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# How community-based health workers fulfil their roles in epidemic disease surveillance: a case study from Burkina Faso

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## Abstract

**Background** In 2016, Burkina Faso adopted a new community-based model for disease surveillance, appointing two community-based health workers (CBHWs) per village. The CBHWs play a crucial yet under-researched role in Burkina Faso's health system. This study aimed to analyze the factors influencing their practices in relation to their official roles in epidemic disease surveillance.

**Methods** Conducted in the Dandé Health District in southwestern Burkina Faso, this qualitative study collected data through semi-structured interviews with 15 CBHWs and 25 health professionals, supplemented by observations of the CBHWs' working conditions. Data analysis employed a qualitative content analysis.

**Results** Analysis showed major challenges in the current community health strategy, particularly in capacity building and the working conditions of CBHWs (e.g., lack of monthly report sheets and financial incentives). Recognition from the community was the key motivation for volunteering as a CBHW in Dandé Health District where rural populations are under great financial pressure. Consequently, financial incentives (monthly remuneration and extra incentives) and non-financial rewards in terms of status and prestige, play a crucial role in sustaining volunteer enegagment and effectiveness.

**Conclusions** This study underscores the necessity of establishing a clear policy on compensation and protection for CBHWs to motivate and optimize their work. Such policies are essential for enhancing their contribution to a robust national community surveillance system, ultimately improving public health outcomes in Burkina Faso.

**Keywords** Community-based health workers, Volunteering, Epidemic disease surveillance, Burkina Faso

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## Background

Epidemic diseases such as Ebola and COVID-19 have highlighted the vulnerabilities of health systems in specific exposed communities, especially in Subsaharan Africa [1, 2]. The region's health systems have been further compromised by ongoing security crises in West Africa, reflecting inadequate investment in health sectors [3, 4]. An outcome of this fragility is the inadequate surveillance of disease transmission chains during infectious disease outbreaks [5], prompting the involvement of volunteers in COVID-19 response strategies across sub-Saharan Africa [6, 7].

Since the Alma-Ata conference in 1978, primary healthcare has been pivotal in shaping health policies in sub-Saharan Africa [8]. Community-based health (CBH) interventions in countries like Ghana, Nigeria and Kenya [9] have been proven effective in reaching hard-to-reach populations and strengthening of health systems [10, 11], improving disease surveillance and health status [12, 13]. However, challenges persist for CBHWs, including lack of equipment and transportation, difficulties in balancing volunteer work with farming work, and irregular or absent financial compensation [14–16]. Furthermore, the CBHW tasks are often not well specified [7, 17] and often generate costs for them due to their uneven spatial deployment. Several studies show that insufficient training also challenge their performance [18–21]. Other contextual factors such as cultural and gender norms, economy including market forces, environment [15, 22], logistical and telecommunication challenge the efficiency of CBH programs [23–25]. Some studies have shown that when incentives for CHWs are removed, many will stop carrying out their health activities [14, 24]. It appears that recognition from the community is an important motivating factor for voluntary CBHWs [23, 24] creating a kind of altruism and a sense of duty (gaining community respect and pride) [26, 27], and promoting CBHWs' social status and prestige [28, 29]. Thus, volunteering becomes a form of commitment with positive community outcomes [30–32] through volunteers' contributions to the welfare of others [33, 34]. Furthermore, volunteers' commitment and retention depend on the match between individuals' motivational concerns with situations that can satisfy them [32, 35].

In Burkina Faso, the health system has a hierarchical structure. The first peripheral level includes Centers for Health and Social Promotion (Centre de Santé et de Promotion Sociale, CSPSs) as well as the health districts - Medical Center and medical centers with surgical units. The CSPS are the basic health facilities where health workers interact with CBHWs to provide care to the population. CSPSs refer pateints to the medical centers with surgical units [36]. The second level consists of Regional Hospital Centers and is made up of regional directorates, where patients from health districts are referred to. Epidemiological surveillance involves interactions between CSPS health workers and the district's Center for Health Information and Epidemiological Surveillance (CISSE) and laboratories. District health workers, in turn, collaborate with regional CISSEs. The third level comprises all university hospitals and provides the highest specialization of healthcare. The latter interact with the Ministry of Health and the national reference laboratories, and serves as reference for the second level [37].

