

# ***‘Here, we cannot practice what is preached’: early qualitative learning from community perspectives on Zimbabwe’s response to COVID-19***

Mackworth-Young CRS<sup>1</sup>§; Chingono R<sup>2,3</sup>; Mavodza C<sup>2,4</sup>; McHugh G<sup>2</sup>; Tembo M<sup>2,5</sup>; Dziva Chikwari C<sup>2,6</sup>; Weiss HA<sup>5</sup>; Rusakaniko S<sup>7</sup>, Ruzario S<sup>8</sup>, Bernays S<sup>1,9</sup> & Ferrand, RA<sup>2,6</sup>.

1. *Department of Global Health and Development, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom*
2. *Biomedical Research and Training Institute, Harare, Zimbabwe*
3. *Institute of Global Health, University College of London, United Kingdom*
4. *Department of Public Health, Environments and Society, Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom*
5. *MRC Tropical Epidemiology Group, Faculty of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, United Kingdom*
6. *Department of Clinical Research, Faculty of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London, United Kingdom*
7. *Community Medicine Department, University of Zimbabwe, Harare, Zimbabwe*
8. *Medical Research Council of Zimbabwe, Harare, Zimbabwe*
9. *School of Public Health, University of Sydney, Australia*

§ Corresponding Author: Constance RS. Mackworth-Young  
London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1H  
9SH, United Kingdom. Email: [constance.mackworth-young1@lshtm.ac.uk](mailto:constance.mackworth-young1@lshtm.ac.uk)  
ORCID: 0000-0002-9725-7931

*(Submitted: 15 April 2020 – Published online: 20 April 2020)*

## **DISCLAIMER**

This paper was submitted to the Bulletin of the World Health Organization and was posted to the COVID-19 open site, according to the protocol for public health emergencies for international concern as described in Vasee Moorthy et al. (<http://dx.doi.org/10.2471/BLT.20.251561>).

The information herein is available for unrestricted use, distribution and reproduction in any medium, provided that the original work is properly cited as indicated by the Creative Commons Attribution 3.0 Intergovernmental Organizations licence (CC BY IGO 3.0).

## **RECOMMENDED CITATION**

Mackworth-Young CRS, Chingono R, Mavodza C, McHugh G, Tembo M, Dziva Chikwari C, et al. ‘Here, we cannot practice what is preached’: early qualitative learning from community perspectives on Zimbabwe’s response to COVID-19. [Preprint]. *Bull World Health Organ*. E-pub: 20 April 2020. doi: <http://dx.doi.org/10.2471/BLT.20.260224>

## ABSTRACT

The ramifications of the COVID-19 pandemic extend beyond the direct health consequences to negative social, economic and wider health impacts. Integrating community engagement should be an integral pillar of national responses to strengthen countries' ability to mitigate these negative consequences.

We present lessons from rapid qualitative research early in the COVID-19 pandemic in Zimbabwe, aimed at understanding community and health worker perspectives on COVID-19 and policy responses. We conducted phone interviews with community-based organisations (n=4) and healthcare workers (n=16), and collected information from social media and news outlets related to COVID-19. We conducted thematic analysis and present results around four themes.

1) Individuals are overloaded with information, but lack trusted sources, with consequences of widespread fear and unanswered questions. 2) Policies of social distancing are disconnected to communities' ability to follow such measures, without access at home to water, long-term food supplies, or a daily income. 3) Healthcare workers perceived themselves to be vulnerable, due to a shortage of personal protective equipment, contributing to ongoing strikes. 4) Health implications beyond COVID-19 are expected to be wide-reaching and severe, as resources are redirected.

Our research emphasises the importance of listening to community perspectives and accounting for context-specific realities to design locally appropriate and effective responses to COVID-19. Communities require support with basic needs and reliable information to enable them to follow prevention measures. Healthcare workers urgently need personal

protective equipment. Lastly, continued provision of essential services and medication is essential in reducing excess mortality and morbidity from conditions other than COVID-19.

