data fabrication by the inadequate time available for the survey and the difficulty or impossibility of finding certain users. In both countries, the results were not communicated to health centre staff or users in either country.

Research limitations/implications: CV and user satisfaction surveys are important components of PBF implementation. However, their implementation and evaluation remain complex. The instruments for CV and user satisfaction surveys for PBF need to be adapted and simplified to the local context. Emphasis should be placed on data analysis and the use of CV results.

Originality/value: There are similarities and differences in the CV process and user satisfaction surveys in Mali and Burkina Faso. In Mali, the data from the user satisfaction survey was not

analyzed, while in Burkina Faso, the analysis did not allow for feedback. The local non-governmental organisations (NGOs) that carried out the CV were pre-financed for 50% of the amount in Mali. In Burkina Faso, community-based organisations (CBOs) were not pre-financed. The lack of financing negatively impacted the conduction of the surveys. In Mali, fraudulent completion of survey forms by interviewers was more common in urban than in rural areas. In Burkina Faso, the frauds concerned consultations for children under five years of age. In Burkina Faso, the survey form was not adapted to collect data on the level of satisfaction of the indigent.

Key messages:

- There were similarities and differences in the community verification (CV) processes in Mali and Burkina Faso.
- In both Mali and Burkina Faso, tracing users within their community was difficult for several reasons, including incorrect or incomplete information on forms, common or similar names, and user mobility.
- In both countries, there was no feedback on the results of the CV process to health centre staff or users.
- Survey forms were falsified by investigators in both countries. In Mali, falsification was more common in urban than in rural areas. In Burkina Faso, falsification was more often observed for consultations for children under five years of age.

Keywords: Performance-based financing; Community verifications ; User satisfaction; Patient satisfaction; Data fabrication; Use of results; Mali; Burkina Faso

Introduction

Performance-based financing (PBF) is a mechanism by which health centres are paid based on their performance as measured by the quantity and quality of services provided. It is intended to increase productivity and quality of healthcare delivery to the population (Fritsche et al., 2014). In Mali, the PBF pilot project was very short, lasting only eight months (July 2016 to February 2017). The description of that project in Mali and the challenges observed during its implementation have been published in several articles (Zitti et al., 2019; Coulibaly et al., 2020; Zitti et al., 2021). The PBF intervention in Burkina Faso lasted three years (2014–2017), and details on that implementation and process have been published (Ridde et al., 2017; Bodson et al., 2018; Turcotte-Tremblay et al., 2017). In Burkina Faso, the government tested an intervention that combined PBF with health equity measures, which included community-based selection of indigents and user fee exemption measures for indigents at the point of service (Turcotte-Tremblay et al., 2018). The term indigent here refers to “individuals who are extremely disadvantaged socially and economically, unable to look after themselves, and devoid of internal or external resources.” Both PBF projects were funded by the World Bank (WB). The majority of PBF programs in African countries are donor-funded (Turcotte-Tremblay et al., 2018 ; Witter et al., 2020 ; Ssenyonjo et al., 2021 ; Duvendack, 2022 ; Kachapila et al., 2023).

Ex post verification, which consists of verifying actual service delivery and assessing user satisfaction, is recommended in the PBF toolkit funded by the World Bank (Fritsche et al., 2014, p. 46). In this paper, we refer to these processes jointly as community verification (CV). They can be conducted concurrently, as both involve tracing service users within their community. CV is done to verify with users whether the care reported by health workers was actually delivered, before paying the PBF quality subsidies (Ministry of Health and Public Hygiene, 2016; Ministry of Health, 2016). User satisfaction surveys are conducted to assess the satisfaction of those who received health care, with the aim of improving care quality (Ibid). According to the PBF toolkit (Fritsche et al., 2014), these processes send two signals: to healthcare providers, that there is a strong chance they will be caught if they cheat; and to providers and communities, that there is a serious desire to elicit feedback on the perceived quality of health service provision. Studies on PBF in Africa have mostly focused on its impact on the care targeted by the intervention. While CV is an essential component of PBF intervention theory, very few studies have focused specifically on it. In Burundi, Falisse et al. (2012) showed that surveying user satisfaction during

PBF implementation did not necessarily lead to increased consideration of population “*voices*” to improve quality of care. Nor did the transmission to health authorities of people’s concerns by community-based organisations (CBOs) in Burundi lead to any change. In Benin, Antony et al. (2017) showed that the PBF CV process was inefficient and time-consuming, and that there was insufficient data analysis and feedback to health workers and health centres to improve the quality of care.

The measurement of user satisfaction can be influenced by cultural, socio-demographic, cognitive, and affective factors (Ng & Luk, 2019). Thus, it is important to take into account the socio-cultural context when conducting CV surveys (Baumann & Amara, 2007).

This paper is based on two case studies of CV processes conducted during PBF implementation in Mali and Burkina Faso. The case of Burkina Faso was reported in an article by Turcotte-Tremblay et al. (2017), and that of Mali, in a thesis chapter by Zitti (2021). This article compares the results from the two countries to highlight similarities and differences between the implementation contexts. Our aim is to synthesise and validate the results of the separate cases represented by each country. There are several reasons for selecting these two countries for comparison: they have similar health systems; their PBF interventions were funded by the same donor; and the data collected in the CV processes are similar.

The PBF CV processes in Mali and Burkina Faso

In Mali, the CV was conducted in February 2017, i.e., at the end of the PBF pilot project (only one CV during the eight months of the project). In Burkina Faso, the CV took place from December 2016 to March 2017. The objectives of the PBF CV in both countries were the same: to verify health workers’ declarations regarding services provided and to measure user satisfaction with the quality of care received (Ministry of Health and Public Hygiene, 2016; Ministry of Health, 2016). In both countries, the CV process was integrated as a PBF activity required by the funder. The service provision verification process and user satisfaction survey are detailed in the PBF operational manual in Mali and in the CV implementation guide in Burkina Faso. The CV was not carried out in the same way in the two countries. Table 1 presents the similarities and differences in the CV processes during the PBF implementations in Mali and Burkina Faso. For example, the number of indicators (e.g., types of consultations) targeted by the CV process differed between the countries, with three first-level (primary care) indicators chosen in Mali versus 10 in Burkina Faso. In Mali, the three first-level indicators pertained only to maternal and child health (i.e., fourth

prenatal consultation, completely vaccinated children, assisted births). In Burkina Faso, the 10 first-level indicators pertained to maternal and child health (i.e., prenatal consultations, assisted births, postnatal consultations, consultations for healthy babies aged 0–11 months and 12–23 months, consultations for sick children under the age of five years, completely vaccinated children), malnutrition (i.e., consultations for moderately or severely malnourished children), and adult health (i.e., consultations for persons above five years old). In Burkina Faso, some indicators were omitted to protect confidentiality (e.g., family planning, HIV, tuberculosis) and for reasons of practicality (e.g., household visits). This was decided by the PBF governance structures (PBF technical implementation unit) at the national level. The forms used for the CV processes in both countries are available in the supplementary files.