Community-based surveillance is primarily conducted by CBHWs elected by community members in both rural and semi-urban areas [38]. Selection criteria are a minimum educational qualification (primary school leaving certificate, Certificat d'Etude Primaire or higher), work experience, and an age limit of 45 years. Since 2016, CBHWs are on-the-job trained by head nurses ("infirmiers chef de poste," or ICP) in the CSPSs. They are based in the community and receive a monthly financial incentive of CFA F 20,000 (about $32 US) to assist with data collection, disease surveillance, and preventive services [39].

This study aims to examine the determinants of CBHWs' motivation and retention within the context of epidemic disease surveillance in the Dandé Health District by exploring the challenges they face and discussing how they fulfil their official roles in monitoring potential infectious disease outbreaks.

## Methodology

### Presentation of the study area

This study is part of an interdisciplinary research program entitled *"Emerging epidemics: Improving Preparedness in Burkina Faso"*. This research program is coordinated by the University of Copenhagen, Denmark, Université Joseph Ki-Zerbo and Institut de Recherche en Science de la Santé of Bobo-Dioulasso, Burkina Faso. The Dandé Health District (DHD) was purposely selected as a study area since the district is one of the intervention areas of this research program, in addition to the Health District of Tenkodogo. DHD is located in the northern part of Houet Province and covers an area of 3,516 km². It is one of the eight districts of the Hauts-Bassins health region in the South-Western part of the country bordering Mali. The district covers six rural municipalities out of the 13 in the Houet province, and 97 villages forming a continuum along National Road No. 9 from Bobo to the border of Mali. The population of the district was estimated to be 315,370 in 2021. Agriculture, the main economic activity in the district, is based on food crops (e.g. corn, sorghum and millet), cash crops (e.g. cotton and peanuts), and extensive livestock (e.g. cattle, sheep, goats) [40].

Our research took place in 15 CSPSs in DHD. The original criteria for selecting the CSPSs were epidemic outbreaks of measles, meningitis, yellow fever and polio over the last five years prior to this study. We analyzed the statistics in relation to these infectious diseases from 2015 to 2019 provided by the CISSEs. With the assistance of an official from CISSE, we also skimmed through administrative documents (notification forms, investigation reports, etc.). Apart from a measles outbreak in Kimini in 2019, we did not identify any other outbreaks over the five-year period. As there were no epidemic outbreaks, we counted all isolated cases of each of the potential epidemic diseases notified by the CSPS. Based on that, we selected the CSPSs of Bama, Dandé, Faramana, Kimini, Lahirasso, and Samandeni in which the highest numbers of declared and confirmed cases of potentially epidemic diseases were recorded. In addition, we obtained, through a targeted sampling technique, other CSPSs with new sporadic cases of potential epidemic diseases reported while in the field. This snowballing technique [41] resulted in the inclusion of nine additional CSPSs where cases of measles and/or meningitis had been reported.

### Sampling and recruitment

Several categories of participants were interviewed to better understand a variety of experiences with the CBHW strategy. The first category of participants included 15 CBHWs. The second category included head nurses ("infirmiers chef de poste," or ICP) ($n=11$), Expanded Programme on Immunization managers ($n=10$), midwives ($n=2$) and CISSE officers ($n=2$), totalling 40 participants across the 15 CSPSs. Except for two midwives ($n=2$) and four CBHWs ($n=4$) who were female, all other participants ($n=35$) were men.

Purposive sampling methods [42] were used to select participants. Health workers were categorized into two subgroups: those at the operational level (ICP, midwives, EPI managers) and those at the decision-making level (CISSE officers). The participants in the first category ($n=23$), responsible for vaccination operations and daily epidemiological surveillance in the CSPS, were interviewed as they worked at the CSPSs selected in the study areas. The participants in the second category ($n=2$) are responsible for epidemiological surveillance and data management in the health district. CBHWs were selected for their roles in representing villages covered by the CSPS where cases of epidemic disease were reported ($n=13$) and for participating in COVID-19 surveillance at the Mali border ($n=2$).

