REVIEW

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Providing health services for farm workers during COVID-19:

a case study of an NGO in a rural agricultural area

Authors

Nirvana Pillay[i]
Nancy Coulson[ii]

Hlokomela provided four types of outreach activities: provision of personal protective equipment; workplace and community screening services; training and awareness activities; and distribution of food.

Farming, an essential service, continued during the most restricted phase of South Africa's national lockdown. This chapter documents how Hlokomela, a non-governmental organisation in rural Limpopo, provided health and other social services to the farming community during this time.

We documented the Hlokomela health services response to COVID-19 while conducting a pilot study of a partial-payment scheme for farm employers whose workers accessed their health services. From mid-March to June 2020, in-depth interviews with Hlokomela management, as well as reviews of the Hlokomela weekly newsletter, were added to pilot research activities. We undertook a case study using a systems lens to examine how the organisation addressed the needs of a rural agricultural community affected by COVID-19 lockdown measures.

Hlokomela was able to address gaps in the health response for farm workers, farm employers and the broader community. Through leveraging established networks, the organisation supplemented the State's COVID-19 response by providing four types of outreach activities: provision of personal protective equipment; workplace and community screening services; training and awareness activities; and distribution of food.

Hlokomela utilised four strategic areas that enabled a strengthened health response: adaptability, health promotion, a network with local stakeholders, and social development outreach. The case study highlights the potential role of creative partnerships between the State and non-governmental organisations for health service delivery in rural agricultural regions.

i School of Public Health, University of the Witwatersrand, Johannesburg
ii Wits Mining Institute, University of the Witwatersrand, Johannesburg

Introduction

South Africa's re-engineered Primary Health Care (PHC) model sought to address some of the challenges in healthcare provision in rural areas, including those specific to the agricultural sector. However, historically contested issues of justice and rights to decent work and healthy living conditions for farm workers persist[1], and health-related challenges remain more complex to address because of this legacy. Despite vast improvements in South Africa with regard to access to health services, as well as arrangements for workplace health and safety, farm workers continue to face poor living and working conditions.[1] The provision of health services to farm workers through the country's public health system remains inadequate, and there is insufficient attention given to their particular vulnerabilities.[2]

In this case study, we document the experiences of an agricultural community in Hoedspruit in the Mopani District of Limpopo Province during the COVID-19 pandemic, and expand on the role played by a non-governmental organisation (NGO) providing health services and other forms of social assistance in the management and impact mitigation of COVID-19. South Africa's National Health Insurance (NHI) Bill[3] envisages a role for creative partnerships in health service delivery; this was therefore a unique opportunity to gain a deeper understanding of how partnerships could potentially operate within the context of a health crisis.

Following the onset of South Africa's COVID-19 epidemic and related lockdown measures, farming was considered an essential service and a key component of the food security chain, and was required to continue operating.[a,b] At a time when little was known about the risk of COVID-19 in the workplace generally, and particularly in the agricultural sector, the challenge for farm employers was to implement COVID-19 health and safety compliance measures to mitigate risk to employees and ensure that operations remained uninterrupted.

The agricultural sector is one of the largest employers in the country, with approximately 811 000 workers recorded in Quarter 4 of 2020.[4] Limpopo is the third-largest provincial employer in the sector with approximately 136 000 agricultural workers.[4] The wider Hoedspruit area has a population of approximately 5 622: 54% Black African, Sepedi-speaking, and 40% White, Afrikaans-speaking.[c] The area has an estimated 200 farms (mainly citrus and mango) and between 6 000 and 8 000 farmworkers[d] which include permanent and seasonal workers, many of whom are migrant. Workers mostly live away from farms in the nearby communities of Oaks, Willows and Mabins. These communities form part of the Maruleng Municipality serviced by one hospital and nine clinics; these services are located closer to communities but a considerable distance from the hub of agricultural workplaces. Vast distances, transport costs and time off from work are just some of the factors that make access to health services difficult for farmworkers in this area.[5] The health of farm workers is therefore heavily contingent on the commitment of agricultural employers to the health of their employees[5] and their compliance with the Occupational Health and Safety Act (85 of 1993).[6]

