

**REVIEW:**

# COVID-19 CONSIDERATIONS FOR HOME AND COMMUNITY-BASED CARE. MAY 2020

## EXECUTIVE SUMMARY

### Overarching considerations

- Many guidelines from low- and middle-income countries (LMICs) recognise the necessity to support home and community-based care for COVID-19 (as deemed clinically appropriate, usually recommended only for 'mild' disease) for reasons such as to protect capacity in formal health care settings and to reduce the risk of infection spread in health facilities.
- Not all people will be able to access services due to factors such as cost or availability, and in such instances will rely heavily on a broader range of services such as from informal providers or drug sellers. Local health system realities and resources will require consideration to assure relevance to context and to address gaps and provide support as far as is possible. Responses to COVID-19 should not undermine health care for other prevalent conditions.
- Some people may prefer home care for a variety of reasons, including mistrust of formal health services borne of historic exclusions and bad experiences. Efforts to create dialogue with people in local settings and to build trust is crucial.
- Guidance for home care should avoid assumptions about people's resources, capacities and preferences and take into account their diverse social, economic and health system settings. Practicable guidance tailored to context and easily available materials and support is urgently needed.

### Information and communication about home care for COVID-19

- Information about basic infection prevention and control (IPC) is strongly emphasised in public communication material about COVID-19, but specific guidance and advice for home care is not as visible or easily accessible. A variety of communication material focused on home care, in digital and non-digital formats and in diverse languages is needed.
- Two-way communication and dialogue at a local level is crucial to ensure messaging, support and resource mobilisation reflects local people's knowledge, preferences and needs. Infection risks make in-

person community engagement strategies difficult to implement safely and thus alternative strategies for dialogue are needed.

- Special efforts to reach marginalised groups such as women, illiterate and disabled people with appropriate and useful information about home care need to be made.
- Information and guidance should reflect local understandings of disease, symptoms and health seeking, and integrate helpful indigenous practices and approaches to disease prevention and control.

### **Housing conditions, personal protective equipment (PPE) and other resources for IPC**

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- Much home care guidance for COVID-19 overlooks different types of housing such as dormitories and hostels, and conditions such as sharing limited household space, lack of running water and bathrooms. Guidance for care and IPC in these settings measures to address lack of sanitation, are urgently needed.
- Fluid, multi-generational and single-person households are also overlooked in guidance. Options including ‘shielding’ in the home or among extended family or neighbours to protect elders and others at risk of severe disease, or ‘peer care’ models for single households may be considered.
- Home care guidance often recommends that caregivers use medical PPE including disposable masks, gloves and protective clothing, and assumes that soap, disinfectant and waste services are available, while failing to offer advice on alternatives. Support for safe, effective and locally sourced alternatives to medical PPE and disinfectants for IPC is needed, as is guidance for waste management in settings that lack adequate services.

### **Supporting care for COVID-19 at home**

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- Communication between home caregivers and health professionals is essential to monitoring COVID-19 patients’ health, providing advice, and getting patients to critical care if necessary. Where people have limited access to communication technology or where response hotlines are not functioning optimally, alternative options such as shared phones, and/or regular visits from health care workers or community health workers (CHWs) (with attention to IPC, such as staying outside the home at a safe distance and with adequate PPE) should be considered.
- More detailed guidance on how to recognise signs of deteriorating health related to COVID-19, when and how to refer for help, and how to care for seriously ill patients at home (as a last resort), including symptom management and palliative care are needed. Local palliative care teams with health and spiritual expertise and adequate protection should ideally be on hand to assist caregivers. Relatives and spiritual leaders should be facilitated to safely visit dying people in person or virtually.
- Health care workers or CHWs and other local health providers will require training to support home care, especially if it might become necessary for moderate and severe illness associated with COVID-19. A

range of health workers can play a crucial role not only in providing advice, but also delivering and administering therapeutic oxygen at home if hospital admission is not a possibility and if local services can support such care. Similarly, health care workers can be supported safely to assist with identifying signs of deterioration, for example by measuring patients' oxygen levels with pulse oximeters to monitor for difficult to recognise 'silent hypoxia'.

- Caregivers, patients and other household members may require support for food and other necessities such as basic medications. Locally appropriate mechanisms for providing such essentials need to be established.

### Care in repurposed and temporary community-based facilities

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- Community-based care facilities where people with COVID-19 are isolated for care in existing or repurposed spaces should be considered if local conditions make it difficult for people to undertake home care safely. In contexts where the number of cases of confirmed COVID-19 is low and testing is available, it could still be considered 'best practice' to isolate all people with COVID-19 and provide them with facility-based care of some kind.
- People may avoid or 'escape' from facilities in contexts where trust in formal health services or government is low, and if such sites are poorly managed and unhygienic. Coercion should be avoided and efforts should be made to work with locally trusted forms of public authority.
- Sites should operate transparently, in acceptable buildings, maintain exceptional cleanliness, and provide patients with quality food, care, security, privacy, and opportunities to communicate with family members.

### Engaging with trusted local actors and community institutions

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- Crucial to the success of community-based care is the involvement, training and empowerment of local actors to facilitate and deliver safe care. These vary according to setting but may include CHWs, informal and traditional healers, religious networks, NGOs and other community groups.
- Local actors who 'know' their context can help develop and adapt guidance to reflect local culture, conditions, capacities, and available resources, and ensure information is disseminated through trusted and influential formal and informal channels and networks.
- Local people can help identify need and deliver resources necessary for home care such as PPE, water and sanitation, and mobile phones to communities and households who most need them, as well as help establish 'shielding' arrangements, select, set up and manage community-based facilities, and support formal response in other ways, if provided with support and training.

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# INTRODUCTION

This review presents considerations for care and infection prevention and control (IPC) for COVID-19 in home and community-based care settings. Community-based care generally refers to any care that happens outside of hospital settings – such as in private homes, primary care facilities or residential care facilities.<sup>a</sup> In an outbreak, this might also include care provided in small-scale temporary structures or repurposed buildings like hotels. Depending on the health system resources available, it is likely that community-based care will be provided or supported by people in the state or private sectors, and by a range of lay, professional, informal and paid and unpaid health workers with at least some health training.<sup>1</sup> They may be nurses, doctors, paramedics, community health workers, or others. In this review, home care specifically refers to care provided in the private home of a person with a probable or confirmed case of COVID-19, most immediately by a caregiver who would not necessarily have formal health care training, but can be supported by people who do. They may be a spouse, parent, other household member, friend or peer of the patient. In some instances, people might be alone in their home. Caregivers and those doing self-care can have varying levels of formal support. Home care can additionally be important in an outbreak for those with pre-existing medical or disability-related needs, or underlying health conditions that place them at greater risk of contracting SARS-CoV-2 and experiencing more severe disease. This review considers only home care, and to a lesser extent, community-based care in temporary or repurposed facilities for those with a probable or confirmed case of COVID-19.<sup>b</sup> In contexts where testing for COVID-19 is limited, it will inevitably be difficult to distinguish definitively between COVID-19 and other conditions that have similar symptoms and which may be prevalent. We explain why home care is important and give an overview of existing guidance and models for home and community-based care for COVID-19, with an emphasis on low-and-middle-income countries (LMICs). The guidance reviewed includes government documents, websites and briefs as well publicly available information from NGOs and community-based organisations.<sup>c</sup> We then assess the gaps in this guidance and suggest ways they might be addressed, including by highlighting innovative examples and drawing on knowledge of past outbreaks of disease. Recommendations are aimed at governments, NGOs and community-based organisations who are mobilising to provide guidance and support for home care.

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<sup>a</sup> Although care in pre-existing residential care facilities is an important type of community-based care in the context of an outbreak, the specific circumstances and needs of these facilities and the high-risk people who reside in them put this scenario outside the consideration of this review. That said, it is important that any guidance for care in these settings are context and facility specific.

<sup>b</sup> Although the World Health Organisation (WHO) guidelines on home care for people with COVID-19 also include details on the isolation of contacts, detailed discussion on this is outside the scope of this review.

<sup>c</sup> While we attempted to survey guidance and approaches for a wide array of LMIC contexts currently impacted, or expected to be impacted by the COVID-19 pandemic, linguistic and time constraints undoubtedly mean that we have missed some pertinent examples and details. For another useful exploration of home care focused more on middle- and high-income settings, see *A review on implications of home care in a biological hazard: The case of SARS-CoV-2/COVID-19*.<sup>2</sup>

This review was developed for the Social Science in Humanitarian Action Platform (SSHAP) by Hayley MacGregor and Tabitha Hrynich at the Institute of Development Studies (IDS). It aims to provide practical considerations for governments and response partners working on the COVID-19 response in the context of LMICs and is the responsibility of the SSHAP.

# WHY IS HOME AND COMMUNITY-BASED CARE IMPORTANT?

Current World Health Organisation (WHO) guidance on home care acknowledges that hospital care or isolation and care in a repurposed facility might not be possible in all cases and sanctions home care for people with mild symptoms of COVID-19 with no risk factors for severe disease.<sup>3</sup> There are several reasons why home and community-based care models are increasingly recognised as important, especially as sustained levels of community transmission of the SARS-CoV-2 virus occurs in many national settings and as case numbers increase.

## MILD ILLNESS

Epidemiological research has confirmed that most people who acquire a COVID-19 infection are likely to experience only mild illness.<sup>4</sup> In most situations, mild illness does not require specialist equipment or care, and can be safely managed at home as long as people have necessary resources and support, including appropriate PPE to protect caregivers.

## LIMITED HEALTH SYSTEM CAPACITY

A concern for all countries is the potential for COVID-19 to overwhelm health systems with high numbers of patients requiring care at the same time. Critical care capacity in hospitals in resource-rich settings such as China, Italy<sup>5</sup> and the United States have strained under the pressure of huge numbers of COVID-19 patients, while health systems in LMIC settings such as Iran,<sup>6</sup> Indonesia,<sup>7</sup> Brazil,<sup>8</sup> India<sup>9</sup> and elsewhere are currently under pressure. Prioritising those with moderate and severe illness for hospital care while supporting home and community-based care models can help alleviate this pressure.

## PREVENTING INFECTION

Home care as appropriate, such as for those with mild disease, can help mitigate the potential infection of health, emergency response and other workers and patients in health facilities, especially in situations where setting up COVID-19-specific isolation wards or dedicated isolation facilities is difficult to achieve or where there are challenges with triage on entry to health facilities or with the provision of PPE for health care workers. One review in China found that 44% of patients with confirmed COVID-19 acquired their infections in health care settings.<sup>10</sup> Over one fifth of family doctors fell ill in Bergamo, Italy,<sup>11</sup> and it is estimated that 90,000 health workers have been infected worldwide.<sup>12</sup> Well-managed care in repurposed or temporary facilities for probable or confirmed cases in the community can also help minimise the risk of infection spreading in communities and homes, particularly if housing conditions make it difficult for people to practise isolation, physical distancing and other infection prevention measures. In some settings, such facilities might be prioritised above home care.

## LACK OF ACCESS TO HEALTH SERVICES

In some LMICs, access to formal health services may be limited at the best of times, especially for marginalised populations or for those who cannot afford care in settings where there is no Universal Health



Coverage. Such services may yet fail to reach certain groups, even in the context of scaled up responses to COVID-19. In some cases, access may be further curtailed as health facilities close due to an inability to operate safely, or are forced to turn away patients for lack of space and capacity.<sup>13</sup> National responses to COVID-19 such as lockdowns, curfews and transport restrictions can also further curtail access as people are not allowed to travel for help. Restrictions on motorbike taxis in Uganda for instance, has meant that people who depend on this form of transport for getting to health facilities (workers and patients alike), are unable to reach them.<sup>14</sup> Without such access, people will have few alternatives but to undertake care at home. Anthropologists have documented how communities facing the Ebola crisis in West Africa developed their own protocols to screen members for the disease and to undertake home care. This included isolating ill persons, and providing them with nutritious foods.<sup>15,16</sup>

## PREFERENCES FOR HOME CARE

Experiences of health system neglect, compounded by other forms of economic and political exclusion, can influence levels of trust people have in official outbreak responses and related health care, and prompt them to choose *not* to seek care, even when available. Poorly conceived and implemented outbreak responses can exacerbate this distrust, and deepen people's resolve to avoid formal care. During Ebola outbreaks in East and West Africa, the failure of formal responders to handle the dead with respect, and even to inform families of the deaths of their loved ones in some cases, very understandably deterred health seeking through formal pathways.<sup>16-18</sup> In at least one Sierra Leonean community, the survival rate of patients looked after at home may have been better than that among patients who were admitted to the nearest Ebola Treatment Centre.<sup>16</sup> Local ethics of care can lead communities and families to opt to care for their loved ones in ways perceived to offer the best chance of survival. Worries about stigma and social isolation may also deter or delay people from seeking formal care, as has been the case in some settings for diseases such as HIV and tuberculosis.<sup>19,20</sup> It is currently unclear to what extent and in what ways stigma associated with COVID-19 in different contexts might link to care seeking in facilities. There have been reports of communities refusing the burials of people who have died from COVID-19 within village boundaries.<sup>21</sup>

# REVIEW OF EXISTING GUIDANCE ON HOME AND COMMUNITY-BASED CARE FOR COVID-19 IN DIFFERENT CONTEXTS

Several countries have official guidelines in place for caring for people with COVID-19 at home, or have incorporated elements of home care principles and guidance into public communications material, or other COVID-19 response documents. Many have also incorporated the use of repurposed or temporary facilities for isolation and treatment into their case management protocols. This section offers a summarised description of the dominant approaches to home care in existing official guidance which we have been able to access and review, as well as highlights some of the variation within these approaches. Examples and initiatives beyond official guidance, where relevant, are also described. Brief information for specific countries' approaches can be found in the Appendix.