**Keywords:** COVID-19, SARS-CoV-2, community engagement, Zimbabwe

## INTRODUCTION

The COVID-19 pandemic is sweeping across all countries globally and threatens to profoundly affect Sub-Saharan Africa.(1) Learnings from the pandemic so far as it affects predominately high- and middle-income countries has shown the value of social distancing measures and healthcare system preparedness.(2) Although illustrative of how to implement control measures and mitigate the worst consequences, this presents acute challenges for implementation in many sub-Saharan African countries where the infrastructure, public health surveillance and reach, as well as health systems' capacity to respond severely compromise the likely efficacy of these measures.(3)

The COVID-19 pandemic may have the most severe and wide-reaching social, economic and health impacts in low- and middle-income countries (LMICs),(4) despite having generally younger population structures, with lower mortality from COVID-19.(5) Three key factors have been identified as exacerbating morbidity and mortality rates in LMIC: i) overcrowding and large household sizes will increase transmissibility; ii) high baseline prevalence of co-morbidities will increase progression to severe disease; and iii) lack of intensive care capacity may increase case fatality rates.(4) Further, the social and economic costs of government strategies to suppress transmission will be high in LMICs.(4, 5)

In Zimbabwe, a government mandated national lockdown that closed non-essential business and stated that all citizens should remain in their homes for 21 days began on 30<sup>th</sup> March 2020, 48 hours after the statute was announced.(6) Essential purposes were exempt, defined as purchasing basic necessities, going to work (if employed by essential service providers), or going to a relative's house to provide care. Zimbabwe, like many countries in sub-Saharan Africa, has an under-resourced healthcare system, high levels of unemployment, densely populated urban areas, and shortages of basic commodities, including water and food.(7) These

features mean that COVID-19 prevention measures may be very challenging to adhere to and enforce, resulting in wide-ranging social, economic, and health consequences if measures are not taken to support individuals to follow them. Lessons from the Ebola epidemic showed that “the indirect mortality effects of a crisis in the context of a health system lacking resilience may be as important as the direct mortality effects of the crisis itself”.(8)

Research is extremely limited on how best to adapt the COVID-19 pandemic response to local settings in sub-Saharan Africa. Lessons from Ebola (9) and HIV (10, 11) highlight the pivotal influence of community engagement in decision-making, design and implementation of locally affordable and effective responses to epidemics. However, too often this is only taken seriously after other epidemiological efforts have shown to be inadequate to stem infection rates.(12, 13) Efforts to address COVID-19 in sub-Sharan Africa must adopt community engagement as an integral pillar within their response from the start, rather than an afterthought. This includes empowering urban and rural communities with accurate information and openness to feedback from the community, including through community leaders.(10, 14)

This study aimed to understand community and healthcare worker perspectives on COVID-19 and the early response in the first two weeks of the lock-down in Zimbabwe, to present valuable and timely insights into why and how the pandemic response can be adjusted to local conditions. We provide recommendations to academics and policy makers for the development of contextually relevant measures to address the COVID-19 epidemic in the region.

## **METHODS**

We conducted rapid qualitative research, drawing on prescient resources from existing studies and networks, to examine perspectives on the social impact of the COVID-19 epidemic in

Zimbabwe. This involved three sources of data generation: i) phone-based individual in-depth interviews with representatives of community based organisations (n=4); ii) phone-based individual in-depth interviews with community health workers, nurses, counsellors and youth workers (n=16); and iii) collation of rumours and information circulating around COVID-19 on social media, news outlets and government announcements.

### **Interviews with representatives of community based organisations**

Community-based organisations (CBOs), working in urban Chitungwiza (a city within 20kms of Harare with a population of 386,000 (15)) were asked to participate through convenience sampling. Representatives from four CBOs were able to participate in the timeframe of data collection, and were interviewed individually over the phone to understand how they and their organisations were impacted by and responding to COVID-19 epidemic. Interview topics included their personal perceptions of COVID-19 in Zimbabwe, their organisation's response, community perceptions and sources of influential information, and perceptions and behaviours relating to social isolation policy changes. Verbal consent was obtained to audio record the interviews, and interview summaries were written up from the recordings. The method of writing interview summaries has been previously described.(11)

### **Phone interviews with community health workers**

Community health workers (CHWs) (n=7), nurses (n=5), counsellors (n=1) and youth workers (n=3) working on the CHIEDZA trial, were interviewed individually over the phone. The CHIEDZA trial is a cluster randomized trial of an integrated package of community based sexual and reproductive health and HIV services for young people. The trial is an ongoing study being conducted in three provinces, Harare, Bulawayo and Mashonaland East. Interviews were conducted over a two weeks period, beginning the week of the government-mandated lockdown (30<sup>th</sup> March 2020), when the trial was suspended. Interview topics included the changes to the delivery of health services, the concerns of healthcare workers, the impact of

COVID-19 on the provision of other health services and the impact to their own personal lives.