For this community of farmworkers, the increased risk of COVID-19 infection occurs during their commute to and from farms, and while undertaking farming activities. The duty of care for employee health and safety is placed on the employer by the Occupational Health and Safety Act which requires that the employer adopt measures that are "reasonably practicable" to ensure this.[6] Compliance is enforced by inspectors from the Department of Employment and Labour (DoEL). Thus, as lockdown measures were implemented, farm workers were reliant on the DoEL inspectorate enforcing COVID-19 safety protocols in the workplace, and on these measures being observed in designated transport vehicles to and from work, and on public health service-providers to provide education and guidance.

Hlokomela

Hlokomela (formally registered as the Hoedspruit Training Trust) was established as an NGO in 2005 in the town of Hoedspruit to address the needs of farmworkers who were hyper-vulnerable to HIV and TB. The genesis of Hlokomela in the mid-1990s was a response to calls for support from agricultural employers confronted with increasing levels of HIV infection on farms. Historically, Hlokomela's health services were largely donor-funded to deliver predominantly HIV-related prevention and treatment services.

Like many other NGOs in South Africa, Hlokomela's financial sustainability was perversely affected by its success in HIV management, which put pressure on the organisation to consider diversifying its funding strategy to decrease reliance on donor support. This was partly achieved through a growing partnership with the Limpopo Department of Health (L-DoH) which contracts Hlokomela to deliver HIV and other chronic disease services, including implementation of the Central Chronic Medicines Dispensing and Distribution (CCMDD) programme. In 2019, the Limpopo DoH contributed 17% of the average R384 patient cost.[7] However, private agricultural businesses have been slower to respond to the need to pay for health services rendered by Hlokomela, and the NGO's funding sustainability endeavour therefore expressly seeks to secure more funds from those businesses whose workers regularly use and benefit from the services.

a https://www.sanews.gov.za/south-africa/essential-services-remain-place-sa-enters-lockdown
b https://www.gov.za/speeches/minister-thoko-didiza-food-security-declared-essential-service-during-coronavirus-covid-19
c https://wazimap.co.za/profiles/ward-93305001-maruleng-ward-1-93305001/
d There are scant data on the exact numbers of farms and farm workers and these estimates were provided by Hlokomela management.

Of the 72 business owners (commercial farmers, tourist lodges and game parks) reached by Hlokomela though formal Memoranda of Understanding (MoUs) at the time of the research, only 10 employers were paying an annual partial fee-for-service of approximately R70 towards employee clinic visits, and slightly more for statutory pre-employment medical screening (a basic health assessment conducted by a Professional Nurse).[7] Sustainability planning therefore involves re-orientating its service delivery mechanism to create a partial payment scheme for health services by creating a hybrid model of resources from the private, public and donor sectors. Hlokomela also has employment and income-generating initiatives such as a herb farm and a sewing project.

Hlokomela offers two main modes of health service delivery: fixed and mobile health service delivery; and health promotion activities through trained peer educators – 'Nompilos' (Community Health Workers known as 'mothers of life') on farms. Hlokomela delivers HIV, TB and other primary care services to farm workers and the local community through clinics based at farms, lodges and in the community; these are supplemented by mobile services to the hospitality and tourism sector for hard-to-reach populations in surrounding game lodges. By 2019, three fixed clinics and eight satellite clinics had been established.[7] As Hlokomela's health service gained in popularity because of quality of its HIV services, ease of access from farms, shorter waiting times and CCMDD services, the basket of services expanded to include general PHC, women's health, and basic pre-employment health assessments. In 2019, it was reported that Hlokomela had reached approximately 60 000 people annually.[8]

Health promotion to farm workers has historically been delivered through Nompilos. In 2005, 42 Nompilos were paid an ad hoc stipend in addition to their wages; in 2020 there were 85. In 2007, the L-DoH absorbed the Nompilos as CHWs in the re-orientated PHC programme, contracted them, and paid them a monthly stipend (R3 500 in 2020). The CHWs are trained, managed and supported by Hlokomela at no cost to the DoH. CHWs provide health awareness messages and support to farmworkers, with the range of health education topics expanding to include contemporary health issues as they emerge. Some also work in communities in areas with high levels of HIV transmission. CHWs support the CCMDD programme by collecting farmworkers' medication supplies and conveniently delivering these to workers on farms, thereby reducing the time off work needed for this purpose.