## Summary of existing guidelines for COVID-19 home care

Most official guidance appears to align with home care guidelines originally produced by the WHO (adapted from MERS).<sup>3</sup> These, considered to represent 'best practices', recommend that all confirmed cases be isolated and treated in health facilities, although they also recognise this may not always be possible. In light of this, the guidelines acknowledge that people with mild disease might be cared for at home or in a repurposed facility outside of their home.<sup>d</sup> The US Centers for Disease Control and Prevention (CDC) has also produced guidance for home care,<sup>22,23</sup> which has been referenced by some other national guidelines (e.g. Kenya, Bangladesh). Although there is some variation and level of detail between national guidelines, recommendations about who is eligible for home care, and what it entails is relatively consistent.

## HOME CARE IS FOR MILD CASES

The WHO and many countries recommending home care as an option indicate that it is suitable for people with mild cases of COVID-19 who are not elderly and do not have other complicating health issues, such as lung or heart disease, renal failure, or immunocompromising conditions. Exceptions include Bangladesh which specifically states that people with 'moderate' illness (defined as uncomplicated pneumonia with no need for oxygen),<sup>24</sup> and Brazil which suggests that elderly people and people with comorbidities (with mild illness) can also be cared for at home, as long as they are in daily contact with health professionals.<sup>25</sup> As an example of how decisions about who can or should undertake home care are made, in the UK, a National Health Service (NHS) helpline for COVID-19 assists in assessing the severity of people's symptoms and advises

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<sup>d</sup> Some countries, such as Vietnam and Nigeria, maintain that all people with suspected and confirmed COVID-19 infections should be isolated in formal health facilities (including community-based facilities in Nigeria) to avoid further infection spread. Such an approach is only feasible in contained outbreak situations, where testing and resources are readily available, and where there are few cases.

them accordingly. GPs and emergency services also judge severity and the case for admission against protocols that are aimed at keeping people out of hospital unless they have more severe symptoms.<sup>26</sup>

## **INFECTION PREVENTION CONTROL (IPC)**

A major emphasis in home care guidelines is placed on IPC in the home environment. The most frequently invoked provisions across different sets of guidelines state that infected patients should, ideally, stay in their own well-ventilated room, and away from other household members. Where this is not possible, people are advised to maintain at least one meter's distance from the sick person, and to refrain from sleeping in the same bed, and sharing eating and drinking utensils, towels, linen and other personal items. Some guidelines also recommend that patients use a separate bathroom if available, and if not, to ensure its frequent disinfection by a caregiver (in Brazil, it is recommended that patients clean the bathroom, as well as do their own laundry). South African guidance suggests that people who live in shared accommodation such as residence halls only leave their room when necessary, and wear a surgical mask when they do so.<sup>27</sup> Regular disinfection of frequently used surfaces with chlorine, bleach, alcohol or other 'common disinfectants' is recommended, and waste such as used tissues, masks and gloves should be kept in a covered bin when in the home. WHO guidelines go on to specify that these waste items should then be picked up by local sanitary authorities. Countries which are more specific about waste include Kenya, which suggests it should be collected by community health volunteers and taken to the nearest medical facility for safe disposal,<sup>28</sup> and Bangladesh and India which suggest it should be burnt, or buried deeply.<sup>29,30</sup>

## **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

To contain secretions, patients are advised to wear medical masks as much as possible, or to practice 'rigorous respiratory hygiene' using disposable tissues, or washable handkerchiefs. Some countries, such as Bangladesh and Uganda suggest patients can use regularly washed cloth masks or a 'clean piece of cotton'.<sup>29,31</sup> Indeed, some countries, such as South Africa, heavily promote the use of cloth masks among the public for general infection prevention purposes,<sup>32</sup> but caregivers are almost universally recommended to use disposable medical masks when undertaking home care activities. India more specifically recommends caregivers use 'triple-layered medical masks'<sup>30</sup> and Kenya recommends N95 masks.<sup>28</sup> Even when 'simple masks' are recommended, as in the case of Peru,<sup>33</sup> these, like the former, are to be disposed of and replaced frequently. Caregivers are also recommended to use disposable gloves (or regularly disinfected utility gloves) when engaging with the patient and items they have touched, as well as to wear 'protective clothing' such as disposable gowns or cleanable plastic aprons, especially when handling the patient's laundry or waste. With the exception of washable handkerchiefs and cloth masks for patients, none of the guidance we assessed offers advice on alternatives to medical PPE for caregivers in the likely scenario that such items are not available. South African advice suggests home patients should receive a 'care pack', but it is not clear what this entails.<sup>34</sup>

## HOME ASSESSMENT OF ENVIRONMENT AND RISK OF REST OF HOUSEHOLD

Where possible, WHO guidelines indicate that home environments in which patients are to be cared for should be assessed by a trained health worker to ensure they are suitable for home care. Many countries have established basic criteria for this including that necessary space (ability to isolate and maintain distance from others), PPE, food and other essentials are available, and that necessary IPC measures can be followed by all household members, none of whom should be at heightened risk for complications from COVID-19 if they were to become infected. Many guidelines also specify that a designated carer should be available, while fewer imply that self-care can be undertaken (e.g. Scotland).<sup>35</sup> Such assessment may be performed with the help of a checklist to ensure households have capacity to comply with these provisions. It is not always clear whether evaluations are to be conducted in person or by phone, or exactly who might conduct these; in some cases, such as South Africa, a call or a visit is specified.<sup>36</sup> If patients do not have adequate home environments, guidelines imply they should be accommodated in formal facilities if possible.

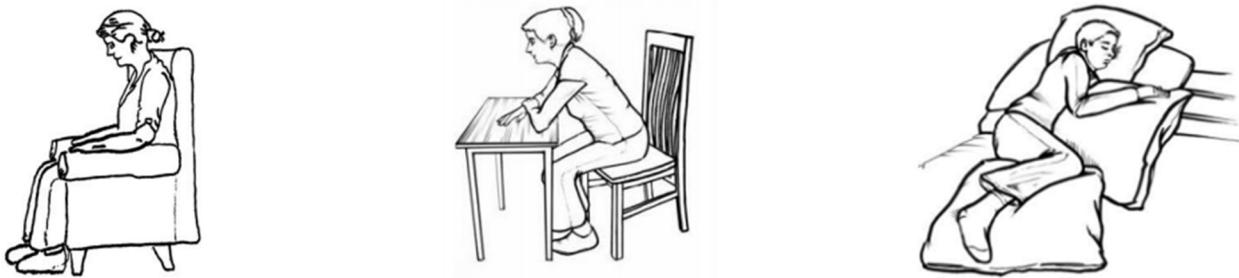
## LINK TO FORMAL HEALTH SERVICES

WHO guidelines also suggest that ‘where feasible’, a communication link between the household in which a patient is being cared for and a health professional should be maintained throughout the period of care. In many national guidelines, this is also framed as a condition for home care and contact should occur as often as once every day (such as in the Philippines, or in Brazil for elderly patients).<sup>37,38</sup> Such communication is framed as important for monitoring the patients’ health, and for providing on-going advice to caregivers and other household members on aspects of IPC. In South Africa, the emphasis is not necessarily on regular contact, but on providing the patient or caregiver with information of who they should call if necessary, and that they are able to get to a health facility if necessary.<sup>27</sup>

## CLINICAL CARE

Home care guidance that includes therapeutic or clinical recommendations emphasises non-pharmacological measures including that patients with mild symptoms should rest, consume plenty of fluids and eat nutritious food. Some specifies that patients at home can also be treated with paracetamol or other over-the-counter medicines for fever and pain. Bangladesh guidelines also suggest steam inhalation and gurgling warm water.<sup>24</sup> In India, a chatbot which people can interact with on various digital platforms such as WhatsApp, offers a recipe for an immune boosting traditional herbal formulation. Some guidance gives indication of symptoms that should be cause for concern for caregivers, such as trouble breathing, disorientation, seizures etc. Generally, patients and/or caregivers are instructed that they must contact the patient’s doctor, COVID-19 response hotlines, or other designated personnel if such symptoms appear. None of the guidance reviewed (which is directed at caregivers) addresses the challenge of differentiating between different potential causes of COVID-like symptoms such as fever or cough if testing for SARS-COV-2 is unavailable. No advice about how to manage more serious symptoms at home could be found in official government home care guidance, although some material has been produced by non-state actors. In the UK for instance, a guide for COVID-19-related palliative and end of life care aimed directly at caregivers, has been developed by health professionals.<sup>39</sup> A guide on helping people to manage breathlessness at home during the COVID-

19 pandemic has also been developed in the UK, although not necessarily for COVID-19 (people are advised to call the NHS if they think they may have COVID-19) (see **Figure 1**).<sup>40</sup>



**Figure 1** Images depicting body positions people experiencing breathlessness can assume to alleviate their symptoms, from the *Managing Breathlessness* guide. Source: Higginson et al., 2020 <https://www.kcl.ac.uk/cicelysaunders/resources/khp-gp-breathlessness-resource.pdf>

## ENDING HOME CARE

In order for people to be ‘released’ from home care, WHO guidelines recommend that people with laboratory confirmed COVID-19 test negative twice using PCR testing, or remain in isolation for 14 days after symptoms resolve. Most national guidance similarly suggests that people remain at home for 14 days from the resolution of symptoms, although some specify 14 days from the onset of symptoms. The UK stipulates only seven days from the onset of symptoms.<sup>41</sup> Indian guidelines specify that home isolation can end 17 days from the onset of symptoms.<sup>42</sup>

## ADVICE TO OTHER HOUSEHOLD MEMBERS, VISITORS AND CONTACTS OF THE PATIENT

Most guidance specifies that people outside the household should not visit a patient’s home until they are no longer in home care and isolation. As for household members and other contacts of a patient (including health workers), WHO guidelines suggest they should monitor their health for 14 days from the date of last contact, and seek advice and care if they develop symptoms. No requirement for isolation of these individuals is explicitly stated in WHO home care guidance. In contrast, some national guidelines, such as in the Philippines, Brazil, South Africa and the UK, specify that contacts and household members of a person receiving home care also need to isolate at home.<sup>38,41,43,44</sup> UK guidance additionally suggests that if anyone in the patient’s home is at risk for more severe disease if infected with COVID-19, they should stay elsewhere for 14 days if this is possible.<sup>41</sup>

## Communicating guidance and advice

Detailed guidelines for home care in some countries appear to be only embedded in more general response documents such as manuals for clinical management, and are thus directed at health managers and professionals rather than home caregivers themselves (e.g. Uganda, the Philippines). Some exist as guidance documents in their own right, usually on government websites, and are available to, but again, not necessarily directed at the public (e.g. Kenya).<sup>28</sup> Although varying in detail and accessibility, some countries such as South Africa and Peru offer guidance tailored more for a public audience on dedicated webpages.<sup>34</sup> Major national news outlets have also published accessible versions of guidance in some countries, such as Brazil and Mexico.<sup>45,46</sup> Elsewhere, elements of home care are represented in public communication materials including social media ‘cards’ and posters which are available for sharing. Most of this material tends to focus on basic IPC in the home and community however, and is relatively basic. **Figure 2** from the WHO offers a more comprehensive example, explicitly focused on home care. WHO has additionally produced an animated video illustrating its home care advice,<sup>47</sup> as has the Indian government.<sup>30</sup> A UK based charity, Doctors of the World, has published videos (and written guidance) communicating information about COVID-19, including UK isolation guidance for people with symptoms in 12 different languages.<sup>48</sup> Simple home care and isolation guidance in infographic form have also been produced in 12 languages by an Indonesian civil society group.<sup>49</sup>



**Figure 2** Home care poster designed by the WHO. Source: WHO, 2020 <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

## REMOTE SUPPORT FOR CARERS AND PATIENTS

Many countries emphasise that caregivers and/or patients must be in contact with health professionals on a regular basis for check-ins by phone. In addition to this, there have been some attempts to establish more ambitious and sophisticated telemedicine platforms or other forms of digital health communication. In wealthier countries such as the US and UK, existing platforms have been scaled up or switched gears to accommodate video-capable telemedicine for COVID-19 care at home, as well as for other medical conditions in order to limit inter-personal contact.<sup>50</sup> The BMJ has published a ‘best practice’ guide for remote consultations,<sup>51</sup> including for primary care.<sup>52</sup> A private firm in India has developed an app which provides advice for COVID-19 home care and connects people to teams of health professionals for free. The firm has partnered with several hospitals and four state governments and is seeking further approval.<sup>53,54</sup> The Algerian government has launched a platform in partnership with a private firm through which people can

access free consultations and support with health care workers,<sup>55</sup> while a group of doctors in Egypt have taken to Facebook to support COVID-19 patients at home.<sup>56</sup> A number of automated chatbots aimed at the public that operate through SMS, WhatsApp, Facebook and other platforms have also been set up, including by the WHO, and some national governments such as India, Bangladesh, South Africa and others,<sup>57</sup> through which users can get basic information about COVID-19 and its prevention. While these platforms do not appear to offer advice for home care, they may direct users to helplines or websites where such information might be available.