Table 1: Characteristics of CV processes in Mali and Burkina Faso

CV activities	Mali	Burkina Faso
Coverage of the PBF intervention	- 10 health districts in the Koulikoro region	- 15 districts in four health regions
Target of the CV	- General population	- General population and the poor
Number of health centres	- 250 Centres de santé communautaire (CSCoM: community health centres) - 10 Centres de santé de référence (CSRef: reference health centres, district hospital)	- 561 Centres de santé et de promotion sociale (CSPS: centres for health and social promotion) - 11 Centres médicaux avec antenne chirurgicale (CMA: medical centres with surgical satellite services, district hospital)
Time period	- Initially the CV was intended to be quarterly - Only one CV during the 8 months of the project	- Initially the CV was intended to be quarterly - From 2014 to 2016 only two CV carried out
Selection of community-based organisations (CBOs) or local NGOs	- Due to the lack of CBOs that could carry out the CV, the applications of local NGOs were accepted	- Local s CBOs from the districts were recruited following a call for tenders
Selection of investigators (role: to collect information from users in the communities, using survey tools provided to them)	- The investigators are people who already work with local NGOs	- The investigators are people who already work with local CBOs
Training of investigators	- 10 investigators per local NGO trained - To complete the surveys on time, some local NGOs had to hire more investigators - Duration of the course: two days	- The number of investigators depended on each local CBO - Duration of the course: two days
Remuneration of investigators	- Daily fee set by each local NGO for investigators (20,000 to 25,000 CFA/day), (1 USD = 609 CFA francs)	- 2,500 CFA francs per user found, based on cards (1 USD = 609 CFA francs)

Survey level and number of indicators considered for CV	<ul style="list-style-type: none"> - Three first-level (primary care) indicators (CSCom) - Three second-level indicators (CSRef) 	<ul style="list-style-type: none"> - 10 first-level (primary care) indicators (CSPS) - Nine second-level indicators (CMA)
Supervision of the CV	<ul style="list-style-type: none"> - One technical advisor provided to each health district - Their role was to assist in the CV implementation - They were responsible for compiling CV samples 	<ul style="list-style-type: none"> - The role of community verifiers in the contracting and verification agencies (CVA) is to compile the sample, provide the local CBO investigators with survey sheets, and to validate the completed survey sheets
Duration of the CV	<ul style="list-style-type: none"> - Five to 10 days 	<ul style="list-style-type: none"> - 10 days
Sampling	<ul style="list-style-type: none"> - Samples were drawn from users in the health centre registers seen during the PBF implementation period - 10 users selected per indicator - Reasoned choice 	<ul style="list-style-type: none"> - Random sampling for the general user population and purposive sampling for the indigent - The sample size is set at 1% of the healthcare users at each facility - The sample is allocated to the different indicators in proportion to the weight of each in the base population - Some indicators omitted to protect confidentiality (e.g., family planning, HIV, TB)

Source: Author's own work

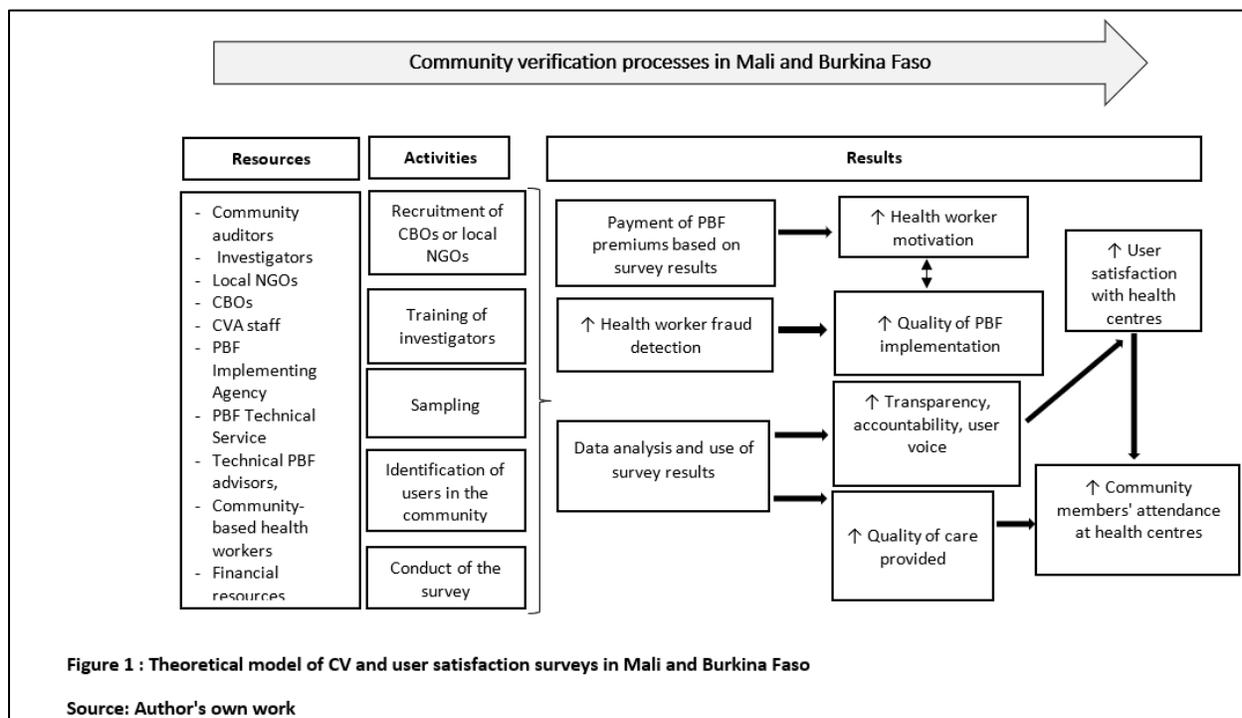
In Burkina Faso, the sampling was carried out by community verifiers from the contractualization and verification agency (CVA). Their role was to: compile the sample of users to be surveyed for each type of consultation targeted for verification; prepare the survey forms, which included information about the users; and then verify the data from the completed surveys (Ministry of Health, 2016). In Burkina Faso, the sampling imposed a work overload on community verifiers. Agents from the CVA were transformed into community verifiers to reduce costs, whereas according to the guidelines, the CVA should have recruited independent people to do the CV. In Mali, the sampling was produced by the PBF technical advisors (people hired by the implementing agency to oversee PBF implementation in each health district) with the help of teams from the Centres de santé de référence (CSRef: reference health centres, district hospital). In both countries, once community verifiers selected the users to be traced, local investigators were charged with finding these users within their communities and conducting the surveys. Also in both countries, after filling out the user surveys, the investigators submitted them to the CBOs. The role of the CBOs was to write CV reports for each health centre based on the data collected and then submit those reports to the PBF implementing agency.