We documented the Hlokomela (NGO) health service response to COVID-19 in the rural agricultural community of Hoedspruit between March and June 2020. At the time, the authors were providing technical assistance to Hlokomela to pilot a sustainability model based on a partial fee-for-service system with commercial farm-owners whose workers regularly used the health service. Alongside the pilot model implementation, we documented Hlokomela's response to COVID-19. This was an emergent process that set out to understand the role that Hlokomela played in responding to COVID-19 in the Hoedspruit agricultural community.

We asked the following questions about the role of Hlokomela: how they implemented COVID-19 health and safety protocols for ongoing delivery of health services to farm workers and their communities; how they supported agricultural employers in complying with COVID-19 health and safety protocols; how they supported the wider community with COVID-19 health promotion activities; and how they addressed the basic needs of farm workers and their communities as they arose.

Methodology

We used a case study methodology which "investigates contemporary phenomenon" within the "real-world context".[9] Case studies are especially useful when the boundaries and interface between the phenomenon and the context are not clearly evident. Single-case studies are designed to be explanatory and in their telling draw on several sources of information.[9]

We used weekly newsletters (n=11) produced by Hlokomela (April–July 2020) to document the range of activities offered by the NGO, as well as the proceedings of weekly meetings with the Hlokomela management while implementing the partial fee-for-service pilot model. Feedback and information was provided on the pilot model as well as on COVID-19-related activities. Key informant interviews (n=2) with NGO management staff were used to verify the COVID-19-specific data and address any gaps therein. Two further interviews (n=2) were conducted in July and August 2021 respectively to understand Hlokomela's role in the vaccination roll-out. The authors' association with Hlokomela preceded the pilot project with other consultancy and research studies; we draw on these data in the analysis and write-up of this case study.[7,10]

The emergent nature of this documentation process meant that the research question was not framed within any singular conceptual framework and we used a systems lens to aid interpretation (see Figure 1).[11] We did this by placing Hlokomela within the nexus of two distinct but overlapping complex systems.[11] The first system focused on the role of the State through the DoH in meeting the health needs of local communities, and the second system focused on the role of the State through the DoEL and the employer in ensuring compliance with health protocols in the agricultural workplace. This enabled us to discern the role played by each of the stakeholders in the respective systems and the inter-relationships between them, and to understand how Hlokomela was positioned across both systems to respond to COVID-19.

A system lens allowed for a better understanding of the leverage points in the system to which Hlokomela could respond. Human systems are complex and adaptive, and

system change comes about largely as a result of the changes to the rules of the system (such as in a policy change, exemplified by the introduction of new rules in response to COVID-19) and developments within the relationships, networks and patterns of behaviour between stakeholders within and/or between systems.[11]

Empirical data for this descriptive case study rely exclusively on NGO reports and interviews with management, and the study was therefore undertaken from the perspective of the provider. The voices of the diverse stakeholders in the system are absent, most importantly, the voices of farmworkers and their communities. The process of documenting was rapid and emergent and nested in a formative pilot study. Ethics permission was not possible within this timeframe, and it was not possible to use face-to-face, telephonic and/or online qualitative data collection methods to ensure sampling of a wider range of stakeholders. To mitigate this limitation, we include data from past research reports that reflect the voices of other stakeholders to provide background and contextual information.[5,7,10]

Key findings

Hlokomela's response to COVID-19 in the workplace and community

During the COVID-19 lockdown, Hlokomela ran clinic services from their three main sites. Drawing on a network of private supporters (Discovery Foundation, DG Murray Trust and Gift of the Givers), funding ensured that these clinics were 'COVID-19 ready' with the installation of outdoor sanitising stations, physically distanced client waiting areas, and use of non-touch infrared thermometers for screening at all entry-points. Between April and July 2020, Hlokomela was not only able to sustain PHC service provision, but also maintained basic Occupational Health services, thus ensuring that agricultural business could continue to meet important employment requirements. At one of the farm-based clinics that remained open after lockdown, 19% of services offered between April and July 2021 were pre-employment screenings conducted on behalf of the employer, and 2% of the services entailed treatment for injuries sustained by workers while on duty.[12]