Phone interviews were audio-recorded and transcribed.

### **Collation of rumours and information circulating around COVID-19**

Six researchers were asked to collate COVID-19 rumours, myths and facts circulating via social media platforms (WhatsApp, Twitter, Facebook, Instagram), local and international news outlets, and announcements from government and non-governmental organisations. A tool with questions, guided the gathering of information, and included summarising the content and the sources of information. Information collated included 147 WhatsApp messages, videos from social media, and government announcements, which were collected in one document.

### **Analysis**

The lead data collectors for each of the data sources summarised key analytical findings within the data and presented these to the research team. From discussion of these, key themes emerged which were common across all three data sources, presented below. Data from the three sources were manually and thematically coded based on these four themes, and data relating to each theme were extracted and compared across data sources. Through analysis of data within each theme, subthemes were identified inductively, which form the structure of the results below.

### **Ethics**

Approval was obtained from the Medical Research Council of Zimbabwe (MRCZ/A/2387). All data was collected remotely, including through phone interviews, to avoid physical contact and reduce risk to the participants and researcher. The researcher asked for verbal consent to participate and for phone interviews to be recorded.

## RESULTS

We present results on four thematic areas: i) information overload, but lack of trusted sources; ii) communities' limited ability to abide by prevention measures iii); healthcare workers' perceived personal vulnerability; and iv) sidelining of other health issues.

### **Information overload, but lack of trusted sources**

Participants reported being bombarded with information about COVID-19, including from social media, mostly WhatsApp, but also Facebook, Twitter, YouTube, as well as radio, Zimbabwe Broadcasting Cooperation, government announcements, relatives living abroad, and through face-to-face conversations with neighbours, such as during queues for water at a borehole. Despite an overload of information, individuals still have many unanswered questions:

*“I still feel like people have so many questions, they want answers in lay man’s language. Like how it’s spread? What is it exactly? How can we stop it?”* (CHW).

Through these sources, participants talked about *“hearing many different myths”* (CBO). While some information was perceived as important to understand and practice preventative measures, many were unsure about what they could trust: *“People are forwarding dangerous and toxic information which might not be true sometimes”* (CHW). Even government information was perceived to be unreliable with the understanding that it was censored and aimed at maintaining government interests.

The information and rumours spread in part instilled fear: *“Social media has also played a very big role in creating awareness and inserting panic”* (CHW). This led to perceptions that COVID-19 was *“more lethal than any other disease: cholera, ebola: they don’t compare to COVID-19”* (CBO), which fueled fear within communities and healthcare workers. However, the information and rumours also created perceptions of immunity to COVID-19, with suggestions that *“the virus cannot affect black people”*, or that certain precautions, such as



consuming bleach, or lemon plus bicarbonate soda, could prevent infection (Rumour summary). Information discussing reduced risk or immunity to infection was thought to contribute to a lack of compliance to prevention measures within communities.

### **Within communities: limited ability to comply with prevention interventions**

In the first week after the government announcement that all non-essential businesses should close and no one may leave their house, within communities, such as Chitungwiza, most individuals were continuing their lives and social interactions as “*business as usual...people are taking it as a holiday*” with no noticeable difference in the volume of people moving in the community (CBO). Limited access to water and mealie meal (staple food) shortages have been ongoing challenges in Zimbabwe which limited individuals’ options of staying indoors and maintaining social distancing.

*"In the local shops, once the mealie-meal comes there's so much pressure and people will queue. And now the social distancing that you are talking about doesn't become possible because people are already crowded in the queues"* (Counsellor)

Groups of several dozen people were “*going to queue at the boreholes*” although generally staying within their localities (CBO). Social distancing was challenging to practice while queuing:

*"The one-meter apart rule, the funny thing, when I bought my mealie-meal at [a shop] in town, it was being practiced inside the shop. But outside the shop, we were queued chest-to-chest, like bumper-to-bumper, you know"* (Counsellor)

Without water pumped to their houses or access to long-term food supplies, participants highlighted the evident tensions between public health advice and the impossibility of many within communities being able to practice them effectively.

