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You are just like them: The paradoxical position of Nairobi's community health promoters, a photovoice study

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ABSTRACT

Kenya's community health promoters (CHPs) are essential in expanding healthcare access for vulnerable and marginalised populations, particularly in informal settlements. Embedded within these communities, CHPs facilitate culturally sensitive care, improve service access, and contribute to the efficiency of the local health system. Despite global literature on community health workforces, the specific roles CHPs play in informal settlements remain neglected and underexplored. Understanding their realities is vital for creating supportive health policies that address urban transitions and enable CHPs to fulfil their roles.

This study uses photovoice with six CHPs in Nairobi's Viwandani settlement to document their experiences of marginalisation. Through co-analysis, we mapped the results using White's wellbeing dimensions, creating a framework for CHPs' lived realities in urban informality. Material challenges impacting CHP and community wellbeing include limited housing, water, sanitation, and employment. Social dimensions reveal complex dynamics between CHPs, community members, and government stakeholders, affecting CHPs' impact and community perceptions. Human dimensions reflect CHPs' aspirations, self-perception, and personal struggles, while subjective experiences intersect across all domains.

We highlight practically and theoretically that CHPs occupy a paradoxical role as healthcare providers within an environment and health system that fails to meet their needs and those of their communities. Our framework provides a unique contribution to knowledge that can support health systems decision-makers in thinking differently about the role of CHPs and the support needed for transforming urban health systems. CHPs' vulnerabilities should be recognised and addressed as they are crucial to creating a just and sustainable urban health system.

1. Introduction

Community Health Workers (CHWs) are widely recognised as a critical link between health systems and communities (LeBan et al., 2021; Kok et al., 2017; Wahl et al., 2019). Despite the wide variation in CHW programme structures globally, a key commonality is that CHWs work at the bottom of the health system hierarchy – embedded within communities. As such, they hold significant promise in expanding healthcare services to vulnerable and often marginalised populations. This includes people living in spaces characterised by informal housing, prevalent poverty levels and limited access to services, such as informal settlements. CHWs in these settings facilitate culturally sensitive healthcare delivery, enhance access to health services and improve the overall effectiveness and efficiency of the local health system (Scott et al., 2018; Steege et al., 2018). Herein lies the paradox – CHWs, originally conceptualised as agents of social change, are also constrained by their position and the environment in which they operate. Their performance and wellbeing are impacted by direct and indirect factors, including the environment in which they live and operate and social norms that govern their community (Kok et al., 2015). For example, gendered power relations that give decision-making power to men over women's reproductive healthcare may also impact on CHWs' acceptability, mobility and safety when providing care in communities (Steege et al., 2018; Njororai et al., 2021; Raven et al., 2022; Closser et al.,

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2023). Moreover, CHWs often have minimal opportunities for formal paid employment, lack a clear career structure and experience limited supportive supervision (Steege et al., 2018; Ramukumba, 2020).

In Kenya, CHWs, known as Community Health Promoters (CHPs), are an integral cohort in the health system and key to achieving the Government's Bottom-up Economic Transformation Agenda on Healthcare (Planning, 2023) and the community health strategy (Republic of Kenya, 2020). CHPS must be Kenyan citizens, aged 18 above, literate and have been residing in their community for no less than five years. CHPs are the primary source for disseminating public health initiatives and promoting healthy lifestyles. In addition, they monitor household health, provide medical advice including making referrals to the health facilities, offer first aid, and collect data to support public health interventions and effective healthcare delivery (Kenya, 2023). They receive 10 days basic training with additional refresher training and, if required, specialised technical training, which is offered based on the need in the specific region.

To support this cadre the National Government launched a stipend for all 107,000 CHPs in February 2024 of 2500 KSH a month (approx. $20USD) (Kenya, 2023; CHU4UHC, 2024). This is a cost share between the national and county governments in a 1:1 ratio. However, CHPs in Nairobi County have also been paid a performance-based stipend of approximately 3500 KSH (approx. $27USD) per month since 2019. CHPs are expected to work two hours a day, eight days a month visiting 100 households in one quarter. This amount remains fluid so adjustments can be made based on funding availability. Other opportunities put in place by the government include: a CHP Kit (includes a backpack, first aid box, jacket, weighing scale, infrared clinical thermometer, as well as paediatric and adult mid-upper arm circumference tape); the provision of smartphones to improve linkage of the Electronic Community Health Information System platform; and education to create mechanisms and criteria for recognition, certification and accreditation of CHPs (Kenya, 2023). Theoretically, one CHP is assigned to approximately 100 households, and ten CHPs in one community health unit are supervised by one Government-employed Community Health Assistant (Ogutu et al., 2023). Yet, experiences from the Accountability for Informal Urban Equity (ARISE) Hub Indicate that this number of households is likely to be higher in urban settings (ARISE Consortium, 2023a).

