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Exploring the motivations of female community health volunteers in primary healthcare provision in rural Nepal: a qualitative study

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Data Availability Before publication, Authors are required to make fully available and without restriction all data underlying their findings. Please see our PLOS Data Policy page for detailed information on this policy. A **Data Availability Statement**, detailing where the data can be accessed, is required at first submission. Insert your Data Availability Statement in the box below. Please see the data reporting section of	All data supporting our finding is contained in the manuscript. There are no restrictions to data sources and details may be assessed through the principal investigator Dr. Sarita Panday email: s.panday@essex.ac.uk

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9 January 2024

Dear Catherine Kyobutungi/ Madhukar Pai
Editor-in-Chief, PLOS Global Public Health

We wish to submit a new **research article** entitled 'Exploring the motivations of female community health volunteers in primary healthcare provision in rural Nepal: a qualitative study' for publication by PLOS Global Public Health.

We confirm that this article is original and has not been published elsewhere nor is it currently under consideration for publication elsewhere.

Motivating Community Health Workers, many of whom are volunteers, is crucial for achieving universal healthcare coverage for primary healthcare in resource-poor areas. In rural Nepal, Primary healthcare is mostly delivered by female community health workers, locally known as Female Community Health Volunteers (FCHVs). This paper explores experiential factors influencing FCHVs' motivations, including how motivation intersects with women's livelihoods and consider what this means for achieving primary healthcare in Nepal and globally.

Our paper illustrates how women FCHVs from some of the poorest backgrounds can be highly motivated to work as a volunteer, yet inadequate support at individual, community and health system levels undermine their motivation, the security of their livelihoods, and thus wider efforts to achieve primary healthcare. We found that insufficient payment, opportunity costs of volunteering, and out of pocket expenses undermine motivation to deliver services. Similarly, bureaucratisation of volunteers' work, and lack of social appreciation of their work by community members, appeared to undermine volunteers' motivation. The latter finding contradicts existing evidence on volunteers' motivation (Glenton et al. 2010), which reports primarily the views of policymakers who assume that volunteers are motivated due to community recognition of their services.

Our findings also suggest that financial investments are needed to compensate volunteers in resource-poor areas, so that they remain motivated to deliver global health goals for primary healthcare. These findings address a key omission in the existing literature and have implications for similar resource- poor contexts, which employ a large number of women volunteers to deliver primary healthcare services for poor populations, for example, in Asia and Africa.

We believe these findings should be of interest to readers of your journal.

Sincerely Yours,
Sarita Panday
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Exploring the motivations of female community health volunteers in primary healthcare provision in rural Nepal: a qualitative study

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Abstract

Motivating Community Health Workers (CHWs) - many of whom are volunteers - is crucial for achieving Universal Healthcare Coverage (UHC) for Primary Healthcare (PHC) in resource-poor areas. In rural Nepal, PHC is mostly delivered by female CHWs, locally known as Female Community Health Volunteers (FCHVs), but little is known about them. This paper explores experiential factors influencing FCHVs' motivations, including how motivation intersects with women's livelihoods and consider what this means for achieving PHC in Nepal and globally.

We conducted qualitative research in the hill and the Terai (flatland bordering India) areas of Nepal. Data were purposively collected through 31 semi-structured interviews (20 volunteers, 11 paid local health workers) and three focus group discussions with additional 15 volunteers. All interviews were audio-recorded, transcribed verbatim in Nepali and translated into English. Data were coded using NVivo10, analysed thematically at individual, organisational and community levels.

FCHVs' motivations to volunteer was affected in several ways. At the individual level, participants wanted and were committed to voluntary work, yet the opportunity costs of volunteering, out-of-pocket expenditure and inadequate family support strained many of the women who were already overburdened. At the community level, perceived lack of appreciation of volunteer efforts by community members, who saw volunteers as paid health workers, undermined FCHVs motivation to volunteer. Finally, at the organizational level, a bureaucratic emphasis on recording and reporting, and lack of respect from local health workers undermined their motivation at work.

Our paper illustrates how FCHVs from some of the poorest backgrounds can be highly motivated to volunteer, yet inadequate social and economic support across individual, organisational and

community levels undermined this motivation, the security of their livelihoods, and thus wider efforts to achieve PHC. Financial investments are needed to compensate FCHVs, so that they remain motivated to deliver global health goals for PHC.

Introduction

Community Health Workers (CHWs) have been key resources in delivering and expanding access to Primary Healthcare (PHC) services, particularly in resource-poor areas of low- and middle-income countries (LMICs) [1-3]. With a shortage of professional health workers, a number of countries in Africa, Asia, and Latin America have used CHWs at a national level to meet the health needs of their population [4]. CHWs are not formally trained or recognised as 'healthcare professionals' but have been trained to promote health in their own communities [5]. They are often the first point of contact between community members and healthcare providers, linking communities to the health system. CHWs are also often seen to be key to reducing health disparities and achieving Sustainable Development Goal (SDG) 3, which aims to ensure healthy lives and promote well-being for all, at all ages (including meeting Target 3.8: achieving universal health coverage) (UHC) [2, 6, 7]. While CHWs can be paid, in many resource-poor health systems, there is a reliance on the unpaid labour of volunteers, often women from resource-poor areas, to carry out this role. However, using women volunteer CHWs to achieve these global health goals without considering their everyday experiences has posed substantial burdens on them [8-11].

Globally, the majority of unpaid CHWs tend to be women who work in poorer parts of Africa and South Asia [2, 12]: for example, the Women's Development Army in Ethiopia [10], Swastha Sewika in Bangladesh [13], and Accredited Social Health Activist in India [14]. Women who are CHWs face

obstacles at work that are not faced by their male colleagues, for example, conflict between domestic and work responsibilities and a lack of employment opportunities, yet their socio-economic situation is seldom recognised in CHW programmes [8, 9, 11, 15, 16]. Thus, the reliance on unpaid volunteers has resulted in mainly women taking on this role and, due to the multiple social and community roles women are doing, can undermine the CHWs' motivation in resource-poor areas of LMICs [17]. Motivated CHWs can enhance access to health services and promote people's trust, demand and use of such services, thereby helping to realise UHC [6, 8, 18, 19]. In addition, motivated CHWs are likely to perform better and have a higher retention rate than their counterparts [20, 21].

While motivation of health workers can be assessed in different ways, the conceptual framework developed by Franco et al. [22] is particularly useful as it uses a broad and encompassing definition of motivation as: "…an individual's degree of willingness to exert and maintain an effort towards organizational goals." [22] (p. 1255). The framework has been widely used to understand health workers' motivation [23, 24], including CHWs [17], and considers three key determinants: individual-level factors, organisational-level (work context) factors and community-level factors [22]. Individual level factors include: health workers' personal goals, expectations and experiences. Organisational level factors include organisational structures, resources, processes and culture, including organisational feedback about performance, and community-level factors include how health workers' motivation is influenced by: their interaction with community members, community expectations for how services should be provided, and formal and informal feedback.

At the individual level, CHWs can be motivated by various reasons such as, desire to gain a good status in their community, or desire to achieve something worthwhile (altruism) [1, 25]. They can also be motivated due to their perceived self-empowerment from volunteering [25], or with hope to

make some incentives associated with their activities, so that they could escape poverty and materially support families and communities [13, 26]. At the organisational level, CHWs are likely to be motivated by being respected as a member of the health system with a clear set of responsibilities [27]. Similarly, they can be motivated due to availability or anticipation of monetary and non-monetary incentives, further employment opportunities, training and supervision [20]. At the community level, their motivation is influenced by their working and social relationships with other CHWs, and their community [27, 28]. Particularly, CHWs are motivated by recognition and respect from community members [19].

In this article, we use the Franco framework to focus on motivation of CHWs from rural Nepal, analysing their motivation at each level. In Nepal, the main CHWs are known as Female Community Health Volunteers (FCHVs), a role that is exclusively for women. The FCHV programme began in 1988 and the FCHV strategy was subsequently revised three times in 1990, 1992 and 2003, before the formulation of a new FCHV strategy in 2010 [29-31]. When the programme began, FCHVs were provided with 100 Nepalese rupees (NRs) (USD 0.75) per month and a training allowance of NRs 250 (USD1.87). However, monetary incentives were withdrawn in 1990. In 1992, the training allowance was reinstated, but no other incentives for volunteers until 2010, when the new FCHV strategy (2010) emphasised provision of several non-monetary incentives, such as a celebration of FCHV day and provision of uniform [30]. A FCHV fund (NRs 50, 000 (USD 374.25)) was also created at a village level to support volunteers' livelihoods through a loan (29), but a survey of volunteers reported that only 66% of FCHVs had heard of the fund and only 51% were members of the fund [31]. The FCHV strategy (2010) was revised again in 2019 to include incentives for FCHVs to attend work-related meetings according to government provision, included provision of a letter of honour and a sum of NRs 10, 000 (USD74.85) for retiring FCHVs above 60 years old [29].

As of 2023, more than 50,000 FCHVs form a critical human resource for both government and non-government agencies delivering PHC across the country [32]. Their contribution in reducing child mortality and improving maternal health has been internationally recognised [24]. In terms of motivation, volunteers appear interested in taking on new or additional health roles (e.g. measuring blood pressure [33]) and committed to their roles, as evidenced by a low attrition rate (<5%) [34]. Yet in-depth empirical studies exploring FCHVs' motivation to deliver PHC services in Nepal are sparse. Glenton et al. [35] highlighted that FCHVs were motivated to volunteer due to social recognition of their services and that paying them was seen as unnecessary or inappropriate in their socio-cultural context. However, these findings mostly represented policymakers' and managers' views of the FCHV programme - male, salaried, public servants - thereby ignoring potential gender bias inherent in volunteering only by women of lower perceived social status [36]. While this research usefully illustrates the views of key decision-makers, the omission of FCHVs views is significant given gendered and socio-economic hierarchies that exist. In consequence, little is known about how women who volunteer - who tend to be some of the most impoverished women living and working in rural areas - perceive volunteering [17], including what they think about not being paid, or whether they feel it is 'fair'. This gap is not unique to Nepal and has been highlighted in other health systems. This limits our understanding of the role of FCHVs in supporting attainment of Sustainable Development Goal (SDG3) UHC in Nepal by 2030 and also has an impact on others, such as SDG5 gender equity and SDG8 decent work.

It is necessary to fill this knowledge gap by exploring some of the experiential factors that can influence volunteers' motivation, including how motivation is affected by and fits in with women's livelihoods in rural Nepal from women's own perspectives. Listening to volunteers is key, so that

programmes and policy to expand PHC can address the everyday realities of implementation of such programmes 'on the ground'. We therefore report on research with and data from FCHVs themselves and their local supervisors. While it has been almost 9 years since we collected our data, there has been very little research on this topic in the intervening period. For example, we found only two studies that reported FCHVs were motivated to work to prevent a growing burden of noncommunicable diseases despite their workload: they were willing to conduct screening tests to detect hypertension to control blood pressure [37] and to detect cardiovascular disease [38]. However, the first study was a cross sectional survey [37] and did not consider women volunteers' views about how that added task would influence their work motivation. The second study [38] was conducted with 10 volunteers who wanted to participate and were trained on the topic of cardiovascular disease. The perception and experiences of FCHVs can be different to those volunteers working for government funded public health centres, who often receive limited training (18 days of basic training on various PHC topics) [32]. Recent research in Nepal reveals that FCHVs experience issues such as workload and payment [25, 39, 40]. These are issues that we go on to highlight in this current paper, which therefore suggests the continued salience of our previous research [41].

FCHVs in Nepal

Before describing the methods, here we provide more information about the context in which FCHVs work in Nepal. FCHVs are typically married women of reproductive age (15-49 years), who work in each ward, which is the smallest administrative division of a village/municipality. Their role is to improve PHC mainly maternal and child health through health education, referral and treatment services, and they have a crucial role in supporting people who are the least able to afford health care [42]. FCHVs' availability, their familiarity with the local context (including language) and their

ability to recognise health problems and refer people in a timely fashion, are all strengths that differentiate them from other health-care professionals [25, 43]. However, FCHVs in rural Nepal work in precarious conditions.

In Nepal, the socio-economic status of women in rural areas is particularly low and it is in rural areas where the vast majority of FCHVs work (46,088, compared to only a small number of volunteers 5,328 in urban areas as of 2022) [44]. Women spend much of their time looking after their families, which generates no income for them (i.e. it is unpaid care work) and leaves them economically insecure. For example, most women (66.5%) within the labour force work informally and one-third (31.8%) rely on subsistence farming compared to 13.1% men [45]. As indicated above, since 1990, FCHV policy has provided limited financial remuneration for women volunteers and therefore it is in this context that FCHVs continue to carry out their health system roles in a largely voluntary capacity to address both health and non-health issues, as mentioned above [33, 46].

Methods

Study design

This study aimed to explore experiential factors that can influence volunteers' motivation, including how motivation is affected by and fits in with women's livelihoods in rural Nepal and from women's own perspectives. Qualitative data was collected in 2014 as part of a wider study [47]. Data was purposively collected through 31 semi-structured interviews (20 volunteers and 11 paid local health workers) and 3 focus group discussions with additional 15 volunteers. Use of interviews and groups discussions enabled us to gather data from individual health workers as well as groups, thus allowing us to understand differing opinions [48].

Study settings

Two distinct rural settings were selected: one hill region (Dhading District) and one Terai flatland region, on the south plains bordering India (Sarlahi District). These contrasting areas were chosen based on ease of access to PHC services and on the reported 'success' of the FCHV programme in expanding access to basic PHC services [49]. The study villages in Dhading District are well known for 'success' in implementing the volunteer programme despite the villages being isolated with relatively limited access to PHC; some places are five hours walk from the nearest health centre [50]. In the Terai region, Sarlahi District was chosen because of its relatively easy access to PHC services – mostly about 30 minutes on foot – and also because the district has ethnically different populations in comparison to the hill region; for example Muslim and Madhesi populations are unique to the Terai, and Chepang is unique to the hill village. Focusing on Sarlahi therefore offered a contrasting socio-demographic situation to Dhading.

