

Sustaining disaster aid in the onset of the COVID-19 pandemic

Natalia Jones, PhD Roger Few, PhD Iain Lake, PhD Kelly Wooster, BA

ABSTRACT

The COVID-19 pandemic had a global reach and impact, introducing stay at home orders, social distancing, facemask wearing, and closing national and international borders. Yet, the need for international disaster aid as a result of previous disasters and ongoing crises remained present. Interviews with staff from United Kingdom aid agencies and their partner organizations examined how development and humanitarian activities changed during the first six months of the pandemic. Seven key themes were highlighted. The need to recognize individual country contexts and experiences when dealing with a pandemic was emphasized, together with appropriate strategic decisions around guidance and supporting staff and the value of learning from previous experiences. Restrictions limited agencies' ability to monitor programs and ensure accountability effectively, but relationships between partners adjusted, with a move to a greater reliance on local partners and increased empowerment in these groups. Trust was vital to allow for the continuation of programs and services during the first months of the pandemic. Most programs continued but with significant adaptations. An enhanced use of communication technology was a key adaptation, though caveats remained around access. Concern around safeguarding and stigmatization of vulnerable groups was reported as an increasing issue in some contexts. The impact of COVID-19 restrictions on ongoing disaster aid was rapid and extensive, forcing aid agencies at different scales to work swiftly to try to ensure as little disruption as possible, and generating important lessons for both the ongoing and future crises.

Key words: COVID-19, disaster aid, aid agencies, low- and middle-income countries, strategy, partner relationships, program adaptation, communication technology

INTRODUCTION

The societal impact of the COVID-19 pandemic rapidly became global in scale and profound in its reach, extending across sectors and generating challenges well beyond the direct effects of the disease itself. This paper focuses on the early stages of the crisis, examining the evolving implications for ongoing disaster aid in the first few months following the World Health Organization's declaration of the pandemic in March 2020. By that time, the virus was spreading to all continents, soon to develop multiple epicenters in Asia, Europe, the Americas, and Africa. Countries responded to the pandemic with several measures, including stay at home orders, compulsory facemask wearing, social distancing, closing national and international borders, and travel bans stopping the nonessential movement of people between and within countries. 1-3

Within a very short span of time, the operating space for international disaster aid to low- and middle-income countries (LMICs) became both modified and highly constrained. The restrictions on transportation, personal movement, and social interaction had an immediate effect on the ability of agencies to provide continuing development aid, support recovery

DOI:10.5055/jem.0701

from recent disasters and ongoing prolonged crises, and respond to new disasters and humanitarian emergencies.^{4,5}

The COVID-19 pandemic was an unprecedented event,⁶ and as such, there was no prior knowledge of the impact of COVID-19 on the humanitarian response. The few studies investigating the impact of other health epidemics, eg, Ebola and Cholera, on ongoing disaster aid indicated that ensuring local knowledge and key staff are involved in decision-making,⁷⁻⁹ and having a capacity to readily adapt to changing situations⁹ are factors that would support an effective humanitarian response.

In this paper, we report how United Kingdom (UK)-based aid agencies and their in-country partners addressed the disruptions associated with COVID-19 and altered their approaches and operations in response. We aimed to capture lessons learnt from the early months of the pandemic that could help inform how humanitarian and disaster response and recovery programs could adapt to future pandemic situations.

METHODS

Interviewees were selected through a "snowball" sampling process, starting with staff of agencies involved in the Disasters Emergency Committee (DEC) and known contacts of researchers, and then recruiting others through interaction with these individuals. Informal discussions were undertaken with 12 staff from 10 agencies as an introduction to the project and to elicit information on relevant interviewees and contextual information for the interviews. Elements of these discussions supported later findings from the semistructured interview findings. No interviews followed on from two organizations.

Subsequently, semistructured interviews with 24 staff working across eight UK aid agencies (Action Aid, Age International/HelpAge International, Christian Aid, Mercy Corps, Oxfam, Save the Children, World Jewish Relief, and Disasters Emergency Committee) and five of their partner organizations took place in June and July 2020. Interviewees ranged from front-line field team members (in roles such as emergency project manager, partnership manager, and project

development manager) to senior officers at headquarter level (in roles such as humanitarian director, international program director, and program funding officer). The content of the interviews related to the situation between February and July 2020. After completion of the interviews and the writing of an interim report, an online feedback event was held for interviewees, and additional aid organizations involved with the DEC in December 2020. This was attended by nine participants, from five of the agencies previously interviewed and four others, and the discussions from this event also fed into the overall findings. The interim report findings were discussed, and participants provided focused feedback. As a result of the discussions at this event, the interview findings were consolidated and strengthened.