Over half of Nairobi's population reside in informal settlements also known as 'slums' (Ren et al., 2020). For these residents, CHPs are a critical link with the formal health system. For example, during the COVID-19 pandemic, CHPs played a critical role in supporting infection prevention control, contact tracing, and home-based care (Olateju et al., 2022; Salve et al., 2023; Musoke et al., 2024). Their role is paramount, but CHPs living and working in these complex urban environments face particular and unique challenges: informal settlements often lack health care basic services and present unique socio-economic and political contests (Simiyu et al., 2019; Aseyo et al., 2018) that have implications on their mental and physical wellbeing. Wellbeing, as White (2009) described, is composed of interconnected material, relational and subjective factors. CHP's lived experiences in precarious urban environments remain underexplored. However, with rapid urbanisation across cities globally, understanding how to support CHWs within urban contexts is essential for informing policies and practices that recognise and address their vulnerabilities, fostering a transformative and inclusive health system. We sought to contribute to this understanding by using participatory methods to examine the lived experiences of CHPs as healthcare providers in urban informal environments using photovoice. We use White (2009) wellbeing framework to highlight CHP experiences regarding their role in contexts shaped by informality and inequities.

2. Material and methods

2.1. Theoretical underpinning

We apply dimensions from White (2009) wellbeing framework, which conceptualises wellbeing as both a process and an outcome involving the interlinkage between material, social, and human domains, produced in relation to social, economic, and political structures of power over time and space, each with objective and subjective dimensions (Fig. 1). The material domain concerns itself with practical welfare and standard of living. The social domain relates to social relations and access to public goods. The human domain includes capabilities, attitudes to life, and personal relationships. The subjective dimensions underpin all other domains and focus on an individual's values, perceptions and experiences of the other domains. It is placed at the top of the triangle, emphasising that wellbeing is linked with subjective values located in time and interplays with all other domains.

2.2. Study setting

This study took place in the Viwandani informal settlement in Nairobi, Kenya. The settlement is located at the heart of the industrial area as pictured in Fig. 2 below. It covers an area of approximately five km2 and includes circa 18,500 households and an estimated population of 52,698 (Karuga et al., 2023). Many Viwandani residents are young migrants who work in the neighbouring industries and housing structures are mostly constructed of corrugated iron sheets.

2.3. Study design

The study adopted a community-based participatory research approach and used photovoice to collect data on lived experiences. Photovoice is a participatory visual research method that enables an in-depth understanding of the realities of people that otherwise might remain inaccessible (Wang, 1997). Photovoice entails giving cameras to participants (known as community co-researchers) to identify and reflect on issues within their own community (Wang, 1997).

The work formed part of the GCRF Accountability and Responsiveness in Informal Settlements for Equity (ARISE) research consortium.[2] The ARISE research consortium sought to improve accountability for health and wellbeing in urban informal settlements (see Karuga et al., 2023; ARISE Consortium, 2024a) The action components from this work are documented in other ARISE outputs (ARISE Consortium, 2024b; Karuga et al., 2022). Community Health Promoters were engaged as co-researchers within the ARISE project, initially to support a photovoice study of other vulnerable groups within the settlements (child-headed households, the elderly and people with disabilities). The CHPs' role as co-researchers was to follow up with other study participants and

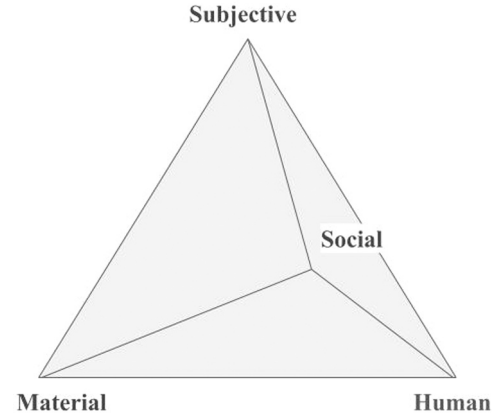

Fig. 1. White Wellbeing Triangle. Adapted from White (Aseyo et al., 2018).

[2] https://www.ariseconsortium.org/

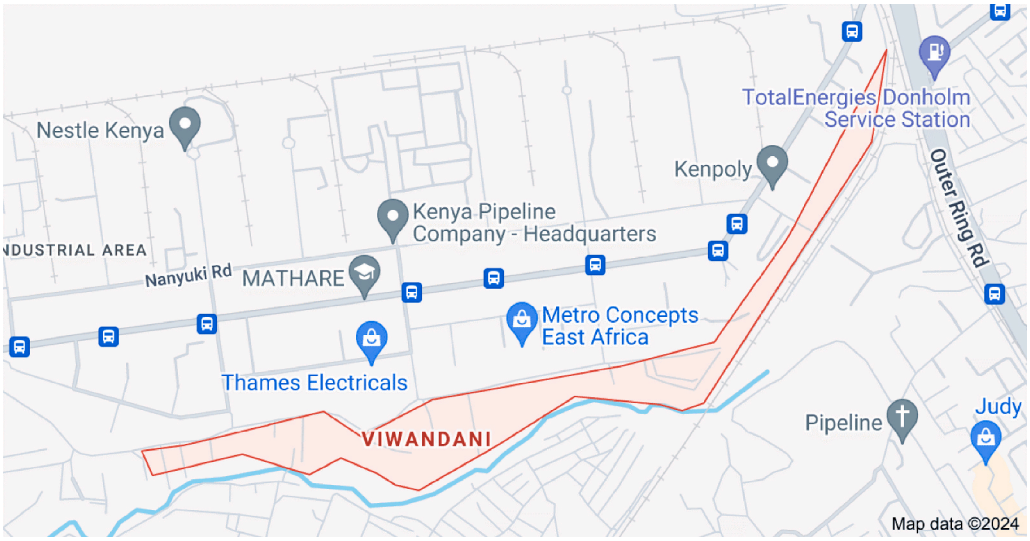

Fig. 2. Map of Viwandani, Source: Google maps.