In both countries, survey questionnaires were completed in paper format. To share data at the national level, the data were entered into a cloud server. In both countries, the CV results reported by CBOs to the PBF governance structure in relation to declared service provision were intended to be used to enable governing bodies to impose sanctions on health centres in the event of fraud being detected. However, in both cases, no health centre had been sanctioned for fraud at the time of the study. Also, the results of user satisfaction surveys were supposed to be used to calculate a user satisfaction score, a component of the overall quality score. The user satisfaction score represented 15% of the overall quality score in Burkina Faso and 20% in Mali. PBF payments for quality of care were based on these overall quality scores. However, there were very long delays in both conducting the surveys and issuing PBF payments for quality of care. For example, in Burkina Faso, the delays for the quality-related payments were over 16 months.

Methods

Theoretical model of the CV process and user satisfaction assessment in Mali and Burkina Faso

Figure 1 shows the resources used, the activities implemented to detect health worker falsification of registers during PBF implementation, and user satisfaction in both countries.



Research strategy

We adopted a qualitative approach based on a multiple case study design (Yin, 2013), with the cases being the CV processes in Mali and Burkina Faso. In Mali, the process was conducted in three of the 10 health districts in the Koulikoro region. In Burkina Faso, the process involved one of the 15 health districts involved in the PBF process. Figure 1 compares the PBF case studies in Mali and Burkina Faso. To compare the views of actors in the CV processes, we selected different profiles of participants in those processes (Table 2).

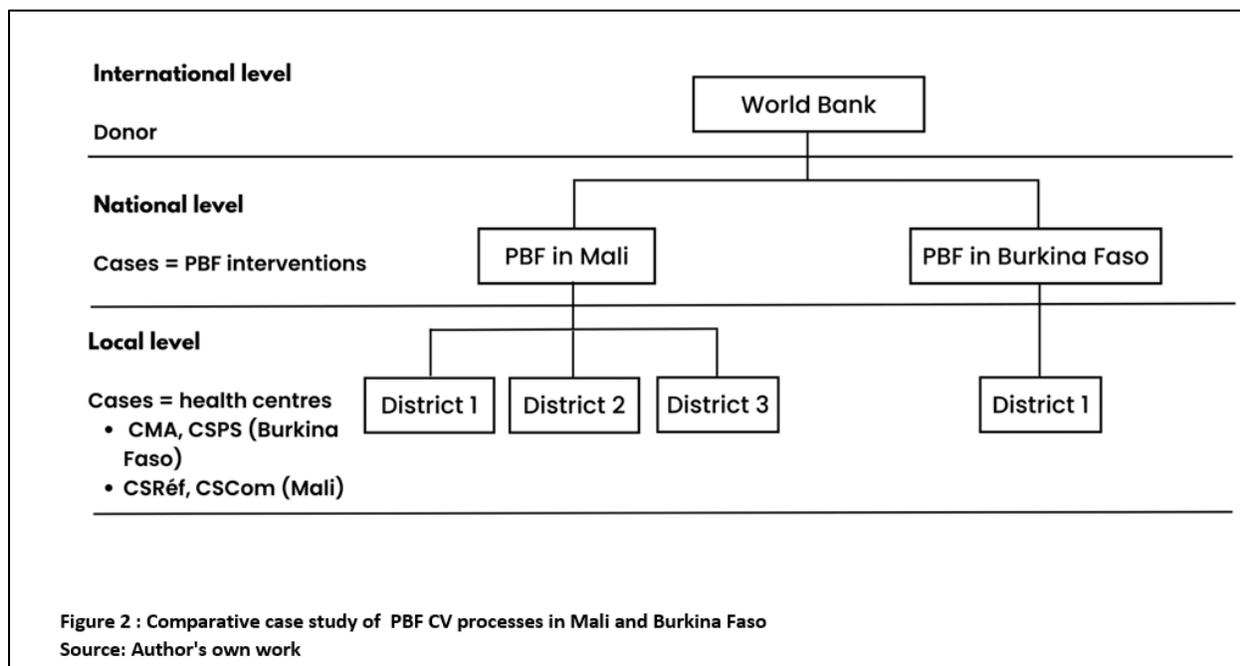


Table 2: List of study participants

Respondents	Mali	Burkina Faso
PBF program support staff at country level		2
Administrative staff at district level (e.g., director, accountant, etc.)		3
Investigators from local NGOs or CBOs	17	7
Members of the CV supervision (community verifiers)		4
Users	118	18
Family members of users (husband, etc.)	35	
Health workers	21	35
Community leaders (e.g., Comités de gestion [COGES: healthcare facility management committees], community-based health workers [CBHWs], counselors)		23
Total	191	92

Data collection

In Mali, data were collected from August 10 to 25, 2017. Four research assistants conducted the participant interviews. The collection tools were tested in Mali; two authors (AC and TZ) tested the tools and supervised the data collection. In Burkina Faso, data were collected between January and May 2016 by AMTT and IAZGG. In that country, in addition to 241 non-participatory observation sessions recorded in a research diary, 92 semi-structured interviews and informal discussions were conducted. Semi-structured interview guides were developed to investigate several targets (Table 2).

In Mali, non-participant observations were not conducted, as the data were collected several months after the CV process had been carried out by local CBOs. In Burkina Faso, two co-authors of the study conducted non-participant observation in CBOs and health centres. One accompanied investigators as they carried out CV surveys. Both kept a research diary to document informal conversations and observations. To integrate these data into the analyses, the research diaries and transcripts of semi-structured interviews were coded using qualitative data analysis software (QDA Miner).

Data processing and analysis

For the analysis, we followed an inductive content analysis approach (Bernard, 2006). From the empirical themes we identified similarities and differences in the influence of the socio-cultural values, attitudes, and practices of the different actors involved in the PBF CV processes in Mali and Burkina Faso.