Within the interviews, we explored qualitatively how development and humanitarian activities have changed for organizations both on the ground and strategically. We examined how partnerships were affected by the pandemic situation, how challenges to working were overcome, and what lessons were learnt in those early stages. We oriented much of the discussion to two specific cases—ongoing recovery support after Cyclone Idai (March 2019) in southeastern Africa and response to the continuing desert locust infestation that was occurring in East Africa. However, it should be noted that the emergency response to COVID-19 became heavily intertwined with other development and humanitarian works, and it was often not feasible to separate out interventions focused on COVID-19 response from those concentrating on relief, management, and recovery from these disasters.

Interviews lasted approximately 1 hour and took place online. They were recorded within Zoom® and transcribed using Otter.ai®. The data collected through our interactions were analyzed through an iterative process of thematic coding of the information within them. All interview transcripts were read through initially by team members to derive shared ideas on a coding structure—with a working list of main themes and subthemes. The data were then worked through and coded as appropriate, with refinements made to the coding scheme as we progressed. Key

common themes discussed by multiple participants were then drawn out, integrated, and contrasted in the discussion reported here. Analysis of the interviews highlighted seven key themes associated with the response to COVID-19 during the early stages of the pandemic. These are visualized in Figure 1 and discussed in detail later.

Ethical approval for the study was obtained from the University of East Anglia International Development Research Ethics Committee.

FINDINGS AND DISCUSSION

Context

Most agencies were caught out by the scale and reach of the pandemic. Despite the recent Ebola epidemic providing an opportunity to learn how to deal with a global infectious disease, 10 none indicated that they were prepared for a large pandemic. Where pandemics were included on risk registers,

they were generally not anticipated to be at such a large scale.

We've been doing preparedness work for years, preparing communities and . . . we look at kind of resilient communities and risks on communities, and a global pandemic, maybe not on this scale has ever been thought about but certainly pandemics have been on that risk register . . . But, you know, could anybody ever be prepared for something on this scale?

Hence, study participants reported that agencies took a reactive approach to dealing with the consequences of the ongoing situation.

Early on in the pandemic, head offices were asking in-country partners for situation reports, risk assessments, and to introduce restrictions (such as

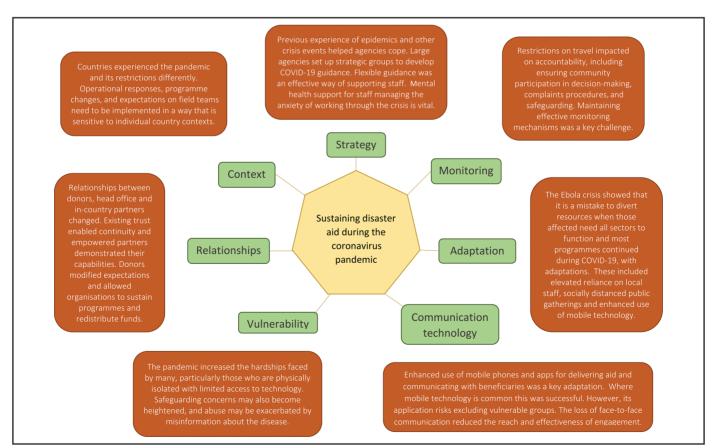


Figure 1. Key themes associated with the response to the onset of the COVID-19 pandemic.

social distancing measures). However, at the beginning of the pandemic, the rapid rise in reported COVID-19 cases occurred earlier in the UK and other higher-income countries, in contrast to many of the LMICs in which the agencies work. As a result, countries experienced the corresponding national measures associated with COVID-19, such as stay at home orders and travel restrictions, at different times and to different degrees. Some respondents expressed concern that agencies were responding in a manner which reflected the UK situation and were, hence, excessive, as opposed to the situation in partner countries.

One of the things that I think we need as a lesson for us is that lockdown happened to us very quickly and earlier than other countries that we're working in, and every context and every country has been affected differently. And so again, it's about listening to partners and the pressure from our side to say, what do partners need, what do our participants need, what's going on, when actually, they weren't quite in the same place as we were.

Other respondents suggested this was due to duty of care requirements. Across the study participants, there was a view that the operational responses to the pandemic situation, including changes to programs and expectations on field teams, should have been developed and communicated in a way that was more attuned and sensitive to the situation on the ground in partner countries. This includes clear dialog on restrictions to field activities, especially if these are perceived to be contrary to the situation on the ground in partner countries.

Strategy

In order to manage operations as a result of the pandemic, most of the large agencies set up high-level strategic groups. These often included regional leads and led to the development of COVID-19 supporting guidance for agencies and their in-country partners. This allowed head offices to support in-country

partners, counteracting some of the limitations created by travel restrictions. A large quantity of guidance was produced, and although some was shared across agencies, there was a perception from some participants that too much guidance from individual agencies was generated across the sector.