provide ad-hoc support within the community boundary. For example, to remind participants to take pictures and help address any technical issues the study participants may have had. As CHPs attended photovoice training and lived in the same community, the CHPs themselves felt it would be valuable to also capture their own lived experiences with this methodology, highlighting the precarity of their interface position. We acknowledge that the CHPs in the study were both support figures and study participants which brings a unique positionality. To address this, reflexivity sessions were held with the research team and the CHPs, separately and together, throughout the research process to reflect on positionality and the potential influence of our roles on the research outcomes. We acknowledge the close connection between the CHPs and the community and so emphasised the importance of objectivity during training to mitigate this.

2.4. Data collection

We undertook photovoice with six CHPs (five women and one man) from six villages within Viwandani. All participants are adults and have been residing in the informal settlement for at least six months. Before implementing the photovoice research, we sensitised community representatives and leaders to this study and clarified the purpose. We identified CHPs through the community health assistant supervising community health units, including CHPs. CHPs were provided with smartphones and received a three-day training on how to take photos that convey meaning and photography ethics, for example, avoiding taking pictures of people's faces and seeking verbal consent before taking a photograph of people and personal belongings and using simple terms and definitions. We used examples of photos that convey meaning to train the study participants on the types of photos that photovoice seeks to produce. The photo data were downloaded to a computer during the in-depth interviews and reflexivity sessions attended by the co-researchers and the research team. The photos were transferred from the password protected-phone to a password-secured computer via encrypted messaging services and backed up in a password-protected cloud database. Only authorised team members had access to the data to maintain confidentiality and security.

The process entailed three rounds of photography over six weeks. Each round was themed around the CHPs' daily experiences regarding marginalisation, wellbeing, and agency. The research team members met with the CHPs three times to conduct in-depth interviews (IDIs) and to probe why they took each photograph. During these interviews, we discussed the meaning of the photos they had taken and asked them to select five priority issues to be addressed.

2.5. Data analysis

We transcribed the digital audio recordings into Microsoft Word. Three researchers read through all the transcripts to ensure they aligned with the audio recordings and that no meaning was lost during translation. We uploaded transcripts and captioned photographs in the NVivo 14 analysis software. We used the framework analysis approach and White's wellbeing framework to analyse all photovoice transcripts. The analysis was both inductive and deductive as we identified emergent themes that we then applied to a higher-level analytical framework.

Three research team members (IN, RS, NWG) independently read and re-read the transcripts and captioned photos to identify emerging themes and concepts relating to CHP wellbeing and developed a new coding framework that built on the co-analysis workshop themes across the broader groups. We independently coded data in NVivo 14, compared with co-analysis findings, discussed discrepancies, and charted the data. The CHPs took part in photovoice data validation, where they went through the captioned photos and confirmed the messages they wanted to convey. After the validation meeting, the CHPs supported the analysis and grouped the photos into emerging themes, which informed the coding framework we used to analyse the data. CHPs were involved in disseminating the findings, including participating in dissemination meetings where they presented their pictures to community stakeholders and Nairobi County officials. The research team conducted weekly reflexivity sessions during the study to discuss any biases and values that may influence how they analysed and interpreted the data.

2.6. Ethical considerations

The GCRF ARISE Hub developed a safeguarding policy and identified safeguarding leads who met quarterly to deliberate on emerging concerns and agree on addressing the safeguarding dilemmas (Aktar et al., 2020; Mansaray et al., 2022; Otiso et al., 2024). We organised a group and individual counselling session for all co-researchers, including CHP participants, to address any grief and distress that may have been triggered during the photovoice and IDIs. We observed study participants for any signs of distress and discomfort during IDIs for referral to professional counselling services and follow-up at no cost to them. We put in place safeguarding measures to prevent and manage burnout among the researcher team during data collection and analysis, including weekly

debriefing sessions to minimise the risk of psychological distress. CHP were trained on safeguarding and reporting channels. All CHP names used in this paper are pseudonyms.

The study took place during the COVID-19 pandemic in 2021–2022. We ensured strict adherence to Kenya's public health regulations to minimise the risk of transmission. As part of safeguarding considerations, we resolved that the ubiquitous nature of smartphones in Viwandani meant that possession of study smartphones did not pose an additional threat to CHPs. However, we tracked them to ensure that the data were safe. No safeguarding concerns or challenges with photography arose.