### **Health worker home visits and community health workers**

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Some national guidelines suggest that health workers might visit patients at home. Brazilian guidance for instance, indicates that if necessary, health workers should 'perform face-to-face assistance, ideally at home'.<sup>37</sup> Bangladeshi guidance also suggests patients may be visited at home by health workers.<sup>29</sup> There is evidence of other types of home visits not necessarily specified in guidelines. In northern Italy where health services were overwhelmed by the number of COVID-19 patients requiring critical care, emergency workers and doctors delivered oxygen and care to patients at home, suggesting that home care has also been sanctioned for more serious cases in this context.<sup>58–60</sup> AMREF Health Africa and Avert have recognised the value of CHWs, who have played key roles in supporting population health in LMICs, often by going door-to-door. These organisations have developed COVID-19 training materials for them, accessible through apps which be run both on and offline. More specifically, AMREF has added WHO compliant content to its Leap platform, which is accessible even on simple phones through an SMS platform. This training has already reached 54 thousand CHWs in Kenya, and is also active in Ethiopia.<sup>61,62</sup> Plans to introduce the AMREF platform to CHWs in Malawi and South Africa are underway. At present, the apps support CHWs to provide basic information about COVID-19, including infection prevention advice and who to contact in case of symptoms, but represent opportunities through which more specific and appropriate advice for home care, tailored to context and local conditions, might be provided.

### **Community-based care in repurposed or temporarily erected facilities**

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A range of models for community-based care other than home care for patients with suspected or confirmed COVID-19 exists. Some countries, such as China, Vietnam, Malaysia,<sup>63</sup> Egypt<sup>64</sup> and Nigeria<sup>65</sup> appear to imply that all people with probable and/or confirmed infections of COVID-19, including mild ones, must be cared for in formal health facilities if possible. Such facilities may include repurposed or temporary community-based spaces, ranging from the large scale and rapidly erected 'Fangcang shelter hospitals' constructed by the Chinese state,<sup>66</sup> to smaller and more local repurposed spaces like hotels, schools, churches and even railway cars,<sup>67</sup> and temporarily constructed shelters. In countries where home care is sanctioned for mild cases, accommodation in such community-based care facilities may also be offered if it is difficult for patients and their household members to adhere to all necessary measures at home. The UK has also used hotels to temporarily house as well as care for homeless people with probable COVID-19.<sup>68</sup> Community-based facilities

may be staffed by health workers, as well as trained volunteers, security and logistics personnel who play a range of roles. Uganda specifies that for every 100 patients, one nurse and a nursing aid should be available.<sup>31</sup> In India, COVID-19 Care Centres are staffed by doctors registered to the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), under the supervision of allopathic physicians.<sup>69</sup> In the Philippines, COVID Care Centre staff are to include community health volunteers, and are supervised by a physician either in person, or via telemedicine arrangements.<sup>38</sup> Ugandan guidelines specify that such facilities should be within 'proximity' of a formal health facility and have adequate emergency transport for moving patients. Patients should also be provided with access to running water, toilets and bathrooms, food, security and psychosocial support.<sup>31</sup> Guidelines from both Malaysia and the Philippines suggest it is ideal if patients have their own private rooms and toilets, but where this is not possible, beds should be at least one (Malaysia) or two metres from each other, and in the case of the Philippines, with at least a screen or curtain available for privacy.<sup>38,63</sup>



# KEY ISSUES AND RECOMMENDATIONS FOR ADDRESSING GAPS IN HOME AND COMMUNITY-BASED CARE

A number of assumptions are made in home care guidance. Although many guidelines for home care do include caveats in relation to whether a patient has their own room or bathroom, there is still inadequate attention to the material and socio-political realities of many people, particularly in LMICs and low-resource settings, but also in high-income countries. Such gaps in guidance can undermine the ability of people to care for their loved ones safely and effectively, and to mitigate the spread of COVID-19 in their homes, communities and beyond. Across five themes, this section outlines some of these gaps and issues to consider, and provides recommendations to address them. Where relevant, specific experience from past disease outbreaks and from the current COVID-19 pandemic are also presented.

## 1. ACCESSIBILITY AND COMMUNICATION OF HOME CARE GUIDANCE

There are a number of gaps and assumptions in current models and approaches to communicating guidance around home care. Knowing what to do is crucial for home caregivers. Advice and support should be available and accessible.

### 1.1 Take account of barriers to accessing guidance and support

#### ISSUES TO CONSIDER

There is a **dearth of accessible public communication materials focused on home care, both online and off**. In some countries, detailed guidance for home care can only be found in clinical management protocols or other documents on government websites which are not necessarily directed at a public audience. This assumes that people with probable COVID-19 will make contact with formal response actors who can provide them with the information they need about home care. Indeed, some country guidelines, in line with WHO guidance, stipulate that people should be assessed as eligible (or not) for home care. The implication is that if home care is deemed appropriate by a health professional, then only after this will they be provided with more detailed guidance and 'linked' to ongoing support in some settings. People who are unable or unwilling to communicate with formal actors for any number of reasons will not be able to access guidance and support.

Additional barriers to access exist for certain groups of people. The design of appropriate and accessible communication material may be particularly challenging in contexts with high levels of illiteracy and where populations are linguistically diverse. Marginalised groups such as women, migrants, ethnic minorities and people with disabilities are particularly at risk of being overlooked by messaging.<sup>70–72</sup>

## EXPERIENCE

Experiences from the West African Ebola crisis showed that people's calls to response hotlines often went unanswered, or had very long wait times.<sup>73,74</sup> There is evidence from Bangladesh and Nigeria that people are already struggling to get through on COVID-19 hotlines, or not getting the help they need when they are answered.<sup>75,76</sup> Efforts of community-based organisations such as Muungano in Kenya are helping to identify vulnerable and hard to reach people in already marginalised communities, and using this mapping to target messaging and resources.<sup>77</sup> Community-based efforts such as this can also help provide information and support for home care, as well as identify households where home care would not be possible. Vulnerable people might include those with other health conditions which need to be addressed.

Efforts to produce and provide communications material and information on COVID-19 that reflects linguistic diversity have been made in some contexts. In the UK and Indonesia for instance, this includes videos and translated guidance with basic home care advice,<sup>48,49</sup> while in Thailand, a COVID-19 information hotline for linguistically diverse migrant communities has been set up.<sup>78</sup> Braille materials have also been produced by community groups in Malawi.<sup>79</sup> It is unclear to what extent home care advice is offered in this braille material or through the hotline, but these approaches represent potential avenues through which such advice might reach groups often excluded in messaging.

Creative ways of communicating with hard to reach and unconnected groups during emergencies has also been done in the past with responders emphasising radio, and using megaphones and speaker announcements in public spaces such as markets and from bicycles and vehicles. In its COVID-19 communication efforts in the Middle East and North Africa, UNICEF has taken up some of these strategies, as well as emphasised printed materials distributed in pharmacies and trading areas, and attached to humanitarian assistance.<sup>80</sup>

## RECOMMENDATIONS:

- **Recommendation:** Ensure that home care advice and support is accessible in a wide variety of forms and spaces, and not just made available to people when they make contact with formal health services.
- **Recommendation:** Work with local actors and organisations to conduct community mapping exercises which can provide an overview of local conditions to anticipate needs, and target support to people who might not or are unable to make contact with formal response agencies.
- **Recommendation:** Develop communications materials, both printed and digital, focused on home care, especially in visual, pictorial, audio and video formats, and make them available in different local and indigenous languages, including vernacularised language. Utilise posters, billboards, murals, television and social media. Post and broadcast these through trusted and accessible local channels, in collaboration with local actors and community-based networks.

- **Recommendation:** Radio is a key medium to reach people where access to other devices is scarce,<sup>81</sup> while loudspeaker and megaphone announcements from churches, mosques or people in vehicles, on bicycles or on foot may also provide information to people with limited access.
- **Recommendation:** Produce communications material in formats accessible to people with disabilities including videos with sign language, and physical braille materials.

## 1.2 Account for limitations in mobile phone and communication technology and address exclusions

### ISSUES TO CONSIDER

Another barrier to people accessing information and on-going support for home care is limited access to communication technologies. This persists in many marginalised and poor communities, and even within households. **Women, who are more likely to be care givers for sick relatives and friends, are at the same time less likely to have access to communication technology.** In India today, only 33% of women have their own mobile phone while 67% of men do.<sup>82</sup> Limited access manifests not only as **lack of phones, but also as lack of network credit, data and Wi-Fi access.** Less than half the households in LMI countries have internet connections, and one gigabyte of data costs 40% of the average monthly earnings in sub-Saharan Africa.<sup>83</sup> Due to these exclusions, many may be unable to make initial calls to health services or hotlines, to access online information about home care, and to communicate on an ongoing basis with health professionals for support. Although hotlines may be toll-free and apps free to download, mobile service providers may still charge for use of mobile and broadband networks. While providers in some contexts such as India and Nigeria have given customers free access to verified websites with information about COVID-19, as well as free SMS and data, it is not clear how widespread this is.<sup>84,85</sup>

### EXPERIENCE

One recent study has found that older women in the Rohingya camps in Bangladesh, without access to phones or radios, knew much less about COVID-19 than their male counterparts.<sup>86</sup> Similar gender disparities in access to information in disease outbreaks have been documented, including in outbreaks of Ebola and of HIV/AIDS.<sup>87</sup> However, women can be important sources of information for each other. During the West African Ebola crisis, women exchanged information and learning on care in women's groups.<sup>15</sup>

### RECOMMENDATIONS

- **Recommendation:** If direct phone or digital communication with a household is not possible, it may be necessary for health workers such as CHWs to regularly visit homes where care is taking place.
- **Recommendation:** Special efforts need to be made to reach women and other people who might be excluded from communications with crucial information about home care. Places frequented by women such as marketplaces and water collection points could be targeted with messaging on home care and helplines to call. Women's groups and networks may also be good entry points for introducing information. Heads of women's groups should be included in local health taskforces as they likely have a means of communicating with women in their communities.

- **Recommendation:** Expand public communications material in non-digital, visual formats to address technological and literacy exclusions.

### 1.3 Address a lack of publicly available communication materials on practical aspects of home care

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#### ISSUES TO CONSIDER

COVID-19 related communications material tends to emphasise basic IPC in the community and home to reduce the spread of the virus (such as the use of masks, covering the nose and mouth when coughing, maintaining physical distance and frequent handwashing), and instructs people to contact relevant authorities if they develop symptoms. While basic IPC measures are important aspects of home care and indeed need to be disseminated widely, failure to communicate other useful and more detailed information about how to conduct home care (including symptom alleviation and signs of deterioration – see **section 4**) risks leaving people without essential tools to comfort and care for loved ones. Quickly evolving scientific understanding of COVID-19 also presents a challenge for messaging in terms of consistency.

#### EXPERIENCE

During the West African Ebola crisis, communities in urban Liberia were frustrated with messaging overly focused on what Ebola was and how it spread, and were desperate for more practical and consistent information on how to care for, isolate and transport sick people, and to protect themselves and clean their homes with available materials. Many also found messaging around whether or not and how to touch people infected with Ebola who were receiving care confusing.<sup>73</sup>

#### RECOMMENDATIONS

- **Recommendation:** Pay attention to producing a wide range of guidance for home care which includes practical dimensions of support, including for IPC, symptom alleviation, signs of deterioration, and local avenues to seek further help. This can include for instance, advice on helping weak people to eat and move in bed, and to use the toilet (such as by providing them with a chair). Advice should also include guidance on when people would no longer be considered infectious with SAR-COV-2 and any national stipulations regarding isolation periods for patients and other household members or contacts.
- **Recommendation:** Ensure that messaging about home care is accurate and consistent to the extent possible in a quickly evolving scientific knowledge landscape around COVID-19, and that changes to advice and their rationale, are clearly communicated.

### 1.4 Facilitate dialogue for dynamic information flows and appropriate adaptation around home care

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#### ISSUES TO CONSIDER

While written, visual and audio format public communications material with guidance for home care is important, these more traditional mechanisms for communicating advice may yet fail to reflect people's diverse realities, circumstances, resources and priorities. More dynamic and less top-down modes of

community engagement which facilitate two-way information flows have been recognised as important for successful disease outbreak response, including for COVID-19.<sup>88</sup> This provides opportunities for people not only to ask questions, but to articulate their own needs and priorities, and challenge advice when it is not practical for them. Furthermore, local people may have useful experiences or advice to share with others, and may collectively come up with local solutions if provided with a platform to interact. Indeed, they should be proactively asked what kinds of solutions and strategies they may already have as well as what communications they prefer (including language), what resources they have available to them, and what support they would like to receive.<sup>89</sup> In this way, local people can help shape knowledge and practice around home care in ways that are more realistic and appropriate for them at the local level, and help response actors to adapt further messaging, target resources and support community-led efforts more effectively. As infection risks associated with COVID-19 render in-person engagement strategies difficult, alternative strategies – both old and new – will need to come to the fore.

## EXPERIENCE

Radio broadcasting has been an important way not only of providing information to, but of connecting with local people, particularly in areas with less access to other forms of communication technology.<sup>81</sup> During Ebola outbreaks, radio talk shows for instance, proved a valuable source of information and interaction with local people.<sup>90</sup> Radio is also important in the context of COVID-19. A journalist's association in Burkina Faso is putting out regular broadcasts on aspects of COVID-19, and inviting listeners to call in with their own questions and perspectives.<sup>91</sup>

## RECOMMENDATIONS

- **Recommendation:** Engage local radio stations to host call-in Q&A sessions and discussions about home care between and amongst local people, influential community members and response actors in different languages and local vernaculars.
- **Recommendation:** Social media can be a space where Q&A and dynamic discussions about home care can also be had. Although not everyone is connected, those who are may themselves be locally influential. Existing chatbots tend to provide one-way information. Consider more dynamic platforms on Whatsapp, Facebook or other social media to introduce information and discussion about home care. Proactively engage with unhelpful information that emerges in these spaces.
- **Recommendation:** Depending on the circumstances and setting, engage CHWs and other locally trusted actors to make safe door-to-door visits - remaining at a distance outside the home, and protected with adequate PPE (including safe alternatives to medical PPE, see **section 2.3**) - to offer information and, just as importantly, engage in conversation about COVID-19, including about home care. Two-way communication between people and CHWs can inform national and local response about local people's knowledge, preferences, needs and strategies as much as it can provide information to them.