But one of my lessons learnt from this was I've never seen so many guidelines, and so much guidance. You know, I mean, the place was coming down with it, but and, obviously, you know, it's helpful, but . . . You know, across the whole sector, everybody was releasing guidelines. I'm not saying that was a bad thing, but it was a bit overload.

It was commented that whole sector guidance may have been more effective. There was also a strong belief that the guidance produced needed to be flexible, focused, and adaptable, as has been shown elsewhere. Participants from smaller agencies reported a more ad hoc approach toward supporting in-country partners. Rather than formal guidance, they directly asked what partners needed and then tried to provide it. During the feedback event, it was noted that many agencies were independently assessing the COVID-19 situation in LMIC countries where humanitarian work was undertaken, and that a coordinated approach to information gathering might have been more efficient.

Research from other emergency events has demonstrated the potential impact of crisis situations on behavioral health, eg, anxiety, depression, and symptoms of post-traumatic stress, 13 and protecting the wellbeing of staff was seen by many participants as a paramount strategic responsibility. Agencies have a duty of care toward their staff, which includes both the physical and mental health risk to staff, partners, and volunteers from the virus and from the stress of working through the crisis. Participants discussed impacts such as the healthcare costs associated with virus infection, people overworking in all settings due to intensive workloads, staff shortages, working in different settings, and anxiety about job losses.

One of our regional directors, . . . He said, You know, I just can't get my people to take a day off. They have all this vacation And it's a real combination of there being just so much work and people are scared for their jobs and they're banking their vacation. And they want to look like they're super productive and keep their jobs and look good.

Overworking led to tensions between staff. Of particular relevance for international aid agencies was the observation that although many international staff left their working countries to return to their home countries, for those who stayed the ability to leave for periods of "rest and relaxation" was removed.

Previous experience of epidemic and other crisis events is recognized as a learning resource for improved preparedness, ^{14,15} and within the interviews, prior experience of Ebola, Cholera, and prolonged conflict was highlighted as assisting with the response to COVID-19. Learning from previous disasters may be one reason for relatively rapid reaction to the COVID-19 pandemic in some parts of Africa. ^{16,17} In this study, participants indicated that in areas where recent epidemics have occurred, measures such as temperature testing, hand sanitizing, contract tracing, and travel restrictions were easier to implement because their importance was already accepted.

I was in Malawi in February [2020] when I arrived in Blantyre at the airport, they had set up, you know, hand sanitising, and someone took your temperature. . . . That was about mid February. So I was impressed with that. But I remembered that they had that in place when I was there after the cyclone in relation to the cholera outbreak.

They've been doing that in the DRC for years, and in our offices [there], they do temperature checks still. And they have the plexiglass screens, and you're greeted by a guy in gloves and a mask. And then

you're allowed to go into the office and have a meeting.

Similarly, there was a perception that in countries where agency staff are accustomed to continuous or recurrent emergencies (such as prolonged conflict or regular seasonal hazards), the ability to cope with disruptive events was enhanced. It was suggested that these staff tend to have mechanisms in place and experience in operational agility to help them deal more rapidly with the exigencies created by new forms of crisis. At an agency level, participants reported that a severe flood in one head office the previous year had provided a test run of home working, which meant they could more easily adapt when COVID-19 restrictions were imposed in the UK. Previous experience can be utilized to ensure a more effective response to an unexpected disaster.

Relationships

COVID-19 had significant implications for the relationships between agencies, in-country partners, and donors. Interviewees highlighted trust in and empowerment of frontline partners as essential building blocks for the successful continuation of disaster response during the pandemic. Changes in the relationships between agencies and donors were significant features of many interviews. Across all the agencies we spoke to, participants reported donor flexibility allowed organizations to sustain humanitarian programs and disaster response activities during COVID-19 by permitting funds to be redistributed within and between programs.

They've been nothing but flexible. Seeing the adaptive nature of donors, now, coming back to these core humanitarian principles has been really extraordinary because it's allowed us to continue our programmes throughout the greater horn of Africa, where the flexibility is required, and where the logic makes sense.

Funds were diverted from allocations where they could not be used, eg, travel budgets, to COVID-19 adaptations. Transfers between programs were also reported, such as from education to water sanitation and hygiene (WASH), in cases where the program receiving diverted funds had clear COVID-19 relevance. It was also reported that in the first few months of the pandemic, donors readily permitted changes in decision-making and monitoring within aid programs. This flexibility was welcomed by agencies, and flexibility in development aid funding has previously been highlighted as a priority for donors and agencies. 18-20 However, flexibility was not universal, as participants also reported that some parts of funding were not permitted to be used for COVID-19 adaptations. Inflexibility of funding was reported to have led to stalled programs. There was a concern that this welcome flexibility may only be a shortterm response. Some participants reported that their agencies were able to access new funds to help with their COVID-19 response, although it was pointed out that, given a limited supply of funds, "additional" COVID-19 financing is often simply redistributing funds from elsewhere.