### Data collection

Data were collected by H. Sanou (first author) from December 1, 2019 to May 30, 2020. We conducted semi-structured interviews with health workers and CBHWs [43, 44]. Most interviews with health workers and CBHWs took place at the CSPSs. Other interviews ($n=6$) with some CBHWs were conducted at their homes according to their preferences. The first part of data collection was conducted prior to the COVID-19 outbreak from December 2019 to March 2020. The second part was conducted during the COVID-19, from March to May 2020. Data were collected using a dictaphone and a notebook when we wanted to delve deeper into certain aspects after the recorded interviews. Health workers and some CBHWs were interviewed in French, and some CBHWs were interviewed in Jula. The interviews focused on the current disease situation in the community, the interactions of CBHWs with the community and health workers, their individual roles and contributions to the response to a potential epidemic outbreak, and their motivations for continuing volunteer work.

Observations supported the interviews, with direct and participatory methods [45] employed to examine the roles and working conditions of CBHWs, especially in the context of COVID-19 surveillance. Observations were made in the health centers and included practices enacted by health authorities such as making hydroalcoholic gel available, wearing of masks, and hand washing. Other observations focused on the activities of CBHWs in COVID-19 surveillance and their working conditions at the border of Burkina Faso with Mali. The six-month fieldwork period provided insight into social and professional interactions and the everyday life of the populations surveyed [46]. Using various data collection tools enabled a comprehensive understanding of the community-based surveillance situation in the DHD.

### Data analysis

The first step of data analysis involved organizing and indexing the data. Interviews conducted in Jula were translated into French, and all interviews were transcribed in adherence to confidentiality principles. Subsequently, we employed thematic analysis methods, utilizing emergent coding to identify relevant data segments. This process facilitated the grouping of codes under thematic headings [47]. Selected compelling extracts were manually analyzed and linked back to the research questions. Consistent with qualitative practices, the goal was to identify meaningful patterns and variations rather than to ensure representativeness [48].

## Results

### Factors influencing CBHWs' surveillance activities

CBHWs in Burkina Faso, referred to as "*agents de santé à base Communautaire*" (ASBC), perform their duties on a voluntary basis, aiding in epidemiological surveillance. They are provided with simplified definitions of diseases

with epidemic potential, which are part of the mandatory reporting system for potential epidemic outbreaks. These definitions enable the CBHWs to act as sentinels in their villages, tasked with reporting suspicious cases of diseases or unusual health events to nurses[1]. Although CBHWs could play an important role in detecting potential epidemic outbreaks, data indicate that they frequently face challenges that hinder their effectiveness.

#### *Insufficient skills training*

Vaccination programs help limit epidemic outbreaks in DHD, but it remains crucial to report individual cases of diseases with epidemic potential.

> *"It was the year before, in 2018, that we recorded a few cases of measles. If my memory is good, we recorded 11 cases of measles, 1 case of meningitis. In 2019, fortunately, we did not have any cases". (ICP)*

The re-emergence of measles and an epidemic outbreak[2] in 2019 in the village of Kimi [49], was a concern for many participants, including CBHWs and nurses. However, since the CBHWs were recruited and trained in 2016, no further training has been provided, despite the introduction of new diseases in the reporting system. Some CBHWs, who had worked with CSPSs before their recruitment in 2016[3], mentioned having received specific training in Ebola surveillance in 2014: *"Ebola virus, this is another disease we are making people aware about, even though no case was reported in Dandé. We are told that any case of a person dead and bleading we come across, should be reported to them as soon as possible*" (CBHW). However, this training lacked practical excercises. Moreover, during the COVID-19 outbreak, both CBHWs and healthcare professionals noted the absence of specific training regarding disease surveillance.

> *"When you tell people to avoid gatherings, to be clean, if they ask you a question for example, about coronavirus, we cannot answer it. [...] because we don't have reliable information about it". (CBHW)*

The lack of training in surveillance for the pandemic seems to have had a discouraging effect on CBHWs, as their skills were not updated to help them contribute effectively to the response against this disease, unlike during the Ebola crisis. Throughout our seven-month field work, we observed that CBHWs did not engage in key surveillance activities such as raising awareness and reporting unusual events that could indicate the spread of COVID-19.