Where income was generated through “*day to day sales*”, and people did not have sufficient funds to avoid purchasing their food daily as “*people survive hand to mouth*” (CBO), staying

at home was not possible. Staying at home presented a threat to basic needs and health: *“they are thinking: what am I going to be feeding my children?”* (CBO). Many individuals were unable to meet basic needs without social exposure risks.

*“Social distancing and hygiene are preached, but there is no way they can be practiced when people are lacking such basic commodities”* (CBO).

Social distancing measures were thought to potentially increase other vulnerabilities, such as gender-based violence where individuals are *“stuck in houses with people who are abusing them”* (CBO).

There was frustration that the government was not providing basic needs which are considered critical for individuals to be able to comply with the prevention measures:

*“The government said there would be availability of power, or water, but in the community, nothing has improved. There is nothing. People have to go out of their homes in search of water. What they are saying is not what is happening on the ground.”* (CBO)

While the government restrictions are the same for everyone, the ability to follow these measures was economically determined. Community individuals perceived a hierarchy of who was able to follow prevention measures and protect themselves, with being able to stay indoors described as a *“privilege”* that only wealthier individuals and communities could afford (CBO). There was stark variation in communities’ capacity to meet and manage their basic needs. Compliance with the prevention measures was considered something only wealthier individuals can afford to do:

*“People in my neighborhood are a bit wealthier, and can afford to buy more food. In my community, we don’t need to go to boreholes, we’ve got wells and tanks. A lot of people here are upholding the social distancing thing”* (CBO).

## **Healthcare workers: perceived personal vulnerability**

Healthcare workers described their “*fear*” of their own risk of infection, as well as the risk of infecting others: “*I am really scared for my life as well as my family*” (CHW). This fear was despite their understanding that their own risk of infection and mortality was still relatively low: “*You try to comfort yourself that you are not yet old, you are young and COVID is not yet in Bulawayo, you know all those things*” (CHW). Their perceived heightened risk was due to occupational exposure, where they were expected to do their jobs when there was a “*terrible shortage*” of personal protective equipment (PPE):

*“This is something that instils fear in us because at the end of the day you have to work, you have no option, but we don’t have the essential protective clothing required of us to use”* (CHW).

This “*made it a bit difficult to really exercise our duties properly without fear because somehow we felt that we were exposed*” (CHW). As a priority, community health workers asked to be “*given protective clothing, (as) the first support*” (CHW).

Health workers in Zimbabwe, including doctors and nurses, are regularly in and out of strikes, due to under-resourced health system and low salaries and allowances. On the 25<sup>th</sup> of March the Zimbabwe Nurses Association declared a strike with immediate effect, due to a lack of PPE, reliable water supply and COVID-19 risk allowance, demonstrating their feelings of being undervalued and exposed, and their lack of trust in the healthcare system to protect them from COVID-19 or prioritise their needs:

*“I was talking about Harare Central Hospital, and it’s not even functioning and nurses have just downed their tools and the doctors as well”* (Nurse).

This was already having negative health consequences:

*“We had Ruth’s (pseudonym) father who passed away. He had had instruction to get an operation, but I think it couldn’t happen with the go-slow because people had downed their tools... It took death to a patient to reveal that he didn’t matter”* (Nurse).

## **Sidelining of health issues other than COVID-19**

Participants raised significant concerns that a singular focus on prevention and treatment of COVID-19 would lead to the critical needs of those suffering with other diseases being neglected, with the consequence that *“we will have people die of other illnesses because of this coronavirus.”* (CBO). Several participants noted that this was already happening, with patients being *“turned away at pharmacies because of this coronavirus”* (CBO). Without access to prevention measures for other diseases, such as condoms, an increase in the incidence of STIs, unintended pregnancies and HIV was predicted. The consequences of lack of access to family planning on unintended pregnancies was raised as a particularly important issue:

*“Look at family planning: there are some who are due to have their depo injections resupplied every 3 months. And they are due and they can’t even get the depo because the city council clinics, I don’t think they have it. And they don’t have the money to buy themselves.”* (Nurse)

Reframing what comprised essential medicines and medical procedures due to COVID-19, with many procedures being *“pushed to the side”* had implications both for other diseases, *“meaning those patients are going to suffer”* (CHW), as well as potentially increasing vulnerability to COVID-19. The lack of access to transport to attend hospital check-ups and roadblocks preventing travel was already leading to challenges for people with chronic other diseases, as well as for those with COVID-19 symptoms in need of urgent care:

*“We have got people who are on dialysis and they need to be taken to the clinic or hospitals for their dialysis and they will not be able to do that because there is no public transportation. That is also going to make them deteriorate.”* (CHW)

There have been some attempts in activating pre-emptive plans to mitigate the possible effects of inhibited access to medication. One example that participants shared was providing

antiretroviral treatment to people living with HIV for 3 to 6 months in advance. This demonstrates some agility in the healthcare system positively preempting and planning for health system challenges. However, despite this adaptation, lack of transport and roadblocks were preventing people living with HIV from accessing this treatment at clinics, leading to “*forced nonadherence*” with negative health impacts (CHW).

## **DISCUSSION**

The findings from this study demonstrate the contextual social, financial and resource-related obstacles to COVID-19 prevention measures in Zimbabwe. These findings support recent commentaries which question the reality of practicing social distancing and hand hygiene measures in sub-Saharan African countries, particularly in lower-income communities, where water is often only available at public boreholes, and income is made informally on a day to day basis, necessitating daily food purchasing.(3, 16) If social distancing is to be a feasible and effective medium-term measure within Zimbabwe, it is critical that it is implemented alongside a package to support families and communities. This could include reviving water supplies to homes, distribution of food packages, and cash transfers to both offset the economic damage from COVID-19 and to enable families to stay at home; this could be facilitated through government partnerships with international organisations, such as The Global Fund.(17)

Additionally, research and development of preventative measures that are effective and acceptable to local communities is of critical importance. As Adegbeye says, there is a need “to start thinking about solutions that are not based on the legitimate fears of other nations, but on our own established realities”.(16) Some locally relevant interventions have been proposed. WHO has provided guidance on home-based care of patients presenting mild symptoms, especially when health systems are over-burdened and hospital-based isolation is not feasible.(18) Dahab and colleagues have suggested household-based or community-based shielding of high risk individuals, where a room within a household, or an area within a

community is allocated to house and protect high risk individuals, and where social distancing would be strictly observed.(4) Home-made masks, with messaging about their use alongside other prevention measures, could be another potential measure to reduce community transmission in contexts when individuals are not able to remain at home, although there is ongoing debate around their efficacy.(19, 20) This is currently being implemented elsewhere, including in South Africa.(21)

The World Health Organization's guidance for PPE consists of four items for those in direct contact with patients: gloves, face masks, gowns or aprons, and eye protection.(22) The findings from this study further highlighted the urgent need to provide PPE for local healthcare workers, alongside hand hygiene facilities. This is critical to provide them protection, as they are at elevated risk of infection and mortality.(23) Lessons from Ebola demonstrate the importance of protecting healthcare workers, enabling them to feel valued and subsequently trust the direction and requirements of the national response.(24) We support Gage and Bauhoff's call to international donors to step up and support the supply of PPE for healthcare workers in LMIC.(25)

Our study findings confirm the importance of continuity of provision of key healthcare services, essential medicines and preventative methods, including family planning and antiretroviral provision. These findings encourage us to learn from the Ebola epidemic, where, in Sierra Leone, excess maternal and new-born mortality at the time of the epidemic was equivalent to deaths from Ebola itself.(8) We suggest that additional resources should be provided to protect essential healthcare services during the COVID-19 epidemic, and to ensure that the essential medicine and medical procedure list is sufficiently comprehensive to reduce avoidable excess mortality and morbidity from other diseases.(3) Lessons can additionally be taken from the agility in the Zimbabwean health systems' longer term provision of ART for people living with HIV.