Ethics statement

Ethical approval for the study was received from the Nepal Health Research Council Ethical Review Board in 2013 (Registration number 32/2013). Informed written consent was obtained from all the participants included in the study and responses were anonymised. The first author obtained consent to publish from the participants. This was written consent, although for illiterate participants the first author read out the consent form and obtained their written signature (some participants could not read the form but were able and content to sign their names).

Additional information regarding the ethical, cultural, and scientific considerations specific to inclusivity in global research is included in the Supporting Information (S1 Checklist).

Data collection/ Study participants

As indicated above, while it is 9 years since the data for this study was first collected, the context in which the Principal Investigator and first author of this manuscript first collected the data is largely unchanged: the numbers of volunteer women doing FCHV roles is similar now to when the data was collected. For example, in 2022, there were 46,088 FCHVs in rural areas compared to only a small number of 5,328 FCHVs in urban areas [32] and there were a similar number in 2014: 47,328 in rural areas compared to 4,142 in urban regions in 2014 [49]. While volunteers' roles and responsibilities were widened in promoting health of people in rural areas to meet the global goals PHC for all, SDG for health (for example, taking on screening non-communicable diseases, providing health education and referring people for health checks [33, 46], as described above) FCHVs remain as unpaid workers.

Data was collected between 9-05-2014 to 21-09-2014. Study participants were recruited and purposefully selected to capture diverse experiences in the two study areas. Selection criteria for FCHVs within the two study areas included ethnicity and duration of volunteering (Table 1). In Dhading, some participants belonged to indigenous groups which are categorised as either highly marginalised (Chepang) or marginalised (Tamang, Bhujel). In the Terai, the study participants comprised both upper caste (Bramhan, Kshatri) and marginalised groups (Madhesi and Muslim) (Table 1 and 2).

The PI conducted interviews and focus group discussions in Nepali, and it ranged in duration from 15 to 60 minutes. All people approached to take part agreed to participate. Interviews and focus groups were conducted using a semi-structured thematic interview guide (S2 interviews and focus groups guide) and most were conducted in participants' homes, although some individual interviews and group discussions were held in a meeting room at health centres, or local cafes as per participants'

availability and preference. For example, the first author conducted a focus group discussion and also conducted an individual interview with a volunteer from a remote area after their monthly meeting at the local health centre. Interviews/focus groups were either audio-recorded or concurrent notes were taken, depending on the consent of the participants and the desirability of keeping conversations unrecorded.

In terms of research-related payments, 15 FCHVs who had to commute to participate in interviews were paid NRs 500 (US $3.74) to cover their expenses. No other incentives were provided to the participants to take part in the study. However, when possible, refreshments (tea, biscuits, snacks, cold drinks) were arranged after the interview/group discussions.

In total, 31 participants were interviewed: 20 FCHVs (Table 1), and 11 paid local health workers (Table 2) who were supervising or working with FCHVs to implement PHC in local villages. Of these 11 paid local health workers, 7 were from public health centres, which was government funded and 4 from local NGOs) (Table 2). In addition, 3 focus groups were conducted with 15 additional FCHVs (Table 1), who were gathered for their monthly meeting at local health centres. One FCHV in the hill region participated in both interview and a group discussion, hence the total number of participants is 45.

The demographic details of participants are shown on in Tables 1 and- 2, which have been adapted from our earlier publication [51].

276

277 **Table 1. Socio-demographic characteristics of female community health volunteers (FCHVs)**

Respondents	Place	Type of Data	Age	Caste/ ethnicity	Education (in years)	Work Experience (years)	Walking distance to health centres
1	Dhading	Interview	45-59	Brahmin	Literate	15	1hr
2			≥60	Brahmin	Literate	15	2hrs
3			45-59	Brahmin	Literate	15	20 min
4			≥60	Tamang	0	15	5-6hrs
5			45-59	Brahmin	2	16	1hr
6			45-59	Chhetri	Literate	24	2 min
7			45-59	Bhujel	Literate	24	30 min
8			45-59	Brahmin	10	7	15 min by bus
9	Sarlahi		45-59	Tamang	5	10	30-45 min
10			45-59	Tamang	0	10	1 hr
11			45-59	Tamang	0	19	1 hr
12			≥60	Tamang	0	25	15 min
13			45-59	Madhesi	0	19	10 min
14			45-59	Gurung	Literate	19	25 min
15			30-44	Chhetri	8	19	1 hr
16			45-59	Brahmin	10	19	20 min
17			≤30	Brahmin	9	3	1hr of cycling
18			45-59	Lama	4	21	25 min
19			45-59	Magar	0	19	1 hr
20			45-59	Madhesi	10	26	15 min
Focus group 1	Dhading, Gajuri		≤30	Lama	10	4	1.5 hrs
			≤30	Brahmin	12	6	30 min
			45-59	Chepang	0	16	2 hrs
			45-59	Brahmin	Literate	15	1 hr
Focus group 2	Sarlahi, Harion		30-44	Brahmin	10	19	20 min
			45-59	Brahmin	0	19	10 min
			30-44	Brahmin	10	19	15 min
			45-59	Brahmin	8	19	30 min
			30-44	Brahmin	10	19	30 min
Focus group 3	Sarlahi-Lalbandi		≤30	Brahmin	12	3	20 min
			30-44	Gole	10	7	20 min
			45-59	Lama	10	2	30 min
			≤30	Brahmin	10	1	20min
			≤30	Brahmin	12	1	2 hrs
			30-44	Chhetri	10	1	10 min

278 Literate- Able to read and write Nepali, min- minute, hr-hour

279

280 Table 1 shows FCHVs represented diverse ethnic groups with a majority being Brahmin (n=17)
281 followed by Tamang and other ethnic groups. Their ages ranged from 25-70 years, with a large
282 minority (15/35) between 45-49 years of age. Many (14/35) did not have formal education, eight
283 were illiterate and another seven could only write their name. Generally, the younger the volunteers,
284 the better education they had received. In terms of work experience, it ranged from 3-26 years with
285 a majority (20/35) between 10-20 year

Table 2 Demographic characteristics of paid health workers

Health Workers HW	Place	Position	Working Institution	Caste/Ethnicity
1.	Dhading	Staff Nurse	Government	Brahmin
2.	Dhading	Auxiliary Nurse Midwife (ANM)	Government	Brahmin
3.	Dhading	Auxiliary Health Worker (AHW)	Government	Brahmin
4.	Dhading	District Public Health Officer (DPHO)	Government	Muslim
5.	Dhading	ANM	Non-Government	Indigenous
6.	Dhading	Field Coordinator	Non-Government	Indigenous
7.	Sarlahi	Senior AHW	Government	Madhesi
8.	Sarlahi	Female Community Health Volunteer (FCHV) district supervisor	Government	Madhesi
9.	Sarlahi	AHW	Government	Madhesi
10.	Sarlahi	ANM	Non-Government	Indigenous
11.	Sarlahi	Field Coordinator	Non-Government	Brahmin

Table 2 shows paid health workers represented both government and non-government organisations and were from a diverse range of ethnic groups. The paid local health workers were interviewed from the same localities as the FCHVs.

Analysis

Data were transcribed verbatim in Nepali and translated into English. In order to increase the study's rigor, multiple coding was applied to part of the data [48]. EvT coded four interviews and a group discussion transcripts in English independently. The codes were compared with those of the PI and any discrepancies were discussed and resolved. The PI then completed the coding using NVivo10 software and analysed the codes using thematic analysis [52]. Data were analysed in an iterative fashion, moving back and forth between transcripts, reflective notes,

300 field notes, and the literature. The reliability of coding and interpretation was also checked
301 during analysis by re-examining the transcripts.

302 Building on the framework proposed by Franco et al. [22], common themes across the data set
303 were developed in NVivo at three levels. Individual, organisational and community level
304 factors were identified by merging data from different data sources (interviews and focus group
305 discussions/ volunteers and the paid local health workers). Data across volunteers and paid
306 health workers were compared for data triangulation [53]. In addition, at the individual level,
307 subthemes are selected given their recurrence and prominence in our data as shown in figure
308 1.

309 Results are illustrated using quotes from different groups of participants and different methods
310 (interviews and focus groups). Each quote has the following identifiers (age range, years of
311 education; exp= years of experience in the post; and distance= walking distance to health
312 centres in minutes/hrs otherwise stated). The acronym HW represents health workers, and D
313 and S represent the two study areas: Dhading and Sarlahi.

314

315 Results

316 The results consider the main factors that influence FCHV motivation across three levels: 1)
317 individual level factors, 2) organizational level factors and 3) community level factors. At the
318 individual level, we present two subthemes: i) FCHVs' commitment to supporting women
319 mothers and children and ii) disincentives and opportunity costs of volunteering. At the
320 organisational level, we present a subtheme 'bureaucratisation of volunteers' work.' Finally at
321 the community level, we present a subtheme 'community perception of volunteers' which

covers both community recognition of volunteers and community misperception of volunteers as paid workers. These subthemes are summarised in Figure 1.

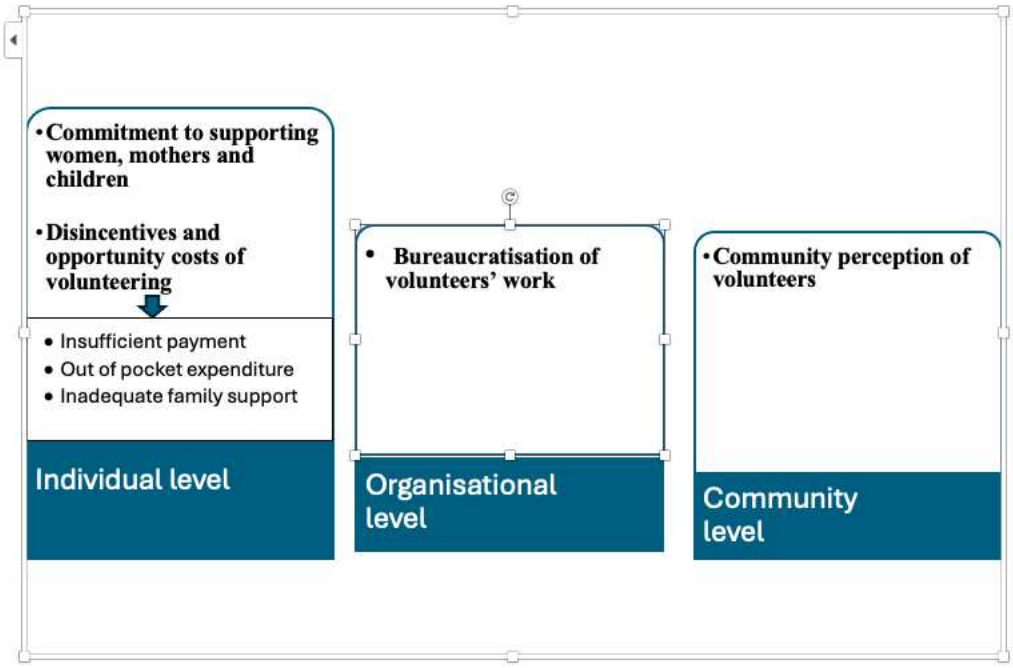

Figure 1. Illustration of themes and subthemes at individual, organisational and community level

1. Individual level factors

Individual level factors include: FCHVs' personal goals, expectations and experiences. At the individual level, we found that all volunteers were committed to their unpaid volunteering role. Yet, their experiences of volunteering were different. The time spent in volunteering, high levels of out-of-pocket expenditure and inadequate family support strained women volunteers who were already overburdened, thereby lowering their work motivation at work. However, some volunteers also saw volunteering as an opportunity to earn some money (for example, small amounts in the form of training and travel allowances) or improve their future employment prospects, but with questions as to the extent to which this was achieved in practice. These findings are summarised under two subthemes: i) commitment to supporting

women, mothers and children and ii) social and financial disincentives and opportunity costs of volunteering.

1.1 Commitment to supporting women, mothers and children

Every volunteer interviewed spoke of being committed to their volunteering work despite its challenges. Many volunteers, especially older illiterate women, spoke about their work delivering health services as a form of basic human and social responsibility; couching their role in terms of serving their own people. Many FCHVs had not had the opportunity to access health information during their own pregnancies and childbirth. However, they reported that they had witnessed a reduction in maternal and child deaths and improvements in women's overall health status in their communities since they became a volunteer. Such changes inspired them to continue volunteering work at personal level as shown in the following quote:

> *What I feel good about, my work, is that I am helping pregnant women, mothers and children to save their lives. In the past, sometimes the baby's hands used to come outside the vagina, sometimes their foot used to come outside. It used to cost huge expenses for the families. Now, such incidents have been reduced. We have protected our children and mothers and pregnant women from death, that is the best thing we have achieved. FCHVD2* (≥60, literate, exp 15 years, distance 2hrs).

Volunteering provided women with opportunities to go outside their houses and meet people, which was a challenge for many women in rural Nepal. Therefore, even older volunteers over 60 years old with physical issues wanted to continue their service, as a volunteer explained:

> *I want to walk, I want to talk. Now, what to do? This knee is giving me a little problem. I am not able to see properly. Otherwise, I go everywhere they ask, be it Kathmandu, Delhi or Bombay. I go anywhere. FCHVS12* (≥60, edu 0, exp 25; distance 15min).

As shown above, at the individual level, volunteers were committed to do their unpaid work, yet all the volunteers in the interviews and group discussions reported personal difficulties they experienced in undertaking their role as a volunteer. These are discussed under subtheme disincentives and opportunity costs of volunteering.