#### *Financial and logistical challenges*

We note that the main source of income for CBHWs, apart from their farming activities, is the financial incentive of $32.11 US paid to them monthly. However, this payment is often perceived as insufficient for the scope of their responsilities, with one CBHW stating, *"our work exceeds our earnings"*. Moreoever, the payment schedule is erratic; payments that are intended to be monthly are instead made semi-annually, or even annually. One CBHW reported, *"it is only on January 7, 2020 that we have been paid 6 months since January 2019 and there are still 6 months left"* (CBHW).

This failure of the community-based health policy to work in practice, challenges the epidemiological surveillance capacities of CBHWs. As the interviewees testified, CBHWs were only equipped in 2017 with pens and forms for reporting cases of diseases detected, when they were deployed. Since then, they have been using their own resources to fill in the various surveillance reports: *"the reports, we photocopy them at CFA F 50 per page, even though the report is three pages long. And since 2017, we haven't received a pen or pencil"* (CBHW). Occasionally, CBHWs receive support from nurses, as noted by an ICP: *"last time [...] we even gave them a new support; I photocopied it for the CBHWs"* (ICP).

Almost all of the participants expressed disappointment with the lack -or the low- inducement allowances relating to the responses to outbreaks. In this sense, CBHWs who were former CHWs consider that they had received financial incentives in the framework of Ebola surveillance: *"we got CFA F 60,000 [$97.81 US] at that time"* (CBHW). Also, they had been provided with protective materials (gloves, masks, gowns, soaps, hydraulic gels): *"we had gloves, we had hand washing products. [...] at the time of Ebola. They had built a big hangar and then there were the tents as well "* (CBHW). In stark contrast, the CBHW involved in COVID-19 surveillance at the border with Mali received no support whatsoever – no financial incentives, no fuel, no protective materials. They had to use their own vehicles, fund the fuel and their meals. An ICP worker from Faramana confirmed the lack of support:*"it was the workers [farmers] who sacrificed themselves; they as well as the CBHWs went to the borders with their own means of transport. There were no official incentives for the CBHWs and no unofficial motivation either"* (ICP).

[1] The potential epidemic diseases at the time of our fieldwork included in the reporting system (TLOH) were: Meningitis, Measles, Poliomyelitis, Yellow fever, Ebola virus disease, COVID-19, Dengue fever, Bloody diarrhea (Shigellosis), Severe acute respiratory infections.

[2] An epidemic outbreak is a noticeable, often small, increase over the expected number of cases of a disease.

[3] Community health workers (Agent de santé communautaire, CHWs) and were recruited according to roughly the same criteria and paid by the CSPSs according to their financial capacity.

#### *Additional tasks with few incentives*

The analysis reveals that the major obstacle preventing CBHWs from reaching their full potential is the lack of adequate funding. While community-based health care is recognized as part of the national policy, it is primarily supported by external donors such as the United Nations Children's Fund (UNICEF). This reliance on donor funding increases the workload of CBHWs as they are often not compensated for additional tasks they undertake. According to our interviewees, the Ministry of Health and Public Hygiene's partner projects such as "Burkinabe Association for Family Well-Being (ABBEF)" were supposed to pay them for the delegated tasks they carry out in the communities, but this was not the case, because one of UNICEF's conditions was that its beneficiary projects should not pay CBHWs. This means that the $32 US represents the income for all the community-based activities that ASBCs will carry out. The following statement summarises the dissatisfaction: *"When we started, we were told we'd be paid FCFA 30,000 [$60 US]. Now we're paid 20,000 [$32 US] a month"* (CBHW).