We obtained another round of written consent from the CHPs to use the photos to advocate and disseminate study findings. We also obtained ethical clearance to conduct this study from the AMREF Africa Ethics and Scientific Review Committee (Protocol: ESRC-P747/2019) and the Liverpool School of Tropical Medicine (Protocol: 19–089).

3. Results

3.1. Material concerns

All participants described a living environment characterised by a lack of access to safe sanitation, waste disposal, water, electricity, and secure housing. This poses challenges to CHPs' objective and subjective wellbeing. One CHP summarised the challenging environment:

> *"The changes that I would like to see are about cooking using the stove because of the smoke; it fills the house…with the gas, I wouldn't be getting chest sickness. […] The second thing is the security. There is no security… in the village. I would encourage them to put at least one Mulika Mwizi [streetlight]. So that it can shine at night […] The third thing they should make for us is somewhere to dump the garbage; we should stop having garbage everywhere. The fourth thing, we should have a water point; … When we have enough water, we won't have so many diseases in this village. The other thing is that there should be a road and […] drainage." (Nancy, woman, CHP and co-researcher in her 50 s)*

Another CHP highlighted the issues of lacking paved roads to walk across the settlement to visit patients, which has both safety and financial implications as shoes require replacement.

Image 1. Muddy path in Viwandani informal settlements used by CHPs to navigate the settlement and visit residents (Credit: Peter, man, CHP and co-researcher in his 30 s).

> *"This is the path I use. It would help if this road was repaired so that I don't get muddy when I enter the house. There is too much mud, and you have to jump over the water, sometimes you fall down. Shoes get old fast." (Peter, man, CHP and co-researcher in his 30 s)*

One CHP highlighted that the lack of infrastructure heightens their vulnerability to disasters such as fires due to lack of emergency vehicle access to the settlement which would help reduce the fires and likely result in lower damage to the structures and livelihoods and loss of human lives, amplifying feelings of marginalisation.

Image 2. Structure destroyed by fire, (Credit: Nancy, woman, CHP and co-researcher in her 50 s).

> *"We have been completely marginalised because there are no roads. When the fire starts in the area, we just put it off using water. That is marginalisation because if we had roads these fires could be easily extinguished. " (Nancy, woman, CHP and co-researcher in her 50 s)*

In the context of high levels of poverty, a CHP highlighted the important role CHPs have in financial contributions to support patients' ability to access health care, including using personal funds to purchase medication or ensure patients without access to state-subsidised health insurance can access healthcare services. However, the limited CHP stipend and high poverty levels mean that these expectations add another material burden on the CHPs and reveal feelings of marginalisation as CHPs and informal settlement dwellers by government actors.

> *"We visit houses to see those who don't have NHIF [National Health Insurance Fund], because they lack the 500 shillings ($3.8) as they don't have jobs. We meet and discuss, in case one person gets admitted at the hospital, we get so many problems because we are the ones who contribute money for the person to take to the hospital. If we don't contribute, the person's life would be in danger. So, this shows we are marginalised because there are no jobs, no NHIF and there are still a lot of problems in our community." (Felicita, woman, CHP and co-researcher in her 40 s)*

The everyday economic precarity CHPs and other residents face, have a mental impact. CHPs, as other people living in informal settlements, often rely on informal employment opportunities which are scarce, insecure and not well paid. One CHP highlighted that their lack

of income means that they are unable to pay rent to their landlord resulting in high stress levels. In other words, the CHP's role is still seen as supplementary work to other income activities.

Image 3. CHP sitting in her house (Credit: Rose, woman, CHP and co-researcher in her 30 s).

> *"I have been disturbed mentally. The landlord wants his rent, and I don't have money. I don't have a job right now. What I was doing ended in September, so I have been struggling." (Rose, woman, CHP and co-researcher in her 30 s)*

In addition to high material deprivation, multiple CHPs described the wider environment they live in as unsafe and highlighted the everyday risk of interpersonal violence the community face.

> *"And then this is a bridge connecting that side to the other side…. At around 7:30 pm or 8 pm, one cannot pass there. There are youths there attacking people. If they kill you, they throw you into the funnel. They used to tie [people] up with stones. When they throw you in the river people will be looking for [you] …not knowing you are in the river." (Nancy, woman, CHP and co-researcher in her 50 s)*

One participant underscored the importance of not keeping stipends in the house due as it may increase vulnerability to theft in a context of general high economic precarity, leaving her fearful.