1.2 Disincentives and opportunity costs of volunteering

At the individual level, FCHVs described four key things that undermined their motivation to deliver PHC services: i) insufficient payment, ii) the opportunity costs of volunteering, particularly in terms implications for their livelihoods iii) out of pocket expenditures incurred in volunteering, and iv) inadequate family support to volunteer. First, both volunteers and health workers described a growing set of healthcare responsibilities given to volunteers, for example, reporting health and non-health activities, which were not part of their role when the volunteer programme first began in 1988. Yet, there was little to no financial support available to volunteers in this study. Given these growing responsibilities for volunteers, many referred to the large amount of time they spent in volunteering and the consequent time pressures that this placed on them and on their livelihoods; in other words, they spoke about the opportunity costs of volunteering. Some volunteers in the hill communities reported spending several hours on foot to reach local health centres for monthly training or reporting, which affected their livelihood. As a volunteer from Dhading explained:

> *There are not many people to work at home. I have not been able to put paddy seeds for plantation while others [in the village] have already done this. Women in the village don't even have time to go for check-ups, but they want me to stay with them from the morning to the evening during their labour. What should I do? I cannot work for*

388 *villagers only. I need to look after my animals. I need to eat food, don't I? FCHVD4*
389 ((≥60, Edu 0, exp 15; distance 5-6hrs).

390 Both health workers and volunteers agreed that volunteers face a financial disadvantage that
391 discourages or disincentivises volunteering. Given many volunteers did not have other sources
392 of income than subsistence farming, both volunteers and health workers agreed that the
393 incentives volunteers received - NRs 200 (£1.33) to cover their travel cost - was insufficient
394 and did not match with the time spent on volunteering. Volunteers had to pay someone to do
395 their farming work at home, often at higher prices (e.g. NRs 400 (£2.58) per person per day for
396 labour). As a volunteer from Terai explained:

397 *If we ask someone to work from morning to evening, we need to pay above NRs 400*
398 *(£2.58) including their breakfast and lunch. We don't even get that amount for our*
399 *work. FCHVS6* (45-59, literate, exp 19; distance 25min).

400 Some volunteers also described out-of-pocket expenditures that were necessary for them to
401 carry out their health care roles; for example, calling mothers to attend meetings by telephone
402 or calling for an ambulance. Such costs were not reimbursed, which left already poor women
403 volunteers even poorer and undermined motivation. As one FCHV from Dhading commented:

404 *There is a zero-balance on my mobile due to the mothers' group meeting [shows her*
405 *mobile]. I need to call the health post to enquire about the whereabouts of the*
406 *ambulance. This also requires money…. Because there is no money, there is not much*
407 *motivation to work. FCHVD8* (30-44, edu 10, exp 7; distance 15min by bus).

408 Consequently, in the absence of payment, some family members thought that volunteers were
409 wasting their time and hence their families - husband, mothers-in-law and children - did not
410 support their volunteering work. For example, a volunteer from Terai commented:

411 *I was almost forced to stop the volunteering because of the household chores. I felt*
412 *overwhelmed when I returned home from volunteering. There would be big piles of*
413 *household chores left for me and without the support of family members, it became*
414 *almost impossible to continue the volunteering. FCHVS17* (≤30, edu 9, exp 3; distance
415 1 hour of cycling).

416 Yet, despite these challenges we found that FCHVs wanted to continue volunteering because
417 they saw it as an opportunity to advocate their needs and demand what they thought was right
418 and fair. Both unpaid FCHVs and paid health workers indicated that they thought FCHCs
419 should be paid, which would add value to what they were doing. Several volunteers reported
420 that they wanted to be fairly recompensated for their labour via a monetary allowance. As a
421 volunteer from Dhading argued:

422 *A salary for us would be better. We do all the reporting work. After all the work we*
423 *have done, we should be paid. FCHVD7* (30-44, literate, exp 24; distance 30min).

424 Most volunteers expressed a strong need for monetary compensation, with some describing
425 volunteering (as in the quote above) as 'work.' This was particularly the case for young and
426 educated women volunteers, who saw the volunteering opportunity as a possible entryway into
427 paid work. They were willing to do it without pay for a start, but hoped for a payment, due to
428 the costs of living. As a young volunteer from Sarlahi commented:

429 *Whether a volunteer should be given a monthly payment, this needs to be considered.*
430 *It is okay to select those women who can actually work. At this time, it is not possible*
431 *to work voluntarily. FCHVS15* (30-44, edu 8, exp 19; distance 1 hr).

432 Thus, at the individual level, despite the social and financial disincentives of volunteering, we
433 found that women were committed to volunteer. Yet, organisational factors created another
434 challenge for FCHVs.

2. Organisational level factors - Bureaucratisation of volunteers' work

A range of organisational factors, including regular training of volunteers, availability of medical supplies, and supported supervision enhanced the motivation of FCHVs to work – with the importance of these factors for volunteers' services reported in our earlier study [25]. The available public health system support in terms of medical supplies and regular supervision of FCHVs were systematically different in the two selected regions (hill villages and the Terai), which has been reported in our earlier study [25]. However, our data from interviews and focus group discussions showed that excessive bureaucratisation of volunteers' work in the form of recording and reporting to paid health workers undermined their motivation. For example, many volunteers reported being asked by paid health workers (based in local health centres) to complete formal forms of reporting into the health system. This took up a lot of their time, as one FCHV from Dhading commented:

> *There is too much of recording work as compared to the past. Health workers want records of under one-year children, under five-year children, pregnant women, new mothers, family planning cases, the number of pills taken by individuals, women on Depo-Provera injections, intrauterine contraceptive device users, vasectomy cases and so on. We need to calculate the numbers of each case. FCHVD6* (45-59, literate, exp 24; distance 2 min).

Volunteers also complained that local health workers seemed to emphasise the importance of reporting, rather than the 'actual work' of FCHVs:

> *The health workers never normally ask us how we are working. Only at the time of reporting do they ask us how well we have filled the reports in. The emphasis is on the report, not the work. Focus group 1 Participant1* (≤30, edu 10, exp 4; distance 1.5 hrs).

A health worker also revealed that some paid health workers were involved in unfair actions towards FCHVs; for example, FCHVs were sometimes provided incentives (an allowance) to cover a single day, instead of the actual intended time for training of three to four days:*The training duration for FCHVs is reduced contrary to the given guidelines, so as to save money from giving allowances to them. If there is training for three or four days then, it would be reduced to one day. HW11* (Field co-ordinator, government services).

In the absence of adequate financial incentives, many volunteers expressed feelings of being 'fed up' and also gave examples of instances in which they felt undervalued. For example, volunteers indicated how paid health workers often criticised them and/or were disrespectful if they were unable to fill the report card on time. As a volunteer from Dhading indicated:

This work does not give credit to us in the village. Health workers ask us, 'did you do this work? If you don't bring the report, who will bring it?' There is no respect, no respect at all in this work. FCHVD1 (45-59, literate, exp 15; distance 1hr).

Given these issues with how FCHVs felt their emotional and physical labour was undervalued, a small number of FCHVs spoke about how they were trying to mobilise for change. For example, one volunteer spoke about how they wanted to discuss the budget available for volunteers with the local government authority, declaring that she was planning to take collective action against the village secretary:

I became a representative as a chairperson of FCHVs from our village and have given them (women) a voice. I have threatened [name], if they would not allocate any budget for us even this year, then I would be bringing the mothers' group to have a word with them. FCHVS16 (45-59, edu 10, exp 19; distance 20min).

Thus, at the organizational level, we found that the bureaucratisation of volunteers' work, especially emphasis on recording and reporting of health related information, without adequate training and financial support to volunteer, undermined their motivation.

3. Community level factors – Community perception of volunteers

At community level, the social experience of working in one's own community was not the same for all volunteers. Some volunteers and health workers reported that the volunteers were motivated to volunteer due to community recognition of their work. For example, a volunteer from Sarlahi highlighted trust of local women towards them:

> *People trust us in the field. We had some difficulties in the past, but now, if FCHVs go there and ask people to eat anything to make them feel better, then they even eat the poison. There will be no doubt on what (medicine) I give her. FCHVS16* (45-59, edu 10, exp 19; distance 20min).

However, our data from interviews and focus groups suggests that volunteers were more concerned about not being valued by local community members than feeling valued or respected. We found a socio-cultural 'clash' between 'the reality' of FCHVs being unpaid volunteers and their 'perceived status' as paid professionals within their communities; not only leading to misunderstandings of what FCHVs do and limited community support, but also undermining volunteers' motivation to work with the PHC system. A typical response is encapsulated by this volunteer:

> *We do not get reward/praise (jas) in the village. Villagers ask us, 'did you work this? if you don't bring medicines, who will bring?' There is no reward (ausaj), no reward*

at all in this work. We don't get a salary, but we get blamed for not working well in the local community despite being paid. FCHVD1 (45-59, literate, exp 15; distance 1hr).

FCHVs felt they were being criticized partly because community members perceived them as paid health workers and expected them to spend more hours in volunteering than they were assigned to. This undermined volunteers' motivation at work, as one commented:

Some people say, 'she gets a salary every month, but she does not come to our home.' I don't feel like working after listening to this. FCHVD7 (30-44, literate, exp 24; distance 30min).

It appeared that, as more and more functions were given to volunteers, communities' views of volunteers and the social value placed on them changed: seeing FCHVs as 'professional' health workers, instead of volunteers or peers from the community. This reflects an undermining of the relationships that underpin volunteer's motivation to work at the community level.

Thus, our overall our findings show that FCHVs in rural Nepal can be highly motivated to work as a volunteer at the individual level, yet inadequate family, community and organisational (health system) support undermine this, the security of their livelihoods, and thus wider efforts to deliver PHC for all.

Discussion

This paper has explored motivation of volunteer CHWs from their own perspectives and also included the views of paid local health workers in rural Nepal. Our key findings show that Nepali CHWs – FCHVs - are highly committed and motivated to volunteer but also that the

social and financial opportunity costs of volunteering, out-of-pocket expenditures and inadequate family support disincentivize them. In addition, the bureaucratisation of volunteers' work and community misperception of volunteers as paid workers undermined their motivation to volunteer. These key findings are discussed with reference to wider literature and the current situation in Nepal and are presented at three levels: individual, organizational and community.

At the individual level, we found that despite everyday work challenges, FCHVs were motivated to volunteer for reasons such as altruism, limited monetary incentives and/or social status. They valued the altruism of doing something for the public good and saw volunteering as an opportunity to make a difference to maternal and child health in their communities. While volunteers, regardless of their age, reported that they wanted to be paid for their services, young volunteers emphasised that they joined volunteering expecting a better future and route to financial security or employment. These findings are consistent with CHW literature from sub-Saharan Africa and South Asia [54, 55]. For example, in a study conducted in Bangladesh, India, Kenya, Malawi and Nigeria, involving thirty-two focus group discussions with 361 individuals and 116 key informant interviews with CHWs, health workers and managers, it was found that CHWs consistently expressed a need for appropriate and consistent compensation for their work [54]. Similarly, another study of CHWs that also included their supervisors and high-level officials (n=95) within Global Polio Eradication Initiative in India, Nepal, Pakistan, Ethiopia and Rwanda showed that when CHWs were provided with some financial compensation, this was perceived to be low and exploitative of CHWs' work [55].

We also found that regardless of a volunteers' age, they wanted to retain their position as a volunteer despite financial challenges, given how they felt it provided women with greater social status and was a route to self-empowerment . For example, in our findings above, and

556 in our previous work on this topic, we highlight how FCHVs appreciated the opportunities to
557 learn new knowledge and skills, and valued travelling outside their houses, meeting new
558 people, and gaining respect from health workers for the work they undertook, which might not
559 be possible for most women in villages [25]. Such empowering experiences can be crucial for
560 women in societies with low social status. Women in Nepal are known to often have low
561 literacy, low socio-economic status and have low prospects of finding paid employment [45],
562 as also seen among CHWs globally and this is a situation that has not changed since the
563 research was conducted [1, 8, 14, 20, 56, 57]. Despite their commitment and individual
564 motivation to take on the FCHV role, we found that women volunteered at considerable social
565 and material cost to themselves and their families, and their expectations were often not fully
566 met in 'the everyday' realities of volunteering. Working without adequate payment threatened
567 volunteers' already precarious living conditions; further overburdening them with their
568 household chores and farming responsibilities. According to the national survey of Nepalese
569 volunteers, average working hours of volunteers increased from 1.7 to 3.1 hours per day
570 between 2006 and 2014 [34], and this appears to continue to be the case. There is however, no
571 more recent data available on volunteer working hours. At the time of the research, and indeed
572 now in Nepal, volunteers have expanded workloads that often involve carrying out work for
573 programmes to detect noncommunicable diseases, such as hypertension (e.g. monitoring blood
574 pressure and educating people about its risk factors) [33, 46]. In line with the current
575 government's policy in Nepal, volunteers continue to be expected to work without
576 compensation. Yet we found that out-of-pocket expenditure incurred in volunteering left
577 already-poor women FCHVs even poorer. The economic insecurities of women CHWs have
578 been reported in other studies from Nepal [25, 39] and in countries including Ethiopia [17],
579 South Africa [58], Bangladesh [59], Pakistan and Sierra Leone [15]. This suggests that women
580 volunteers are consistently mobilised to meet global developmental goals without fully