Table 1 summarises the support that Hlokomela provided to agricultural employers, their workers and the local communities that surround the Hoedspruit agricultural precinct in the first four months following that national Level 5 lockdown on 26 March 2021. Hlokomela provided personal protective equipment (PPE); initiated workplace and community screening for COVID-19; delivered outreach awareness activities and tailored training; and facilitated the distribution of food to local communities.

One of the challenges for employers was that COVID-19 did not respect the separation between home and work. This meant that the services offered by Hlokomela in the interest of the employer did not always rest at the boundary of the workplace and that, as a matter of necessity, these were extended into the local community. These services included screening for COVID-19 from workplaces into communities, and working with the local bus company to reduce workers' exposure to COVID-19 whilst travelling.

Table 1: Major services provided by Hlokomela to support the COVID-19 response during the lockdown months April–July 2020

Months of COVID-19 lockdown 2020	Hlokomela COVID-19 response			
	PPE: buffs, sanitisers, related protocols	Workplace and community screening	Training and awareness activities	Distribution of food
April	5 000 buffs Sanitisation demonstrations begin	3 000	Outreach awareness campaign for 4 weeks (April/May) reached 4 578 people	400 food parcels 750 bags of citrus fruit
May	9 399 buffs	11 015	Training of 15 farm workers to deliver on-site screening	2 220 food parcels 79 tonnes of citrus fruit 750 kg e'Pap[e]
June	1 279 buffs	2 304	1 463 people reached for COVID-19 awareness	1 496 food parcels 77 000 tonnes of citrus fruit 702 kg e'Pap

e e'Pap is a fortified porridge that can be easily used and absorbed by the body. It is used to alleviate hunger and malnutrition. https://epapfoundation.org/

Months of COVID-19 lockdown 2020	Hlokomela COVID-19 response			
	PPE: buffs, sanitisers, related protocols	Workplace and community screening	Training and awareness activities	Distribution of food
July	1 450 buffs	2 479	1 982 people reached for COVID-19 awareness	602 food parcels 5 000 tonnes of fruit 1 173kg e'Pap
Total	17 128 buffs	18 798 screenings	8 023 people reached for COVID-19 awareness	4 718 food parcels 82 079 tonnes of citrus fruit

Source: Hlokomela newsletters from April to July 2020

Non-pharmaceutical interventions (NPIs) underpinned the early response to COVID-19 and persist as basic prevention measures, even as vaccine implementation progresses.

Hoedspruit is isolated from any major urban centre and rapid access to PPE presented a serious challenge for employers in maintaining operations and protecting their workers. The Hlokomela Sewing Project produced buffs[f] (acting as masks) for farmworkers and the wider community, with the scale and urgency of the demand resulting in 14 000 buffs produced between April and May alone. Communities and workplaces were supported with awareness and training on physical distancing and sanitising.

The agricultural workplace is vast; very few workers live on farms and most workers arrive on buses from local villages. An early priority for Hlokomela was therefore to ensure compliance with COVID-19 sanitising procedures on buses – given that neither bus-owners, the DoEL nor the DoH addressed this. Bus-drivers were trained on sanitisation protocols and provided with protective face-shields, sanitising liquid, buffs and cleaning materials through donations secured by Hlokomela.

COVID-19 screening and testing in the workplace and community were conducted by Hlokomela screening teams once staff had been trained by the L-DoH. Screening – temperature checks, and basic questions regarding the presence or absence of COVID-19 symptoms – was conducted on farms and through door-to-door visits in local villages and the Hoedspruit community; CHWs were instrumental in these activities. Hlokomela's mobile HIV Testing Services team conducted COVID-19 testing, follow-up contact tracing, and ensuring that isolation protocols were undertaken by the DoH. In the context of job losses experienced by many in the Hoedspruit community and other nearby communities, Hlokomela responded to the subsequent rise in food insecurity[13] by distributing food parcels to workers and communities. Many local businesses donated food and cash to Hlokomela. CHWs were central to identification of families in need and food distribution. Access to vehicles and points for food collection and delivery was facilitated through Hlokomela's extensive network with businesses, private individuals, and other local NGOs.