- **Recommendation:** Engage local actors, including people with disabilities, to ensure messaging resonates with people's material and social realities, and uses words and concepts they understand. Symptoms or severity of disease for instance may be understood and described differently by local people, and messaging should be adapted accordingly.

## 2. PRACTICAL ISSUES AROUND DIVERSE SOCIAL AND MATERIAL CONDITIONS AND IPC IN HOMES IN LOW-RESOURCE SETTINGS

Many national guidelines incorporate the caveat that home care should only be undertaken if patients are assessed to have adequate home environments. If they do not, it is implied that they should alternatively be cared for in formal facilities. In the likely scenario that health systems are overwhelmed with patients requiring urgent care, space in hospitals, clinics and community-based facilities may not be available regardless of what patients' home environments are like. For this reason, it is important to provide additional advice and support for people whose homes and capacities do not meet official criteria established for home care. This includes advice on how to ensure IPC in less than ideal circumstances.

### 2.1 Recognise challenging housing and sanitation settings and adapt IPC accordingly

#### ISSUES TO CONSIDER

In low-resource settings, homes may consist of **only one or two poorly ventilated rooms** to be shared by several family members, making it very difficult to maintain requisite physical distance between a patient, caregiver, and other household members. There **may be no toilet** in the home, with facilities being shared by lots of people in the community. This makes it extremely difficult to frequently disinfect toilets as prescribed by home care guidance (let alone provide an infected individual with their own toilet as often recommended), and to practise strict household isolation. Homes may also **lack their own water supplies** making it difficult to practise frequent and generous handwashing, dish washing and laundry which are necessary for infection control at home. A requirement for water to be purchased or collected from outside the home may also make adherence to home IPC difficult, due to the need to ration, and/or leave the home for collection.

Other housing types largely unrecognised in the reviewed home care guidance include **hostels and dormitories**, which are often used by migrants, students, or people with no fixed abode. Here too, shared toilets, cooking and eating spaces, and frequent contact between residents is likely to make physical distancing and safe care extremely difficult. More detailed and practicable advice for IPC in such settings is urgently needed. One-size-fits-all criteria for housing conditions in assessments for home care will be unhelpful, especially if there is a lack of alternatives to home care.

## EXPERIENCE

Community-based organisations are playing a role in supporting community IPC and identifying alternative options to home care for people who live in challenging housing situations. Muungano, the Kenyan federation of slum dwellers for instance, has worked with informal settlement communities in Nairobi and Kisumu to develop maps showing where alternative centres for care could be locally established.<sup>92</sup> In Bangladesh, BRAC has set up handwashing stations in public areas,<sup>93</sup> while in India, women's Self Help Groups have organised to produce 100,000 litres of sanitiser and nearly 50,000 litres of hand wash.<sup>94</sup> The decentralised nature of the production has meant it gets to people who need it more quickly than top down distribution and supply chains.

## RECOMMENDATIONS

- **Recommendation:** Especially when home care environments are challenging, consider community-based care options in repurposed or temporarily erected facilities if such approaches do not already exist (see recommendations in **section 5** below) and if safe and acceptable implementation is possible.
- **Recommendation:** Work with local actors to develop or adapt home care guidance to address diverse housing conditions that get beyond the caveat that those who share rooms must maintain distance. Alternative housing arrangements within extended families, streets or neighbourhoods can be considered to 'shield' vulnerable people, and/or to isolate infected people and their caregivers from others can be explored.<sup>95,96</sup>
- **Recommendation:** With local actors, bring assessment procedures and associated checklists for determining who is eligible for home care in line with adapted guidance for different housing types and other local conditions, including whether safe community-based care alternatives are available.
- **Recommendation:** Supply sanitation, clean water and soap (or ash) to communities and homes with limited access.<sup>97,98,99</sup> This can include provision of hand washing stations, delivering water to homes, and constructing or providing additional latrines or other appropriate sewerage management arrangements. Ensure services are free or affordable and collaborate with local actors to ensure these resources reach those who most need them.
- **Recommendation:** If possible, provide and distribute locally available cleaning solutions and hand sanitiser, particularly if clean water is scarce. Although hand sanitisers made of locally available products such as spirits might not have adequate alcohol content to be completely effective against the virus,<sup>100</sup> they may be better than nothing.

## 2.2 Adapt guidance to accommodate diverse forms of household composition and social arrangements

### ISSUES TO CONSIDER

In emphasising that all members of a household should isolate at home in order to avoid spreading the virus further in the community, some guidance assumes that households are static units with definable membership. In some settings, **household make-up is more fluid with different people moving between**

**different houses** to sleep or eat. Additionally, many guidelines emphasise that care for an infected person should not take place in the home if there are other household members at heightened risk for complications. The **prevalence of multi-generational households** in many contexts, with elders living alongside and often caring for younger family members including very young children, presents obvious risks.<sup>101</sup> And yet, if appropriate health facilities for the patient are unavailable, unsafe or untrusted (or alternative ‘shielding’ arrangements cannot be made for those at heightened risk), care will nevertheless need to be, or will be preferred to be, undertaken at home. In some instances, repurposed facilities might need to be considered urgently. **Single ‘households’** are also under addressed in guidance, with many protocols implying or directly stipulating that home care should not be undertaken if a caregiver is not available. The large influx of migrant workers to urban areas in many countries over the last decades has swelled the numbers of individual people living in hostels, dormitories and other forms of shared housing, often with multiple occupants to a room.<sup>102</sup> In addition to obstacles this type of housing presents for physical distancing, people in these settings may also lack social relationships with their co-habitants that facilitate a sense of obligation for people to provide care for others in their community. They may also be more at risk of being stigmatised.

## EXPERIENCE

It is estimated that 200,000 migrant workers live in 43 dormitories in Singapore, with between 12 and 20 occupants to a room. The majority of confirmed COVID-19 cases in Singapore have occurred among these workers, despite the government’s earlier lauded widespread testing and contact tracing efforts. To address this ‘blind spot’ in its response, new strategies, including moving migrant workers into empty public housing to alleviate pressure and ramping up testing in these communities, have been taken.<sup>103,104</sup> As Singapore continues to contend with this challenge, LMICs such as neighbouring Malaysia, are likely to struggle even more to handle similar outbreaks,<sup>105</sup> as they have less scope for rehousing occupants, and more limited testing and health system capacity.

## RECOMMENDATIONS

- **Recommendation:** Consider options for ‘shielding’ elderly and other vulnerable household members, especially in contexts where home care is a likely pathway of care, and where physical distancing is difficult. This can involve establishing ‘green zones’ within homes where multiple rooms are available, or alternative housing arrangements organised at the local level among extended family, or neighbours.<sup>96</sup> This may be more easily facilitated where more ‘fluid’ households and social arrangements are already common. Involve community actors to support the organisation of these arrangements in safe and locally appropriate ways.
- **Recommendation:** If care in health facilities for people residing in hostels, dorms or other shared accommodation is not available, consider encouraging ‘peer care’ models in which single people with no familial ties may be cared for by a co-habiting peer who ideally, has already recovered from COVID-19. Involve facility managers to make necessary adaptations.<sup>106</sup> This may include designating parts of



the building, such as particular toilets and food preparation areas as ‘red’ or ‘green’ zones, and/or designating specific times of the day when certain facilities should be used by different groups.

### 2.3 Assess access to PPE in low-resource settings and address shortcomings as far as possible

#### ISSUES TO CONSIDER

In addition to infrastructure and crucial resources such as water, most current guidance assumes that those undertaking home care will have access to conventional forms of PPE such as disposable medical masks (or N95 masks in the case of Kenya), disposable or utility gloves, plastic aprons, soap and disinfectant. Even in high-income countries, it has been difficult for people outside of medical settings to access these resources, and guidance for proper use and rationing of PPE such as medical masks has been published by the WHO.<sup>107,108</sup> People caring for sick loved ones or peers at home need to be provided with these resources or suitable alternatives if they are unable to source them on their own, or given advice and support to make their own effective PPE from available materials in the likely event that medical grade PPE is not available. While homemade PPE may not offer the best possible protection, a moral imperative exists to ensure people have access to at least basic protection.

#### EXPERIENCE

Access to PPE in local communities was extremely limited during the West African Ebola crisis. This was partially due to hesitance on the part of response decision makers to sanction home care for fear of dissuading people from seeking treatment in formal facilities, and of being unable to provide adequate training and resources to people to provide safe and effective care.<sup>109</sup> In the absence of material support and guidance, stories of health workers and local people devising their own PPE have been documented (see **Figure 3**). Fatu Kekula, a nursing student, successfully cared for several family members with Ebola at home and protected herself with plastic bags, a rain coat, rubber boots, gloves and a standard medical mask.<sup>110</sup> UNICEF began training others in her ‘trash bag’ method, and other people, having seen her story, also took up her methods.<sup>73,110</sup>

After acknowledging that care was and would continue to occur at home during the Ebola crisis, responders in Sierra Leone eventually sanctioned what they framed as support for home care ‘while waiting’.<sup>109</sup> This recognition led to the eventual – but late – distribution of kits including buckets, disinfectant, basic PPE and instructions for home care in Sierra Leone and Liberia.<sup>114</sup> The opportunity to anticipate similar needs for material support and guidance in the context of COVID-19 must not be missed. Examples of existing



**Figure 3** A member of a village burial team in Sierra Leone wearing home-made PPE. Source: Parker et al., 2019

initiatives include a campaign by Islamic Relief to provide ‘hygiene kits’ to vulnerable families, and in South Africa, although it is unclear what they include, ‘care packs’ to people in home care.<sup>34,115</sup> Hundreds of videos showing how to make homemade PPE such as masks, face shields, gloves and gowns out of basic materials like fabric, plastic bottles, bags and sheeting have also been uploaded to YouTube in recent months by lay people and health workers alike.<sup>111–113</sup>

## RECOMMENDATIONS

- **Recommendation:** If possible, provide caregivers with home care kits that include buckets, sprayers, bleach, soap, gloves, masks, gowns, aprons and plastic bags for waste disposal<sup>114</sup> or at least materials from which PPE might be devised at home, with guidance and support. Work with local actors for assembly and distribution. Volunteers and community health workers can play a key role in training people how to assemble and safely use PPE by phone or through home visits, following physical distancing protocols.
- **Recommendation:** If systematic distribution of kits and material resources is not possible, encourage local innovation and elevate examples of safe PPE designed with locally available materials through media and social networks.
- **Recommendation:** Consider how available PPE might be rationed if necessary, and provide guidance for this to caregivers and to others involved in supporting home and community-based care such as CHWs and others. If only some medical masks are available for example, it may make more sense to provide them to patients to minimise the risk of infection via droplets from the patient.

## 2.4 Address waste disposal to ensure IPC in low-resource settings

### ISSUES TO CONSIDER

Waste management is an important aspect of IPC. Home care guidelines tend to address this aspect insofar that they recommend waste such as used tissues, masks and gloves be deposited into lidded bins within the home. While some guidance further specifies that waste should then be collected by community health volunteers and taken to the nearest medical facility or burned or buried outdoors, many guidelines and communication materials fail to engage with this next step. WHO guidelines specific to managing and handling waste in the context of COVID-19 are currently aimed at formal health facilities and municipal waste services.<sup>99</sup> Improperly disposed waste can pose infection risks for others, including formal and informal waste pickers.<sup>116</sup> In many LMIC settings, waste collection services may be inadequate at the best of times. Furthermore, researchers have detected the virus which causes COVID-19 in human faecal samples as long as 33 days after patients tested negative via respiratory swab tests.<sup>117</sup> Although there is not yet evidence of human infection via the faecal-oral pathway, this poses a possible risk, particularly in settings which lack adequate sanitation.<sup>118</sup> Increasingly, gut symptoms including diarrhoea are also recognised as being associated with COVID-19 infection.<sup>119</sup> More general advice about how to manage all kinds of human waste is needed.

## RECOMMENDATIONS

- **Recommendation:** Provide additional guidance for in-home solid waste management in situations where lidded bins and plastic bags may not be available. Clear protocols for waste collection which do not endanger workers or other community members need to be established.
- **Recommendation:** Additional guidance and support for handling human waste, particularly in home environments where toilets are not available, or in cases where patients are unable to get to one, are crucial. This should include providing or facilitating access to diapers and bed pans or alternatives, and guidance for how to dispose and use these.

## 3. TAKE ACCOUNT OF LOCAL HEALTH SYSTEM REALITIES AND RESOURCES AND CONSIDER LOCAL HEALTH SEEKING

### 3.1 Engage diverse local health actors, including community health workers, drug sellers, informal healers and religious leaders and adapt guidance and implementation to take account of locally available health services

## ISSUES TO CONSIDER

Health systems in LMICs are often patchworks of state and private services, formal and informal, for-profit and non-profit, and allopathic and indigenous healers, all of whom can contribute to outbreak response and support home and community-based care. Most guidance specifies that caregivers and patients should communicate with formal health professionals for support and information. The roles that other important local health provided can play in response, however, are un- or at least under-acknowledged.<sup>120</sup> **CHWs, informal drug sellers and healers for instance, may be highly valued and much more accessible in local health systems than formal allopathic services,**<sup>121,122</sup> and could be engaged and trained to provide information and support for community-based care for COVID-19. Where the technology exists, they can provide support for home care through remote means such as telephones. If provided with adequate information and protective equipment so that it is safe, CHWs and others can also visit people at home to provide advice and support, help connect families with specialist and emergency health services when necessary, and/or help staff and manage community-based repurposed or temporary facilities where care is taking place. Trusted community-based organisations and institutions such as NGOs, religious networks and informal groups can play similar roles, supporting community cohesion and development of local solutions and innovations.