> *"[…] They say that this is the financial incentive that the State gives us, that's all. […] otherwise ABBEF, before the training, told us they were going to give us 20,000 francs a month in motivation" (CBHW).*

CBHWs are faced with challenges associated with the insufficient funding for implementing the community-based health policy. According to our respondents, there is disproportionate allocation of CBHWs in villages. That problem was raised in several areas such as Faramana, Dandé, Bama and Séguéré. These villages include several neighborhoods and hamlets, yet they have the same number of CBHWs as the smaller villages such as Bambé, Kokoroba and Mossibougou:

> *"Sometimes, you might say that […] this recruitment didn't meet certain standards. You can see a big village with one or two CBHWs knowing that they can't cover it. For example, Séguéré and Mangorotou, have the same number of inhabitants with up to six CBHWs. They have two for more than five or six hamlets" (ICP).*

This unequal distribution causes an additional workload for some of the CBHWs: *"there are hamlets that are even bigger than certain villages. Therefore, the work becomes excessive* (ICP). This work overload may lead to inefficiency: *"In Dandé, we have two CBHWs for eleven neighborhoods. So, there is the issue of distance that makes it impossible for them to be effective"* (ICP). Some of the CBHWs complain that, given the workload involved in community health activities, they do not have enough time to devote to their domestic activities: *"the work we're asked to do is too much"* (CBHW). A respondent added:

> *"They [CBHWs] have a big role to play. Now, it is their motivation that is the problem. You can't tell the head of a family to give up his farm work and help to monitor the health of the population without any compensation to fill in the gap." (ICP).*

The challenges faced by the CBHWs are compounded by the influx of migrants, while they did not receive their ordinary financial incentives, let alone extra incentives. With the insecurity in the country, we noticed forced displacement of populations from their areas of origin to DHD with their children having no access to preventive vaccines. Villages such as Konkodjan Boussé and Bama welcomed migrants from insecure areas such as Djibo and Kaya. Since the vaccination status of these children is often unknown, they pose an increased risk of epidemics.

> *"With the advent of terrorism in the North and elsewhere, there are really many displaced people who are here now. Many of them have come with children. They have no record, so their vaccination status is unknown. I think it can be a factor that can, in any case, lead an epidemic". (ICP)*

Given that nurses do not have information about the influx of displaced people, the CBHWs participate in surveillance and report the migrants who settle in the villages.

Our data show that CBHWs face a number of challenges that may reduce their efficiency and their motivation for continuing their work. However, our interviews with the CBHWs themselves indicate that they are still highly motivated and many of them continue to work as CBHWs for many years. In the section below, we'll explore why many of the CBHWs continue to suppprt the health system when their working conditions are relatively poor.

#### *A commitment motivated by self-interest*

Recruited in 2016, CBHWs have become so involved in supporting the healthcare system that local people refer to them as [dugu dɔgɔtɔrɔ] ("village doctors"). This well-established image testifies to how deeply rooted their role is in people's everyday health. In fact, during our fieldwork, we were told that it is mainly the CBHWs who are in a position to help nurses monitor emerging epidemic diseases such as Ebola and COVID-19. Our data show that those are the advantages of being a CBHW, thus justifying why, ten years after their recruitment, only two CBHWs (one woman and one man) resigned from the Mangoroto CSPS area. The woman resigned because she

got married in another village, and the man resigned due to professional advancement by becoming a communal agent.

There are several reasons for this commitment to the health of their communities. Firstly, they are motivated by the activities they perform. In addition to a "monthly salary of 20,000", they occasionally receive other financial incentives for training and transport costs based on other activities such as drug distribution. These occasional financial incentives are provided by NGO partners of the Ministry of Health, such as "Burkinabe Association for Family Well-Being (ABBEF)".

> *"At the beginning it was ABBEF. It worked with us for 4 years. Often when they come for supervision, they can give us 5,000, 5,000F [$8.15 US] for fuel, or when the training is in Dandé they give us the money for fuel, but apart from that we haven't received any money whatsoever." (CBHW).*

As modest as it may be, the money they receive - monthly salary and occasional training fees - enables them to address a number of personal and family concerns, such as paying for school fees for their children, maintaining their farming activities, and covering prescription and hospitalization costs for sick family members.