In July 2021, Hlokomela facilitated access to an old unused schoolhouse near its main clinic as a site from which to conduct vaccinations for the area; the schoolhouse was renovated with the help of local farmers. CHWs provided vaccine information and supported self-registration by farmworkers on the Electronic Vaccination Data System (EVDS). Farm employers transported their workers to the site, where the L-DoH vaccination team operates. At the time of writing, this programme was in the early stage of roll-out, but early vaccination figures had increased from 24 (on 27 May 2021) to 264 (on 27 August 2021); 3 852 vaccinations were recorded in three months.

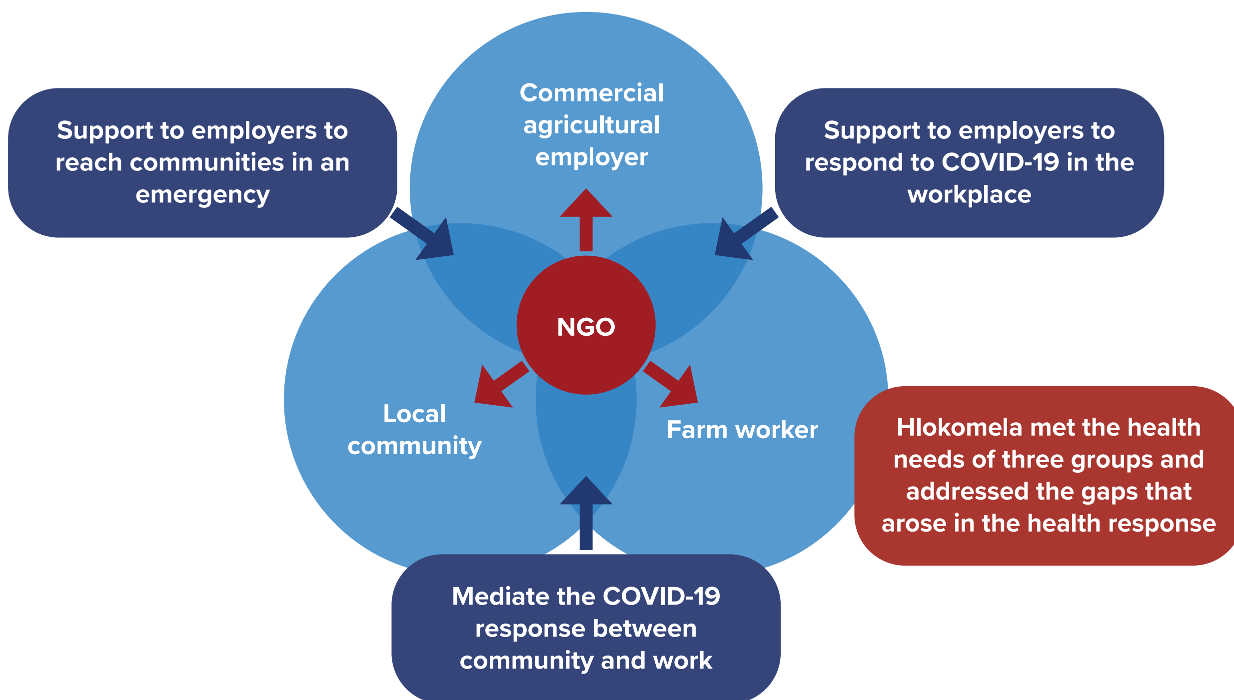
Although not specifically explored in this case study, the ease with which Hlokomela's services were utilised by the L-DoH was likely facilitated by the province's locally driven vaccination approach for this largely rural province.[14] Hlokomela reported in a follow-up interview held in August 2021 that vaccine hesitancy does not appear to be a major problem in the area, and that uptake of vaccination was positive among workers from most farms. However, the owners of one lodge and one farm reached out to Hlokomela to provide more information to workers: this was done for the lodge through a Zoom meeting where a presentation with basic facts about vaccines was provided, followed by a question-and-answer session; the farm was reached through a site visit to the pack-house by two Professional Nurses who addressed the concerns of workers. Since then, Hlokomela has offered vaccination information sessions at a fee for farmowners who request this.