Travel restrictions meant that in many countries, international, regional, and national staff were unable to visit local projects and field partners. This led to a shift in relationships, with local partners taking on roles previously occupied by national and international staff. In areas where decision-making power and responsibility were devolved to the local level, it was reported that field workers were able to be more responsive to needs, and this helped strengthen capacity as well as save on costs. Local field partners reported feeling more empowered and able to make appropriate decisions, backed up by remote support if necessary. In-country partners deeply valued the chance to demonstrate their capacities. The shift to online communication was reported to have broken down hierarchical barriers in some situations, with local agencies often able to communicate more directly with donors than would normally be the case.

> It seems to have actually broken down some of the bureaucracy or the power relationships between the different organisations. So I've actually had much better

access to more senior diplomats to donors, to World Bank who I wouldn't normally really have access to, to the UN agencies.

I feel like this pandemic has really sort of forced the sector to forget about all of these engineers suddenly going in there in here or there, you know, . . . I feel like these, these responses have brought, in a way, things a lot back to basics into what really matters and, has balanced a bit and given that sort of power back to communities and individuals.

There was an increased willingness to share data and use the same guidance documents across agencies, which prompted hopes on how partnerships could move forward in the future.

Existing relations of trust between agencies and in-country partners were highlighted as being essential for allowing disaster response to continue. This has been shown elsewhere to have a positive impact on humanitarian response.7-9 Participants reported increased communication and a strengthened sense of trust and collaboration between many partners during the ongoing pandemic, although in situations where trust was already strained, the pandemic may have heightened this gap. The localization agenda has been an ongoing source of debate in the humanitarian sector, 21,22 and some respondents viewed the COVID-19 crisis as a testbed for this, as has been seen elsewhere.²³ Participants reported the current situation as highlighting both the positive and negative aspects of localization and as a stimulus for strengthening the capacity of field teams. This shift in relationships was a short-term response to the pandemic but is likely to impact on ongoing debates over the long-term future of localization.

Adaptation

During the Ebola epidemic, resources were diverted away from routine healthcare provision^{24,25}; however, it has been suggested that this was a mistake.²⁶ Those affected by a crisis need programs in all sectors (not just health but also water, logistics,

education, food, security, etc.) to continue to function. ^{25,27} Participants referred to learning from the Ebola crisis and, in the agencies we spoke with, most humanitarian programs and disaster response activities continued during COVID-19, albeit with significant adaptations to make them feasible on the ground. Previous studies have shown that being readily adaptable makes for a more effective response to humanitarian health crises.⁹

Adaptations took many forms. Some activities, such as WASH promotion, expanded due to the synergies with COVID-19 response.

For WASH we have for instance drilling water points, promotion of hygiene promotions distribution of hygiene kits. So, these activities in a way, they agreed with this with the COVID-19 activity. So, this was not interrupted and went in line. Actually we promoted more WASH activities because [of] the way they were already aligned with the COVID-19 activities.

International and national travel restrictions meant local partners took on roles previously undertaken by national and international staff. But for many activities, the adaptation was, in effect, a contingency measure, designed to allow actions to continue within new limitations. This particularly affected field operations.

In situations where local travel was permitted, social distancing restrictions meant often only two or three people were permitted to travel together (when previously a car could hold seven or eight). This resulted in more cars being required and is associated with cost and security implications.

Across all agencies, it was no longer possible to run large public gatherings, on which many of their programs were based. Although some events were completely canceled, many participants reported running smaller socially distanced group activities. Group sizes were often five to 10, down from 20 to 100, and the need to keep the same output meant courses were repeated several times. This was inevitably resource intensive.

We are dealing now with the restriction that we have to reduce the number of people coming, of the meeting attendance. And where we should have like one meeting, we end up having two to three meetings because we have to divide the people. And this is time consuming.

In some areas, participants reported greater use of alternatives to large group gatherings, such as running radio and television broadcasts and using loudspeakers to provide information. In a number of cases, program adaptations took the form of a substantial increase in the use of mobile and online communications.

Other adaptations centered around the need to prevent people gathering, and several study participants reported providing mobile cash payments on an individual basis to aid recipients, instead of the previous focus on the distribution of food baskets and cash for work activities, which tended to result in the gathering of crowds. Overall flexibility in planning and logistics was recognized as essential components of a continuing commitment to existing disaster response during COVID-19.