> *"It's with the members of our household that I cultivate. Everyone knows we're CBHWs. So, the day you say you have an activity, everyone understands that you won't go to the field, so they let you do your activity. When we earn money, we buy herbicides to help fight the weeds [...] and during the start of the school year, we pay school fees." (CBHW).*

#### *A commitment motivated by concern for their communities*

The contributions of CBHWs are partly genuinely altruistic, motivated by a desire to improve the well-being of their communities. In addition to personal development, CBHWs cited humanitarianism as the motivation that has kept them active to date; that is, not betraying the trust placed in them and enjoying their status as "village doctors".

> *"We should earn 20,000 francs a month. But we don't make 20,000 francs like that either. As of today, we're eight months behind in incensives payments that we're waiting for. But still, here we are, we have the courage to work. Because we're helping our own people. And that's it! So, we can't say that because we're not being paid, we're going to give up." (CBHW).*

The community involvement of CBHWs, beyond health workers' perceptions of their legitimacy and feelings of responsibility and accountability towards communities, suggests another underlying motivation, which is the ambition to gain professional experience in community-based health. That is why several of them are former Community Health Workers (CHWs): "*as we were enrolled in 2016, otherwise I started in 2011*" (CBHW). Other respondents agreed:

> *"I've been a CHW for a long time, since I used to help health workers with vaccinations in the neighborhoods. When there is any recruitment, they called me on. Otherwise, I've been a CBHW for over ten years." (CBHW).*

The CHWs worked in the health system without being statutorily recognized by the State of Burkina Faso, and performed the same activities as today's CBHWs. Although other CBHWs are not former CHWs: *"I started in 2016. Before 2016, I didn't work with health workers"* (CBHW), the career-oriented motive in community health explains, in one way or another, their satisfaction and commitment as volunteers in the health system. Career motivation is also explained by the application of several other former CHWs whose exclusion due to age criteria helped many new candidates to be selected as CBHWs.

> *"The CBHWs we have recruited since we have been here have almost conducted the whole vaccination campaigns with us. Now, when recruitment came along, it's from these [the former CHWs] that we've recruited. There were some who didn't meet the criteria, who were old. Or, they had been doing this for ten years but didn't have the CEPE [Primary school leaving certificate]. So, in the end, it was those who met the criteria that we set." (ICP).*

In this regard, they pledged to contribute, through their experiences, to help improve the health in their communities.

## Discussion

In this study, we explored the challenges faced by CBHWs in Burkina Faso and the impact of these challenges on volunteerism and disease outbreak surveillance. Participants highlighted major issues including disappointment over the lack of periodic refresher courses to strengthen their capacity for disease surveillance, insufficient remuneration, and inadequate funding of the implementation of the CBHW policy. The challenges of volunteering in community health were also related to daily constraints such as low economic income, lack of phone and call

credits, transportation/fuel, and network connectivity. In addition, CBHWs had concerns regarding the inadequacy of their numbers relative to growing village populations and territories.

The literature supports the findings, indicating that the workload and working conditions are poorly documented [19, 23, 24] and are a source of suffering for community health workers [18, 24], especially as their responsibilities are not always clearly defined [13, 15]. These operational challenges become even more critical as the list of diseases to be surveilled grows, and the uneven distribution of CBHWs hampers efficient use [20].

Despite these conditions, CBHWs view their work as an opportunity to "help others" reflecting their altruistic commitment and "prosocial value" [31]. Motivations for remaining in the role include meeting social needs and building self-esteem [23, 24, 34, 50]. Financial incentives, whether regular monthly payments or those associated with spontaneous activities initiated by CSPS, are critical for sustaining their volunteer work, despite the disproportionate workload. These incentives also help them contribute economically to their families [15, 22, 27].

The selection criteria and the involvement of all community components and local authorities has led to literate CBHWs who, as part of their duties, help improve patient monitoring, detection and reporting on notifiable diseases. The educational level of the CBHWs enables them to grasp simplified disease defintions, write monthly community reports, and assist nurses in taking vitals and entering data in the corresponding documents [37]. As a result, the majority of CBHWs are motivated to conduct epidemiological surveillance in DHD. It is this voluntary commitment of the CBHWs that is reflected in their status as "village doctors" [21].