> *"Yes, theft is there; there was a time I was attacked twice, but they didn't get me. […] While we were sleeping… thieves came… I told my husband "Wake up, people have opened the door". He found the knob was open and the nails were loose. He closed it and put the small sofa in case they came back again…. It was around 2:09 (am). They…came back but found we had closed… that boy came with a group to see how they could steal from me, but they failed. But I wondered what they were coming to take from my place. I can't sleep with money in the house. The work, as you can see, can't even give 1000 you keep in the house. Even if you get it, you put it on MPESA [mobile money transfer application]; you can't put it [in the house]. We were fearful; we couldn't sleep fearfully, because the security is not available.… [The streetlights] are not working and when electricity is lost, there is total darkness." (Jane, woman, CHP and co-researcher in her 50 s)*

3.2. Social domain

3.2.1. Relationship with government stakeholders

All participants identified formal and informal governance stakeholders responsible for addressing issues such as lack of employment and safe infrastructure and needing more support or visits from relevant Government agencies. For example, sanitation facilities were built for the community, but access is controlled by younger community members who ask money from users, which is a common practice exacerbated due to a lack of employment opportunities and highlights how a lack of infrastructure impacts intra-community relationships. Subjectively, the following quote speaks to a sense of disempowerment and the internal power hierarchies that shape access to water and sanitation facilities.

Image 4. A locked public toilet (Credit: Nancy, woman, CHP and co-researcher in her early 50 s).

> *"This latrine was built so that we use it here in the slum, but it is closed. Now, no way will the people use it even when pressed [to use facilities] … this would have helped many people because it is public. But because it was closed due to lack of water to use, it is making people have a problem with somewhere to release themselves. […] This latrine was constructed by the MP. So, when he built it, there were those youths who showed up and said they could be selling the latrine services. For it to be clean, they were to stay there and wash, but they were to sell the latrine services as well as earn their living to help themselves. So, when the water was scarce, getting water in the slum was a problem, so they had to close it…" (Nancy, woman, CHP and co-researcher in her early 50 s)*

CHPs spoke of a lack of response to reported problems, such as illegal brewing and selling of alcohol, and illegal waste disposal at multiple levels within Viwandani. This exacerbates their own feelings of marginalisation by the public health sector and frustration among residents, whilst further compromising material wellbeing. Stakeholders are aware of the significant public health risks of alcohol and drug misuse but demonstrate a lack of willingness to provide support to address challenges. Participants described corruption among authority figures such as village elders, Nyumba Kumi (community policing) representatives, and the police:

> *Nothing is being done, that is why I am saying the government should work harder to ensure there is no selling of illegal brews here. […] The problem is that the police are working in association with the illegal*

brewers. All they do is pick their bribes and not care about people's lives […]" (Peter, man, CHP and co-researcher in his 30 s)

"Bhang [local reference to Cannabis sativa] is also smoked nearby, alcohol is being sold there nearby. So children are passing through many challenges that the government too can assist us with things to do with alcohol and drugs. Can the government not contribute to do away with this? […] And to whom you will go to report and the police is the one going there and take money. Where will we report?" (Elizabeth, woman, CHP and co-researcher in her 40 s)

"We can report at the chief's but the chief is not able [to do anything]. Public Health People don't come here. It's like they have isolated us. […] They don't visit." (Felicita, woman, CHP and co-researcher in her 40 s)

Image 5. Child contributing to brewing of illicit alcohol (Credit: Felicita, woman, CHP and co-researcher in her 40 s).

The lack of accountability from duty bearers towards the CHPs and the community, leads to CHPs being unable to fulfil their role and feeling isolated by duty bearers within the formal health sector with whom they are supposed to work in close relationship with. This impacts CHPs' emotional state as corruption and apathy to reduce alcohol issues with the community means their role as health promoters is symbolic only.

"There was a time this issue (alcohol abuse) hurt me … you find the police officers are part of them…because when you plan to go and destroy [pour the brew], there is a police officer who has alerted [the brewers] …You see because they eat with them." (Elizabeth, woman, CHP and co-researcher in her 40 s)

3.3. Relationship with community stakeholders

Several participants underscored the need for greater accountability and proactive measures from Government representatives. One participant highlighted how the Government's actions directly influence CHP relationships within the community and can bring about emotionally conflicting situations. For example, as part of their role, CHPs refer patients to hospitals who are then prescribed medication that neither they, nor the CHP, can afford:

"The burden should be on the Government to take the medicines to the hospitals. As CHPs, we are told to identify a patient, you identify and refer them there. When they reach there, there is no medicine. They come back to you "you are the one who sent me; what will I do yet you are the one who sent me? They have prescribed this for me, what will this help me with?" For sure you see this person is sick […] We see it as a challenge because you also don't have money; you are just like them, it's only that at least you understand." (Elizabeth, woman, CHP and co-researcher in her 40 s)

CHPs showed a growing sense of frustration and hurt and that they cannot meet community expectations, highlighting a critical paradox. Lacking the financial means to support adds a layer of emotional stress, highlighting the interconnectedness of individual and community wellbeing.