Results

Design of the sample of users to be surveyed

In both countries, several investigators noted difficulties related to sampling during the CV. User samples were not ready at the start of the CV in most cases, which led to delays in its implementation. In Burkina Faso, CBO investigators had to wait for the community verifiers to make the samples available before they could go into the field. In Mali, to contend with the delay in transmitting samples, some investigators went to the health centres to compile or complete the samples themselves. For them, this was an additional burden and led to delays in conducting the CV. Investigators stressed that, to avoid delaying the CV, the samples must be available before the surveys begin.

“We had some complications. Often we were so late, the verifier [PBF technical advisor] who was at the district level hadn’t finished his work.... we went with the head of the post [health centre] and our supervisor to select the people [users].”
[CBO investigator, Mali]

“Given the time available, we were under pressure, because we had to try to force ourselves to be able to find these samples.... so that these people [investigators] could go into the field [to carry out the CV].” [Community verifier, Burkina Faso]

Identification of users in the community

In Mali, the investigators most often worked in pairs, and upon arriving in a village, they often divided the users between them to save time. In Burkina Faso, however, the investigator went alone to conduct the survey. The official instructions for identifying users in the communities were not the same in Mali and Burkina Faso. In Mali, in their training, investigators were advised against using community contacts or community-based health workers (CBHWs). Before going into the community, the investigators said they first went to the mayor of the commune covering the health area concerned to have their CV mission orders signed. They then went to the village chief to explain the purpose of the survey before being introduced to the community. Once they obtained the village chief’s agreement, the latter delegated people to help the investigators find the users in the community. However, in some villages, CBHWs occasionally assisted investigators in identifying and locating users. Some investigators reported that the help of community contacts was important, in that it inspired user confidence and facilitated the survey:

“Their [community contacts’] presence facilitates our access to these people, because they have a certain credibility. They introduce us, they say ‘these people came looking for certain information,’ so immediately they [users] are open to us.”
[Local NGO investigator, Mali].

In Burkina Faso, investigators had contact information for CBHWs on the survey forms. The investigators often contacted the CBHWs to assist them in locating respondents in the communities. Some CBHWs asked for financial compensation after helping the investigators. The investigators’ responses to the CBHWs’ financial requests were mixed, with some responding positively and others not. The money that the investigators sometimes gave the CBHWs for helping them was from their own pocket:

“We try to make the CBHWs understand that we ourselves need to finish the work to get something [money]. But there are also times when you have to motivate the CBHW so he can follow you and show you the patients.” [CBO investigator, Burkina Faso]

“They [CBHWs] are happy to support us.... but often there are difficulties, and at the end they ask for something; we have to at least make an effort to give them something because the fact that they often accompany us all day to help us, it’s not easy.” [CBO investigator, Burkina Faso]

In both countries, identifying respondents in the community was difficult and sometimes impossible for several reasons: incorrect spelling of names, illegible cards, lack of telephone information, and incomplete information on the cards. This was due, among other things, to poor record keeping in the vast majority of health centres and to the difficulty health workers had in obtaining certain information from users. For example, for children, the parents’ names were often not filled in. Some mothers did not know their child’s name; some children did not use their official name; some people had no telephone, etc. Thus, the items in the registers of the health centres did not provide all the information needed to find a user during the CV.

In addition, the commonality or similarity of users’ names often caused difficulties in identifying them in the villages in both countries. There were often cases of several people with the same name in a village. Some users identified as being in the health areas did not necessarily reside in these areas. The nomadic nature of some people made CV more difficult:

“There was indeed the problem of identification, which was linked to the registration: how patients are registered, the addresses, is it accurate, is the telephone number provided accurate.... And with minors it was also a bit problematic, because often they put the name of the child without the name of the father or the mother.... finding them was really a problem.” [Coordinator, Burkina Faso]

“...the names were totally incorrect, too. Imagine Oumou instead of Oumar.... The monitor [PBF technical advisor] who was there, he didn’t know our names, and his way of writing could also be confusing.” [Local NGO supervisor, Mali]

Table 3 compares the characteristics that made it difficult to locate users in communities in Mali and Burkina Faso.

The vast majority of investigators in both countries reported difficulties in identifying certain users in the community. Investigators implemented several strategies to overcome these difficulties. In Mali, some investigators replaced the user with other relatives (e.g., husband). Others stated that they replaced the user who was not found with another user chosen from the health centre registers. Some investigators also went to the health centres to solicit health workers' assistance in locating any users they might know, despite having been advised during the CV training not to consult health workers.

Investigators sometimes conducted telephone interviews with users (rarely, according to them). The difficulty of meeting the user in person was the reason given by some investigators to justify telephone contact. There was little interference from health workers during the user selection and surveys in Mali and Burkina Faso. When they were involved, their role was limited to providing registers. They also helped the CV investigators find the users to be surveyed, despite the PBF guidelines:

“Given the distance I travelled, I didn't want to go back without seeing the lady to ask her for certain information. It's true that we were asked not to go to the CSCCom,... [but] if I hadn't gone to the CSCCom I would have... come back without news of the lady.” [Local NGO investigator, Mali]

In both countries, cases of untraced users were more frequent in urban than in rural areas. Investigators believed CV was more difficult in urban areas. In Mali, for example, false completion of survey forms by investigators was more frequent in urban than in rural areas. The majority of survey forms in urban and peri-urban areas did not include a telephone number, which made surveying those users impossible, as without a telephone number, investigators were unlikely to find them:

“In urban areas, it's a bit more difficult than in rural areas, because the city is big. For example, if you're given a person who doesn't have an address in a sector, and... nobody knows him in the neighbourhood, nobody knows him in the sector. So it's a bit difficult! The time it takes you to look for him is more than the time it takes in rural areas.” [CBO investigator, Burkina Faso]

Table 3: Characteristics making it difficult to identify and locate users in communities in Mali and Burkina Faso

Features	Mali	Burkina Faso
Registers did not provide all information needed for proper identification of users in communities	X	X
Common or similar names that are spelled or sound alike	X	X
Lack of telephone number on the cards	X	X
Telephone network problems in rural areas	X	X
Lack of parents' names in the registers and on the cards for children	X	X
Widespread use of nicknames		X
Lack of knowledge of one's own name and that of a family member		X
Misspelling of names in the registers		X
Misspelling of names on the forms in some districts due to some PBF advisors who were 'foreigners' and did not have a good grasp of Malian names	X	
User mobility	X	X
Untraced users more common in urban areas than in rural areas	X	X

Source: Author's own work

Users', health workers', and investigators' interests in CV

In Mali, most health workers think CV is a good thing and that, to improve the quality of care provided, it is important to take into account the opinions of community members:

"When talking about quality, [it means] the user needs to be satisfied. When the user isn't satisfied, we can't say there's quality. It [CV] is done to check whether the user is satisfied or not, and it reveals many parameters that can help the health and social services team to better serve their patients." [Health technician, Mali]

Before CV, almost no one in both countries had never heard of PBF. In Burkina Faso, the CV process was announced on some local radio stations, and the authorities (mayors, prefects) were informed about it. However, it appeared from the CV process that the public was not aware of CV despite the communication efforts. In Mali, no communication was carried out to announce the CV process to the public. However, it was well perceived and welcomed by many users. In both countries, the CV allowed the public to see that health workers could be monitored regarding the quality of the care they provided. Some of the study participants also thought that regular CV could eventually enable health workers to do their work better:

"It's always good to talk with people to find out how they were treated... people will say whether they were well received or not! There's nothing to be ashamed of if you

say you weren't well received, and it can help health workers to improve." [User, Mali].