Our findings prompt a reevaluation of the national community health system vision. Qualitative research has shown that CBHWs bolster epidemic response systems [39]. Experiences from other countries corroborate our findings, highlighting the role of CBHWs in managing infectious disease outbreaks in Burkina Faso. The majority of CBHWs, recruited in 2016, have only theoretical knowledge acquired during their initial training. Continuous training on both re-emerging and emerging diseases is necessary, given their readiness to engage in epidemic surveillance, despite being poorly equipped [15, 25, 51].

The limitations described by participants highlight underfunding of the health systems in Burkina Faso, like in other sub-Saharan countries [27, 52]. The lack of a training strategy for the COVID-19 pandemic from the government of Burkina Faso suggests a limitation in ensuring national health security, reflecting a broader structural fragility within the health system [4, 14, 52]. This explains the minimal efforts to enhance the CBHW capacities despite their complaints, and the increasing frequency of both re-emerging and emerging diseases [53].

## Limitations

The fact, that this study was conducted in one district only (the Dandé Health district) is a limitation. It would have been interesting to include other districts to examine similarities and differences between districts. The reasons for selecting Dandé as the only study site were paratly due to the COVID-19 situation, where researcher mobility was restricted, and partly due to the fact that we wanted to conduct a qualitative study that could provide in-depth understanding of various stakeholder perspectives. Another limitation is that the study participants were essentially actors in the health system, particularly at the peripheral level. Thus, we did not include actors from NGOs and projects collaborating with the Dandé health district. Involving other stakeholders more directly might have enriched our study, but we think that our sampling procedure enabled us to collect rich and diversified data. Also, the inclusion of communities (local leaders, patients who have contracted an epidemic disease or their relatives, traditional practitioners, for example) in the sample would have provided further information on the work of CBHWs. Finally, the study is limited by the fact that some interviews were conducted in Jula. As a result, it is possible that the meaning of certain local idioms, or discourses, may have been altered in the translation process.

## Conclusion

This study shows that CBHWs are poorly compensated relative to their contribution to strengthening epidemic disease surveillance. The values of career, esteem, and altruism provide insight into their motivation and effectiveness. Thus, expectations of CBHWs and health workers for improved working conditions - such as increased financial incentives and a higher number of CBHWs per village - should be considered. These expectations stem from the day-to-day experiences of CBHWs in DHD and necessitate the development of a clear operational plan for community-based health. This plan should define the responsibilities and intervention domains of CBHWs, whose status as "village doctors" seems widely recognized. Ultimately, the findings of this study can help guide the restructuring of the community-based health strategy, thereby enhancing its effectiveness in disease surveillance.

### Abbreviations

| | |
|---|---|
| ASBC | Agents de Santé à base Communautaire |
| CHWs | Community Health Workers |
| CBHWs | Community-Based Health Workers |
| CISSE | Center for Health Information and Epidemical Surveillance |

| | |
|---|---|
| ICP | Head nurses (Infirmiers Chef de poste) |
| DHD | Dandé Health District |
| CSPS | Centre de Santé et de Promotion Sociale |
| ICTs | Information and Communication Technologies |

## Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-024-11853-9.

Supplementary Material 1.

Supplementary Material 2.

Supplementary Material 3.

Supplementary Material 4.

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**Authors' contributions**

All authors participated actively in the production of the study. HS contributed to the design of the study, data collection and analysis, and drafted the initial manuscript. GK and DWM coordinated the study, contributed to the data collection and analysis. HSa contributed to the design of the study, supervision of the study, and contributed to the manuscript. All named authors approved the paper prior to submission.

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**Data availability**

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

## Declarations

**Ethics approval and consent to participate**

Ethical approval of the study was granted by the Ethics Committee of the Institut de Recherche en Science de la Santé (N°2019-012/MESRSI/SG/CNRST/IRSS/CEIRES) of Burika Faso. We also obtained authorization for data collection from the Ministry of Health and Public Hygiene. In accordance with ethical guidelines, the objectives of the study were clearly explained to participants who gave verbal consent before being interviewed.

**Consent for publication**

Not applicable.

**Competing interests**

The authors declare no competing interests.

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## Publisher's Note