581 considering their livelihoods and everyday needs, thus undermining their motivation at work
582 and, by extension, access to UHC.
583
584 At the organizational level, we found that bureaucratisation of volunteers' work through formal
585 recording and reporting of health activities without financial compensation meant FCHVs saw
586 these requests for their labour as unfair (as evidenced by FCHVs questioning why they had to
587 volunteer while local health workers were paid for doing similar work) which also undermined
588 their motivation. A situation that was compounded by health workers criticising FCHVs for
589 being unable to produce reports – despite this being unsurprising given that many FCHVs are
590 illiterate. This illustrates however, the subordinate status of volunteers to paid government
591 health workers in Nepal and is a situation that persists to the current day. This situation is not
592 unique to Nepal: women CHWs are often at the bottom of gendered health bureaucracies and
593 experience difficulties in advocating their own needs and those of communities. For example,
594 studies from Ethiopia highlight how women CHWs work without adequate compensation in a
595 structure which reinforces gendered hierarchy [12, 60] and how such hierarchical structures
596 and bureaucratisation demotivate health workers [57].
597
598 At the community level, we found that, as more and more functions are given to volunteers to
599 perform over time, communities' views of volunteers and the social value placed on them have
600 changed: seeing FCHVs as 'professional' health workers instead of volunteers from the
601 community and undermining the relationships that underpin volunteer's motivation to work.
602 This change in community perceptions has been driven by the way the FCHV programme has
603 developed in Nepal. When the FCHV programme began in 1988, their roles were limited to
604 provision of health education. However, over the years, they have been involved in the
605 provision of preventive, promotive and curative healthcare activities, including distribution of

606 medicines as part of national campaigns, which is one-off paid activity [61]. It is likely that the
607 expansion of activity, as well as involvement in paid activities by NGOs [40], although rare,
608 has led some community members to view volunteers as paid workers and to be more critical
609 views of volunteers' service shortcomings. This has, however, deprived FCHVs of the
610 community support they need and which underpinned their original motivation to work. Again,
611 these findings are consistent with studies of CHWs from Africa and Asia [15, 54], but
612 contradict other evidence from Nepal [35], which was primarily based on the assumptions of
613 policymakers and programme managers.
614
615 Overall, our findings suggest that financial compensation is crucial for women volunteers -
616 who mostly come from a poor socioeconomic background - to be motivated to deliver global
617 goals for PHC [6, 21, 54, 57, 58]. As highlighted in earlier studies of FCHVs, Nepal needs a
618 system that not only socially recognises volunteers' efforts, but also supports their livelihood:
619 it is only when both these are met that volunteers will be able to deliver their role with the
620 support of family members [46, 62, 63]. This however, has financial implications for achieving
621 health related goals (SDG3), suggesting that more financial investment for FCHVs is needed
622 for integrated action across three levels (individual, organisational and community) . For
623 example, motivating volunteers at individual level will require national policy change, not only
624 to re-enact the financial incentives that were present in the FCHV scheme when it first began,
625 but also to ensure that the incentives match their workload and there is a greater recognition of
626 the value of FCHVs in national policy. At organisational level, it will require the
627 implementation of procedures and practices to ensure that FCHVs get all the financial
628 incentives that they are due and in a timely way and also a programme of cultural change to
629 improve the way that paid health workers value and interact with FCHVs to ensure that their
630 relationships become grounded in and engender respect. At community level, integrated action

631 is needed to increase community awareness of FCHVs' roles and their contribution to
632 community health. It is also important to recognise that, in terms of global policy, action in
633 this respect will have knock-on positive effects for other SDGs, including SDG 8, as it will
634 increase women's entry into the workforce, and SDG10, as by strengthening women's social
635 status and livelihoods it will help address gender inequalities [64].
636
637 Our study has some limitations. First, data was collected in 2014 from two areas of Nepal using
638 qualitative methods, hence the detailed findings are not generalisable. The thematic topics
639 identified are however, potentially relevant in other settings in Nepal and other resource-poor
640 health systems, given that they resonate with other existing literature on this topic, as discussed
641 above. Second, participants might have been particularly concerned to express their views on
642 issues of monetary compensation (in line with social desirability bias), using the interviews as
643 a potential chance to highlight their complaints to higher level policy audience and programme
644 managers via the researcher, meaning that other 'everyday issues' may not have been
645 discussed. This does not, however, detract from this being a key issue for the FCHV
646 participants and therefore key issue to be considered and addressed in further research and in
647 policy and practice.
648
649 Further research is needed to assess and measure the degree to which the identified factors
650 influence FCHVs' motivation to deliver PHC, so that programmes can be designed to support
651 them. We suggest that there is a role for conducting community-based participatory research
652 with FCHVs, involving methods that build the capacity of FCHVs to gather and share their
653 experiences, including with policymakers, in ways that they want and value. While this kind
654 of research can be resource-intensive, it has direct benefits to those involved, and could support
655 the co-creation of policy relating to the delivery of UHC that reflects women volunteers' needs

[65]. At the same time, policymakers and programme managers of FCHV programmes should consider arranging adequate monetary compensation for volunteers, not only to reflect the work context and the time spent in volunteering, but also as a livelihood strategy to support some of the poorest, rural women. This should be combined with activities to ease organisational bureaucracy and enhance community awareness of volunteers' roles, so that the FCHVs remain motivated to deliver towards UHC.

Conclusion

Our paper illustrates how women from some of the poorest backgrounds can be highly motivated to work as a community health volunteer, yet inadequate family, community and health system support undermine this, the security of their livelihoods, and thus wider efforts to achieve UHC at primary care level for all. We found that insufficient payment, social and financial opportunity costs of volunteering, and out of pocket expenditure undermine motivation to deliver services. Similarly, the bureaucratisation of volunteers' work and a lack of social appreciation of their work by community members appeared to undermine volunteers' motivation. Financial investment to provide community volunteers with monetary compensation for their health work seems crucial if women in resource-poor areas of LMICs are to remain motivated to deliver PHC to achieve UHC for all; with this also being an investment in women's livelihoods and addressing gendered inequality.

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683

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Other

Exploring the motivations of female community health volunteers in primary healthcare provision in rural Nepal: a qualitative study

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Abstract

Motivating Community Health Workers (CHWs) - ~~,~~ many of whom are volunteers -~~,~~ is crucial for achieving Universal Healthcare Coverage (UHC) for Primary Healthcare (PHC) in resource-poor areas. In rural Nepal, PHC is mostly delivered by female CHWs, locally known as Female Community Health Volunteers (FCHVs), but little is known about them. This paper explores experiential factors influencing FCHVs' motivations, including how motivation intersects with women's livelihoods and consider what this means for achieving PHC in Nepal and globally.

We conducted qualitative research in the hill and the Terai (flatland bordering India) areas of Nepal. Data were purposively collected through 31 semi-structured interviews (20 volunteers, 11 paid local health workers) and three focus group discussions with additional 15 volunteers. All interviews were audio-recorded, transcribed verbatim in Nepali and translated into English. Data were coded using NVivo10, analysed thematically at individual, organisational and community levels.

FCHVs' motivations to volunteer was affected in several ways. At the individual level, participants wanted and were committed to voluntary work, yet the opportunity costs of volunteering, out-of-pocket ~~expenses~~ expenditure and inadequate family support strained many of the women who were already overburdened. At the community level, perceived lack of appreciation of volunteer efforts by community members, who saw volunteers as paid health workers, undermined FCHVs motivation to volunteer. Finally, at the organizational level, a bureaucratic emphasis on recording and reporting, and lack of respect from local health workers undermined their motivation at work.

Our paper illustrates how ~~women~~ FCHVs from some of the poorest backgrounds can be highly motivated to volunteer, yet inadequate social and economic support ~~at~~ across individual, organisational and community ~~and health system~~ levels undermined this motivation, the security of their livelihoods, and thus wider efforts to achieve PHC. Financial investments are needed to compensate ~~these volunteers~~FCHVs, so that they remain motivated to deliver global health goals for PHC.

Introduction

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Community Health Workers (CHWs) have been key resources in delivering and expanding access to Primary Healthcare (PHC) services, particularly in resource-poor areas of low- and middle-income countries (LMICs) [1-3]. With a shortage of professional health workers, a number of countries in Africa, Asia, and Latin America have used CHWs at a national level to meet the health needs of their population [4]. CHWs are not formally trained or recognised as 'healthcare professionals' but have been trained to promote health in their own communities [5]. They are often the first point of contact between community members and healthcare providers, linking communities to the health system. CHWs are also often seen to be key to reducing health disparities and achieving Sustainable Development Goal (SDG) 3, which aims to ensure healthy lives and promote well-being for all, at all ages~~,~~ (including meeting Target 3.8: achieving universal health coverage) (UHC) [2, 6, 7].~~-~~ While CHWs can be paid, in many resource-poor health systems, there is a reliance on the unpaid labour of volunteers, often women from resource-poor areas, to carry out this role. However, using women volunteer CHWs to achieve these global health goals without considering their everyday experiences has posed substantial burdens on them [8-11].

Globally, the majority of unpaid CHWs tend to be ~~female~~ women who work in poorer parts of Africa and South Asia [2, 12]~~;~~, for example, the Women's Development Army in Ethiopia [10], Swastha Sewika in Bangladesh [13], and Accredited Social Health Activist in India [14]. ~~Female~~ Women who are CHWs face obstacles at work that are not faced by their male colleagues, for example, conflict between domestic and work responsibilities and a~~,~~ lack of employment opportunities, yet their socio-economic situation is seldom recognised in CHW programmes [8, 9, 11, 15, 16]. Thus, the reliance on unpaid volunteers has resulted in mainly ~~female CHW~~women ~~s~~ taking on this role~~,~~ and, due to the multiple social and community roles ~~these females~~women are doing, ~~this has~~ can undermine~~d~~ the CHWs' motivation in resource-poor areas of LMICs [17]. Motivated CHWs can enhance access to health services~~,~~ and promote people's trust, demand and use of such services, thereby helping to realise UHC [6, 8, 18, 19]. In addition, motivated CHWs are likely to perform better and have a higher retention rate than their counterparts [20, 21].

While motivation of health workers can be assessed in different ways, the conceptual framework developed by Franco et al. [22] is particularly useful as it uses a broad and encompassing definition of motivation as: "…an individual's degree of willingness to exert and maintain an effort towards organizational goals." [22] (p. 1255). The framework has been widely used to understand health workers' motivation [23, 24], including CHWs [17], and considers ~~–~~three key determinants: individual-level factors, organisational-level (work context) factors and community-level factors [22]. Individual level factors include: health workers' personal goals, expectations and experiences. Organisational level factors include organisational structures, resources, processes and culture, including organisational feedback about performance, and community-level factors include how health workers' motivation is influenced by: their interaction with community members, community

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expectations for how services should be provided, and formal and informal feedback. ~~We use the framework to understand motivation of CHWs in Nepal, providing some examples of their motivation at each level.~~

At the individual level, CHWs can be motivated by various reasons such as, desire to gain a good status in their community, or desire to achieve something worthwhile (altruism) [1, 25]. They can also be motivated due to their perceived self-empowerment from volunteering [25], or with hope to make some incentives associated with their activities, so that they could escape poverty and materially support families and communities [13, 26]. At the organisational level, CHWs are likely to be motivated by being respected as a member of the health system with a clear set of responsibilities [27]. Similarly, they can be motivated due to availability or anticipation of monetary and non-monetary incentives, further employment opportunities, training and supervision [20]. At the community level, their motivation is influenced by their working and social relationships with other CHWs, and their community [27, 28]. Particularly, CHWs are motivated by recognition and respect from community members [19].

In this article, we use the Franco framework to focus on motivation of CHWs from rural Nepal. ~~We use the framework to understand motivation of CHWs in Nepal,~~ analysing ~~providing some examples of~~ their motivation at each level.

~~.~~In Nepal, ~~T~~the main CHWs ~~in Nepal~~ are known as Female Community Health Volunteers (FCHVs), ~~which~~ a role that is ~~is an~~ exclusively for women~~female role~~. The FCHV programme began in 1988 and the FCHV strategy was subsequently ~~first formulated~~revised~~-~~ three times in 1990, 1992 and 2003, before the formulation of ~~the~~a new FCHV strategy in 2010 [29-31]. When the programme began, FCHVs were provided with ~~NRs~~ 100 Nepalese rupees (NRs) (USD 0.75) per month ~~including~~and a

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training allowance of NRs 250 (USD1.87). However, monetary incentives were withdrawn in 1990. In 1992, the training allowance was reinstated, but there was no other incentives for volunteers until 2010, when the new FCHV strategy (2010) emphasised provision of several non-monetary incentives, such as a celebration of FCHV day and provision of uniform [30](29). A but also created a FCHV fund (NRs 50, 000 (USD 374.25)) was also created at a village level to support volunteers' livelihoods through a loan (29), but a survey of volunteers reported that only 66% of FCHVs had heard of the fund and only 51% were members of the fund [31]. The FCHV strategy (2010) iswas revised again in 2019 to include incentives for FCHVs to attend work related meetings for FCHVs according to government provision, (28). It also included provision of a letter of honour and a sum of NRs 10, 000 (USD74.85) for retiring FCHVs who are above 60 years old [29]. This reflects the changing nature of the FCHV programme.

in 2002 and revised subsequently in 2010 and 2019 [29-31]. As of 2023, more than 50,000 FCHVs form a critical human resource for both government and non-government agencies delivering PHC across the country [32]. Their contribution in reducing child mortality and improving maternal health has been internationally recognised [24]. In terms of motivation, volunteers appear interested in taking on new or additional health roles (e.g. measuring blood pressure [33]) and appear committed to their roles, as evidenced by a low attrition rate (<5%) [34]. Yet in-depth empirical studies exploring FCHVs' motivation to deliver PHC services in Nepal are sparse. Glenton et al. [35] highlighted that FCHVs were motivated to volunteer due to social recognition of their services, and that paying them was seen as unnecessary or inappropriate in their socio-cultural context. However, these findings mostly represented policymakers' and managers' views of the FCHV programme - male, salaried, public servants - thereby ignoring potential gender bias inherent in volunteering only by females women of lower perceived social status [36]. While this research usefully illustrates the views of key

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decision-makers, the omission of FCHVs views is significant given gendered and socio-economic hierarchies that exist. In consequence, little is known about how women who volunteer ~~,~~ who tend to be some of the most impoverished women living and working in rural areas ~~,~~ perceive volunteering [17], including what they think about not being paid, or whether they feel it is 'fair'. This gap is not unique to Nepal and has been highlighted in other health systems. This limits our understanding of the role of FCHVs in supporting attainment of Sustainable Development Goal (SDG3) UHC in Nepal by 2030~~,~~ and also has an impact on others, such as SDG5 gender equity and SDG8 decent work.