Communications technology

One key adaptation to COVID-19 reported by participants was an increased use of mobile communication technology. Mobile communication technology has previously been used in humanitarian and disaster aid work, eg, Chand et al.,²⁸ Madianou et al.,²⁹ Castillo-López et al.,³⁰ and Jones and Ballon,³¹ and our participants reported an increase in the use of these tools at the start of the pandemic. Phones, text messaging, and apps were reported as being used to communicate with communities, monitor projects, deliver mobile cash payments, and collect data.

Because we can't safely get access, either safely for our staff or for communities that our staff may infect, a lot of it's been done online, through mobile money transfer through social media through WhatsApp, Twitter, all of that, and a lot

of the monitoring is done through that as well. It's really reduced the footprint of, you know, the need to have staff on the ground.

Participants reported mixed experiences with the use of mobile communication technology. In places where systems and handsets were readily available and accessible, its use generally proved successful, with many users embracing the new way of working. For example, a project using a mobile phone app to report the presence of locusts had been taken up by many more users than expected since COVID-19, with users willingly accepting this new method and project workers reporting success of the new system.

So that was a unique approach... He goes around looks for the locust where they are, he puts them on an app using a geopoint... And it was a unique way of working. And that happened with 265 volunteers from seven counties.

However, the increased use of mobile communication technology was recognized to have limitations. For some users and in certain areas, increased use of mobile communication technology risks marginalizing or excluding those who may need assistance the most. In locations where phone ownership is less common, there tends to be a reliance on key individuals within communities who hold phones, and this raised concerns around power, privacy, and vulnerability, as beneficiaries have to go through the phone owner in order to access support or raise grievances. 32,33

What I'm saying [is that] providing the telephone support sounds easy and straightforward, but it actually involves additional thinking in relation to accountability, safeguarding protection for all involved.

In some areas, access to mobile communication technology is very limited even in urban centers, and this restricts the ability of local agencies to engage with national or international partners. For example, the difficulties of access to mobile communication technology in parts of both Mozambique and Ethiopia were highlighted in the interviews. The low levels of connectivity meant key people could not attend meetings, or meetings could not happen at all. There was also reference to people being anxious to speak openly about disaster response challenges because of fear of government surveillance of online and mobile communication technology.

Ethiopia has been much more significantly impacted because there are low levels of connectivity. So even in normal times, we have just one telecommunications provider. Everyone depends on the same company for internet for mobile phone connection, and it doesn't work well... And then there's a lot of fear because of Ethiopian culture and history of control about saying anything that's recorded. And some are much less open in in written emails or on videos that could be hacked or recorded, and they don't know where that information is going.

In all areas, it was recognized that the loss of face-to-face communication reduced the reach and effectiveness of engagement.

Monitoring

Though adaptations are needed, the challenges of a crisis situation should not justify the side-lining of good practice protocols. Monitoring is a key element of humanitarian activities, required to measure program outcomes, ensure money is well spent, and allow for beneficiary feedback.^{34,35} However, multiple participants reported that the pandemic impacted on how agencies dealt with monitoring of programs, thus affected their capacities to ensure accountability. Mechanisms for community participation in decisionmaking, program delivery, complaints procedures, and safeguarding were all affected. As travel to project field sites was restricted, participants reported that formal monitoring was often undertaken remotely, which raised questions around the quality of communication and verification.

So in the past, monitoring, we used to travel - there was lots of travel doing surveys etc. But now that has changed.... So there has been that change on using more technology, which is good. It's just now a matter of trying to see how we can verify the information. But so far the monitoring aspect has been good. We are trying to carry out a real time evaluation later in July. And we'll see if this has been quite useful, or there are gaps in how we're carrying [it] out.

Without outside visits, participants at some agencies reported that it was difficult to ensure correct guidance and procedures were being followed, challenging to provide appropriate support. The absence of external visitors was also reported to have led to difficulties for beneficiaries to make complaints, as there was no possibility for face-to-face discussions with those outside the local program delivery team. In some areas, an increased reliance on mobile communications technology was one route that allowed beneficiaries to report complaints. However, this needed careful implementation as it raised concerns around who in the household or community has access to the phones and difficulties of ensuring privacy for the caller. 32,33,36,37

The move to monitoring by local partners was perceived by some participants as positive, as it devolved decision-making power and responsibility to the local level. This allowed field workers to be more responsive to needs and helped strengthen capacity as well as potentially saving on costs. Some participants from in-country partners, however, reflected that monitoring visits from head office are beneficial to agencies and in-country partners, as accountability is a two-way process that works best if both parties are physically in attendance.

If you are on the ground, then you have first hand experience of more than what I could say. So, I in fact myself [am] in favour of having these donor visits these partnership visits. So, we can together go and see what is happening and even discuss things on ground.

