

Community epidemic management strategies and COVID-19 in South Sudan

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Abstract

South Sudanese people have extensive knowledge and experience of responding to infectious diseases and epidemic outbreaks. This research investigated existing community infectious disease management strategies outside of the clinical healthcare sector, to better understand how communities respond to infectious disease outbreaks. The research demonstrates extensive local methods for infection control and epidemic management which, while they may not reach current clinical standards, provide a strong foundation for collaborative approaches to stopping the spread of COVID-19 and other dangerous diseases. The research suggests that working with local strategies and frontline non-clinical healthcare providers is key to building a trusted and sustained response to COVID-19 and other epidemics.

Keywords: COVID-19, epidemic response, community healthcare, non-clinical medicine

Introduction

Across South Sudan, communities have extensive experience and knowledge of infectious diseases and epidemic outbreaks. Because South Sudan's clinical healthcare sector is fragmented, overstretched and under-resourced, South Sudanese people have themselves developed many methods of identifying cases, interrupting infection transmission and quarantining patients as safely as possible within local circumstances.

Since April 2020, in response to the COVID-19 pandemic, the South Sudan Government and its partners have undertaken rapid messaging campaigns, instituted trading and border closures and individual preventative measures, and set up urban clinical advice and testing systems. However, community experience and knowledge have been generally overlooked.

Objective

The COVID-19 pandemic prompted three key research questions:

1. Are individual prevention methods and models of lockdown either appropriate or feasible, given the fragile state of clinical healthcare, the reliance of most people on insecure daily incomes and other labour-intensive livelihoods, and continuing local conflicts?
2. How can misinformation, rumours and messaging fatigue among a population struggling with many other immediate priorities and life-threatening risks be effectively overcome?
3. What local strategies for stopping the spread of highly infectious diseases could be adapted, or are being adapted, by residents to respond to the threat of COVID-19?

This research project aimed to document community infectious disease management strategies and investigate how local methods and experience in past epidemics could be used to shape national COVID-19 strategy and mitigate misinformation and mistrust in the pandemic response.

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The Rift Valley Institute's experienced 8-member South Sudanese research team conducted research in the Yei, Juba, Wau, Malakal, Aweil West and Rubkona areas, both in-person and remotely via telephone, from August to November 2020. These locations were selected because of their diverse geographies and livelihoods systems, and because the South Sudan Ministry of Health COVID-19 Coordinated Response identified them as areas of higher vulnerability to epidemic outbreaks. The research was funded by the UK Government East Africa Research Fund.

The protocol was subject to external ethical review by senior South Sudanese academics and by the South Sudan Ministry of Health Ethics Review Board. The health of the research team and interviewees was prioritised throughout, and the researchers had full decision-making powers over the safety and progress of the work. The research drew on South Sudanese medical advice and a weekly rolling review by a group of healthcare practitioners involved in the pandemic response. An information and consent sheet, translated into relevant languages, was shared with all research participants and their agreement was recorded.

In total, 114 interviews were conducted with 49 women and 65 men, using both randomized and targeted frameworks. Targeted interviews included midwives and traditional birth attendants, male and female nurses, herbal experts, traditional healers, pharmacists, chiefs and community elders, elderly women, and local public health workers. The research project's aims were widely supported by interviewees. A former soldier now disabled and resident in Juba, noted: 'The decision to talk to communities to get their views on how they manage epidemics can allow people to work with confidence when epidemics break out.' (Interview with former SPLA soldier, Juba, 1 October 2020).

Results

The majority of South Sudanese people rely mostly on non-clinical medical advice and support because the clinical healthcare sector is often remote or inaccessible, expensive, and under-resourced. Instead, most residents in both rural and urban locations rely on a wide range of informal healthcare providers, including unlicensed pharmacies and private clinics, traditional herbal experts and surgeons, midwives and spiritual healers. Pathways to treatment are not standardised even in single locations, and choices depend on the illness, costs and perceived risks.

In most instances the first people to identify an infectious illness, determine a response and provide treatment are often women, midwives, herbal experts and local pharmaceutical sellers, not clinical medical staff. These frontline caregivers are therefore most at risk in epidemics, and most in need of support and advice.

Research found that communities across our six research

sites have extensive knowledge of local seasonal, endemic and epidemic diseases, their transmission, pathologies and symptomatic processes. Communities also have tested methods of infectious disease management, isolation and hygiene practices, the interruption of surface viral transmission, triage and surveillance. Research found multiple, locally-specific methods used by communities for symptomatic identification, interrupting infection transmission and quarantining infectious patients, which is detailed in the [full research report](#). See Figure 1.

Informal medical experts and local authorities are critical in organising community responses to infectious disease outbreaks. The research found that in past outbreaks across all sites, communities organised planning meetings including elders, spiritual authorities, government officials, local healthcare workers and residents with traditional medical expertise, especially herbalists. These meetings set out plans for area containment and systems of infectious disease control, including quarantine systems, dividing water points between neighbourhoods to stop crowding or the spread of water-borne disease, and social distancing systems, including in markets and at events like funerals.