It is necessary to fill this knowledge gap by exploring some of the experiential factors that can influence volunteers' motivation, including how motivation is affected by and fits in with women's livelihoods in rural Nepal from ~~their~~ women's own perspectives. Listening to volunteers is key, so that programmes and policy to expand PHC can address the everyday realities of implementation of such programmes 'on the ground'. We therefore report on research with and data from FCHVs themselves and their local supervisors. While it has been almost 9 years since we collected our data, there has been very little research on this topic in the intervening period. For example, we found only two studies that reported FCHVs were motivated to work to prevent a growing burden of noncommunicable diseases despite their workload: ~~—~~they were willing to conduct screening tests to detect hypertension to control blood pressure [37]~~,~~ and to detect cardiovascular disease [38]. However, the first study was a cross sectional survey [37] and ~~it~~ did not consider women volunteers' views about how that added task would influence their work motivation. The second study [38] was conducted with 10 volunteers who wanted to participate and were trained on the topic of cardiovascular disease. The ~~P~~perception and experiences of ~~these volunteers~~FCHVs can be different to those volunteers working for government funded public health centres, who often receive limited

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training (18 days of basic training on various PHC topics) [32]. Recent research in Nepal reveals that ~~the~~ FCHVs experience issues such as workload ~~xxx~~ and payment [25, 39, 40]~~xxx~~. These are issues that we go on to highlight in this current paper, which ~~to be presented in this paper, still persist for FCHVs,~~ therefore ~~suggestsing the~~suggests the continued salience of our previous research [41]. ~~Therefore, this paper draws from the wider data of the PI's PhD (44), and analyses the everyday challenges and disincentives of volunteering in rural Nepal.~~

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FCHVs in Nepal

Before describing the methods, here we provide more information about the context in which FCHVs work in Nepal. FCHVs are typically married women of reproductive age (15-49 years), who work in each ward, which is~~-~~ the smallest administrative division of a village/municipality. Their role is to improve PHC mainly maternal and child health through health education, referral and treatment services, and they have a crucial role in supporting people who are the least able to afford health care [42]. FCHVs' availability, their familiarity with the local context~~,~~ (including language)~~,~~ and their ability to recognise health problems and refer people in a timely fashion, are all strengths that differentiate them from other health-care professionals [25, 43]. However, FCHVs in rural Nepal work in precarious conditions.

In Nepal, the socio-economic status of women in rural areas is particularly low~~,~~ and it is in rural areas where the vast majority of FCHVs work (46,088, compared to only a small number of volunteers 5,328 in urban areas as of 2022) [44]. Women spend much of their time looking after their families, which generates no income for them (i.e. it is unpaid care work)~~,~~ and leaves them economically insecure. For example, most women (66.5%) within the labour force work informally and one-third (31.8%) rely on subsistence farming compared to 13.1% men [45]. As indicated above, since 1990,

FCHV policy has provided limited financial remuneration for women volunteers and therefore it is in ~~In~~ this context that ~~,~~ FCHVs continue to carry out their health system roles in a largely voluntary capacity to address both health and non-health issues ~~and~~, as mentioned above [33, 46].

Methods

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~~1.~~ Study design

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This study aimed to explore experiential factors that can influence volunteers' motivation, including how motivation is affected by and fits in with women's livelihoods in rural Nepal and from women's own perspectives. Qualitative data was collected in 2014 as part of a wider study [47]. Data was purposively collected through 31 semi-structured interviews (20 volunteers and 11 paid local health workers) and 3 focus group discussions with additional 15 volunteers. Use of interviews and groups discussions enabled us to gather data from individual health workers as well as groups, thus allowing us to understand differing opinions [48].

~~2.~~ Study settings

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Two distinct rural settings were selected: one hill region (Dhading District) and one Terai flatland region, on the ~~—~~south plains bordering India (Sarlahi District). These contrasting areas were chosen based on ease of access to PHC services and on the reported 'success' of the FCHV programme in expanding access to basic PHC services [49]. The study villages in Dhading District are well known for 'success' in implementing the volunteer programme despite the villages being isolated with relatively limited access to PHC; ~~—~~some places are five hours walk from the nearest health centre [50]. In the Terai region, Sarlahi District was chosen because of its relatively easy access to PHC services – mostly about 30 minutes on foot – ~~,~~ and also because the district has ~~an~~ ethnically ~~diverse~~

different populations in comparison to the hill region; ~~,~~ for example Muslim and Madhesi populations are unique to the Terai, and Chepang is unique to the hill village. ~~It~~ Focusing on Sarlahi therefore offer~~eds~~ a contrasting ~~to the~~ socio-demographic situation ~~in~~ to Dhading.

~~3.~~ Ethics statement

Ethical approval for the study was received from the Nepal Health Research Council Ethical Review Board in 2013 (R~~r~~egistration number 32/2013). Informed written consent was obtained from ~~most of~~all the participants included in the study and responses were anonymised. The first author obtained consent to publish from the participants. This was written consent, although for illiterate participants the first author read out the consent form and obtained their written signature (some participants could not read the form but were able and content to ~~could~~ sign their names).

Additional information regarding the ethical, cultural, and scientific considerations specific to inclusivity in global research is included in the Supporting Information (S1 Checklist).

~~4.~~ Data collection/ Study participants

As indicated above, w~~W~~hile it is 9 years since the data for this study was first collected, the context in which the ~~PI (~~Principal Investigator and ~~the~~ first author of this manuscript~~)~~ first collected the data is largely unchanged: the numbers of volunteer women doing ~~these~~ FCHV roles is similar ~~between~~ now to ~~and~~ when the data was collected. For example, ~~I~~in 2022, there were 46,088 FCHVs in rural areas compared to only a small number of 5,328 FCHVs in urban areas [32] and there were a similar number in 2014: ~~; this was~~ 47,328 in rural areas compared to 4,142 in urban regions in 2014 [49]. While volunteers' roles and responsibilities ~~have been~~were widened in promoting health of people in rural ~~xxx to~~areas to meet the global goals PHC for all~~-~~, SDG for health [33, 46]~~-~~(for example,

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taking on screening non-communicable diseases, providing health education and referring people for health checks [33, 46]-, as described above) FCHVs remain as unpaid workers.

Data was collected b~~B~~etween 9-05-2014 to 21-09-2014. , -S~~s~~tudy participants were recruited and ~~they were~~ purposefully selected to capture diverse experiences in the two study areas. Selection criteria for FCHVs within the two study areas ~~ose villages~~ included ethnicity and duration of volunteering (Table ~~2~~1). In Dhading, some participants belonged to indigenous groups which are categorised as either highly marginalised (Chepang) or marginalised (Tamang, Bhujel). In the Terai, the study participants comprised ~~either~~ both upper caste (Bramhan, Kshatri) ~~or~~ and ~~minoritised~~marginalised~~y~~ groups (Madhesi and Muslim) (Table 1 and 2).

~~The~~The PI conducted ~~i~~Interviews and focus group discussions ~~data was collected by the PI~~ in Nepali, and it ~~and~~ ranged in duration from 15 to 60 minutes. All people approached to take part agreed to participate. ~~Most i~~Interviews ~~[~~and focus groups~~]~~ were conducted using a semi-structured thematic interview guide (S2 interviews and focus groups guide) and most were conducted in participants' homes, ~~but~~ although some individual interviews and group discussions were held in a meeting room at health centres, or local cafes as per participants' availability and preference. -For example, the first author conducted a focus group discussion and also conducted an individual interview with a volunteer from a remote area~~s~~ after their monthly meeting at the local health centre. -Interviews/focus groups were either audio-recorded or concurrent notes were taken, depending on the consent of the participants and the desirability of keeping conversations unrecorded.

In terms of research-related payments, 15 FCHVs~~,~~ who had to commute to participate in interviews~~,~~ were paid ~~each with~~ NRs 500 (US $3.74) to cover their expenses. No other incentives were provided to the participants to take part in the study. ~~The PI had secured a travel grant of US $1543 (£1180) from the University of Sheffield to cover the cost of local transportation for data collection within~~

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Nepal. Remaining interviews and FGDs with volunteers were arranged at their convenience and were not paid. However, w When possible, some snacks and refreshments (tea, biscuits, snacks, and cold drinks) were arranged after the interview/group discussions.

In total, 31 participants were interviewed: 20 FCHVs (Table 1), and 11 paid local health workers (Table 2) who were supervising or working with FCHVs to implement PHC in local villages. Of these 11 paid local health workers, 7 were from public health centres, which was government funded and 4 from local NGOs) (Table 12). In addition, 3 focus groups were conducted with 15 additional FCHVs (Table 21), who were gathered for their monthly meeting at local health centres. One FCHV in the hill region participated in both , interview and a group discussion, hence the total number of participants is 45.

The demographic details of participants are shown on the in Tables 1 and 3 2, which have been adapted from our earlier publication [51].

Table 1. Participants involved in interviews and focus group discussions

Study method	Study participants	Number of participants by location		Total
		Hill (Dhading)	Terai (Sarlahi)	
Interviews	FCHVs+	8	12	20
	Health workers (public)	4	3	7
	Health workers (private)	2	2	4
Focus Group Discussions	FCHVs	4*	11	15*
Total		18	28	46

+ FCHV- Female Community Health Volunteer

*1 person was interviewed and also attended a focus group.

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Table 12. Socio-demographic characteristics of female community health volunteers (FCHVs)

Respondents	Place	Type of Data	Age	Caste/ ethnicity	Education (in years)	Work Experience (years)	Walking distance to health centres
1	Dhading	Interview	45-59	Brahmin	Literate	15	1hr
2			≥60	Brahmin	Literate"	15"	2hrs
3			45-59	Brahmin	Literate"	15"	20 min
4			≥60	Tamang	0	15"	5-6hrs
5			45-59	Brahmin	2	16	1hr
6			45-59	Chhetri	Literate	24	2 min
7			45-59	Bhujel	Literate"	"24	30 min
8			45-59	Brahmin	10	7	15 min by bus
9	Sarlahi		45-59	Tamang	5	10	30-45 min
10			45-59	Tamang	0	"10	1 hr
11			45-59	Tamang	0"	19	1 hr "
12			≥60	Tamang	0"	25	15 min
13			45-59	Madhesi	0"	19	10 min
14			45-59	Gurung	Literate	19"	25 min
15			30-44	Chhetri	8	19"	1 hr
16			45-59	Brahmin	10	19"	20 min
17			≤30	Brahmin	9	3	1hr of cycling
18			45-59	Lama	4	21	25 min
19			45-59	Magar	0	19	1 hr
20			45-59	Madhesi	10	26	15 min
Focus group GD1	Dhading, Gajuri	Ffocus groups	≤30	Lama	10"	4	1.5 hrs
			≤30	Brahmin	Intermediate12	6	30 min
			45-59	Chepang	0	16	2 hrs
			45-59	Brahmin	Literate	15	1 hr
Focus group FGD2	Sarlahi, Harion		30-44	Brahmin	10	19	20 min
			45-59	Brahmin	0	19"	10 min
			30-44	Brahmin	10	19"	15 min
			45-59	Brahmin	8	19"	30 min
			30-44	Brahmin	10	19"	30 min''
Focus group FGD3	Sarlahi-Lalbandi		≤30	Brahmin	12	3	20 min
			30-44	Gole	10	7	20 min"
			45-59	Lama	"10	2	30 min
			≤30	Brahmin	10"	1	20min
			≤30	Brahmin	12	1"	2 hrs
			30-44	Chhetri	10	1"	10 min

Literate- Able to read and write Nepali, min- minute, hr-hour

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Table 1~~2~~ shows FCHVs represented diverse ethnic groups with a majority being Brahmin (n=17) followed by Tamang and other ethnic groups. Their ages ranged from 25-70 years, with a large minority (15/35) between 45-49 years of age. Many (14/35) did not have formal education, eight were illiterate and another seven could only write their name. Generally, the younger the volunteers, the better education they had received. In terms of work experience, it ranged from 3-26 years with a majority (20/35) between 10-20 years.

Table ~~3~~ 2 Demographic characteristics of paid health workers

Health Workers HW	Place	Position	Working ~~i~~Institution	Caste/E~~e~~thnicity
1.	Dhading	Staff N~~n~~urse	Government	Brahmin
2.	Dhading~~,,~~	Auxiliary Nurse Midwife (ANM)	Government~~,,~~	Brahmin~~,,~~
3.	Dhading~~,,~~	Auxiliary Health Worker (AHW)	Government~~,,~~	Brahmin~~,,~~
4.	Dhading~~,,~~	District Public Health Officer (DPHO)	Government~~,,~~	Muslim
5.	Dhading~~,,~~	ANM	Non-Government	Indigenous
6.	Dhading~~,,~~	Field Coordinator	Non-Government~~,,~~	Indigenous~~,,~~
7.	Sarlahi	Senior AHW	Government	Madhesi
8.	Sarlahi ~~,,~~	Female Community Health Volunteer ~~Worker~~ (FCHV) district supervisor	Government~~,,~~	Madhesi ~~,,~~
9.	Sarlahi ~~,,~~	AHW	Government~~,,~~	Madhesi ~~,,~~
10.	Sarlahi ~~,,~~	ANM	Non-Government	Indigenous
11.	Sarlahi ~~,,~~	Field Coordinator	Non-Government~~,,~~	Brahmin

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Table ~~3~~ 2 shows paid health workers represented both government and non-government organisations and were from~~-~~ a diverse range of ethnic groups. The paid ~~l~~local health workers were interviewed from the same localities as the ~~volunteers~~FCHVs.