Therefore, they felt that the loss of these visits was detrimental to the monitoring and accountability process.

Heightened vulnerability

There was evidence from the participants that some groups suffered increased vulnerability and stigmatization as a result of the pandemic, as has been shown elsewhere. 38,39 It was recognized that the relative hardships already faced by many increased due to the pandemic, particularly for those who were physically isolated with limited access to mobile communication technology. Safeguarding concerns were highlighted, with fears that the loss of the protection that school provides renders children at greater risk of abuse and rights violations. As has been highlighted in other studies, 40,41 concerns about increases in early marriage and pregnancy in young girls were expressed while participants also reported worries about the increased pressures on women.

With education closed now we've also seen an increase in cases of early marriage and early pregnancy amongst the children. So those are some of the issues.

Women suffered a greater burden as the main carers, with more time at home increasing opportunities for domestic conflict and gender-based violence against women, and fewer chances to seek help.

As the man doesn't get out of the house, because of the social distancing, she sometimes she can't reach out of the house to go to speak to the women of the community or even to go to the police. So the cases are not being well reported.

Where mobile phones were used for communication or cash payment, it was felt there was potential for women to be excluded as males may hold the access to the phone.^{32,33}

Misinformation and rumors around COVID-19 caused stigmatization. Participants reported agency staff and "foreigners" were sometimes believed to be bringing in COVID-19. Within some communities, older people were perceived as being COVID-19 carriers, owing to confusion about them being at high risk from the disease, and were even reported as being subject to violence. Participants indicated agencies had to rapidly identify how COVID-19 was impacting differentially on different beneficiary groups and target support accordingly.

STUDY LIMITATIONS

This study has some limitations. We originally approached 10 agencies and attempted to interview different roles within these organizations. However, despite our best efforts, we were unable to elicit interviews with staff from two of these organizations, thus limiting our pool of interviewees. To some extent, the snowball sample was self-selecting, which had the potential to bias our findings. The need to use an online method of interviewing limited the nonverbal interaction between interviewer and interviewee, particularly in those cases where video was not available. However, this method did allow us to interview participants across multiple continents, which we would not have been able to do in person, giving us the opportunity to interview a wider range of participants. The COVID-19 pandemic was a fast-moving situation, especially during the spring 2020 when these interviews took place. A study undertaken later in the pandemic may have produced different findings. However, our findings provide a good indication of the situation during early 2020.

CONCLUSIONS

Several key findings emerged from our interviews on the disruptions associated with COVID-19, and how UK aid organizations altered their approaches and operations in response during the first months of the pandemic. These findings can help inform how aid agencies could adapt if a similar situation arose in the future, with the potential that some of the learning may continue regardless of the global health situation, such as the extensive use of communication technology. As has been found elsewhere, 7-9 utilizing local

knowledge and being adaptable were key outcomes. Excellent pre-existing relationships among organizations, partners, and donors and efficient changes in strategy resulted in impressive continuity and adaptation being hallmarks of the early months of the COVID-19 pandemic. Most agencies rapidly found ways to maintain interventions in disaster response and recovery, albeit in a more limited form and with some challenges to best practice in monitoring and accountability and allowing for the differing situations countries found themselves in. The heightened vulnerability of the most at-risk groups is an issue, which will need serious consideration in any future global health crisis. The experiences of aid organizations underline the vital importance of preparedness, good relationships, and adaptability in order to be ready for a future, in which the threat of newly emerging global diseases is likely to be ever-present.⁴²

Since these interviews were undertaken, much more learning will already have taken place, as, many months after the pandemic was declared, COVID-19 continues to impact on lives and livelihoods and on the activities of those agencies seeking to support people on the ground. It is important to continue to record and monitor those experiences as the dynamics of this disease and the public health responses to it continue to play out across regions simultaneously coping with other sources of risk.

ACKNOWLEGMENTS

This study was funded by the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Emergency Preparedness and Response, a partnership among Public Health England, King's College London, and the University of East Anglia. The views expressed are those of the author(s) and do not necessarily reflect those of the NIHR, Public Health England, or the Department of Health and Social Care.

Natalia Jones, PhD, Senior Research Associate, School of Environmental Sciences, University of East Anglia, Norwich, United Kingdom. ORCID: https://orcid.org/0000-0003-4025-2985.

Roger Few, PhD, Professorial Research Fellow, School of International Development, University of East Anglia, Norwich, United Kingdom. ORCID: https://orcid.org/0000-0001-6653-1400.

lain Lake, PhD, Professor, School of Environmental Sciences, University of East Anglia, Norwich, United Kingdom. ORCID: https://orcid.org/0000-0003-4407-5357.

Kelly Wooster, BA, Independent Consultant, Wooster Consultancy, Rivendell, Dunkirk, Aylsham, Norfolk, United Kingdom.