## EXPERIENCE

Community health workers (CHWs) have long been crucial frontline actors supporting public health in LMICs as they are able to reach populations otherwise excluded from health systems. Often going door-to-door in communities in which they live, they have provided essential health services including during disease outbreaks.<sup>123</sup> In addition to surveillance, they can provide information on infection prevention and care for COVID-19.<sup>124</sup> CHWs are not the only important local health actors however. During the West African Ebola

outbreak, the practices of some indigenous healers were initially seen to have exacerbated the outbreak and were largely demonised by response.<sup>122,125</sup> In many communities in the region however, these healers are people's first recourse, and often the only option for health care. With more meaningful engagement and recognition, indigenous healers can and have played key roles in providing people with crucial information, and encouraging them to seek biomedical care during outbreaks.<sup>126</sup> In countries that have experience of responding to HIV, networks of people living with HIV and community based organisations have skills in providing home care, as well as counselling and support. With appropriate COVID-19 training, their baseline experience could be harnessed also for this outbreak.

## RECOMMENDATIONS

- **Recommendation:** Strengthen links between CHWs, informal providers, religious leaders, and formal health system actors and outbreak response structures. Provide training and equipment, establish communication channels, and integrate these trusted local providers into all aspects of local response, including home care support.
- **Recommendation:** Local health providers and religious communities can play important roles in helping to adapt and communicate home care guidance, keep in touch with patients and families undertaking home care, identify needs and support the distribution of resources. They can also support repurposed community-based care facilities in a variety of ways.
- **Recommendation:** Encourage attention to the continuation of primary health care services for immunisation, provision of chronic medication and other health conditions, and encourage people to continue to seek medical care for conditions other than COVID-19. Local organisations could assist in thinking through ways to ensure continuity of medical care, bearing in mind local health system realities.

### 3.2 Acknowledge indigenous and hybrid models of disease and health seeking

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## ISSUES TO CONSIDER

Diverse and localised understandings of COVID-19 that do not map onto biomedical models are circulating in many places around the world. These will be influenced by past experiences with respiratory illness, one of the most common types of infectious disease globally, and febrile illnesses more broadly, as well as cultural notions about health and illness, often with religious, spiritual and indigenous foundations. Perceptions of severity of disease and symptoms and ideas about when more specialist care should be sought may also vary. Although health seeking and treatment for respiratory illnesses varies by context, as does responses to the symptom of fever, approaches to care which combine biomedical, traditional and even spiritual treatments may be common. Some of these ideas might derive from misinformation whilst others might be helpful. Either way, they require consideration when communicating home care guidance. Guidance which does not engage people's models for understanding and treating disease, or worse,

disparages or dismisses them outright without engaging with people's ideas respectfully, is likely to alienate caregivers, and cause them to lose trust in formal response and advice.

## EXPERIENCE

In some settings, very helpful local protocols for responding to outbreaks of disease may already exist. In northern Uganda which experienced a large Ebola outbreak in 2000-2001, the Acholi people had protocols for isolating sick patients, designating care givers, providing food, and encouraging community cooperation and household harmony.<sup>17,127</sup> Although certainly not without controversy, some countries, such as China, and more recently Madagascar and Tanzania, have been sanctioning the use of herbal treatments for COVID-19, although efficacy has not been proven.<sup>128,129</sup>

## RECOMMENDATIONS

- **Recommendation:** Train health workers and others supporting caregivers and patients not to be dismissive of beliefs, perceptions and practices that do not map on to public health understandings, and to rather identify synergies between local beliefs and practices with public health priorities, and to draw connections between them.
- **Recommendation:** Engage with local actors to develop home care messaging which incorporates indigenous practices proven as helpful for disease control and care, such as isolation, but also social imperatives like harmony and cooperation.
- **Recommendation:** Do not discourage herbal or other traditional treatments if they are unlikely to cause harm, but be clear that such products, as with current allopathic drugs, do not cure COVID-19. Formal health actors may also engage in assessing the helpfulness and efficacy of treatments promoted, including working with trusted forms of formal and informal local authorities to productively engage with unhelpful claims, rumours and anxieties, particularly online.<sup>130</sup>
- **Recommendation:** Strongly advise people supplementing care with herbal or traditional medicines not to abandon advised IPC and other care efforts. Again, messaging will be more effective coming from trusted sources at the local level.

## 4. SUPPORTING CAREGIVERS AND EXPANDING THE SCOPE OF ADVICE AND SUPPORT

Most current home care guidance for COVID-19 fails to provide advice to caregivers beyond basic care and IPC. It also does not necessarily provide for how households undertaking home care might receive essential non-medical resources (such as food) and support as necessary, in order to enable effective care. It also does not take account of situations where people with more severe forms of COVID-19 might not receive hospitalisation and will thus possibly end up requiring care at home. In settings where there is an absence of widespread testing, it is relevant to consider that those receiving home care for COVID-19 might be suffering from prevalent acute illnesses with overlapping symptoms, such as bacterial respiratory infection or malaria.

## 4.1 Provide context appropriate and realistic mechanisms for communicating with and supporting caregivers at home

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### ISSUES TO CONSIDER

Once home care begins, caregivers need on-going communication with health professionals for advice and support, and for obtaining more critical care if necessary and available. Many home care guidelines require that households have the capacity to maintain such a communication link in order to be eligible to conduct home care. This is often implied to be remote, phone-based support with a health professional. However, as discussed in **section 1**, many people do not have access to phones or other communication technologies, and will nevertheless be unable to seek care in formal facilities, or prefer not to do so. Over-the-phone support may also be inadequate, or difficult to reach, even if caregivers have access to phones. These barriers and preferences are not taken into account in home care guidance beyond rendering people ineligible for home care, and alternative forms of remote or in-person support which may be more appropriate for under such circumstances are not outlined. While some guidance does suggest that in-person visits from health workers may be appropriate, exactly what this entails in terms of how such visits could be set up, what kind of support they can provide, who would be making these visits and how the people making them can be protected – including in situations where medical PPE is not available – is not elaborated.

### RECOMMENDATIONS

- **Recommendation:** Models for support for home care, whether via technology or in-person visits need to be in line with available health systems resources, and capacities of local people. Telephonic support by local health care workers or via national support lines is a means to provide remote support if people have access to phones.
- **Recommendation:** Efforts to establish communication channels with caregivers need to be fortified in areas where there is limited access to phones and other communications technology. This can be done in collaboration with local actors who ‘know’ their neighbourhoods, and where additional support is needed. One way to do this might be pools of mobile phones managed by community groups which are provided on a temporary basis to households as needed, or a set of ‘roving phones’ taken from home to home by community health workers (CHWs) or volunteers trained in IPC.
- **Recommendation:** If direct phone or digital communication with a household is not possible, it may be necessary for health personnel such as CHWs to regularly visit households where home care is taking place (particularly for people with more severe illness) to give advice, monitor patients’ conditions, and to call for more specialised support if needed.
- **Recommendation:** Ensure that visitors to households where home care is taking place are able to visit in a way that minimises the risk of spreading infection. Advice and resources for health workers to protect themselves when doing home visits – including with non-medical PPE – are crucial.

## 4.2 Provide home care guidance and support not only for mild disease but also for moderate and severe disease, and for palliative care, as in certain circumstances, this may be needed by caregivers

### ISSUES TO CONSIDER

While it is ideal that all patients at risk of developing or with severe COVID-19 receive specialised care in well-equipped facilities with trained medical staff, it is very unlikely that this will be possible in all settings. The nature of COVID-19 is resulting in scenarios where the number of people with disease severe enough to require oxygen treatment and/or mechanical ventilation outpaces available resources, or such resources are completely lacking. Although the need for palliative care in community-based care settings during catastrophic disease events has been recognised,<sup>131,132</sup> including in the context of COVID-19,<sup>133</sup> it is not currently acknowledged in existing home care guidance. The onset of serious symptoms and decline in the health of patients with seemingly mild COVID-19 can also happen rapidly, even after a period of improvement, and has even taken health workers by surprise.<sup>134</sup> Some symptoms, such as for example ‘silent hypoxia’, in which patients have dangerously low oxygen levels but are lucid and do not struggle to breathe, are difficult to notice.<sup>135</sup> Caregivers need to be provided with information and could even be given access to equipment (such as a pulse oximeter to measure blood oxygen saturation) to recognise and alleviate a range of symptoms, in conjunction with remote and in-person support from health care workers. They also need to be provided with clear information on who to contact if emergency or specialist care is required and available. In the event such contact cannot be swiftly made, **caregivers are likely to be left without knowledge of what to do, and patients may endure unnecessary physical, emotional and spiritual suffering.** Home care guidance also recommends that visits, apart from those by health care workers, not be made to a patient at home. In the event of severe illness leading to possible death, the inability to be attended by family or spiritual leaders may cause significant social, cultural and psychological damage.<sup>136</sup> Remote forms of contact or safe visits with PPE could be considered. The opportunity to provide guidance and support for caregivers and people in the community health workforce dealing with severe COVID-19 cannot now be missed. In situations where care is needed, **it is advisable to be transparent about local realities and to make available appropriate arrangements and guidance for support, as far as possible.**

### EXPERIENCE

One potential obstacle to the production and dissemination of guidance for community-based care of severely ill patients is that it may be perceived to come with political risks as this might be interpreted as an admission of failure on the part of duty bearers, or even a breach of ethics. During the West African Ebola epidemic, response decision makers hesitated to sanction more decentralised care models, including home care, for fear of producing a two-tiered system in which those able to access Ebola Treatment Units (ETUs) received better quality care than those who could only access ‘lower tier’ facilities, or none at all. Eventually, the realisations that people were not accessing – even actively avoiding ETUs – and that home care was going to occur anyway, led to the approval of Community Care Centres. These centres, staffed by a mixture of health professionals and lay people from the community, and able to provide palliative care, proved to be

popular.<sup>109</sup> They also allowed families to visit their loved ones from a safe distance, alleviating social and emotional distress.<sup>137</sup>

## RECOMMENDATIONS

- **Recommendation:** Caregivers looking after patients with severe forms of illness, or who are more likely to develop severe illness, should be prioritised in terms of communication links with medical professionals. They need to be supported to recognise danger signs of deterioration or more severe complications, and as far as possible, to safely provide care, including palliative care, for worsening conditions if emergency care cannot be accessed. Local level health actors supporting home care, such as CHWs, will need similar training.
- **Recommendation:** Simple, accessible public communications materials are urgently needed to support caregivers looking after people with severe cases of COVID-19 at home. The Managing Breathlessness guide developed in the UK (see **Figure 1**) is an example of a starting point from which to develop more locally appropriate material for moderate cases.<sup>40</sup> Palliative care information that addresses severe symptoms and death are also needed.
- **Recommendation:** If possible, consider delivery of free or affordable oxygen or medicines to homes or other community-based facilities where people may be struggling to breathe, or may be at the end of life. Oxygen monitoring devices called pulse oximeters might also be distributed to homes, or be carried around by CHWs on home visits, to be used monitor patient health and triage severity of disease on a regular basis.
- **Recommendation:** If not already in place, authorities should make plans for care in community-based centres that can offer more specialist support to people whose conditions deteriorate at home, and who cannot access a hospital.
- **Recommendation:** Palliative care teams with a mix of clinical, psychological and spiritual skills should in ideal circumstances be prepared respond to homes and community-based facilities when needed, communicating with caregivers through technology, or providing support in person.

### 4.3 Provide guidance and support that acknowledges that home care might be covering for conditions other than COVID-19

## ISSUES TO CONSIDER

Although not necessarily assuming that all patients will have the ability to get tested, most guidelines do tend to assume that patients and their caregivers will be able to know that what they are experiencing is indeed COVID-19. In settings where access to testing for COVID-19, or indeed to diagnostic testing more generally, is limited, this may be impossible to know for sure. It would be advisable to consider other prevalent conditions that have similar symptoms to COVID-19, such as cough, high temperature and general malaise. It is conceivable that a proportion of illness that might be attributed to COVID-19 could be bacterial respiratory tract infections or malaria, for example. Breathlessness can also be caused by a range of



conditions, including chronic conditions like heart disease. Guidelines could include advice on differentiating between conditions with COVID-like symptoms and encourage people and caregivers to remain vigilant to the possibility that they might have an illness other than COVID-19. They should be advised to seek advice from health care workers and get diagnostic confirmation, if available, and also relevant treatment such as antibiotics. Guidance should thus not hone in solely on COVID-19 but aim to reduce mortality and suffering, and promote health seeking more broadly. With significant information-giving in an outbreak directed at COVID-19, it will likely be at the forefront of people's minds. However, efforts should be made by health providers to minimise the danger of under-treatment of or break in the continuity of care for other illnesses. This points to the importance of strengthening primary health care, not only care for SARS-COV-2 infection.

## EXPERIENCE

The subject of indirect deaths related to other medical conditions in outbreaks of COVID-19 is attracting significant research attention even in high income settings. In the Ebola outbreak in West Africa, higher than usual mortality was noted from other health problems due to reduced access to health services for diagnosis and treatment.<sup>138</sup>

## RECOMMENDATIONS

- **Recommendation:** Make testing available for COVID-19 as far as possible, including optimising access in community-based settings. In addition, do not neglect diagnostic capacity and treatment availability for other prevalent conditions, such as those with overlapping symptoms to COVID-19.
- **Recommendation:** Where there is limited COVID-19 testing or diagnostic capacity in general, guidance should include advice on differentiating between diseases that have COVID-like symptoms. People should be advised to seek advice from health care workers to exclude other prevalent conditions and to receive appropriate treatment. As far as is possible given local health care realities, ensure medical assessment from a health care worker who can consider differential diagnoses is available.