"This one is an old man, almost heading to 80 something… I feel hurt because he sometimes comes for my help… Even tea is from me, he comes with a cup, and I put it for him. He can find that sometimes my family has taken it all. And when I tell him… 'I don't have [tea]' He goes telling others 'I went for tea to mother so and so and she has denied me'… I usually feel we hurt each other on that." (Jane, woman, CHP and co-researcher in her 50 s)"

Numerous participants emphasised lack of medicine distribution in community health facilities, which links back to the material deprivation of services in informal settlements, and the sale of government medications by unregulated drug vendors, indicating corruption within the health system. This situation significantly undermines both community-wide health outcomes and individual wellbeing, as outlined in the quote below:

"Sometimes you can go to the village [informal] chemist and find them selling some medicine written "not for sale", you wonder 'where are they from'? Things like that, if only they were transparent. Something is written 'not for sale', which means it comes from the Government. … you will find in hospitals they say medicine is not available, but you find the medicine in the village written 'not for sale'." (Peter, man, CHP and co-researcher in his 30 s)

Alongside increased community expectations, a lack of action from community members on healthcare prevention adds to CHPs' frustration and emotional wellbeing:

"The people too are ignorant because we or I as a CHP give them information, but they do not want to follow what I am telling them. It also affects me since I wonder "How do these people see me?'' I am always at their doors telling them about cleanliness…I see them not doing good. In other ways I think they are looking down upon me. (Nancy, woman, CHP and co-researcher in her 50 s)

3.4. Human considerations

Participants expressed personal aspirations to enhance their circumstances, such as a desire to relocate to a home with safety and private space.

"When you get a job, you can shift. You go and live in an estate where you will be hanging your clothes on a balcony, and you can leave and close your gate. It is lack of money and lack of jobs that is making us live that life." (Felicita, woman, CHP and co-researcher in her 40 s)

This highlights the material deprivation CHPs live in and the lack of employment opportunities they face and poses questions about the sustainability of their role and the adequacy of their stipend.

Respondents shared that lack of financial resources also impacts their access to health care, hindering them from fulfilling their role and aspirations, resulting in further material deprivation. This speaks to the wider lack of adequate support and opportunities to better their situation and that of their dependents due to financial constraints.

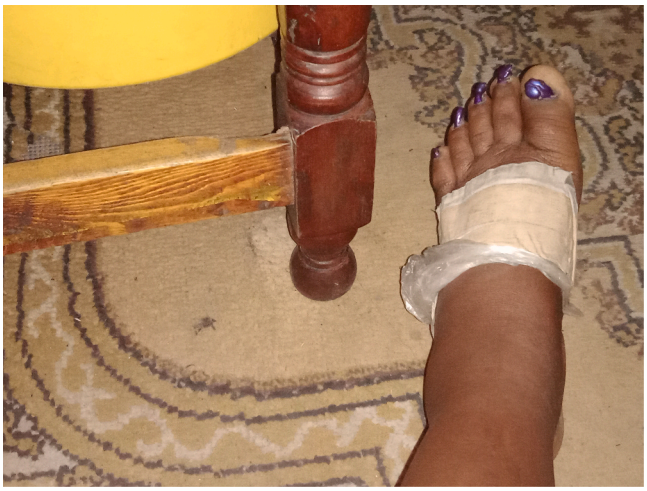

Image 6. Swollen untreated ankle (Credit: Rose, woman, CHP and co-researcher in her 30 s).

> *"Yes, I have a nerve problem, and my legs swell a lot, especially that day. […] The hospital recommends medicine which I cannot afford… When you go to hospital you need money. It really disturbs me, and it is aching as we speak. One leg swells. I was given some red tablets that cost ten shillings each. I managed to buy for three days then stopped because the money was too much. The total dose was 300 shillings ($2.3) per month. […] Currently there is no treatment plan because I even lacked the ability to pay 150 shillings (£1.17)" (Rose, woman, CHP and co-researcher in her 30 s)*

Limited access to financial resources and employment opportunities were ubiquitous challenges. CHPs reported not being able to afford rent, or relatives' school fees, highlighting that the remuneration does not meet their financial need. Subjectively, this impacts their emotional state and increases their families' vulnerability in the long-term due to the lack of access to education and linked opportunities.

Image 7. The school the CHP visited to try and convince them to let her granddaughter, who had been excluded from class due to non-payment of school fees, continue her education (Credit: Jane, woman, CHP and co-researcher in her 50 s).

> *"Yes, I am a grandmother. But the mother is not working now; I am the one who is hustling. In the morning there was a challenge at the house, she was sent home for school fees […] I told her to go to school and tell the teacher that we have not gotten money, she should wait for an advance. It's like the teacher didn't hear that excuse so she sent her again. I had to wake up and go to school and told the teacher to listen to parents … If a parent says she doesn't have anything, you must understand. […] When they send them away, it feels like they look down on you, yet you will still pay. That pains me sometimes, it gives me challenges.' (Jane, woman, CHP and co-researcher in her 50 s)*

4. Discussion

Research on the lived experiences of CHPs in urban informal settlements in Kenya and elsewhere is scarce. Here, we present in-depth lived experiences of CHPs in Viwandani, whose interface role straddles the health system and the community. Financial, governmental and environmental challenges shape their relationships with the community and duty bearers, while their aspirations and self-perceptions reflect and influence their experiences. CHPs hold paradoxical positions - unable to meet their own material needs whilst burdened with expectations to support residents, often beyond their specified responsibilities. White (2009) wellbeing framework provides a comprehensive lens to understand the multifaceted nature of CHPs' wellbeing in this context, including subjective and objective considerations, as illustrated in Fig. 3 which adapts White's framework.