Public compliance to intervention measures as well as improved healthcare worker confidence rely on their access to coherent and trusted information to address their concerns, targeted to different groups. This is currently lacking. Public confidence in government messaging could be improved through coordinated messaging via an information centre, similar to the South Africa Coronavirus Resource Portal (26), with support from publically trusted United Nations agencies. Messaging needs to strike a delicate balance of communicating risk and the importance of complying with prevention interventions wherever possible, without propagating misplaced fear. This is particularly critical where individuals have a personal loss in compliance to social isolation measures. Lessons from the HIV response shows the importance in engaging affected communities, including community and faith leaders, from the beginning, to build trust, ensure sustainability and effectiveness of interventions, and enable the two-way sharing of reliable information.(10)

This study aimed to provide rapid findings on perceptions of COVID-19 and the response early in the pandemic in Zimbabwe, and so is limited in the depth of enquiry, and the time period of data collection. Additionally, healthcare workers employed on an existing trial were interviewed to their understand perceptions and concerns: we acknowledge the limitations in extending findings to healthcare workers in public facilities. Further enquiry is ongoing with a larger range of community stakeholders and government-employed healthcare workers, and a larger number of interviews, to provide more detailed understanding of perceptions and social impact of COVID-19 in Zimbabwe.

This study confirms the importance of engaging with community perspectives in designing locally effective interventions. In summary, in Zimbabwe, we recommend i) provision of a package of support (including water, food and cash transfers) for households to enable families to stay at home; ii) development and implementation of locally effective prevention measures; iii) provision of support and protection to healthcare workers, particularly PPE and hand hygiene facilities; iv) bolstering of healthcare systems to continue provision of essential

services and medication; and v) provision of coherent, accurate and trusted information to different stakeholders. These recommendations may have pertinence, once adapted to local specificities, to other countries within the region. We suggest these measures will not only be effective in the short term during the COVID-19 epidemic, but could additionally provide long term benefits of system strengthening.

#### **Panel of recommendations**

1. Provide package of support for households to enable families to stay at home, including reviving household water supply, distribution of food packages, and cash transfers
2. Support further research around, and development of, locally appropriate COVID-19 (and other infectious disease) prevention measures, such as improvements in water and hygiene provision
3. Provide personal protective equipment to healthcare workers
4. Support continuation of provision of key healthcare services, essential medicines and preventative methods
5. Provide coherent, accurate, trusted and targeted information to the public

#### **ACKNOWLEDGMENTS**

Many thanks to Maureen Tshuma, Tendai Chiweshe, Chipso Nyamayaro, Cuthbert Sekanevana and Rangarirayi Nyamwanza for collecting and summarising data on rumours and information from social media.

#### **CONFLICT OF INTERESTS**



No conflict of interest.

## **FUNDING**

The study was funded by the Wellcome Trust through a Senior Fellowship to RAF (206316/Z/17/Z).