In both countries, distrust, fear, and apprehension were observed among some users and their relatives during the CV. The investigators tried to reassure respondents and their relatives of the confidentiality of the CV survey and of the investigators' independence from the health centres. Despite their explanations, this mistrust persisted among some users. In Burkina Faso, users were afraid to express their views on the quality of care provided in health centres for fear of reprisals from health workers. In Mali, for example, study participants felt that the public was suspicious of the community survey conducted by CBOs, as it was a new survey that took place without changing their living conditions or obtaining results:

"Every time, we answer the questions, and we don't know what happens next. If you see that some people are reluctant to answer questions, that's why." [User, Mali]

"At first they're afraid because they tell themselves that people come every time to pull the wool over their eyes [making false promises], with no results. It's not just PBF; all the NGOs, every time, they come and gather people and say this and that without any follow-up, so they [the local people] tell themselves... that we're going to come and delude them, we're going to come and waste their time." [Local NGO investigator, Mali]

In both countries, most investigators thought CV was a good thing. They thought that if CV were done well, complaints from the public could be fed back into the system to improve the quality of care:

"...it [the CV] will enable the community to take a great interest in the health facility in their locality, that's to say... their voices are counted for the smooth running of their CSPS.... if feedback is given to the different CSPSs, it will help them to improve their services." [CBO investigator, Burkina Faso]

"I've done a lot of surveys, but [for] the community verification survey, I was very happy to go to my brothers and sisters and ask them what's not working, and thinking that we'll solve their problem." [Local NGO investigator, Mali]

Other challenges encountered in the CV process

Investigators in both countries were trained for two days on PBF before conducting the CV. In Mali, the investigators felt that two days of training was insufficient to fully master PBF and CV, and that the training did not address all aspects of CV in depth. In Burkina Faso, the investigators could not explain PBF to the users, as they themselves had only a partial knowledge of it, despite their training. In Mali, investigators said they explained PBF to users. In both countries, translating the forms into the local language was a real challenge for the investigators, who found it difficult to translate the term PBF and explain it easily in the local language.

In Burkina Faso, unlike in Mali, the PBF intervention covered the costs of health care and medicines for some indigents selected by community committees, and some indigents took advantage of the CV, and in particular the satisfaction surveys, to complain that they had to pay for their medicines. However, some feared reprisals from health workers if they mentioned that they had to pay for medicines:

“...I was given the medicines there once, and they said someone would come and pay afterwards. But then, later, I went there with that wound, [and] I was told they wouldn't provide the medicines for free anymore because the person who was supposed to pay didn't give the money, so they couldn't continue to give the medicines for free. So I got the medicines for free only once. So, I myself paid for the products there to treat my wound.” [Indigent woman, Burkina Faso]

A person's indigent status was not indicated on the survey form, which made it impossible to distinguish between an indigent person and other types of users when analysing the data:

“There are things we really should have included; [for instance], take the case of indigents,.... to help these indigents to be able to talk about their care, to be able to talk about the service provided to them in terms of cost, in terms of everything.” [Community verifier, Burkina Faso]

In Mali, the PBF implementing agency gave local NGOs about 50% of the funds they should have before the surveys started. The rest was given to them after the validation of their results. In Burkina Faso, the PBF technical agency at the national level did not release the funds in time for the CV. The local CBOs had to pre-finance the CV themselves, which had negative impacts not only on the quality of logistics, but also on the motivation of investigators. Investigators sometimes

ran out of fuel and communication credits to locate users in the communities. In Burkina Faso, CBO coordinators reported that the financial resources made available to them for CV were insufficient. Fuel, telephone costs, and compensation for CBHWs assisting investigators were not included in the budget allocated to local CBOs:

“What they received was not enough for the work, as the effort that the structure [CBO] made to find them fuel.... they [CBOs] pre-financed a little of their [investigators] expenses and they [investigators] drew on that for the fuel.... [and] afterwards they reimbursed the association [CBO] for the fuel” [CBO coordinator, Burkina Faso]

“It’s the office that finances [it], and if offices have no funds, it goes without saying that the activity is required, it has to look for funds to be able to carry out the activity.” [Community verifier, Burkina Faso]

“When we got to the village, the landscape was virtually deserted: most villagers had gone into the fields.... Before starting to look for patients, the investigator brought up a problem he was facing. He said he had taken one litre of fuel on credit to get to the village, but that this wouldn’t enable him to reach all of the patients.” [Researcher’s field notes, Burkina Faso]

There was a difference between the two countries in the way investigators were remunerated. In Mali, they were paid between 20,000 and 25,000 CFA francs per interview day. In Burkina Faso, investigators were paid 2,500 CFA francs per completed survey form; they complained about this form of remuneration because they spent a lot of money and resources tracking down users (fuel, time, energy), but were only paid if they found them. Thus, the investigators incurred a financial loss if they were unable to find a user.

“If we don’t find a patient, it’s not paid, but the effort that went into getting this person, the fuel that was used trying to locate this person, it’s not considered.” [Investigator, Burkina Faso]

The time allotted did not appear to be adapted to the realities of the field (distances, road conditions, time spent tracking down the user, absence of the user, delay in the initial distribution of survey forms). According to the investigators, the time they were given (five to 10 days in Mali,

10 days in Burkina Faso) did not allow them to carry out all the surveys, which may have incited them to fabricate responses to some survey forms:

“Yes, the time was limited. They had given us four days, but we couldn’t do it in four days, so we did it in five days.” [Local NGO investigator, Mali]

“We’re in an area where road accessibility is often a bit difficult, so [going] from one area to another.... We’re in the winter period, the investigators had difficulties, after all, reaching certain health facilities to be able to interview the community.” [Community verifier, Burkina Faso]