### 4.4 Provide clarity around self-care and robust support for people undertaking it

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## ISSUES TO CONSIDER

Most official guidelines do not directly state that people should not undertake self-care, but in establishing the availability of a caregiver as part of the criteria for home care, many do imply that it is not ideal. That said, communication from some contexts such as Scotland, does directly imply self-care.<sup>35</sup> Other countries, although indicating that a caregiver should be available in official guidance, may also appear to contradict this through messaging which addresses readers through 'you should' statements. This may lead to confusion in some cases. Practically speaking, **not all people will have a caregiver available, and indeed, many will have mild enough cases that they may safely self-isolate without risk of infecting others in the household.** As far as possible, people who live alone and are elderly or have risk factors for severe disease should be cared for in formal care settings. Where this is not possible, it is especially important that such individuals are linked to support by phone or through in-person visits ideally by health professionals, CHWs or other

trained volunteers, and checked upon regularly. In the event that they cannot be reached, such as not answering their phone or not coming to the door, emergency services should be contacted immediately.

## EXPERIENCE

In New Zealand, a ‘buddy system’ model has been promoted by the government for mutual support between people who live alone.<sup>139</sup> The model allows for the ‘buddies’ to interact as if they were within the same household, including visiting one other in person – so long as they do not visit anyone else. Although these relationships are not specified to provide and receive home care for COVID-19 (or for any other condition), they might conceivably include checking in by phone or in other ways if one ‘buddy’ becomes ill, and helping with access to guidance and additional support.

## RECOMMENDATIONS

- **Recommendation:** Where not already policy, advocate for health facility access for single people with suspected or confirmed COVID-19, particularly if they are elderly or have other health risk factors for severe disease.
- **Recommendation:** Make clear in guidance whether self-care is supported, and if so, how people can do this safely. Ensure this advice does not contradict other messaging.
- **Recommendation:** Work with local actors to identify single households in the community, assessing their level of vulnerability, such as whether inhabitants are elderly, have disabilities, or health risk factors. This information can be used to plan strategies to ensure safe care should such people develop COVID-19.
- **Recommendation:** Ensure people undertaking self-care are linked to professional support through daily phone calls, texts or in-person visits from health workers or volunteers, and that if unresponsive, emergency services are contacted immediately.

### 4.5 Address access to food and other material and psychosocial needs for caregivers, households and patients

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## ISSUES TO CONSIDER

Many home care guidelines do not address issues beyond IPC and basic therapeutic aspects of care. Although some specify that access to adequate food is a condition of home care that should be considered during assessment, provisions for how these needs might be met in the absence of the ability of household members to obtain them on their own, are usually not specified. **If people are unable to meet their basic needs such as food and medicine, they will be less capable of caring for loved ones in safe and effective ways.** Adequate nutrition contributes to immunity and thus ensuring that patients and other family members are adequately nourished is important. Fear and worry about the disease, loss of livelihoods and income, and stigma from other community or family members arising from COVID-19 can also cause **stress and anxiety and affect mental health and well-being of patients and caregivers.** Home care cannot be separated from the imperative to ensure that people have access to nutritious food, and other necessities, including

psychosocial support - which has not historically been prioritised in health emergencies.<sup>140</sup> The WHO has published guidance, independent of home care, on mental health and psychosocial considerations during the COVID-19 pandemic.<sup>141,142</sup>

## EXPERIENCE

Community-based organising can help support the provision and delivery of food and other essential items to homes where home care is taking place. Mutual Aid communities in Canada, the US and UK, usually networks of neighbours organising online, are meeting people's needs for food (delivering shopping, linking people to food banks, and organising peer to peer cooked food initiatives) and other essential resources and services.<sup>143,144</sup> Avert's Boost app, aimed at CHWs in Africa, suggests people similarly request neighbours to bring them supplies.<sup>145</sup>

## RECOMMENDATIONS

- **Recommendation:** Ensure that households where home care for COVID-19 is taking place are provided with an adequate supply of nutritious food. Engage local actors and community-based groups including religious networks to coordinate provision and delivery of food and other essentials such as medicines for other health conditions, bearing in mind specific dietary needs that some people may have.
- **Recommendation:** Home care advice and guidance should include suggestions to limit stress and promote wellbeing, such as safely keeping in touch with loved ones (by phone if possible).
- **Recommendation:** Ensure additional psychosocial support is available to people providing or receiving home care to assuage feelings of stress, anxiety and exclusion. CHWs and other actors supporting home care can be trained or encouraged to communicate with families with empathy and compassion, and to make referrals to locally appropriate psychosocial support services when necessary. Culturally and context appropriate models of community-based mental health support that emerged in the wake of the West African Ebola crisis should be adapted to the new challenges posed by COVID-19.<sup>146</sup>

### 4.6 Acknowledge that caregivers - especially women - may need multi-dimensional support

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## ISSUES TO CONSIDER

Caregivers face a number of risks beyond contracting COVID-19 themselves. Home care guidance tends to focus on limiting infection risk through prescribing IPC and PPE measures, and does not take full account of other dimensions of risk. Although women appear to be slightly less likely to experience severe forms of disease and mortality from COVID-19,<sup>147</sup> they are likely to be much more heavily burdened by its social and economic impacts.<sup>148-150</sup> Due to socially prescribed gender roles in many settings, women are more likely to take on the role of caregiver in the event a family member or friend becomes ill.<sup>151</sup> This will be on top of their usual unpaid care responsibilities which are also intensified by the pandemic. These may include the **need to care for family members with medical conditions other than COVID-19 and for which external sources of care may have been retracted, as well as looking after children (who may be unable to attend school) and elders. The usual tasks of fetching water, cooking, doing laundry and cleaning at home** – the latter task of

which is a key part of IPC and home care and must be more intensively practised – also do not go away. This heavy burden may lead women and girls to have to leave work or drop out of school. Some guidance emphasises that caregivers should also minimise contact with other household members, but social expectations around care and gendered power relations at the household level may make it difficult for many women to do this. Women are also more likely to be victims of domestic abuse and violence, which is being exacerbated as people stay at home due to COVID-19.<sup>152,153</sup> Guidance on IPC and home care frequently stresses the need to wash patients' clothing and linens at high temperatures. This will be hard to achieve in households with no access to a washing machine and where water is scarce. The stress associated with these burdens on women caregivers, including the immense and unexpected challenges that may come in the event a loved one becomes seriously ill at home, should not be underestimated. Material, economic, mental health and social support must be provided to help ease these burdens and challenges. It is important that such support amounts to more than simply 'subsidising women to do women's work', and that deeper structural and cultural issues that place undue burden on women's shoulders are also addressed.<sup>148,154</sup>

## EXPERIENCE

Women bore the brunt of the care burden during the West African Ebola crisis,<sup>155</sup> and indeed, their free labour is underpinning global responses to COVID-19. Women themselves have been organising to support households in need of extra help. In India, Women's Self-Help Groups (SHG) have mobilised to establish 10,000 community kitchens across the country, delivering prepared food to people who need it, including households in isolation at home.<sup>94</sup>

## RECOMMENDATIONS

- **Recommendation:** Promote messaging and frank discussions around care work that needs to be undertaken at home during home care, encouraging other household members to take care of children or elders so that caregivers can focus on the patient and related IPC. Include women in messaging development, discussions, and in decision-making in local response.
- **Recommendation:** Promote peer to peer communication and support among women and caregivers in ways that minimise infection risks. This might be on the phone, via WhatsApp groups or where phone and internet access is limited, through physically distant meetings of small numbers of women.
- **Recommendation:** Set up systems to deliver water and food, including precooked meals to homes where home care is taking place in order to ease the burden of care on women and other caregivers, and to ensure wellbeing of all household members.
- **Recommendation:** With attention to IPC, consider setting up a laundry service for households undertaking home care which can wash clothing and linens in a washing machine capable of using hot water. People involved in providing this service should be provided with IPC training and PPE.
- **Recommendation:** If possible, safe and acceptable to families, support alternative care arrangements. Children and elders may be able to stay with other relatives while home care is taking place in their

usual home, while elders and other vulnerable household members may be looked after in alternative community-based ‘shielding’ arrangements.<sup>96</sup>

## 5. QUALITY AND TRUST IN COMMUNITY-BASED CARE IN REPURPOSED AND TEMPORARY FACILITIES

We did not conduct an exhaustive review of guidance for the operation of non-traditional facilities. However, there are a number of important considerations for settings where care is undertaken outside the home in such facilities. At the heart of these considerations is trust and confidence on the part of people that they or their loved ones will be cared for appropriately and safely. Some of these considerations – informed by past disease outbreaks and present experiences of COVID-19 – are presented below.

In countries where additional facilities have been converted or erected for the isolation and care of patients with probable or confirmed COVID-19, assumptions are made about the acceptability of such facilities, and the likelihood that people will report to and choose to remain in care there. Like hospitals, **people may hesitate to report to such facilities in contexts where people have historically been excluded by formal health systems or had bad experiences with services such as not being given necessary care, or being stigmatised or discriminated against** for their socio-economic, religious or ethnic minority status, age, gender, sexual orientation and even health status.<sup>156</sup> In some contexts, COVID-19 may itself become a stigmatising condition, particularly if it becomes associated with taboo behaviours,<sup>157</sup> or leads to situations in which people are ostracised from social and livelihood networks.

**People may also fear going to such facilities if they are dirty, unhygienic and have poor or inconsistent IPC practices**, particularly if they do not have a test confirmed case of COVID-19. They may reasonably fear being infected at the facility itself. Indeed, the contagious nature of COVID-19 (and the fact that asymptomatic carriers can transmit it) presents greater challenges for IPC in community-based facilities than Ebola for instance, which is more difficult to contract. This reality presents real risks for community-based care models: if facilities become associated with nosocomial transmission, people with non-confirmed but probable COVID-19 may forego seeking treatment there, or may ‘escape’. Indeed, although not necessarily probable or confirmed COVID-19 patients, ‘escapes’ have been documented from health facilities in Bangladesh,<sup>158</sup> India,<sup>159</sup> Nigeria<sup>160</sup> and elsewhere with people complaining about unsanitary conditions, and lack of medical attention, including for health issues other than COVID-19. Equity of treatment can be an issue in such facilities, and there is a danger that discrimination and access based on class, poverty and caste may lead to poorer conditions in facilities primarily serving marginalised groups, or poorer treatment of patients in these groups. This may disadvantage these groups not only in terms of quality of care, but also in contributing to resentment and damaging of trust, and thus disincentivise them to present or stay in these facilities.

**Lack of transparency can also disincentivise care seeking in non-traditional facilities.** As already suggested, during outbreaks of Ebola in east and west Africa, many people hesitated to present to or admit their family

members to Ebola Treatment Centres. Indeed, instances in which families were not informed that their loved one had died in an Ebola Treatment Centre, or in which their bodies were not shown or returned to families, fuelled resentments and mistrust, including rumours that medical personnel were harvesting body parts.<sup>16,127</sup> It is important that patients and their families are able to remain connected. Guidelines for quarantine facilities in Uganda recommend ensuring patients have plug points to charge phones, or that they be provided with means to communicate with family members for at least 10 minutes a day.<sup>161</sup>

**People with mild or asymptomatic or mild cases may not feel they need to be in such a facility.** People in treatment facilities in Nigeria have protested being confined there despite feeling healthy, and receiving poor care for other conditions.<sup>160,162</sup> This illustrates a failure to communicate effectively that people who do not have symptoms, or who have only mild symptoms, can still unknowingly transmit the virus. Lack of clarity over who such facilities are for, or failure to adequately separate confirmed or probable patients from individuals who are in quarantine due to being a contact of a confirmed patient, can also pose risks for spread and damage trust. Framing people who ‘escape’ such facilities as irresponsible and endangering of the health of others fails to highlight what may be very rationale reasons for wanting to leave. **Forcing people to attend community-based facilities, particularly if they are associated with poor care, can backfire.** Coercion can exacerbate already bad citizen-state relations, and undermine outbreak response overall by provoking resistance, and fomenting distrust.

## RECOMMENDATIONS

- **Recommendation:** If possible, designate spaces for care which inspire trust (such as churches or community centres) and avoid facilities with ‘prison-like’ conditions. Avoid walling or fencing off facilities in ways which make them feel cut off from the outside world. Make every effort to be as transparent as possible. Community-based groups can help identify appropriate spaces.<sup>92</sup>
- **Recommendation:** Keep family members informed of their loved one’s condition, including by ensuring they have means of communicating with one another. Allow family members and spiritual leaders to visit patients at facilities if safely possible, particularly if the patient is receiving palliative care and is very unwell. If this is not safely possible, facilitate virtual visits.
- **Recommendation:** Keep facilities as clean as possible, ensuring staff take all necessary and possible precautions to protect patients, themselves and others from infection with COVID-19, and from other health threats.
- **Recommendation:** Maintain clear protocols for keeping patients that have confirmed COVID-19 separate from those that do not, and ensure these are communicated effectively amongst all staff, volunteers and patients.
- **Recommendation:** Ensure patients are provided with adequate food, clean water and other necessities including safety and privacy. Social and cultural norms around gender should be taken into account in decisions around room and bathroom allocation.