Hlokomela reported that their support to employers during the pandemic helped to strengthen employers' perceptions regarding the value of Hlokomela's services, and this has resulted in more businesses[g] agreeing to pay a partial fee-for-service on behalf of their farmworkers between March 2020 and July 2021.

f A buff is a fabric tube traditionally used to keep the neck and face warm but adapted for use as a COVID-19 face-mask.
g In March 2020, 10 businesses were paying a partial fee-for-service for their workers to access Hlokomela services. By July 2021, five more businesses had joined in paying a partial fee-for-service.

Figure 1 represents a synthesis of the findings from this case study, distinguishing the separate but overlapping stakeholders found in the agricultural workplace and in communities that required support by Hlokomela during the early phase of the epidemic. The data illustrate how Hlokomela provided direct support to three stakeholder groups: farm workers, farm employers and local communities.

Figure 1: Summary of Hlokomela's role in mediating the needs of three stakeholder groups during the early response to COVID-19



Discussion

COVID-19 exposed the need for a more integrated response to public health than the current systems arrangement makes possible. The findings (as summarised in Figure 1) illustrate how Hlokomela was positioned to supplement the State's COVID-19 response, and achieved this by: providing support to commercial agricultural employers who were poorly equipped to perform their duty of care to workers in terms of COVID-19 basic workplace health and safety; leveraging their experience of health promotion in the agricultural workplace and communities to ensure compliance with NPIs, screening and testing measures to mitigate and manage COVID-19; and utilising their network of partnerships and relationships to respond to underlying social determinants of health experienced by communities that resulted from lockdown.

Specifically, the case study illustrates how the relationships and networks built by Hlokomela over years constituted a successful leverage point for significant action. This resonates with the application of systems approaches to understand change.[11] As a consequence, it was evident that the "patterns of behaviour"[12] between the key stakeholders had evolved substantially, and by July 2021, more employers recognised the value of Hlokomela's agency for health service provision.

Even though gaps in service provision between rural and urban areas have been addressed in the South African health system over time, the particular context of rural health is extremely diverse.[15] The case study highlights four supplementary capacities offered by Hlokomela to farmworkers in this area.

Firstly, Hlokomela was able to support the immediate needs of agricultural farmers to make workplaces COVID-19-safe, to strengthen the COVID-19 health promotion response across communities, and to manage and facilitate social support interventions such as distribution of food parcels, which falls under the mandate of the Department of Social Development (DSD). This reflects the adaptability of the NGO, derived from its longstanding experience in responding to the HIV epidemic, such that it could rapidly tailor its responses to address the impacts of COVID-19. Many farm employers reached out to Hlokomela for support

in the absence of any specific information from the DoH or DoEL about what to do and where to start. Hlokomela was able to provide this support to employers to meet their duty of care for the basic health and safety of workers through the provision of PPE, NPI awareness, screening, and eventually, testing. These health promotion activities were also conducted in the local community through CHWs. The NGO's sewing and herb farm sustainability projects were instrumental in providing PPE and in mobilising food distribution for the nearby communities.

Secondly, the case study findings show that the design and mechanism for the delivery of health promotion services is particularly weak in rural areas, and that CHWs are effective in addressing this, notably because they are located in the agricultural workplace. Other studies have demonstrated the importance of CHWs in providing the link between health services and individuals who live and work within communities.[16,17] Our results show that this link is even more important in farming communities where the boundaries between home, community and work are more fluid, where vast distances make the work of CHWs markedly different from door-to-door activities in urban areas, and where access to health services (in terms of cost, transport, time and distance) is more challenging.