In Mali, some investigators reported interviewing up to 30 people per day, which was implausible, given the distance between users’ homes. In Burkina Faso, some investigators went to the health centres, where they posed as community verifiers and filled in user information on the forms using the registers. In Mali, falsification was more frequent in urban areas and concerned all types of consultations targeted. For Mali, two researchers of our team analysed the completed survey questionnaires. The questionnaires for the health centres in the three health districts in the study were made available to us by the PBF implementing agency. When we examined the survey forms completed by the investigators, we found that the vast majority did not include a telephone number or address. We selected certain questionnaires so that our research assistants could verify whether those users had actually been surveyed. In the absence of users’ telephone numbers on the questionnaires, the researchers were unable to locate the urban users, suggesting that the investigators had not been able to locate them either, and had likely filled in the questionnaires falsely. On the other hand, even in the absence of addresses and telephone numbers on the rural questionnaires, research assistants were able to identify users who had been interviewed by the investigators, using their first and last names or those of their relatives. In Burkina Faso, falsification was particularly prevalent for consultations with children under five:

“The people who filled in the forms with invented things, really it’s because they didn’t have enough time. They were under a bit of pressure.... They were really obliged to do these ‘little cheats’.” [Local NGO investigator, Mali]

“There’s more cheating with regard to 5-year-olds because the names of the mother and father are missing from the cards. This is a real handicap for tracing children.”

They didn't find the children under 5 years old. Then, when we end up with 100% completion, it means there's a problem. All the investigators stressed the difficulties. The information for children was insufficient, as there were no references for the father or mother. These difficulties were raised in the overall report and also in the interviews. The time provided is not sufficient." [Observation notes, Burkina Faso]

Table 4 compares the challenges encountered in the CV processes in Mali and Burkina Faso.

Table 4: Challenges of CV in Mali and Burkina Faso

Challenges	Mali	Burkina Faso
Insufficient number of investigator training days (2 days)	X	X
Incomplete understanding of PBF by investigators	X	X
Investigators' difficulties in explaining PBF to respondents	X	X
Indigent satisfaction survey form not suitable for collecting indigents' satisfaction with care received		X
Lack of parents' names in the registers and on the cards for children	X	X
Insufficient time for investigations (about 10 days)	X	X
Pre-financing of CV activities by CBOs		X
Poor road conditions (especially in the rainy season)	X	X
Absence of some users from the communities	X	X
Delay in the distribution of survey forms	X	X
Time-consuming process of locating users in communities	X	X
Falsification of CV surveys	X	X

Source: Author's own work

In Burkina Faso, some aggregated CV results were presented during an annual PBF workshop at the national level. Overall patient satisfaction scores for each district were presented to the district level managers. Figure 3 shows the patient satisfaction scores for primary healthcare facilities. However, this general presentation did not include the quantitative CV results on how users were greeted, wait times, whether users' expectations were met, drug availability, cost of services, cost of medications, or cleanliness. Figure 3 highlights that the patient satisfaction scores were quite high across districts, which made some managers question the credibility of these verification results. A general synthesis of the users' suggestions was also presented to district level managers. For the district included in this study, users' who participated in the CV suggested the following: 1) raise awareness regarding the need to visit healthcare facilities, 2) train health workers on how to greet patients, 3) improve the quality of care in the health centers, 3) raise awareness regarding the importance of hygiene and sanitation in the facilities, 4) equip facilities with medico-technical

equipment, 5) avoid useless discussion groups and take care of patients, 6) avoid referring patients to another primary healthcare center. At the time of the study, these results had not been presented to healthcare staff in the facilities being evaluated. In Mali, the CV results were not presented at any national level meeting, nor to health district managers or health centre staff.

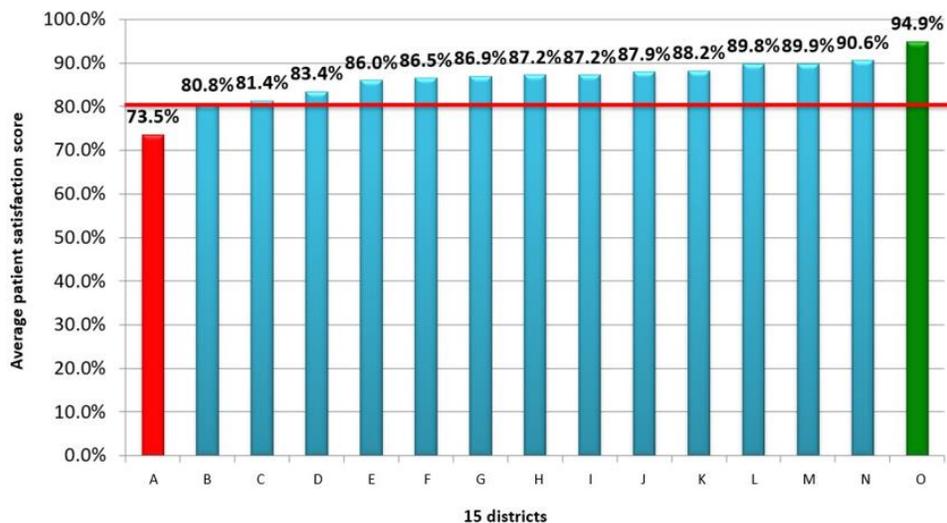


Figure 3 : Overall user satisfaction scores for primary healthcare facilities in each district in Burkina Faso

Source: Adapted from quantified results of the T1 2015 satisfaction survey in Burkina Faso, Performance-based financing technical service, 2018

The importance of the socio-normative context

One of the difficulties in carrying out CV in communities concerned confidentiality. Most investigators in both Mali and Burkina Faso were men, whereas the majority of the CV sampling targets were women and children. It was difficult for investigators to isolate users to ask them questions. In Mali and Burkina Faso, many surveys were conducted in the presence of a member of the user's family (husband, father-in-law, brother, uncle, etc.) and a person accompanying the investigator, most often a CBHW. The presence of family members during surveys can have a negative impact on the quality of the information given by the users:

“I don't know how someone can come, ask [the man] to leave, and then call in a woman, sit down, and then talk... He [the man] will become agitated, trying to figure out what he can do to be the one responding.” [CBHW, Burkina Faso].

In both Mali and Burkina Faso, certain questions could be embarrassing, particularly regarding pregnancy and childbirth—subjects that are somewhat taboo in the local culture due to beliefs and superstitions. It was also difficult to get answers from women on prescription costs, because in the local culture, household expenses were the husband’s responsibility. For women in Mali, it was more difficult to talk with a male investigator than a female investigator:

“My husband was present with the investigator, and also my parents-in-law. They were all present.... it wasn’t discreet. I even wanted to hide information about my child... if people have information about your motherhood, it can lead to problems... others could try to bewitch your children.” [User, Mali]

Table 5 compares the socio-cultural factors influencing the CV processes in Mali and Burkina Faso.