Living and working in an environment marked by insecurity, marginalisation, low access to services and economic vulnerability, had a profound impact on the wellbeing of the CHPs in this study. The lack of

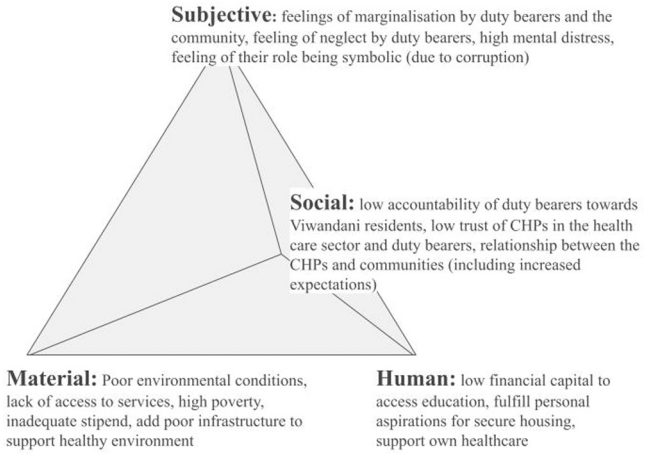

Fig. 3. Adapted from White (Aseyo et al., 2018).

access to essential services such as sanitation, waste management, water, electricity, and secure housing is consistent with other studies on urban informal settlements, which highlight how environmental conditions and tenure security impact wellbeing (Ezeh et al., 2017; Corburn and Karanja, 2016). High levels of insecurity as reported by CHPs has been highlighted as an emerging concern especially for women in urban informal settlements in Kenya and elsewhere (Steege et al., 2018; Closser et al., 2023; Razee et al., 2012). For instance, the absence of street lighting in areas with high crime rates (Corburn and Karanja, 2016), as highlighted by CHPs participating in this study, increases the vulnerability of residents to interpersonal violence at night and during lone working. Closser et al. (2023). have proposed a framework identifying key determinants of harassment and violence, such as lone travel and lack of adequate remuneration—challenges that CHPs themselves navigate. Strategies to improve safety may be adopted on the ground, such as working in pairs as shown in Kenya, South Africa and Tanzania (Anstey Watkins et al., 2021; Feldhaus et al., 2015). Everyday security efforts women engage in for community protection in informal settlements in Nairobi are documented by Jones and Kimari, who highlight these actions as form of women's invisible labour (Jones and Kimari, 2019). The provision of health posts may be an action the health system can take to increase safety. This has been suggested in Mozambique, where women CHWs working out of their own homes were placed at risk of domestic violence (Steege et al., 2020). CHPs' experiences in Nairobi also show they may conduct household visits at night (ARISE Consortium, 2023a). Infrastructural improvements such as streetlights to improve safety at night is critical to support CHPs in urban informal settlements. This also provides benefits to police work and wider socio-economic and educational development (Jones and Kimari, 2019; ARISE Consortium, 2023b).

Financial constraints, including the inability to afford school fees, rent and healthcare experienced by the CHPs reflect the broader economic precarity experienced by residents of Viwandani. This limits the ability of CHPs to strengthen their own human capital such as access to further education for themselves or their household members (Jones and Kimari, 2019; Ongarora et al., 2019). In Kenya, remuneration, albeit limited, has now been introduced for all CHPs. This shift not only creates job opportunities in areas with limited employment options (Closser et al., 2023) but also provides an alternative to unpaid volunteer work, which has been associated with exploitation (Steege et al., 2020; Maes, 2012). Many CHPs are women, and their household contributions are often undervalued due to prevailing gender norms (Steege et al., 2020). The introduction of the stipend may therefore see more men enter these positions and further limit women's opportunities for income generating power. This dynamic was found in Mozambique, as men were seen as providers (Steege et al., 2020). Payment may also create new burdens, such as risk of theft in highly insecure settings, and increased expectations as communities perceive CHPs as paid workers yet trust being broken if CHPs cannot meet expectations from the communities, due to for example lack medical supply to community-level facilities that the CHPs refer patients to (Mireku, 2014). To maintain trust and meet expectations CHPs in our study reported spending out of their own pocket to help their patients which impacts their material standing. Our results show the remuneration amount does not account for increased expectations, nor meet the full needs of CHPs, who may receive payments late and work far beyond the 'expected' contribution - at all hours. Inadequate or absent pay and limited holistic support has been shown to leave CHPs feeling undervalued, negatively impacting effectiveness (Ogutu et al., 2023; Steege et al., 2020; Ormel et al., 2019). The additional 2500 Ksh CHPs are due to receive is especially required in Kenya's current economic climate. However, literature has cast doubt on whether the stipend will continue to be paid based on experiences in other contexts (Miriri, 2024).