Thirdly, the importance of partnerships for health service delivery in rural areas is highlighted. Public health services in the surrounding communities are not within easy reach for farm workers, and in the early days of the COVID-19 epidemic, neither the L-DoH nor the DoEL could provide guidance to communities on screening and prevention across these immense areas of farmland. Being embedded in the agricultural community, Hlokomela could fulfil this role because of its long-established relationships with a network of employers and an existing partnership with the L-DoH for the delivery of certain PHC services, medicine distribution, and contracting of CHWs. The L-DoH relied on Hlokomela to train and mentor Nompilos as CHWs, and during COVID-19 to promote NPI measures in the workplace and community, and subsequently to provide information on vaccines as well as to support EVDS registration for farmworkers, and in this sense, the case study highlights the limitations of the L-DoH capacity for health promotion.

Partnerships that offer other routes to establish necessary capacity are essential to address this, and to ensure that rural communities are not further disadvantaged. Hlokomela's relationship with local farmers, in particular the farm on which the main clinic is situated, allowed for the rapid transformation of a derelict schoolhouse into a vaccination centre. The L-DoH has long recognised the value of Hlokomela and has contributed finances and medication. The business sector has been slower to acknowledge how the work of the NGO could improve the long-term health and wellbeing of their workers, as evidenced by their hesitation to pay partial fees-for-service; the business case for employers to rapidly vaccinate their workers may be more explicit, and is likely to be a factor in the vaccination roll-out.

Lastly, the first three capacities laid the foundation from which to work within the wider system in a way that allowed for the integration of health promotion and related services between the workplace and the community; this was especially important for addressing the social determinants of health, which makes explicit the need to interface with the daily lives of people where they live and work.[18] COVID-19 illuminated this need more than ever, especially in relation to food security. With Hlokomela staff members having lived in the community and worked with local businesses for many years, an established level of trust among these role-players enabled the procurement and distribution of food for workers and the wider community, especially during the Level 5 lockdown when social services rendered by the DSD were not reaching the vulnerable. This attests to the benefits of relationships and networks in a context where the communities in which workers live had no access to the resources needed. Hlokomela's positioning in the local community and good standing with employers enabled businesses to act as good corporate citizens at a moment of crisis.

Conclusions

This case study highlights the value of NGO services in modelling the role for creative partnerships as envisaged by the NHI Bill[3], particularly in rural agricultural areas. In this time of COVID-19, the NGO's activities mitigated levels of weakness in the State response by effectively supplementing the roles of the DoH, DoEL and the DSD, particularly in the early days of the epidemic. Consequently, local employers recognised Hlokomela as an exemplar of context-specific partnerships for health, and are more forthcoming in regard to partially sponsoring its services into the future.

Although this development is to be welcomed, it is unlikely to be enough to sustain Hlokomela for the long term without a formal partnership with the State that moves beyond the delivery of HIV and chronic disease services. Like other civil society groups, Hlokomela is faced with diminishing resources amid proliferating community needs.[19] This case study builds on other studies conducted during the COVID-19 epidemic that show how community-initiated action is as integral to the local health system as State intervention,[20] highlighting that context-specific partnerships make for a more effective local health system.

Recommendations

Established NGOs can assist the DoH in a health emergency, and the advantages of leveraging the relationships and networks offered by such NGOs can bring about rapid system change in a time of crisis, working effectively at the local level. Local health services that act in partnership with NGOs will have greater capacity for a rapid local-level response in the event of an emergency.

Hlokomela's work has demonstrated that in agricultural regions, an opportunity exists for a partnership between the commercial private sector, an NGO and the public sector – in this context, represented by the DoH, the DoEL and the DSD – in order to effectively meet the health needs of farm workers and local communities. Such mechanisms illustrate the value of a wider social compact, featuring a funding mechanism in support of partnership models of health provision in agricultural regions. This should be established in keeping with possibilities outlined in Section 4 of the NHI Bill.[3]

Health promotion capacity is essential in agricultural regions, both in the workplace and in communities. The case study illustrates the value of trained CHWs stationed on commercial farms: further research should explore this in other agricultural communities in South Africa, as well as the value of funding local organisations to train and support the activities of CHWs where State capacity may be limited.

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