## OTHER USEFUL RESOURCES

### Relevant guidance from the WHO

*Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts*<sup>3</sup>

[https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)

*Home care for suspected and mild cases of COVID-19 (video)*<sup>47</sup>

<https://www.youtube.com/watch?v=YZnnnGheZJU&feature=youtu.be>

*Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages*<sup>108</sup>

[https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC\\_PPE\\_use-2020.3-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC_PPE_use-2020.3-eng.pdf)

*Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (COVID-19) outbreak*<sup>107</sup>

[https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)

*Water, sanitation, hygiene, and waste management for the COVID-19 virus: Interim guidance*<sup>99</sup>

[https://apps.who.int/iris/bitstream/handle/10665/331846/WHO-2019-nCoV-IPC\\_WASH-2020.3-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/331846/WHO-2019-nCoV-IPC_WASH-2020.3-eng.pdf)

### Accessible home care guidance for public audiences

*Coronavirus video advice (UK)*<sup>48</sup>

<https://www.doctorsoftheworld.org.uk/coronavirus-video-advice/>

*Stay at Home/Self Isolation Guidelines during COVID-19 (in 14 languages) (Indonesia)*<sup>49</sup>

<https://suaka.or.id/2020/04/20/stay-at-home-self-isolation-guidelines-during-covid-19-in-14-languages/>

*Managing breathlessness at home during the COVID-19 outbreak (UK)*<sup>40</sup>

<https://www.kcl.ac.uk/cicelysaunders/resources/khp-gp-breathlessness-resource.pdf>

*Caring for your dying relative at home with COVID-19 (UK)*<sup>39</sup>

[https://www.hospiceuk.org/docs/default-source/echo/covid-19-echo/covid-19\\_care-at-home\\_guide\\_final.pdf](https://www.hospiceuk.org/docs/default-source/echo/covid-19-echo/covid-19_care-at-home_guide_final.pdf)

### Resources for health workers

*COVID-19: remote consultations: a quick guide to assessing patients by video or voice call (BMJ)*<sup>51</sup>

<https://www.nice.org.uk/guidance/ng163/resources/bmj-visual-summary-for-remote-consultations-pdf-8713904797>

*Covid-19: a remote assessment in primary care*<sup>52</sup>

<https://www.bmj.com/content/368/bmj.m1182>

*COVID-19 rapid guideline: managing symptoms (including at the end of life) in the community*

<https://www.nice.org.uk/guidance/ng163>

### Additional relevant material

*A review on implications of home care in a biological hazard: The case of SARS-CoV-2/COVID-19<sup>2</sup>*

*Considerations and principles for shielding people at high risk of severe outcomes from COVID-19 (April 2020)*<sup>96</sup>

<https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15286/SSHAP%20COVID-19%20Brief%20Shielding.pdf?sequence=1&isAllowed=y>

*Key considerations: COVID-19 in informal urban settlements (March 2020)*<sup>163</sup>

<https://www.socialscienceinaction.org/resources/key-considerations-covid-19-informal-urban-settlements-march-2020/>

# APPENDIX

Country	Brief description of home and/or community-based care approach
<b>Africa</b>	
Algeria	An app for <b>home-based consultation</b> for patients experiencing COVID-19 has been sanctioned by the government. <sup>55</sup>
Egypt	Care in <b>repurposed facilities</b> such as hotels, social clubs and university dormitories has been proposed. <sup>64</sup> Home care is clearly taking place however, as doctors have initiated a Facebook based COVID-19 consultation platform. <sup>56</sup>
Kenya	<b>Home care</b> guidelines for mild cases very closely mirroring WHO guidance are available. <sup>28</sup> N95 masks are recommend for caregivers. Community health volunteers should pick up waste to dispose of it at nearest health facilities.
Nigeria	All cases should be treated in formal settings, including <b>repurposed and temporary facilities</b> . Brief section of national clinical management guidelines gives very basic home care advice, framed as being for the period prior to admittance to a formal facility and after discharge. <sup>65</sup> In guidelines and communication material directed at the public, people with symptoms are instructed to contact the Nigeria CDC for testing, guidance, and placement in a <b>treatment centre</b> . <sup>164,165</sup>
South Africa	<b>Home care</b> , including self-care, is sanctioned for mild cases including while waiting for test results, and after confirmed results. It is briefly described in clinical management protocols. <sup>166</sup> A webpage directed at the public explains home care in more detail. <sup>34</sup> Regular check-ins by phone or otherwise are not specified, but patients should know who to contact in the event of deterioration. Those in home care may receive 'care packs', the contents of which 'may vary'.
Uganda	Basic <b>home care</b> guidance is embedded in broader guidelines for COVID-19 directed at HCWs. <sup>31</sup> The 'responsibilities of government' for supporting people in home quarantine are laid out in separate guidelines. <sup>161</sup> Basic plans to set up <b>repurposed or temporary facilities</b> for non-severe cases if this becomes necessary, are also outlined in the guidelines. <sup>31</sup>
<b>Asia</b>	
Bangladesh	<b>Home care</b> is sanctioned for mild <i>and</i> moderate illness in broader clinical management guidelines directed at HCWs. <sup>24</sup> A separate but brief document (in Bengali) specific to home care with messages aimed at the public has been published. <sup>29</sup> Regular follow-up by phone is stipulated. People are suggested to burn waste such as used tissues instead of 'burning it openly', and homes should be near health facilities.
India	A set of <b>home care</b> guidelines exist independently of as well as are embedded in broader clinical management documents apparently directed at HCWs. <sup>167,168</sup> Waste generated at home should be burned or buried. Community-based care is also offered in <b>repurposed facilities</b> including 'COVID Care Centres' staffed by doctors of traditional medicine. <sup>69</sup> An app to support home care for COVID-19 and teleconsultations has been promoted by some states and hospitals. <sup>53,54</sup>
Indonesia	Due to health system pressure, Indonesia (Jakarta) expanded its policy of <b>home care</b> for people with suspected COVID-19 to include people with confirmed but mild disease. Care in community-based facilities such as hotels, is also part of the country's model. <sup>169</sup>
Malaysia	In Malaysia, all suspected and confirmed cases of COVID-19 are specified to receive care in formal facilities, including <b>community-based facilities</b> . Brief mention of guidance for home isolation/care is mentioned, and seemingly relevant only in the context of discharge from a facility (possibly to be practiced for a time decided by health personnel). <sup>63,170</sup>
The Philippines	Guidance for <b>home care</b> for mild cases (for those who qualify) and for care in <b>repurposed or temporary facilities</b> are available in guidelines for community-based care. The document is aimed at HCWs and response managers. <sup>38</sup> Provision of food to people and households in home care is specified as a responsibility of the local government.
<b>Latin America</b>	
Brazil	<b>Home care</b> guidance is embedded in broader protocols for clinical management and response, <sup>37</sup> and in guidance for home isolation. <sup>43</sup> Although it is implied a caregiver should be available, patients are recommended to do their own laundry and clean bathrooms after use.
Mexico	<b>Home care</b> guidelines which largely mirror WHO guidance are embedded in a broader infection prevention manual, <sup>171</sup> but have also been published by a major national news outlet. <sup>46</sup>
Peru	<b>Home care</b> guidelines mirror WHO guidelines, but are significantly simplified. <sup>33</sup> 'Simple', yet disposable masks for caregivers are prescribed. A government webpage aimed at the public with basic home care guidance is also available. <sup>172</sup>

The table above describes home and community-based care models and guidance for some LMICs considered in this review. We also include the medium in which it exists and the target audience. Brief mention is made of how guidance may differ from WHO guidelines and dominant models. The rapid nature of this review has meant that some details have been undoubtedly missed. We focused on countries which have already been significantly affected by COVID-19, or which appear likely to be significantly affected in the near future, at the time of writing. Linguistic barriers, time limitations, and a lack of transparency or online presence on the part of some national responses have meant that some countries which we would have liked to include more detail for, have only brief information (e.g. Algeria, which has suffered high mortality rates from COVID-19).



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## REFERENCES

1. WHO. (2020). *Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic: Interim Guidance*. <https://www.who.int/publications-detail/community-based-health-care-including-outreach-and-campaigns-in-the-context-of-the-covid-19-pandemic>
2. Chan, E., Gobat, N., Hung, H., MacGregor, H., & Wong, E. (2020). *A review on implications of home care in a biological hazard: The case of SARS-CoV-2/COVID-19* (No. 202001; Health-Emergency and Disaster Risk Management (Health-EDRM) Technical Brief Series). Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response.
3. WHO. (2020). *Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts*. [https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)
4. Epidemiology Working Group for NCIP Epidemic Response, Chinese Center for Disease Control and Prevention. (2020). [The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China]. *Zhonghua Liu Xing Bing Xue Za Zhi = Zhonghua Liuxingbingxue Zazhi*, 41(2), 145–151. <https://doi.org/10.3760/cma.j.issn.0254-6450.2020.02.003>
5. Harlan, C., & Pitrelli, S. (2020, March 12). As coronavirus cases grow, hospitals in northern Italy are running out of beds. *Washington Post*. [https://www.washingtonpost.com/world/europe/italy-coronavirus-patients-lombardy-hospitals/2020/03/12/36041dc6-63ce-11ea-8a8e-5c5336b32760\\_story.html](https://www.washingtonpost.com/world/europe/italy-coronavirus-patients-lombardy-hospitals/2020/03/12/36041dc6-63ce-11ea-8a8e-5c5336b32760_story.html)
6. Wintour, P. (2020, March 3). 'An absolute disaster': Iran struggles as coronavirus spreads. *The Guardian*. <https://www.theguardian.com/world/2020/mar/03/an-absolute-disaster-iran-struggles-as-coronavirus-spreads>
7. Widiyanto, S., & Beo Da Costa, A. (2020, May 28). Coronavirus patients flood hospitals in Indonesia's second-largest city. *Reuters*. <https://www.reuters.com/article/us-health-coronavirus-indonesia-idUSKBN2341NT>
8. DW News. (n.d.). *Coronavirus puts Brazil's healthcare system on the brink of collapse* | DW News. Retrieved 3 May 2020, from <https://www.youtube.com/watch?v=vNq-x5I228c>
9. Mukherjee, I. (2020, May 16). No beds, packed morgues: Mumbai hospitals near collapse. *Agence France-Presse*. <https://www.afp.com/en/news/15/no-beds-packed-morgues-mumbai-hospitals-near-collapse-doc-1rm4qn1>
10. Zhou, Q., Gao, Y., Wang, X., Liu, R., Du, P., Wang, X., Zhang, X., Lu, S., Wang, Z., Shi, Q., Li, W., Ma, Y., Luo, X., Fukuoka, T., Ahn, H. S., Lee, M. S., Liu, E., Chen, Y., Luo, Z., & Yang, K. (2020). Nosocomial Infections Among Patients with COVID-19, SARS and MERS: A Rapid Review and Meta-Analysis. *MedRxiv*, 2020.04.14.20065730. <https://doi.org/10.1101/2020.04.14.20065730>
11. Aloisi, S., Pollina, E., & Barbaglia, P. (2020, March 23). Italy's medics at 'end of our strength' as they too fall ill. *Reuters*. <https://www.reuters.com/article/us-health-coronavirus-italy-doctors-idUSKBN21A29Z>
12. International Council of Nurses. (2020, May 6). *ICN calls for data on healthcare worker infection rates and deaths*. ICN - International Council of Nurses. <https://www.icn.ch/news/icn-calls-data-healthcare-worker-infection-rates-and-deaths>
13. Aljazeera. (2020, April 7). COVID-19: Bangladesh hospitals forced to turn away patients. *Aljazeera*. <https://www.aljazeera.com/news/2020/04/covid-19-bangladesh-hospitals-forced-turn-patients-200407131633280.html>
14. NPR. (2020, April 29). *Commuting In A Pandemic: These Health Workers Are Trekking And Canoeing*. NPR.Org. <https://www.npr.org/sections/goatsandsoda/2020/04/29/841830595/commuting-in-a-pandemic-these-health-workers-are-trekking-and-canoeing>
15. Ryan, M. J., Giles-Vernick, T., & Graham, J. E. (2019). Technologies of trust in epidemic response: Openness, reflexivity and accountability during the 2014–2016 Ebola outbreak in West Africa. *BMJ Global Health*, 4(1), e001272. <https://doi.org/10.1136/bmjgh-2018-001272>
16. Parker, M., Hanson, T. M., Vandi, A., Babawo, L. S., & Allen, T. (2019). Ebola and Public Authority: Saving Loved Ones in Sierra Leone. *Medical Anthropology*, 38(5), 440–454. <https://doi.org/10.1080/01459740.2019.1609472>
17. Hewlett, B., & Hewlett, B. (2008). *Ebola, Culture and Politics: The Anthropology of an Emerging Disease*. Thomson Wadsworth.
18. Abramowitz, S. (2017). Epidemics (Especially Ebola). *Annual Review of Anthropology*, 46(1), 421–445. <https://doi.org/10.1146/annurev-anthro-102116-041616>
19. Churcher, S. (2013). Stigma related to HIV and AIDS as a barrier to accessing health care in Thailand: A review of recent literature. *WHO South-East Asia Journal of Public Health*, 2(1), 12–22. <https://doi.org/10.4103/2224-3151.115829>
20. Long, N. H., Johansson, E., Diwan, V. K., & Winkvist, A. (2001). Fear and social isolation as consequences of tuberculosis in VietNam: A gender analysis. *Health Policy*, 58(1), 69–81. [https://doi.org/10.1016/S0168-8510\(01\)00143-9](https://doi.org/10.1016/S0168-8510(01)00143-9)
21. Idris, I. K., & Jalli, N. (2020, April 28). *How blaming others dominates Indonesian and Malaysian twitterspheres during COVID-19 pandemic*. The Conversation. <http://theconversation.com/how-blaming-others-dominates-indonesian-and-malaysian-twitterspheres-during-covid-19-pandemic-136193>
22. US CDC. (2020, March 20). *Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for Coronavirus Disease 2019 (COVID-19)*. Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-home-care.html>
23. US CDC. (2020, February 11). *Caring for someone sick at home*. Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/care-for-someone.html>
24. Directorate of Health Services, & Bangladesh Ministry of Health and Family Welfare. (2020). *National Guidelines on Clinical Management of Coronavirus Disease 2019 (Covid-19)*. [https://dghs.gov.bd/images/docs/Guideline/COVID\\_Guideline.pdf](https://dghs.gov.bd/images/docs/Guideline/COVID_Guideline.pdf)
25. Brazil Ministry of Health. (2020). *Fast-track for Primary Attention in Places with Community Transmission; Version 7*. <https://portal.arquivos.saude.gov.br/images/pdf/2020/Abril/07/20200407-BOLSO-ver07.pdf>
26. NHS. (2020). *Guidance and standard operating procedures: General practice in the context of coronavirus (COVID-19)*. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/CO485-COVID-19-Primary-Care-SOP-GP-Practice-V3-29-May-2020.pdf>
27. National Institute for Communicable Diseases (NICD), & South Africa Department of Health. (2020). *V4 Clinical management of suspected or confirmed COVID-19 disease Version 4*. <https://www.nicd.ac.za/wp-content/uploads/2020/05/Clinical-management-of-suspected-or-confirmed-COVID-19-Version-4.pdf>