REFERENCES

- 1. Lee K, Worsnop CZ, Grépin KA, et al.: Global coordination on cross-border travel and trade measures crucial to COVID-19 response. *Lancet (London)*. 2020; 395(2310237): 1593-1595. DOI: 10.1016/s0140-6736(20)31032-1.
- 2. von Tigerstrom BJ, Halabi SF, Wilson KR: The international health regulations (2005) and the re-establishment of international travel amidst the COVID-19 pandemic. *J Travel Med.* 2021; 27(8): taaa127. DOI: 10.1093/jtm/taaa127.
- 3. ThinkGlobalHealth: UPDATED: Timeline of the coronavirus. Available at https://www.thinkglobalhealth.org/article/updated-timeline-coronavirus. Accessed March 4, 2021.
- 4. OCHA: In the battle against COVID-19, aid groups are achieving results for vulnerable communities. Available at https://reliefweb.int/report/world/battle-against-covid-19-aid-groups-are-achieving-results-vulnerable-communities-enar. Accessed March 4, 2021.
- 5. Refugees International: COVID-19 and the displaced: Addressing the threat of the novel coronavirus in humanitarian emergencies. Available at https://www.refugeesinternational.org/reports/2020/3/29/covid-19-and-the-displaced-addressing-the-threat-of-the-novel-coronavirus-in-humanitarian-emergencies. Accessed March 4, 2021.
- Nkengasong JN: COVID-19: Unprecedented but expected. Nat Med. 2021; 27(3): 364-364. DOI: 10.1038/s41591-021-01269-x.
- 7. Maat H, Balabanova D, Mokuwa E, et al.: Towards sustainable community-based systems for infectious disease and disaster response; lessons from local initiatives in four African countries. *Sustain (Switzer)*. 2021; 13(18): 10083.
- 8. Mayhew SH, Kyamusugulwa PM, Bindu KK, et al.: Responding to the 2018–2020 Ebola virus outbreak in the democratic republic of the Congo: Rethinking humanitarian approaches. *RMHP*. 2021; 14: 1731-1747.
- 9. Boyd AT, Cookson ST, Anderson M, et al.: Centers for disease control and prevention public health response to humanitarian emergencies, 2007–2016. *Emerg Infect Dis.* 2017; 23: S196-S202.
- 10. Moll R, Reece S, Cosford P, et al.: The Ebola epidemic and public health response. *Br Med Bull.* 2016; 117(1): 15-23.
- 11. Global Change Data Lab: Our world in data. Available at https://ourworldindata.org/coronavirus#coronavirus-country-profiles. Accessed March 8, 2021.
- 12. Neal DM, Phillips BD: Effective emergency management: Reconsidering the bureaucratic approach. *Disasters.* 1995; 19(4): 327-337. DOI: 10.1111/j.1467-7717.1995.tb00353.x.
- 13. Hansel TC, Saltzman LY, Bordnick PS: Behavioral health and response for COVID-19. *Disaster Med Public Health Prep.* 2020; 14(5): 670-676. DOI: 10.1017/dmp.2020.180.
- 14. Morton Hamer MJ, Reed PL, Greulich JD, et al.: The West Africa disaster preparedness initiative: Strengthening national capacities for all-hazards disaster preparedness. *Disaster Med Public Health Prep.* 2017; 11(4): 431-438. DOI: 10.1017/dmp.2016.155.
- 15. Scott V, Crawford-Browne S, Sanders D: Critiquing the response to the Ebola epidemic through a primary health care approach. *BMC Public Health*. 2016; 16(1): 410. DOI: 10.1186/s12889-016-3071-4.
- Wadoum REG, Clarke A: How prepared is Africa to face COVID-19? Pan Afr Med J. 2020; 35: 1-3.
- 17. Rosenthal PJ, Breman JG, Djimde AA, et al.: COVID-19: Shining the light on Africa. *Am J Trop Med Hyg.* 2020; 102(6): 1145-1148. DOI: 10.4269/ajtmh.20-0380.
- 18. Chi YL, Bump JB: Resource allocation processes at multilateral organizations working in global health. *Health Policy Plann.* 2018; 33: i4-i13.