## REFERENCES

1. Pearson C, Van Schalk C, Foss A, et al. Projection of early spread of COVID-19 in Africa as of 25 March 2020. 2020.
2. Ferguson N, Laydon D, Nedjati-Gilani G, et al. Imperial College London 2020. [cited 2020]. Available from: <https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-NPI-modelling-16-03-2020.pdf>.
3. Glassman A, Chalkidou K, Sullivan R. Centre for Global Health Development 2020. [cited 2020]. Available from: <https://www.cgdev.org/blog/does-one-size-fit-all-realistic-alternatives-covid-19-response-low-income-countries>.
4. Dahab M, Van Zandvoort K, Flasche S, et al. Health in Humanitarian Crises Centre 2020. [cited 2020]. Available from: <https://www.lshtm.ac.uk/research/centres/health-humanitarian-crises-centre/news/102976>.
5. Walker P, Whittaker C, Watson O, et al. The Global Impact of COVID-19 and Strategies for Mitigation and Suppression. 2020.
6. Government of Zimbabwe. Public Health (COVID-19 Prevention, Containment and Treatment) (National Lockdown) Order, 2020. Harare, Zimbabwe; 2020 28th March 2020.
7. Viceisza A, Aflagah K, Abner J, et al. Poverty and Malnutrition in Zimbabwe: Findings from Matabeleland North Province. Washington DC: USAID; 2020 January 2020.
8. Sochas L, Channon AA, Nam S. Counting indirect crisis-related deaths in the context of a low-resilience health system: the case of maternal and neonatal health during the Ebola epidemic in Sierra Leone. Health Policy Plan. 2017;32(suppl\_3):iii32-iii9.
9. Ntumba HCK, Bompangue D, Situakibanza H, et al. Ebola response and community engagement: how to build a bridge? The Lancet. 2019;394(10216):2242.
10. UNAIDS. Rights in the time of COVID-19: Lessons from HIV for an effective, community-led response. Geneva, Switzerland: UNAIDS; 2020.
11. Hargreaves J, Davey C, Group for lessons from pandemic HIV prevention for the COVID-19 response. Three lessons for the COVID-19 response from pandemic HIV. The Lancet HIV.
12. Martineau F, Wilkinson A, Parker M. Epistemologies of Ebola: Reflections on the Experience of the Ebola Response Anthropology Platform. Anthropological Quarterly. 2017;90:475-94.
13. Piot P, Soka MJ, Spencer J. Emergent threats: lessons learnt from Ebola. International health. 2019;11(5):334-7.
14. Nguyen VK. An Epidemic of Suspicion - Ebola and Violence in the DRC. N Engl J Med. 2019;380(14):1298-9.
15. Worldometer. <https://www.worldometers.info/coronavirus/> 2020 [Available from: <https://www.worldometers.info/coronavirus/>].
16. Adegbeye O. The Correspondent 2020. Available from: [https://thecorrespondent.com/378/why-social-distancing-wont-work-for-us/50039243100-5409cfb5?utm\\_source=RSTMH+newsletter&utm\\_campaign=b651285222-Newsletter+Members+27+January+2020+COPY+01&utm\\_medium=email&utm\\_term=0\\_d3986a1cd6-b651285222-181652413](https://thecorrespondent.com/378/why-social-distancing-wont-work-for-us/50039243100-5409cfb5?utm_source=RSTMH+newsletter&utm_campaign=b651285222-Newsletter+Members+27+January+2020+COPY+01&utm_medium=email&utm_term=0_d3986a1cd6-b651285222-181652413).
17. Gentilini U. Brookings 2020. [cited 2020]. Available from: <https://www.brookings.edu/blog/future-development/2020/03/13/5-lessons-for-using-universal-basic-income-during-a-pandemic/>.
18. World Health Organization. Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts. Geneva, Switzerland: WHO; 2020.
19. Feng S, Shen C, Xia N, et al. Rational use of face masks in the COVID-19 pandemic. The Lancet Respiratory Medicine. 2020.
20. World Health Organization. Advice on the use of masks in the context of COVID-19: interim guidance. Geneva, Switzerland: WHO; 2020 6th April 2020.
21. Department of Health Western Cape. Covid-19: Cloth masks for public use Western Cape Government 2020 [cited 2020 9th April 2020]. Available from: <https://www.westerncape.gov.za/departement-of-health/news/covid-19-cloth-masks-public->

[use?utm\\_campaign=smartmail\\_manualcampaign\\_070420\\_8637399&utm\\_medium=email&utm\\_source=smartmail.](https://www.who.int/news-room/feature-stories/2020/03/19-rational-use-of-personal-protective-equipment-for-coronavirus-disease-covid-19)

22. World Health Organization. Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19). Geneva, Switzerland: WHO; 2020 19th March 2020.
23. Madhav N, Oppenheim B, Gallivan M, et al. Pandemics: Risks, Impacts, and Mitigation. In: Jamison D, Gelband H, Horton S, editors. Disease Control Priorities: Improving Health and Reducing Poverty. 3rd ed. Washington DC: The International Bank for Reconstruction and Development / The World Bank; 2017.
24. Diamond M, Woskie L. Covid-19: Protecting frontline healthcare workers—what lessons can we learn from Ebola? The BMJ Opinion. 2020.
25. Gage A, Bauhoff S. Center for Global Development. 2020. [cited 2020]. Available from: <https://www.cgdev.org/blog/health-systems-low-income-countries-will-struggle-protect-health-workers-covid-19>.
26. Department of Health Republic of South Africa. COVID-19 Corona Virus South African Resource Portal 2020 [cited 2020]. Available from: <https://sacoronavirus.co.za>.