Numerous actors, including the World Health Organisation (WHO, 2018), have called for improvements in the material well-being of community health workers through fair remuneration but also enhanced training, and better access to medical supplies at the community level (Steege et al., 2018; Ogutu et al., 2023; Olateju et al., 2022). Investing in wider community health workforce programmes is estimated to have an average $10 return for every $1 dollar investment (Coalition, 2023). The professionalisation of the cadre is a significant opportunity to create a space for improved working conditions including secure and fair wages and recognition of the work associated with the role - aligned to Sustainable Development Goal 8. Non-financial motivators are also key to support a professionalisation of CHPs, such as supportive supervision and educational opportunities (Raven et al., 2022; Steege et al., 2020; Ormel et al., 2019). Opportunities for further training can motivate CHPs as it is seen as an important for career advancement and further employment opportunities (Ormel et al., 2019). This would support CHPs who held aspirations to upgrade their living conditions and provide them a with a path to development. These types of trainings need to be professionalised and integrated into the health system to ensure CHPs do not become further overworked (Schleiff et al., 2021).

The limited access to material resources including medical supplies was also an issue impacting CHP's relationships with community members and duty bearers. The misallocation of financial and medical resources and corruption among stakeholders within and outside the community is common across different contexts (Kok et al., 2015; Ogutu et al., 2023; Olateju et al., 2022). This can further marginalise CHPs who feel powerless to enact change. It fosters a dynamic that allows those in positions of power, within and outside the community, to act without taking accountability. Our study found this significantly impacts the credibility of CHPs and their ability to fulfil their roles, as well as their perception of themselves. CHPs spoke of being looked down on, by schools and residents when failing to fulfil demands caused by structural inequities. CHPs need to be supported with access to medicines to support trust between CHPs and duty-bearers as well as communities. This may in turn afford them soft power to be authority figures within their community as well as enhance motivation and effective service delivery (LeBan et al., 2021; Kok et al., 2017; Ogutu et al., 2023). A broader shift is also required; accountability in healthcare services should not be conflated with the mere provision of medical supplies to combat illnesses amplified by the environment communities live in but requires a holistic health service provision (Denyer Willis and Chandler, 2019). This is especially important in informal settlements where healthcare access is often complex, and residents may seek a cheap and quick solution for their current health issues. Wider literature (D'Ambruoso et al., 2023; Abuga et al., 2022) further underlines the need for community-level initiatives such as dialogue days that improve care quality and contribute to social accountability mechanisms including collective action towards pertinent public health issues including alcohol abuse as mentioned in our findings (Mireku, 2014; D'Ambruoso

et al., 2023; Cleary et al., 2013).

5. Study strengths and limitations

All, except one, of our study participants were women, which means our results are rooted in the lived experience of mostly female CHPs. However, specific gendered experiences did not emerge explicitly – these were implicit, and we drew this out in the discussion. The participatory approach, particularly the co-analysis process, emerged as a significant strength of our study as it provided a deeper understanding of the complex problems in Viwandani relevant to the work and lived experiences of CHPs. The CHPs in our study had been trained on hygiene matters and that influenced the type of data they collected but we discussed this at with them in reflexivity sessions to ensure broader themes of marginalisation were captured. It is important to note that separate analyses for this paper were conducted without the direct involvement of the CHPs – the themes presented were informed by the themes that emerged from CHPs in the photovoice discussions and validation sessions. Our study took place in one informal settlement with a small number of respondents. Our findings were not intended to be generalisable, rather, we aimed to understand the rich lived experiences within a specific context through participatory approaches.

6. Conclusion

Our findings highlight the paradoxical position of CHPs as healthcare promoters, supporting communities in an environment that fails to meet their own needs. Our findings underscore the critical need for transparent and accountable governance to address persistent issues within urban informal settlements. Shifting the discourse on CHPs to acknowledge the importance of context, the support structures and the wider environment necessary for their success and wellbeing is critical. Responsive and accountable community-level health care service delivery requires tailored action to create an environment where CHPs own needs and aspirations are met.

Contribution statement

Study conception and design: IN, LOk, LD, LOt, RK, ST, RS; data collection: IN, RK, LOk, RS. Author; analysis and interpretation of results: IN, NWG, RS; draft manuscript preparation: IN, NWG, RS. All authors reviewed the results and approved the final version.

CRediT authorship contribution statement

Steege Rosie: Writing – review & editing, Writing – original draft, Supervision, Software, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Njoroge Inviolata:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Okoth Linet:** Writing – review & editing, Validation, Methodology, Investigation, Formal analysis, Data curation. **Wiltgen Georgi Neele:** Writing – review & editing, Writing – original draft, Visualization, Software, Methodology, Investigation, Formal analysis, Conceptualization. **Theobald Sally:** Writing – review & editing, Supervision, Methodology, Investigation, Funding acquisition, Conceptualization. **Karuga Robinson:** Writing – review & editing, Supervision, Resources, Methodology, Investigation, Funding acquisition. **Otiso Lilian:** Writing – review & editing, Supervision, Resources, Investigation, Funding acquisition. **Dean Laura:** Writing – review & editing, Investigation, Funding acquisition, Conceptualization.

Declaration of Competing Interest

Nothing to declare.

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