~~5.~~ Analysis

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Data were transcribed verbatim in Nepali and translated into English. In order to increase the study's rigor, multiple coding was applied to part of the data [48]. EvT~~The second author~~

~~randomly~~ coded ~~a selection of the early~~four interviews and a group ~~transcripts~~discussion transcripts in English independently. ~~and t~~The codes were compared with those of the PI and any discrepancies were discussed and resolved. The PI then completed the coding using NVivo10 software and analysed the codes using thematic analysis [52]. Data were analysed in an iterative fashion, moving back and forth between transcripts, reflective notes, field notes, and the literature. The reliability of coding and interpretation was also checked during analysis by re-examining the transcripts.

Building on the framework proposed by Franco et al. [22], common themes across the data set were developed in NVivo at three levels. Individual, organisational and community level factors were identified by merging data from different data sources (interviews and focus group discussions/ volunteers and the paid local health workers). Data across volunteers and paid health workers were compared for data triangulation [53]. In addition, at the individual level, subthemes are selected given their recurrence and prominence in our data as shown in figure 1.

Results are illustrated using quotes from different groups of participants and different methods (interviews and ~~FGDs~~focus groups). Each quote ~~will~~has, ~~have~~ the following identifiers (age range, years of education; exp= years of experience in the post; and distance= walking distance to health centres in minutes/hrs otherwise stated). The acronym HW represents health workers, and ~~-~~D and S represent the two study areas~~places~~: Dhading and Sarlahi.

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Results

The results consider the main factors that influence FCHV motivation across three levels: 1) individual level factors, 2) organizational level factors and 3) community level factors. At the

individual level, we present two subthemes: i) FCHVs' commitment to supporting women mothers and children and ii) disincentives and opportunity costs of volunteering. At the organisational level, we present a subtheme 'bureaucratisation of volunteers' work.' Finally at the community level, we present a subtheme 'community perception of volunteers' which covers both community recognition of volunteers and community misperception of volunteers as paid workers. These subthemes ~~are selected given their recurrence and prominence in our data~~are summarised in Figure 1.~~.~~

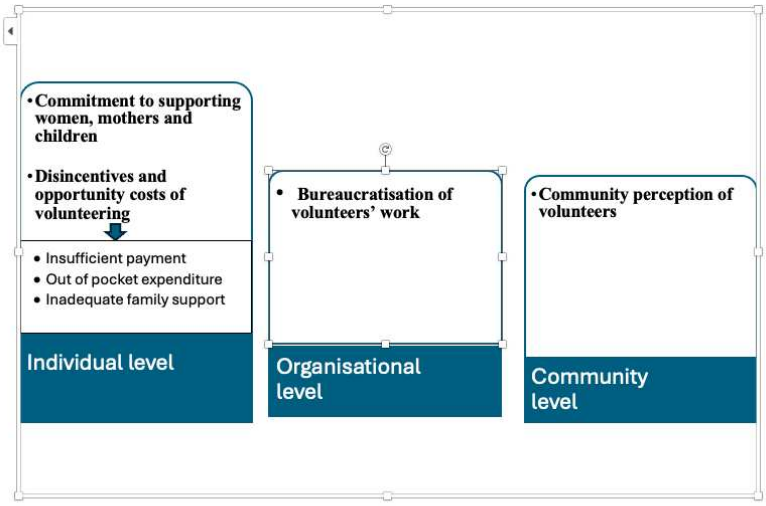

Figure 1. Illustration of themes and subthemes at individual, organisational and community level

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~~4.~~ 1. Individual level factors

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Individual level factors include: FCHVs' personal goals, expectations and experiences. At the individual level, we found that all volunteers were committed to their unpaid volunteering

role~~.~~. Yet, their experiences of volunteering were different. The time spent in volunteering, high levels of out-of-pocket expenditure ~~ses~~ and inadequate family support strained women volunteers who were already overburdened, thereby lowering their work motivation at work. However, s~~S~~ome volunteers also saw volunteering as an opportunity to earn some money (for example, small amounts in the form of training and travel allowances)~~,~~ or improve their future employment prospects, but with questions as to the extent to which this was achieved in practice. These findings are summarised under two subthemes: i) commitment to supporting women, mothers and children and ii) social and financial disincentives and opportunity costs of volunteering.

1.1 Commitment to supporting women, mothers and children

Every volunteer interviewed spoke of being committed to their volunteering work despite its challenges. Many volunteers, especially older illiterate women, spoke about their work delivering health services as a form of basic human and social responsibility; couching their role in terms of serving their own people. Many FCHVs~~-~~ had not had the opportunity to access health information during their own pregnancies and childbirth. However, they reported that they had witnessed a reduction in maternal and child deaths~~,~~ and improvements in women's overall health status in their communities since they became a volunteer. Such changes inspired them to continue volunteering work at personal level as shown in the following ~~example~~quote ~~from Binsa~~:

~~EXTRACT 1~~

> *What I feel good about, my work, is that I am helping pregnant women, mothers and children to save their lives. In the past, sometimes the baby's hands used to come outside the vagina, sometimes their foot used to come outside. It used to cost huge expenses for the families. Now, such incidents have been reduced. We have protected*

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our children and mothers and pregnant women from death, that is the best thing we have achieved. FCHVD2~~.~~ (≥60, literate, exp 15 years, distance 2hrs).

Volunteering provided women with opportunities to go outside their houses and meet people, which was a challenge for many women in rural Nepal. Therefore, even older volunteers over 60 years old with physical issues wanted to continue their service, as a volunteer ~~. As xxx~~ explained: ~~:~~

~~EXTRACT 2~~

I want to walk, I want to talk. Now, what to do? This knee is giving me a little problem. I am not able to see properly. Otherwise, I go everywhere they ask, be it Kathmandu, Delhi or Bombay. I go anywhere. FCHVS12~~.~~ (≥60, edu 0, exp 25; distance 15min).

As shown above, at the individual level, volunteers were committed to do their unpaid work, yet all the volunteers in the interviews and group discussions reported personal difficulties they experienced in undertaking their role as a volunteer. These are discussed under subtheme disincentives and opportunity costs of volunteering.

~~4.2~~ 1.2 Disincentives and opportunity costs of volunteering

At the individual level, FCHVs described four key things that undermined their motivation to deliver PHC services: i) insufficient payment, ii) the opportunity costs of volunteering, particularly in terms implications for their livelihoods iii) out of pocket ~~expenses~~ expenditures incurred in volunteering, and iv) inadequate family support to volunteer. First, both volunteers and health workers described a growing set of healthcare responsibilities given to volunteers, for example, reporting health and non-health activities, which were not part of their role when the volunteer programme first began in 1988. Yet, there was little to no financial support

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available to volunteers in this study. Given these growing responsibilities for volunteers, many referred to the large amount of time they spent in volunteering and the consequent time pressures that this placed on them and on their livelihoods; in other words, they spoke about the opportunity costs of volunteering. Some volunteers in the hill communities reported spending several hours on foot to reach local health centres for monthly training or reporting, which affected their livelihood. As ~~xx~~a volunteer from Dhading ~~-~~explained:~~:~~

~~EXTRACT 3~~

> *There are not many people to work at home. I have not been able to put paddy seeds for plantation while others [in the village] have already done this. Women in the village don't even have time to go for check-ups, but they want me to stay with them from the morning to the evening during their labour. What should I do? I cannot work for villagers only. I need to look after my animals. I need to eat food, don't I? FCHVD4* ((≥60, Edu 0, exp 15; distance 5-6hrs).~~-~~

Both health workers and volunteers agreed that volunteers ~~are disincentivised – that they~~ face a financial disadvantage that discourages or disincentivises volunteering. Given many volunteers did not have other sources of income than subsistence farming, both volunteers and health workers agreed that the incentives volunteers received - NRs 200 (£1.33) to cover their travel cost - was insufficient and did not match with the time spent on volunteering. Volunteers had to pay someone to do their farming work at home, often at higher prices (e.g. NRs 400 (£2.58) per person per day for labour). ~~, for example,~~ As ~~xxx~~a volunteer from Terai explained:~~,~~ ~~NRs 400 (£2.58) per person per day for labour:~~

~~EXTRACT 5~~

If we ask someone to work from morning to evening, we need to pay above NRs 400 (£2.58) including their breakfast and lunch. We don't even get that amount for our work. FCHVS6 (45-59, literate, exp 19; distance 25min).

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Some volunteers also described out-of-pocket expenditures enses that were necessary for them to carry out their health care roles; for example, calling mothers to attend meetings by telephone, or calling for an ambulance. Such costs were not reimbursed, which left already poor women volunteers even poorer and , which undermined motivation. As one FCHV, [insert pseudonym], from Dhading commented:

EXTRACT 6

There is a zero-balance on my mobile due to the mothers' group meeting [shows her mobile]. I need to call the health post to enquire about the whereabouts of the ambulance. This also requires money…. Because there is no money, there is not much motivation to work. FCHVD8. (30-44, edu 10, exp 7; distance 15min by bus).

Consequently, in the absence of payment, some family members thought that volunteers were wasting their time and , hence their families - husband, mothers-in-law, and children - did not support their volunteering work. For example, a volunteer from Terai commented:

EXTRACT 7

I was almost forced to stop the volunteering because of the household chores. I felt overwhelmed when I returned home from volunteering. There would be big piles of household chores left for me and without the support of family members, it became almost impossible to continue the volunteering. FCHVS17 (≤30, edu 9, exp 3; distance 1 hour of cycling).

Yet, despite these challenges we found that ~~volunteers~~ FCHVs wanted to continue volunteering because they saw ~~volunteering~~ it as an opportunity to advocate their needs and demand what they thought was right and fair.~~–~~ Both unpaid FCHVs~~volunteers~~ and paid health workers indicated that they thought FCHCs~~volunteers~~ should be paid, which would add value to what they were doing. ~~For example,~~S ~~s~~everal volunteers reported that they wanted to be fairly recompensated for their labour via a monetary allowance. As ~~xxxx~~a volunteer from Dhading argued:~~:~~

~~EXTRACT 8~~

> *A salary for us would be better. We do all the reporting work. After all the work we have done, we should be paid. FCHVD7* (30-44, literate, exp 24; distance 30min).

Most volunteers expressed a strong need for monetary compensation, with some describing volunteering (as in the quote above) as 'work.' This was particularly the case for young and educated women volunteers, who saw the volunteering opportunity as a possible entryway into paid work. They were willing to do it without pay for a start, but hoped for a payment, due to the costs of living. As a young volunteer from Sarlahi ~~, [insert pseudonym],~~ commented:

~~EXTRACT 9~~

> *Whether a volunteer should be given a monthly payment, this needs to be considered. It is okay to select those women who can actually work. At this time, it is not possible to work voluntarily. FCHVS15* (30-44, edu 8, exp 19; distance 1 hr).

Thus, at the individual level, despite the social and financial disincentives of volunteering, we found that women were committed to volunteer. Yet, ~~the~~ organisational factors created another challenge for ~~these volunteers~~FCHVs.

2. Organisational level factors - Bureaucratisation of volunteers' work

~~5.~~

~~Organisational level factors include health system resources, processes including organisational feedback about performance.~~ ~~We found that~~ A~~a~~ range of organisational factors, including regular training of volunteers, ~~and~~ availability of medical supplies, and supported supervision ~~volunteers' everyday activities,~~ enhanced the~~ir~~ ~~ing~~ motivation of FCHVs to work – with the importance of these factors for volunteers' services ~~have been~~ reported in our earlier study~~ies~~ [25]. The available public health system support in terms of medical supplies and regular supervision of FCHVs were systematically different in the two selected regions (hill villages and the Terai), which has been reported in our earlier study [25]. However, our data from interviews and– focus group discussions showed that excessive bureaucratisation of volunteers' work in the form of recording and reporting to paid health workers undermined their motivation. For example, ~~. These are demonstrated under the subtheme bureaucratisation of volunteers' work.~~

~~**Bureaucratisation of volunteers' work**~~

m~~M~~any volunteers ~~in interviews and focus group discussions highlighted the increasing bureaucratisation of their role, which involved being~~reported being asked by paid health workers (based in local health centres) to complete formal forms of reporting into the health system. This took up a lot of their time, as one FCHV~~, [insert pseudonym],~~ from Dhading commented:

~~EXTRACT 10~~

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There is too much of recording work as compared to the past. Health workers want records of under one-year children, under five-year children, pregnant women, new mothers, family planning cases, the number of pills taken by individuals, women on Depo-Provera injections, intrauterine contraceptive device users, vasectomy cases and so on. We need to calculate the numbers of each case. FCHVD6 (45-59, literate, exp 24; distance 2 min).

Volunteers also complained that local health workers seemed to emphasise the importance of reporting, rather than the 'actual work' of FCHVs:

~~EXTRACT 11~~

The health workers never normally ask us how we are working. Only at the time of reporting do they ask us how well we have filled the reports in. The emphasis is on the report, not the work. Focus group ~~GD~~1 Participant1. (≤30, edu 10, exp 4; distance 1.5 hrs).

A health worker also revealed that some paid health workers ~~of them~~ were involved in unfair actions towards FCHVs; for example, ~~–~~FCHVs were sometimes provided incentives (an allowance) to cover a single day, instead of the actual intended time for training ~~time~~ of three to four days:

~~E~~XTRACT 12

The training duration for FCHVs is reduced contrary to the given guidelines, so as to save money from giving allowances to them. If there is training for three or four days then, it would be reduced to one day. HW11 (Field co-ordinator, government services).

In the absence of adequate financial incentives, many volunteers expressed feelings of being 'fed up' and also gave examples of instances in which they felt undervalued. For example, volunteers indicated how paid health workers often criticised them and/or were disrespectful if they were unable to fill the report card on time. As a volunteer from Dhading ~~xxx~~ indicated:~~:~~

~~EXTRACT 13~~

> *This work does not give credit to us in the village. Health workers ask us, 'did you do this work? If you don't bring the report, who will bring it?' There is no respect, no respect at all in this work. FCHVD1* (45-59, literate, exp 15; distance 1hr).