Table 5: Socio-cultural factors influencing CV in Mali and Burkina Faso

Socio-cultural factors	Mali	Burkina Faso
Respondents sometimes withheld information on sensitive subjects (pregnancies, children)	X	X
Presence of the user’s entourage during the survey (lack of confidentiality)	X	X
Majority of users were women	X	X
Majority of investigators were men	X	X
Difficulty for investigators to isolate women for confidential surveys	X	X
Difficulty in finding out amounts spent on prescriptions from the women, as husbands pay health expenses	X	

Source: Author's own work

Discussion

Community verification (CV) processes are PBF activities to be implemented and evaluated. Comparative case studies are an effective qualitative research strategy for analysing the impact of complex public policies and interventions (Bartlett & Vavrus, 2017). Case studies are research designs that are still under-exploited (Green et al., 2022). The present paper is a comparative case study that highlights the similarities and differences of CV processes in Mali and Burkina Faso, which allows for increased external validity, i.e., generalisation of the results (Yin, 2013). Comparative case studies help to understand how similar processes lead to different performances in different contexts, and how different factors can lead to similar performances in qualitative research (Bartlett & Vavrus, 2017).

The role of CBHW in CV

In both countries, the role and compensation of CBHW was an issue when tracing users. In Mali, when looking for users in the communities, investigators were introduced by the village chiefs and were sometimes assisted by CBHWs. In Burkina Faso, investigators were assisted by CBHWs to identify users in the communities. The PBF CV guide for Burkina Faso stipulates that CBOs should provide investigators with the financial means to compensate CBHWs for the help they provide in identifying and locating users. Yet some investigators had to spend their own money to compensate CBHWs when requested by the latter. Other investigators were unable to financially compensate CBHWs for lack of funds, even when CBHWs requested it. To ensure the medium- and long-term involvement of CBHWs in the PBF CV process, the issue of compensation must be addressed in both countries. In 2016, the government of Burkina Faso decided to recruit around 16,000 CBHWs who would be paid 20,000 CFA francs as a monthly compensation for their work. This new approach involved selective recruitment based on education level (minimum primary school certificate), age (18 to 50 years) and distance of villages from health facilities (all CBHWs in villages within a 5 km radius of the CSPS are not included in the recruitment). Future studies should examine how such programs could influence community verification processes, the role of CBHWs and their motivation to trace patients.

Quality of CV data

Our results showed that some investigators falsified or fabricated responses to survey forms for several reasons: incomplete or erroneous information on the forms, difficulties in finding users within the community (absence, travellers, mobility of users), and short survey time (five to 10 days). Does this observed behaviour call into question the reliability and validity of the information collected during the CV? In Mali and Burkina Faso, the falsification of certain survey forms during the CV likely had a negative impact on the quality of the data collected. The objectives of the CV processes in Mali and Burkina Faso were to verify the care declared by the health workers and to measure users' satisfaction, neither of which could be reliably achieved, given the falsification of survey forms by certain investigators. A study conducted in the same sanitary area in Burkina Faso showed that healthcare providers falsified medical registers to increase PBF subsidies and bonuses (Turcotte-Tremblay et al., 2020). However, since no healthcare center was sanctioned for fraud following the community verifications, it is likely that these processes did not “send a signal that there is a strong chance that providers will be caught if they cheat”, as intended by the PBF toolkit.

In this qualitative study, our aim was not to quantify the falsification or fabrication of survey responses in the verification process. However, our results suggest this is a common phenomenon that is recognised by various types of actors involved in PBF. This result was triangulated using different data sources (observations, formal and informal interviews) and types of participants (investigators, community verifiers, etc.) and across different settings (countries, health centres, etc.). Even beyond the PBF CV process, the falsification or fabrication of survey data during field surveys is a reality (Simmons et al., 2016). In Niger, a quality assessment of the data collected during the 2017 Demographic and Health Survey (DHS) showed that it did not meet quality standards, which led to cancellation of the survey (Rutstein, 2018). The experts who assessed the quality of the DHS data suggested that some of the data for several indicators were fabricated (Ibid). With regard to data collection during fieldwork in the African context, the issue of data fabrication is little discussed (Kingori & Gerrets, 2016). The term sometimes used to describe data fabrication by fieldworkers in the African context is “*data filling under a tree*”, evoking an investigator sitting under a tree to fill in a survey questionnaire without collecting information from the users selected for the survey (Kingori & Gerrets, 2016). Several factors are believed to be responsible for data fabrication by fieldworkers in the African context: physical, economic, and contextual challenges during community surveys; workloads perceived as unrealistic by investigators; dissatisfaction with working conditions; insufficient institutional support; and weak supervision during surveys (Kingori & Gerrets, 2016).

The stakeholders in the CV process (e.g., external funders, PBF implementing agency) do not currently appear to agree on the percentage of deviation to be tolerated between health centres’ declarations and the survey results. The purpose of this tolerated deviation is to reduce false declarations by health centres to benefit from more PBF subsidies. The tolerated deviation between health centre declarations and reality as measured in the CV must be less than 10% in Burkina Faso (Ministry of Health, 2016), while in Mali no percentage is specified in the PBF procedure manual (Ministry of Health and Public Hygiene, 2016). This percentage must be less than 5% in Burundi (Ministry of Public Health and AIDS Control, 2014) and less than 10% in Niger (Ministry of Public Health of NIGER, 2020). While the percentage of tolerated deviation with respect to health centres’ declarations is mentioned in some procedure manuals and CV guides, no mention is made of data fabrication by investigators conducting the CV. While 0% deviation on CV surveys is not realistically achievable, employing tools and methods of investigation that could inhibit the

impulse towards data fabrication among investigators would help guarantee a better quality of CV results.

Use of the CV results

Studies that have assessed users' satisfaction with care received in health centres in Africa reveal a low level of satisfaction (Ndziessi et al., 2017; Girma et al., 2020; Balde et al., 2017; Bohren et al., 2017). In Guinea Conakry, for example, Balde et al. (2017) found that women reported abuse by health workers during childbirth (neglect, physical and verbal abuse). In Ethiopia, Girma et al. (2020) reported that community members had negative perceptions of maternal health services due to poor attitudes of health workers towards them, lack of medicines in the health centres, long wait times, and lack of privacy and attention to women during delivery.

In our results, most users were satisfied with the fact that the CV process allowed them to give their opinions on the care they received. However, some expressed doubts as to whether their opinions would be taken into account in improving the quality of care in health centres. In their view, the CV was just another community survey that would not have a positive impact on their daily lives. According to Olivier de Sardan (1991), to improve people's living conditions, development projects must take into account their opinions. Unfortunately, however, the satisfaction scores reported during the CV in Burkina were exceedingly high, suggesting a desirability bias.