For airborne diseases or infections spread through contact, people often organize houses for self-isolation, mark out separate food and water access points for households, make homemade rehydration salts, carefully manage dirty linen, bed spaces and drinking water provision to avoid cross-contamination, and use urine, hot water and ashes for disinfecting. Different communities across the country use crossed posts, rope barriers, or ash markings across paths to warn people away from sick households in quarantine.

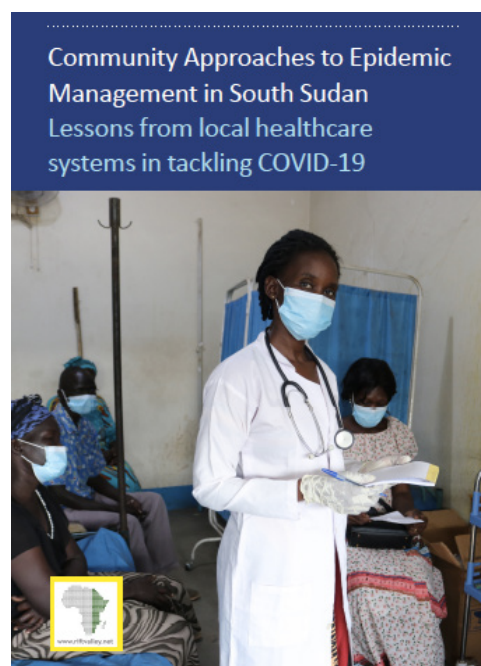


Figure 1. Cover of full report with Doctor Rose Ayoo
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Across research sites, people are already working on developing local safety measures and strategies to prevent the further spread of COVID-19 in South Sudan. Informal health workers across the research sites recognize the difficulties of dealing with COVID-19 in South Sudan. The symptoms are particularly difficult to differentiate from flu or other illnesses that come with fevers or coughs, such as malaria and the common cold. Because COVID-19 is generally described as having flu-like symptoms, people across the research sites note that it is hard to take the virus seriously.

Discussion

Epidemic and pandemic responses must connect with these existing community planning systems and strategies. This would mean that prevention activities would be more likely to be appropriate for social and economic contexts; locally understood and trusted; and would draw on non-formal caregivers and experienced medical practitioners' experience. Top-down and disconnected pandemic planning also risks exacerbating the suspicion, misinformation and alienation that many South Sudanese people already feel in relation to the COVID-19 response. The research findings suggest three core recommendations for action.

1. Firstly, pandemic and epidemic responses in South Sudan must collaborate with non-clinical health workers and caregivers, who are often first responders due to the realities of South Sudan's limited clinical healthcare system. Priority support should be given to the expertise and leadership of young and elderly women, who are so often primary health advisors and caregivers. These informal workers must be included within public health planning and clinical training. We found that herbal medicine experts are very open to clinical training and advice.
2. Epidemic responses must build on measures that communities already use to minimize the risks of transmission. This will encourage communities to take epidemic outbreaks more seriously – including COVID-19 – and understand and trust the response plans. Localized campaign planning would also allow

campaigns to incorporate community experience with disease outbreaks and epidemics, as well as include tested practices in infection interruption, into their advice.

3. Communities have received limited public health information, focused mainly on preventative measures and the risks of the virus. This is insufficient information to build local understanding and support a sustained epidemic response. This research encourages central epidemic response teams to build sustained and detailed public health information systems to help local non-clinical and clinical workers plan locally appropriate infectious disease management strategies. More detailed and sustained information drives, in partnership with local first responders, will also build trust and counter misinformation and fatigue.

Conclusion

South Sudanese people deal with many medical issues and infectious diseases already, and have extensive experience and management strategies, even if these do not meet current clinical best practice. However, many people are frustrated and alienated by the centralised, top-down COVID-19 emergency response, and do not have enough information or support to help organise a wide South Sudanese response to the pandemic.

This research report encourages a collaborative approach that recognises, and supports, South Sudan's interconnected clinical and non-clinical healthcare expertise and experience. Its findings encourage cooperation and mutual support between clinical and informal healthcare providers and frontline caregivers, to build on and improve existing community mechanisms for epidemic management, for COVID-19 and beyond.

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The Rift Valley Institute

The Rift Valley Institute's work in South Sudan falls under the Institute's four main pillars - original research, education and training, public information and dialogue and cultural production and heritage.

We conduct a range of projects in the country with a number of close partners including the Ministry of Culture, Museums and National Heritage, the Catholic University of South Sudan and Likikiri Collective.

We work on long-term projects such as the South Sudan National Archives Project - supporting the cataloguing and digitisation, and outreach activities, of the National Archives - and the South Sudan Customary Authorities Project - deepening understanding on the role of chiefs and traditional leaders in the country - and on shorter more responsive projects on current issues such as the economy, youth and violence, borders and boundaries, and, most recently, COVID-19. All our projects include elements of training and development of young South Sudanese researchers to help them further their skills and experience in research.