Given these issues with how FCHVs felt their ~~(~~emotional and physical~~)~~ labour was undervalued, a small number of FCHVs spoke about how they were trying to mobilise for change. For example, one volunteer~~, [insert pseudonym],~~ spoke about how they wanted to discuss the budget available for volunteers with the local government authority, declaring that she was planning to take collective action against the village secretary:

~~EXTRACT 14~~

> *I became a representative as a chairperson of FCHVs from our village and have given them (women) a voice. I have threatened [name], if they would not allocate any budget for us even this year, then I would be bringing the mothers' group to have a word with them. FCHVS16~~.~~* (45-59, edu 10, exp 19; distance 20min).

Thus, at the organizational level, we found that the bureaucratisation of volunteers' work, especially emphasis on recording and reporting of health related information, without adequate training and financial support to volunteer, undermined their motivation.

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3. Community level factors – Community perception of volunteers

~~Community level factors include how FCHVs' motivation is influenced by: their interaction with community members, community expectations for how services should be provided, and formal and informal feedback. From our thematic data analysis, we identified a subtheme 'community perception of volunteers' which covers both community recognition of volunteers and community misperception of volunteers as paid workers~~.

~~Community perception of volunteers~~

At community level, the social experience of working in one's own community was not the same for all volunteers. Some volunteers and health workers reported that the volunteers were motivated to volunteer due to community recognition of their work. For example, a volunteer from Sarlahi ~~, [insert pseudonym],~~ highlighted trust of local women towards them:

~~EXTRACT 15~~

> *People trust us in the field. We had some difficulties in the past, but now, if FCHVs go there and ask people to eat anything to make them feel better, then they even eat the poison. There will be no doubt on what (medicine) I give her. FCHVS16* (45-59, edu 10, exp 19; distance 20min).
>
> ~~.~~

However, our data from interviews and focus groups suggests that volunteers were more concerned about not being valued by local community members than feeling valued or respected. We found a socio-cultural 'clash' between 'the reality' of FCHVs being unpaid volunteers and their 'perceived status' as paid professionals within their communities; not only leading to misunderstandings of what FCHVs do and limited community support, but

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also undermining volunteers' motivation to work with the PHC system. A typical response ~~was~~ is encapsulated by this volunteer:

~~EXTRACT 16~~

> *We do not get reward/praise (jas) in the village. Villagers ask us, 'did you work this? if you don't bring medicines, who will bring?' There is no reward (ausaj), no reward at all in this work. We don't get a salary, but we get blamed for not working well in the local community despite being paid. ~~(~~FCHVD1~~)~~* (45-59, literate, exp 15; distance 1hr).
>
> ~~.~~

~~Volunteers~~ FCHVs felt they were being criticized partly because community members perceived them as paid health workers and expected them to spend more hours in volunteering than they were assigned to. This undermined volunteers' motivation at work, as one commented:

~~EXTRACT 17~~

> *Some people say, 'she gets a salary every month, but she does not come to our home.' I don't feel like working after listening to this. FCHVD7* (30-44, literate, exp 24; distance 30min).

It appeared that, as more and more functions were given to volunteers, communities' views of volunteers and the social value placed on them changed: seeing ~~volunteers'~~ FCHVs as 'professional' health workers, instead of volunteers or peers from the community. This reflects an undermining of the relationships that underpin volunteer's motivation to work at the community level.

Thus, our overall ~~result~~ our findings show~~s~~ that FCHVs in rural Nepal can be highly motivated to work as a volunteer at the individual level, yet inadequate family, community and organisational (health system) support undermine this, the security of their livelihoods, and thus wider efforts to deliver PHC for all.

Discussion

This paper has explored motivation of volunteer CHWs from their own perspectives and also included the views of paid local health workers in rural Nepal. Our key findings show that Nepali CHWs – FCHVs - are highly committed and motivated to volunteer but also that the social and financial opportunity costs of volunteering, out-of-pocket expenditure~~ses~~ and inadequate family support disincentivize them. In addition, ~~we found that~~the bureaucratisation of volunteers' work and community misperception of volunteers as paid workers undermined their motivation to volunteer. These key findings are discussed with reference to ~~current~~ wider literature and the current situation in Nepal~~,~~ and are presented at three levels: individual, organizational and community.

At the individual level, we found that despite everyday work challenges, FCHVs were motivated to volunteer for reasons such as altruism, limited monetary incentives and/or social status. They valued the altruism of doing something for the public good and saw volunteering as an opportunity to make a difference ~~in~~ to maternal and child health in their communities. While volunteers, ~~(~~regardless of their age~~)~~, reported that they wanted to be paid for their services, young volunteers emphasised that they joined volunteering expecting a better future and route to financial security or employment. These findings are consistent with CHW literature from sub-Saharan Africa and South Asia [54, 55]. For example, in a study conducted

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in Bangladesh, India, Kenya, Malawi and Nigeria, involving (thirty-two focus group discussions with 361 individuals and 116 key informant interviews with CHWs, health workers and managers), it was found that CHWs consistently desiredexpressed a need for appropriate and consistent compensation for their work [54]. Similarly, another study of CHWs that also included their supervisors and high-level officials (n=95) within Global Polio Eradication Initiative in India, Nepal, Pakistan, Ethiopia and Rwanda showed that even when CHWs were provided with some financial compensation, thesethis was were perceived to be low and considered as an exploitative of CHWs' work practice [55].

We also found that regardless of a volunteers' age, they wanted to retain their position as a volunteer despite financial challenges, given how as they reported that they felt it provided women with greater social status and was a route to . Their perceived self-empowerment through volunteering served as their motivation. For example, in our findings above, and in our previous work on this topic, we highlight how FCHVs appreciated the opportunities to learn new knowledge and skills, and valued travelling outside their houses, meeting new people, and gaining respect from health workers for the work they undertook, which might not be possible for most women in villages [25]. Such This canempowering experiences can be crucial for women in societies with low social status. Women in Nepal are known to often have low literacy, low socio-economic status and have low prospects of finding paid employment [45], as also seen among CHWs globally and this is a situation that has not changed since the research was conducted [1, 8, 14, 20, 56, 57].

Despite their commitment and individual motivation to take on the FCHV role, we found that women volunteered at considerable social and material cost to themselves and their families, and their expectations were often not fully met in 'the everyday' realities of volunteering.

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Working without adequate payment threatened volunteers' already precarious living conditions; further overburdening them with their household chores and farming responsibilities. According to the national survey of Nepalese volunteers, average working hours of volunteers increased from 1.7 to 3.1 hours per day between 2006 and 2014 [34], and this appears to continue to be the case. There is however, no more recent data available on volunteer working hours. At the time of the research, and indeed now in Nepal, volunteers have expanded workloads ~~which~~ that often involve~~s~~ carrying out work for programmes to detect noncommunicable diseases, such as hypertension (e.g. monitoring blood pressure and educating people about its risk factors) [33, 46]. In line with the ~~Nepal~~ current government's policy in Nepal, volunteers continue to be expected to work without compensation. ~~In so doing,~~ Yet we ~~also~~ found that out-of-pocket expenditure ~~ses~~ incurred in volunteering left already-poor women ~~volunteers~~ FCHVs even poorer. ~~Such~~ The economic insecurities of women CHWs have been reported in other studies from Nepal [25, 39] and in countries including ~~,~~ Ethiopia [17], South Africa [58], Bangladesh [59], Pakistan and Sierra Leone [15]. This suggests that women volunteers are consistently mobilised to meet global developmental goals without fully considering their livelihoods and everyday needs, thus undermining their motivation at work and, by extension, access to UHC.

At the organizational level, we found that bureaucratisation of volunteers' work through formal recording and reporting of health activities without financial compensation meant ~~they~~ FCHVs saw these requests for their labour as unfair (as evidenced by FCHVs questioning why they had to volunteer while local health workers were paid for doing similar work) which also undermined their motivation. A situation that was compounded by health workers criticising FCHVs ~~-~~for being unable~~-~~ to produce reports – despite this being unsurprising given that many FCHVs~~–~~ are illiterate. This illustrates however, the subordinate status of volunteers to paid

666 government health workers in Nepal and is, a situation that persists to the current day. This
667 situation is not unique to Nepal: women CHWs are often at the bottom of gendered health
668 bureaucracies and experience difficulties in advocating their own needs and those of
669 communities. For example, studies from Ethiopia Other studies highlight how women CHWs
670 work without adequate compensation in a structure which reinforces gendered hierarchy, as
671 evidenced in the findings of other CHW studies [12, 60] — women CHWs work without
672 adequate compensation in a structure which reinforces gendered hierarchy. and how sSuch
673 hierarchical structures and bureaucratisation are found to demotivate health workers [57].
674
675 At the community level, we found that, as more and more functions are given to volunteers to
676 perform over time, communities' views of volunteers and the social value placed on them have
677 changed: seeing volunteers'FCHVs as –'professional' health workers instead of volunteers
678 from the community and ,undermining the relationships that underpin volunteer's motivation
679 to work. This change in community perceptions has been driven by the way the FCHV
680 programme has developed in Nepal. When the FCHV programme began in 1988, their roles
681 were limited to provision of health education. However, over the years, they have been
682 involved in the provision of preventive, promotive and curative healthcare activities, including
683 distribution of medicines at as part of national campaigns, which is one-off paid activity [61].
684 It is likely that the expansion of activity, as well as involvement in paid activities by NGOs
685 [40], although rare, has led some community members to view volunteers as paid workers and
686 to be more critical views of volunteers' service shortcomings. This has, however, deprived
687 CHWs FCHVs of the community support they needed, and which underpinned their original
688 motivation to work. Again, tThese findings are consistent with studies of CHWs from Africa
689 and Asia [15, 54], but contradict other evidence from Nepal [35], which was primarily based
690 on the assumptions of policymakers and programme managers.

Overall, our findings suggest that financial compensation ~~are~~ is crucial for women volunteers - ~~,~~who mostly come from a poor socioeconomic background - ~~,~~to be motivated to deliver global goals for PHC [6, 21, 54, 57, 58]. As highlighted in ~~an~~ earlier studies~~y~~ of FCHVs, Nepal needs a system that not only socially recognises volunteers' efforts, but also supports their livelihood: it is only when both these are met that -volunteers will be able to deliver their role with the support of family members [46, 62, 63]. This however, has financial implications for achieving health related goals (SDG3), ~~—~~suggesting that more financial investment for FCHVs is needed for integrated action across three levels (individual, organisational and community) ~~to deliver on this goal. Securing more financial investment for FCHVs will require integrated action across all levels of the health system~~. For example, motivating volunteers at individual level ~~it~~ will require national policy change, not only to ~~reenact~~re-enact the financial incentives that were present in the FCHV scheme when it first began, but also to ensure that the incentives match their workload and there is a ~~-~~greater recognition of the value of FCHVs in national policy. At organisational level~~Organisationally~~, it will require the implementation of procedures and practices to ensure that FCHVs get all the financial incentives that they are due and in a timely way and also a programme of cultural change to improve the way that paid health workers value and interact with FC~~V~~HVs to ensure that their relationships become grounded in and engender respect. At community level, integrated action is needed to increase community awareness of FCHVs' roles and their contribution to community health. It is also important to recognise that, in terms of global policy, ~~At the same time, however,~~ action in this respect will have knock-on~~,~~ positive effects for ~~-~~other SDGs, including SDG 8, as it will increase women's entry into the workforce, and SDG10, as by strengthening women's social status and livelihoods it~~,~~ will help address gender inequalities [64]. ~~hier~~

Our study has some limitations. First, data was collected in 2014 from two areas of Nepal using qualitative methods, hence the detailed findings are not generalisable. The thematic topics identified are however, potentially relevant in other settings in Nepal and other resource-poor health systems, given that they resonate with other existing literature on this topic, as discussed above. Second, participants might have been particularly concerned to express their views on issues of monetary compensation (in line with social desirability bias), using the interviews as a potential chance to highlight their complaints to higher level policy audience and programme managers via the researcher, meaning that other 'everyday issues' may not have been discussed. This does not, however, detract from this being a key issue for the FCHV participants and therefore key issue to be considered and addressed in further research and in policy and practice.

Further research is needed to assess and measure the degree to which the identified factors influence FCHVs' motivation to deliver PHC, so that programmes can be designed to support them. We suggest that there is a role for conducting community-based participatory research with FCHVs, involving methods that build the capacity of FCHVs to gather and share their experiences, including with policymakers, in ways that they want and value. While this kind of research can be resource-intensive, it has direct benefits to those involved, and could support the co-creation of policy relating to the delivery of UHC that reflects women volunteers' needs [65]. At the same time, policymakers and programme managers of FCHV programmes should consider arranging adequate monetary compensation for volunteers, not only to reflect the work context and the time spent in volunteering, but also as a livelihood strategy to support some of the poorest, rural women. This should be combined with activities to ease organisational bureaucracy and enhance community awareness of volunteers' roles, so that the FCHVs remain motivated to deliver towards UHC.

Conclusion

Our paper illustrates how women from some of the poorest backgrounds can be highly motivated to work as a community health volunteer, yet inadequate family, community and health system support undermine this, the security of their livelihoods, and thus wider efforts to achieve UHC at primary care level for all. We found that insufficient payment, social and financial opportunity costs of volunteering, and out of pocket expenditure~~ses~~ undermine motivation to deliver services. Similarly, the bureaucratisation of volunteers' work~~,~~ and a lack of social appreciation of their work by community members~~,~~ appeared to undermine volunteers' motivation. Financial investment to provide community volunteers with monetary compensation for their health work seems crucial if women in resource-poor areas of LMICs are to remain motivated to deliver PHC to achieve UHC for all; with this also being an investment in women's livelihoods and addressing gendered inequality.