The data collected during the CV processes in Mali and Burkina Faso were supposed to be used to calculate PBF subsidies, determine users' levels of satisfaction, and collect suggestions for improving quality of care. However, the findings of this CV were not shared with health centre staff, which could have eventually enabled the health centres to improve the quality of services provided. In Burundi, Falisse et al. (2012) showed that the community survey did not necessarily result in users' opinions being taken into account and did not lead to changes in quality of care. In Malawi, Kambala et al. (2017) showed that women who received care during the PBF implementation noted improvement in health service delivery. However, there were no significant effects of the PBF intervention on women's perceptions of technical care, quality of facilities, or interpersonal relationships. In Benin, Antony et al. (2017) showed that the audit processes were complex, costly, and time-consuming, and that little or no analysis was done on the data collected during the CV. All this highlights the importance of using the results of user satisfaction surveys in PBF CV to improve the quality of care provided to the population. The issue of using evaluation

results for decision-making to improve quality of care is a salient one, even beyond PBF. Despite health workers' declared interest in user satisfaction surveys, the results of these surveys are very often neither used nor even discussed in decision-making (Boyer et al., 2006).

Influence of investigators' gender on responses to CV surveys

Our results showed that the majority of the investigators conducting CV surveys in Mali and Burkina Faso were men. However, most users in these surveys were women, and the majority of the indicators targeted concerned maternal and reproductive health. The social context often hindered investigators' ability to carry out the survey, as they had difficulty talking with the women about certain subjects (e.g., pregnancy) and were unable to isolate the women to carry out the survey discreetly. Thus, there may be gender effects on responses when the survey concerns topics that may be "taboo" (Huddy et al., 1997; Davis et al., 2010).

There is little research on the influence of investigator gender on respondent behaviour in sub-Saharan Africa (Haber et al., 2018; Harling et al., 2019). A comparative study by Haber et al. (2018) in Burkina Faso, Cameroon, Central African Republic, and Republic of Congo showed that investigator gender was a factor influencing survey responses. To improve the quality of household survey data, the social distance (age, gender, ethnicity) between investigators and respondents should be minimised in large-scale surveys (Haber et al., 2018; Harling et al., 2019). It is important to take this social distance into account when selecting investigators (Harling et al., 2019). In large-scale health surveys, having female investigators is a factor that has been shown to increase the accuracy and consistency of responses (Haber et al., 2018). Investigator gender may also influence a user's acceptance or refusal to participate in the survey. We therefore believe it is important to integrate the gender dimension of investigators in CV processes in Mali and Burkina Faso.

Practical implications of the research

Our comparative study shows that several strategies will be needed to improve future CV in Mali and Burkina Faso (Table 6), the relevance of which will have to be determined based on the context.

Table 6: Avenues to improve CV in Mali and Burkina Faso

Recommendations
Adopt and respect a clear timetable for CV
Increase the number of CV training days to give investigators a better understanding of PBF and the CV process
Sensitise communities to CV (e.g., through community-based health workers)

Sensitise health workers to collect better data in health centre registers (e.g., more detailed addresses, nicknames, telephone numbers, first and last names of parents, grandparents, or other family members)
Provide health centres with registers that include items to record all the information needed to identify users more easily in the communities
Continue to use random and purposive case sampling to target certain types of users (e.g., the indigent)
Raise awareness among users of the need for reliable information that can be traced; users should be told why their information is being collected (e.g., through community-based health workers and health centre workers)
Increase financial support to investigators (e.g., compensation for fuel and phone calls before the start),
Adopt realistic timeframes and workloads for investigators and community verifiers (supervisors of investigators)
Review the periodicity of community verification
Strengthen the supervision of investigators by community verifiers to reduce the risk of falsification and fabrication during data collection in the field
Improve cloud storage and frameworks for data capture and analysis
Establish a consensus on how to deal with users who are not found and unconfirmed services (e.g., establish a tolerable threshold)
Find ways to take into account recommendations and suggestions made by service users (e.g., provide feedback to health care workers)
Avoid conducting CVs during periods of heavy rain
Conduct qualitative surveys of CV to understand the challenges to its implementation and explore solutions
Examine the relevance and cost-benefit of this method compared to others
Find ways to streamline the CV process and reduce sample size and costs

Source: Author's own work

Limitations of the study

Our research has some limitations. First, the PBF pilot project in Mali lasted only eight months, and our study only covered the one CV cycle that was completed. Second, data collection in Mali was done cross-sectionally, retrospectively, and at the end of the PBF pilot project. Many of the difficulties during the CV process revealed in our study might have been different if the PBF implementation had been continued. Third, in Burkina Faso, the study focused on only one health district out of the 15 that implemented PBF. However, our comparative case study in Mali and Burkina Faso showed many similarities between the CV processes in both countries; this increases the external validity of the results of each country case study and the generalisability of the results. Fourth, our results showed that the methods of remunerating investigators were different in the

two countries; however, the data did not allow us to assess and compare the efficiency of the two modes of remuneration. A further comparative study is needed to assess the best remuneration method for CV investigators. Finally, in this qualitative study we were not able to quantify the amount of data fabrication or falsification conducted in both countries. However, the methods were useful to describe the context and factors that contributed to it and to understand the process of falsification of survey forms by local actors. Future research should attempt to quantify the scope of this phenomenon.

Conclusion

Community verification is an important component of PBF implementation. However, its implementation and evaluation remain complex. Our comparative case study highlighted similarities and differences in the processes of CV and user satisfaction surveys in Mali and Burkina Faso. Taking into account a number of socio-cultural, contextual, and geographical factors may help reduce the challenges observed in the CV processes in both countries. e.g., problems in compiling user samples and lack of precise information to facilitate the identification and location of users within communities. These difficulties have sometimes led investigators to falsify or fabricate data. The instruments used during the PBF CV must be adapted and simplified to the local context for maximum effectiveness. Particular emphasis should be placed on using the results of the PBF CV to improve health system governance at the local and national levels.

List of abbreviations

CBHWs-Community-based health workers

CBOs-Community-based organisations

CMA-Centre médical avec antenne chirurgicale (medical center with surgical satellite services, district hospital)

CSRef-Centres de santé de reference (Reference health centres, district hospital)

CSCom, Centres de santé communautaire (Community Health Centres)

CSPS-Centres de santé et de promotion sociale (centers for health and social promotion)

CV-Community verification

CVA-Contractualization and verification agency

PBF-Performance-based financing

WB-World Bank

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