- 19. Honig D, Gulrajani N: Making good on donors' desire to do development differently. *Third World Q.* 2018; 39(1): 68-84.
- 20. McDonough A, Rodríguez DC: How donors support civil society as government accountability advocates: A review of strategies and implications for transition of donor funding in global health. *Global Health*. 2020; 16(1): Article 110.
- 21. Harris V, Tuladhar S: Humanitarian localisation: Can we put values into practice? *Res Ethical Issues Organ.* 2019; 22: 33-55.
- 22. Barakat S, Milton S: Localisation across the humanitariandevelopment-peace nexus. *J Peacebuilding Dev.* 2020; 15(2): 147-163
- 23. Betts A, Easton-Calabria E, Pincock K: Localising public health: Refugee-led organisations as first and last responders in COVID-19. World Dev. 2021; 139: 105311.
- 24. Elston JWT, Cartwright C, Ndumbi P, et al.: The health impact of the 2014–15 Ebola outbreak. *Public Health*. 2017; 143: 60-70. DOI: 10.1016/j.puhe.2016.10.020.
- 25. Elston JWT, Moosa AJ, Moses F, et al.: Impact of the Ebola outbreak on health systems and population health in Sierra Leone. *J Public Health*. 2015; 38(4): fdv158-678. DOI: 10.1093/pubmed/fdv158.
- 26. Ly J, Sathananthan V, Griffiths T, et al.: Facility-based delivery during the Ebola virus disease epidemic in rural Liberia: Analysis from a cross-sectional, population-based household survey. *PLOS Med.* 2016; 13(8): e1002096. DOI: 10.1371/journal. pmed.1002096.
- 27. Doctors of the World: Beyond Ebola: Rebuilding health services in Moyamba, Sierra Leone. 2015. Available at http://b.3cdn.net/droftheworld/54befeb29ddee73fa1_s4m62058i.pdf. Accessed March 17, 2021.
- 28. Chand D, Nayak S, Bhat KS, et al.: A mobile application for women's safety: WoSApp C3. In *IEEE Region 10 Annual International Conference, Proceedings/TENCON*. 2016, January.
- 29. Madianou M, Ong JC, Longboan L, et al.: The appearance of accountability: Communication technologies and power asymmetries in humanitarian aid and disaster recovery. *J Commun.* 2016; 66(6): 960-981.
- 30. Castillo-López G, Guaranda MB, Layedra F, et al.: A place to go: Locating damaged regions after natural disasters through mobile phone data C3. *Commun Comput Inform Sci.* 2020; 1070: 239-251.
- 31. Jones L, Ballon P: Tracking changes in resilience and recovery after natural hazards: Insights from a high-frequency mobilephone panel survey. *Global Environ Change*. 2020; 62: 102053.
- 32. Hossain S, Beresford M: Paving the pathway for women's empowerment? A review of information and communication technology development in Bangladesh. *Contemp South Asia*. 2012; 20(4): 455-469. DOI: 10.1080/09584935.2012.737309.
- 33. Porter G, Hampshire K, Abane A, et al.: Mobile phones, gender, and female empowerment in Sub-Saharan Africa: Studies with African youth. *Inform Technol Dev.* 2020; 26(1): 180-193. DOI: 10.1080/02681102.2019.1622500.
- 34. Warner AT: What is Monitoring in Humanitarian Action? Describing Practice and Identifying Challenges. London: ALNAP, 2017.
- 35. Boehmer HM, Zaytsev YK: Raising aid efficiency with international development aid monitoring and evaluation systems. *J Multidiscipl Eval*. 2019; 15(32): 28-36.
- 36. Antonio A, Tuffley D: The gender digital divide in developing countries. *Future Internet*. 2014; 6(4): 673-687.
- 37. Kwami J: Gendered digital inequities in African contexts: Measuring and bridging the gaps. *Ada*. 2020; 2020: 1-15.

- 38. Roelen K, Ackley C, Boyce P, et al.: COVID-19 in LMICs: The need to place stigma front and centre to its response. $Eur\ J\ Dev\ Res.$ 2020; 32(5): 1592-1612. DOI: 10.1057/s41287-020-00316-6.
- 39. Parry BR, Gordon E: The shadow pandemic: Inequitable gendered impacts of COVID-19 in South Africa. *Gender Work Organ.* 2021; 28(2): 795-806. DOI: 10.1111/gwao.12565.
- 40. UNFPA, UNICEF: Child marriage in COVID-19 contexts: Disruptions, alternative approaches and building programme resilience. 2020. Available at https://www.unicef.org/esa/media/7651/
- ${\it file/Child-Marriage-in-COVID-19-contexts.pdf}. \ \ {\it Accessed June 14}, \\ 2021.$
- 41. Jones N, Gebeyehu Y, Gezahegne K, et al.: Child marriage risks in the context of COVID-19 in Ethiopia. Policy brief. 2020. Available at https://assets.publishing.service.gov.uk/media/5f314dec8fa8f57 acac337db/GAGE-Covid-19-Ethiopia-child-marriage.pdf.
- 42. Morens DM, Fauci AS: Emerging pandemic diseases: How we got to COVID-19. Cell.~2020;~182(5):~1077-1092.~DOI:~10.1016/j.~cell.2020.08.021.