Acknowledgements

We would like to thank all the participants for their valuable time and sharing their experiences with us. We are grateful to Dr Rosie Steege (Liverpool School of tropical Medicine), Professsor Simon Rushton (the University of Sheffield) and Professor Ewen Speed from the University of Essex for revision of the paper to improve the manuscript. We would also like to acknowledge Professor Paul Bissel and Professor Padam Simkhada for supervision while writing the main research report on which the paper is based.

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Response to Reviewers

We are grateful to the 3 reviewers for their valuable comments and feedback to improve the manuscript. We really appreciate their time. We have revised our manuscript to reflect the reviewers' suggestions and comments. Below is a point-by-point response to each reviewer describing exactly what amendments have been made to the manuscript text and where these can be viewed (section, line number and page number).

Reviewer #1: This paper examines the factors influencing the motivations of Female Community Health Volunteers (FCHVs) in rural Nepal, which reveal truly interesting and significant issues regarding primary health care delivery. Here are several points that the authors can improve before publication:

1. The authors mentioned gender inequality and the relevant hierarchy. How does gender inequality or discrimination influence the FCHVs' motivation? Is it also a factor of motivation (or disincentives)?

Thank you for your valuable suggestion. We have included the following explanation in the discussion section (page 29, line number 625-633).

> We also found that regardless of a volunteers' age, they wanted to retain their position as a volunteer despite financial challenges, given how they felt it provided women with greater social status and was a route to self-empowerment . For example, in our findings above, and in our previous work on this topic, we highlight how FCHVs appreciated the opportunities to learn new knowledge and skills, and valued travelling outside their houses, meeting new people, and gaining respect from health workers for the work they undertook,

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which might not be possible for most women in villages [25]. Such empowering experiences can be crucial for women in societies with low social status.

2. The authors analyzed the qualitative data using thematic analysis and generated themes at individual, organizational, and community levels, it would be more helpful and clearer to understand if the authors could illustrate and summarize the different themes/subthemes using a structural figure or framework in the result part.

Thank you, a new Figure has been developed to respond to this point and inserted in Section Results on page 17 as shown below.

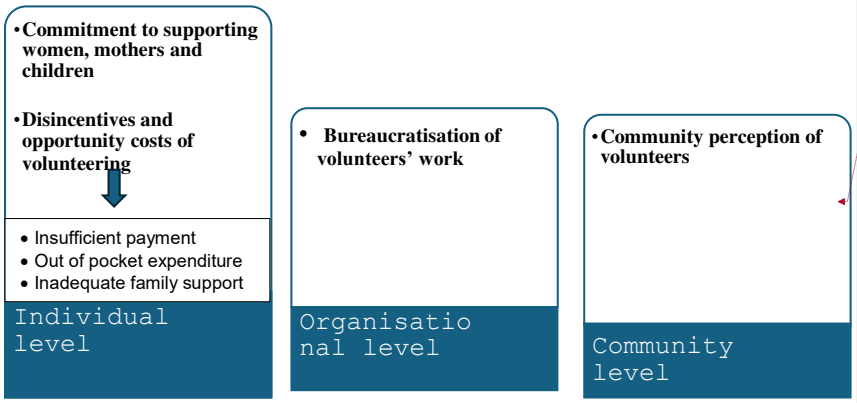

Figure 1. Illustration of themes and subthemes at individual, organisational and community level

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3. The data was collected in 2014, whereas the authors mentioned the FCHV programme was revised in 2010 and 2019, I wonder whether there can be any factors that may alter the motivation so far due to the policy revision. Despite the authors mentioning the number of FCHVs and their roles remain similar, a brief summary of the policy content change (or what does not change) would be helpful to justify the potential application of results to current circumstances.

Thank you. A new paragraph has been added in Section Introduction on Page 5-6 setting out that the FCHV strategy was subsequently revised three times in 1990, 1992 and 2003, before the formulation of a new FCHV strategy in 2010 [29-31]. When the programme began, FCHVs were provided with 100 Nepalese rupees (NRs) per month and a training allowance of NRs 250. However, monetary incentives were withdrawn in 1990. In 1992, the training allowance was reinstated, but no other incentives for volunteers until 2010, when the new FCHV strategy (2010) emphasised provision of several non-monetary incentives, such as a celebration of FCHV day and provision of uniform [30]. AFCHV fund (NRs 50, 000) was also created at a village level to support volunteers' livelihoods through a loan (29), but a survey of volunteers reported that only 66% of FCHVs had heard of the fund and only 51% were members of the fund [31]. The FCHV strategy (2010) was revised again in 2019 to include incentives for FCHVs to attend work-related meetings according to government provision, included provision of a letter of honour and a sum of NRs 10, 000 for retiring FCHVs above 60 years old [29].

4. The questionnaire of semi-structured interview and the list of focus group questions are recommended to be attached in the supplementary appendix.

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These have been attached in the supplementary appendix (S2 Interviews and focus groups guide).

5. It might be out of the scope of this study, but I am interested in whether the qualitative results are systematically different between the two selected regions, as the authors emphasized that the two rural settings were selected based on different characteristics.

In terms of financial incentives, study participants in both regions emphasised the necessity of compensating volunteers for their work as reported in this manuscript. However, key information about the differences in the two study regions have been added in Section Results on page 23, line number 484-486.

> The available public health system support in terms of medical supplies and regular supervision of FCHVs were systematically different in the two selected regions (hill villages and the Terai), which has been reported in our earlier study [25].

Minor:

1. The numbering of the result part is messed up, and the format of headings and main texts is not consistent (e.g. main texts before and after 4.2 are in different line spacing), please correct them.

Yes, thank you, we have corrected them.

2. For the organizational-level and community-level factors, only one factor was analyzed in detail (Bureaucratisation and community perception), the extra subtitles seem redundant.

Yes, thank you, we have removed extra subtitles.

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Reviewer #2: Thanks for inviting me to review this research article "Exploring the motivations of female community health volunteers in primary healthcare provision in rural Nepal: a qualitative study". Based on the qualitative investigation and analysis, FCHVs' motivations to volunteer in rural Nepal were affected in several unique ways. After evaluating this study, I recommend it for publication in this Journal, with revisions. Below are my comments and suggestions.

1. In the method section, authors need to describe the settings the way such as the meeting rooms/open spaces where the interviews/focus groups were conducted.

Thank you. The following information has been included in Section Method, Data collection on page 11, line number 267-272:

Interviews and focus groups were conducted using a semi-structured thematic interview guide (S2 interviews and focus groups guide) and most were conducted in participants' homes, although some individual interviews and group discussions were held in a meeting room at health centres, or local cafes as per participants' availability and preference. For example, the first author conducted a focus group discussion and also conducted an individual interview with a volunteer from a remote area after their monthly meeting at the local health centre.

2. In the method section, compared to the volunteer participation, can authors provide more detail of the paid participation in this study such as the amount of payment or covered costs?

The following information has been included in Section Method, 'data collection' on page 11, 12:

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In terms of research-related payments, 15 FCHVs who had to commute to participate in interviews were paid NRs 500 (US $3.46) to cover their expenses. No other incentives were provided to the participants to take part in the study. However, when possible, refreshments (tea, biscuits, snacks, cold drinks) were arranged after the interview/group discussions.

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3. The authors present the socio-demographic characteristics of FCHVs (Table 2), age is also an important factor but it hasn't been reported. For any unreported data in the tables, please indicate it as unknown.

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Thank you, a column with age of volunteers have been added to Table 1 on page 13.

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There was no unreported data in the tables. Ditto sign [″] was meant to say same as above, but we removed this to avoid confusion and replaced with exact characteristics of the study participants in the tables (1 and 2) on page 13 and 15.

4. In every narrative extract, can authors briefly describe the narrators (e.g. socio-demographics) to facilitate reading?

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Thank you. We have amended the identifiers used in relation to each narrative extract. Each quote has the following identifiers (age range, years of education; exp= years of experience in the post; and distance= walking distance to health centres in minutes/hrs otherwise stated). – we have

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explained this identification system in Section Method on page 16, line number 331-333 of the manuscript.]

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5. In the discussion section, more discussion of potential integrated solutions across three levels (individual, organization, and community) would be sound.

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-Thank you for this useful suggestion. We have added in more detail into the discussion about the need for integrated action across the health system with examples of what would be needed at different levels, based on the findings from our research. Please see -page 32, line number 696-709

This however, has financial implications for achieving health related goals (SDG3), suggesting that more financial investment for FCHVs is needed for integrated action across three levels (individual, organisational and community) . For example, motivating volunteers at individual level will require national policy change, not only to re-enact the financial incentives that were present in the FCHV scheme when it first began, but also to ensure that the incentives match their workload and there is a greater recognition of the value of FCHVs in national policy. At organisational level, it will require the implementation of procedures and practices to ensure that FCHVs get all the financial incentives that they are due and in a timely way and also a programme of cultural change to improve the way that paid health workers value and interact with FCHVs to ensure that their relationships become grounded in and engender respect. At community level, integrated action is needed to increase community awareness of FCHVs' roles and their contribution to community health.

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Reviewer #3: This paper by Panday et al. was a qualitative study exploring the motivations of female CHWs who are volunteers in delivering PHC services in rural Nepal. The authors conducted 31 semi-structured interviews and 3 focus groups among female CHWs including volunteers and paid workers in two districts of Nepal. Data was analyzed thematically and organized using the conceptual framework developed by Franco et al. Individual, organizational, and community level results included: 1) volunteers' commitment to supporting mothers and children; disincentives and opportunity costs of volunteering; 2) bureaucratisation of volunteer work; and 3)co-mmunity perception of volunteers. The authors concluded more support is needed at all these levels, and financial investments are necessary.

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The paper addresses a clear research gap. Strengths include a straightforward background section anddiscussion which highlighted the relevance of the study. The conclusions drawn are supported by the results,with minor areas for improvement, and the method and discussion sections need some more detail. The main weakness is a results section presented without the use of tables or figures. This makes it challenging to synthesize the findings. There are also several typographical errors requiring copyediting. Overall, I recommend this paper is accepted with revisions.

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Major areas of improvement include:

1) The lack of tables or figures in the results section. I strongly suggest creating a table or figure which organizes the results by individual, organizational, and community levels. Within each of these levels the authors can include their subthemes and draw connections between them. An example is provided by Figure 1 in a paper on the contribution of FCHVs to maternity care in Nepal also by Panday et al.

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Panday S, Bissell P, Van Teijlingen E, Simkhada P. The contribution of female community health volunteers (FCHVs) to maternity care in Nepal: a qualitative study. BMC health services research. 2017 Dec;17(1):1-1.

Thank you. We have produced a new figure to respond to this point and inserted in Section Results on page 17.

2) I suggest the authors summarize their three tables on participant information into just one table.

Thank you. We removed Table 1, but kept Table 2 and 3, as they provide different information: Table 1 is about characteristics of FCHVs and Table 2 is about health workers. Please see the changes in Section Method on page 13 and 15.

3) In the introduction the authors describe data was collected for this study nine years ago. They do a good job defending the continued relevance of their findings, but maybe they can include a line on how this paper makes a different contribution from their earlier paper, which draws from the same data.

Thank you. The following information has been added in Section Introduction on Page 7, line number 186-188):

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Recent research in Nepal reveals that FCHVs experience issues such as workload and payment [25, 39, 40]. These are issues that we go on to highlight in this current paper, which therefore suggests the continued salience of our previous research [41].

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4) Some more detail is needed in the reporting of the thematic analysis in the methods section. For example, Braun and Clarke suggest creating initial thematic maps. Perhaps a codebook could be included as an appendix too.

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Thank you. The following information has been added in Section Method on page 15, line number 316 and line number 324.

EvT coded four interviews and a group discussion transcripts in English independently.

Common themes across the data set were developed in NVivo at three levels.

The PI tried to open NVivo 12 file in which coding was done, but could not do so due to technical error at this instance.

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5) The discussion section occasionally needs greater detail when connecting with the broader literature. For example, on page 23 the authors write "These findings are consistent with CHW literature from sub-Saharan Africa and South Asia (51, 52)". Please expand what are the findings from these other studies if relevant.

Thank you. We have included some greater detail when connecting with broader literature. For example, the following information has been added in Section Discussion on Page 28-29-:

> For example, in a study conducted in Bangladesh, India, Kenya, Malawi and Nigeria, involving thirty-two focus group discussions with 361 individuals and 116 key informant interviews with CHWs, health workers and managers, it was found that CHWs consistently expressed a need for appropriate and consistent compensation for their work [54]. Similarly, another study of CHWs that also included their supervisors and high-level officials (n=95) within Global Polio Eradication Initiative in India, Nepal, Pakistan, Ethiopia and Rwanda showed that when CHWs were provided with some financial compensation, this was perceived to be low and exploitative of CHWs' work [55].

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6) Since the authors conclude more financial investment is needed to support FCHVs, I strongly suggest including more extracts explicitly identifying this (presently only extracts 5, 6, 8, 9, 16 mention salary/finances).

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Thank you, we have emphasised the unpaid nature of FCHVs work throughout the findings and have clarified, for example, the importance of lack of coverage out of pocket expenditures. We would like to highlight that other included quotes/extracts, e.g. the quotes on p.23-26 (previously extracts 12, 14 and 17) also relate to finances.

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Copyediting is needed for this paper. Minor areas of improvement include:

Thank you for the copyediting suggestions – we have been through the whole paper and have made changes relating to all the below.

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1) Consistency between using the words “female” or “women”.

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2) Numbers nine and below should be spelled out.

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3) The format the date is presented in line 213 may be ambiguous.

4) Replace the apostrophe symbol in the tables.

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5) Use oxford commas.

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6) Fix punctuation such as double periods and spaces.

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My only other comment is the authors write “informed consent was obtained from most of the participants”. I am confused how data was collected then for participants who did not provide consent.

Apologies for this error in our writing, it has been corrected as follows:

Informed written consent was obtained from all the participants included in the study and responses were anonymised (Method, page 10).

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