28. Kenya Ministry of Health. (2020). *Coronavirus Home-Based Care Guidance*. <http://covid-19.humanitarian.digital/wp-content/uploads/2020/03/Coronavirus-Home-Based-Care-Guidance.pdf>
29. Government of Bangladesh. (2020). [*Home care for patients with COVID-19 presenting with mild symptoms*]. [https://dghs.gov.bd/images/docs/Notice/21\\_03\\_2020\\_SOP%20home%20care%20final%202.pdf](https://dghs.gov.bd/images/docs/Notice/21_03_2020_SOP%20home%20care%20final%202.pdf)
30. India Ministry of Health and Family Welfare. (2020, May 15). *Video Guidelines for Home Isolation of very mild/ pre-symptomatic #COVID19 cases*. <https://www.youtube.com/watch?v=JMeaFYCGxVw&feature=youtu.be>
31. Uganda Ministry of Health. (2020). *National Guidelines for Management of COVID-19*. <https://www.health.go.ug/covid/document/national-guidelines-for-management-of-covid-19/>
32. South Africa National Institute for Communicable Diseases. (2020). *COVID-19 frequently asked questions: Masks*. NICD. <https://www.nicd.ac.za/diseases-a-z-index/covid-19/advice-for-the-public/covid-19-frequently-asked-questions-masks/>
33. Peru Ministry of Health. (2020). *Documento Técnico: Atención y Manejo Clínico de Casos de COVID-19*. [https://cdn.www.gob.pe/uploads/document/file/574377/Documento\\_Te%CC%81cnico\\_Atencio%CC%81n\\_y\\_Manejo\\_Cli%CC%81nico\\_de\\_Casos\\_de\\_COVID-19.pdf](https://cdn.www.gob.pe/uploads/document/file/574377/Documento_Te%CC%81cnico_Atencio%CC%81n_y_Manejo_Cli%CC%81nico_de_Casos_de_COVID-19.pdf)
34. South Africa National Institute for Communicable Diseases. (n.d.). *What to do if I test positive for coronavirus disease and I am asked to home isolate?* NICD. Retrieved 20 May 2020, from <https://www.nicd.ac.za/diseases-a-z-index/covid-19/advice-for-the-public/what-to-do-if-i-test-positive-for-coronavirus-disease-and-i-am-asked-to-home-isolate%e2%80%8b/>
35. NHS Scotland. (2020). *Coronavirus (COVID-19): Self-care advice*. <https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronavirus-covid-19/caring-for-a-cough-or-fever/coronavirus-covid-19-self-care-advice>
36. Republic of South Africa. (2020). *Tested positive for COVID-10 or someone in your home has? Read on*. <https://sacoronavirus.co.za/wp-content/uploads/2020/03/care-guides-4.jpg>
37. Brazil Ministry of Health. (2020). *Protocol of clinical management of coronavirus (COVID-19)*. <https://portal.arquivos.saude.gov.br/images/pdf/2020/Abril/08/20200408-ProtocoloManejo-ver07.pdf>
38. Republic of Philippines Department of Health, D. of the I. and L. G. (2020). *Guidelines on Local Isolation and General Treatment Areas for COVID-19 Cases (LIGTAS COVID) and teh Community-based Management of Mild COVID-10 Cases*. [https://www.doh.gov.ph/sites/default/files/health-update/jao2020-0001\\_0.pdf](https://www.doh.gov.ph/sites/default/files/health-update/jao2020-0001_0.pdf)
39. Baroness Finlay of Llandaff. (2020). *Caring for your dying relative at home with COVID-19*. [https://www.hospiceuk.org/docs/default-source/echo/covid-19-echo/covid-19\\_care-at-home\\_guide\\_final.pdf](https://www.hospiceuk.org/docs/default-source/echo/covid-19-echo/covid-19_care-at-home_guide_final.pdf)
40. Higginson, I., Maddocks, M., Bayly, J., Brighton, L., Hutchinson, A., Booth, S., Ogden, M., Farquhar, M., & on behalf of the NIHR Applied Research Collaborative Palliative and End of Life Care Theme. (2020). *Managing breathlessness at home during the COVID-19 outbreak*. <https://www.kcl.ac.uk/cicelysaunders/resources/khp-gp-breathlessness-resource.pdf>
41. Public Health England. (2020). *Stay at home: Guidance for households with possible coronavirus (COVID-19) infection*. GOV.UK. <https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection>
42. India Ministry of Health and Family Welfare. (2020). *Revised guidelines for Home Isolation of very mild/pre-symptomatic COVID-19 cases*. <https://www.mohfw.gov.in/pdf/RevisedguidelinesforHomelsofveryildpresymptomaticCOVID19cases10May2020.pdf>
43. Brazil Ministry of Health. (2020). *Coronavirus Home Isolation*. <https://www.saude.gov.br/images/pdf/2020/marco/24/Coronavirus--Isolamento-Domiciliar.pdf>
44. South Africa National Institute for Communicable Diseases. (2020). *What to do if I am a close contact of a person with confirmed disease and am asked to home quarantine?* NICD. <https://www.nicd.ac.za/diseases-a-z-index/covid-19/advice-for-the-public/what-to-do-if-i-am-a-close-contact-of-a-person-with-confirmed-disease-and-am-asked-to-home-quarantine/>
45. Matos, T. (n.d.). *Guia do isolamento domiciliar: Como preparar sua casa para conviver com suspeitos de infecção por coronavírus*. Globo. Retrieved 31 May 2020, from <https://g1.globo.com/bemestar/coronavirus/noticia/2020/03/17/guia-do-isolamento-domiciliar-como-preparar-sua-casa-para-conviver-com-suspeitos-de-infeccao-por-coronavirus.ghtml>
46. Miranda, F. (2020, March 24). *Guía básica para cuidar a un enfermo de Covid-19 en casa*. *Milenio Diario*. <https://www.milenio.com/ciencia-y-salud/coronavirus-mexico-cuidar-enfermos-covid-19-casa>
47. WHO Eastern Mediterranean Region. (2020, May 24). *Home care for suspected and mild cases of COVID-19*. <https://www.youtube.com/watch?v=YZnngGheZJU&feature=youtu.be>
48. Doctors of the World. (2020). *Coronavirus video advice*. Doctors of the World. <https://www.doctorsoftheworld.org.uk/coronavirus-video-advice/>
49. SUAKA: Indonesian Civil Society Association for Refugee Rights Protection. (2020, April 20). *Stay at Home/Self Isolation Guidelines during COVID-19 (in 14 languages)*. Suaka. <https://suaka.or.id/2020/04/20/stay-at-home-self-isolation-guidelines-during-covid-19-in-14-languages/>
50. NECN. (2020, April 16). *Doctor House Calls During COVID-19 Pandemic* [Video]. In *NECN*. NBC. <https://www.necn.com/news/health-news/doctor-house-calls-during-covid-19-pandemic/2261059/>
51. BMJ. (2020). *COVID-19: Remote consultations: A quick guide to assessing patients by video or voice call*. <https://www.nice.org.uk/guidance/ng163/resources/bmj-visual-summary-for-remote-consultations-pdf-8713904797>
52. Greenhalgh, T., Koh, G. C. H., & Car, J. (2020). *Covid-19: A remote assessment in primary care*. *BMJ*, 368. <https://doi.org/10.1136/bmj.m1182>
53. Bora, G. (2020, April 8). *Now, coronavirus-affected and suspected patients can get virtual healthcare*. *The Economic Times*. <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/now-coronavirus-affected-and-suspected-patients-can-get-virtual-healthcare-day-to-day-health/articleshow/75041512.cms>
54. Kashyaap, S. (2020, April 30). *Coronavirus: This MIT-incubated startup built a virtual healthcare system for COVID-19 positive patients*. *YourStory.Com*. <https://yourstory.com/2020/04/coronavirus-mit-startup-daytoday-virtual-healthcare-system>
55. Scharahzed, I. (2020, April 1). *Algérie: Consulter son médecin en ligne, c'est possible avec Etabib.dz*. *Dzair Daily*. <https://www.dzairdaily.com/algerie-consultation-medecin-en-ligne-video-etabib-dz/>
56. Al-Youm, M. (2020, May 28). *Egyptian doctors launch online medical service for coronavirus consultations*. *Egypt Independent*. <https://egyptindependent.com/egyptian-doctors-launch-online-medical-service-for-coronavirus-consultations/>

57. Sundareswaran, V., & Firth-Butterfield, K. (2020, April 6). *Chatbots provide millions with COVID-19 information every day, but they can be improved—Here's how*. World Economic Forum. <https://www.weforum.org/agenda/2020/04/chatbots-covid-19-governance-improved-here-s-how/>
58. Nacoti, M., Ciocca, A., Giupponi, A., Brambillasca, P., Lussana, Pisano, M., Goisis, G., Bonacina, D., Fazzi, F., Naspro, R., Longhi, L., Cereda, M., & Montaguti, C. (2020). At the Epicenter of the Covid-19 Pandemic and Humanitarian Crises in Italy: Changing Perspectives on Preparation and Mitigation. *Catalyst Non-Issue Content*, 1(2). <https://doi.org/10.1056/CAT.20.0080>
59. Reuters. (2020, April 17). *The Italian doctors treating patients at home—Video dailymotion*. Dailymotion. <https://www.dailymotion.com/video/x7tcz9x>
60. Ruptly. (2020, March 31). *Italy: Oxygen tanks delivered at homes of COVID-19 patients near Milan*. <https://www.youtube.com/watch?v=o2OVAlxnhC8>
61. Amref Health Africa. (2020, March 23). *Coronavirus: Stop the Spread*. Amref Health Africa UK. <https://amrefuk.org/what-we-do/latest-news/coronavirus-urgent-appeal-stop-the-spread/>
62. Amref Health Africa. (2020). *Supporting the community in a pandemic: Margaret's Story*. Amref Health Africa UK. <https://amrefuk.org/what-we-do/latest-news/supporting-the-community-in-a-pandemic-margarets-story/>
63. Federal Government of Malaysia Ministry of Health. (2020). *Guidelines COVID-19 Management in Malaysia, Quarantine Station (No. 5/2020 Annex 32)*. [https://www.moh.gov.my/moh/resources/Penerbitan/Garis%20Panduan/COVID19/Annex\\_32\\_Quarantine\\_centre\\_22032020.pdf](https://www.moh.gov.my/moh/resources/Penerbitan/Garis%20Panduan/COVID19/Annex_32_Quarantine_centre_22032020.pdf)
64. Egypt Today. (2020, May 3). Egypt puts strategy to curb rise in COVID-19 cases. *Egypt Today*. <http://www.egypttoday.com/Article/1/85344/Egypt-puts-strategy-to-curb-rise-in-COVID-19-cases>
65. Nigeria CDC. (2020). *National Interim Guidelines for Clinical Management of COVID-19, VERSION 2, MAY 2020*. <https://covid19.ncdc.gov.ng/media/files/COVID19ClinicalCaseMgt.pdf>
66. Chen, S., Zhang, Z., Yang, J., Wang, J., Zhai, X., Bärnighausen, T., & Wang, C. (2020). Fangcang shelter hospitals: A novel concept for responding to public health emergencies. *The Lancet*, 395(10232), 1305–1314. [https://doi.org/10.1016/S0140-6736\(20\)30744-3](https://doi.org/10.1016/S0140-6736(20)30744-3)
67. Times of India. (n.d.). 5,200 rail coaches ready as Covid care centres | India News—Times of India. *The Times of India*. Retrieved 17 May 2020, from <https://timesofindia.indiatimes.com/india/5200-rail-coaches-ready-as-covid-care-centres/articleshow/75613194.cms>
68. NHS England, & NHS Improvement. (2020). *COVID-19 Clinical homeless sector plan: Triage – assess – cohort – care*. <https://www.healthylondon.org/wp-content/uploads/2020/04/COVID-19-Homeless-Sector-Plan.pdf>
69. The Economic Times. (2020, April 7). Government classifies health facilities into 3 categories for COVID-19 patient care. *The Economic Times*. <https://economictimes.indiatimes.com/news/politics-and-nation/government-classifies-health-facilities-into-3-categories-for-covid-19-patient-care/articleshow/75033608.cms>
70. ARISE. (2020, April 15). Barriers to health care related to disability and COVID-19. *Arise*. <http://www.ariseconsortium.org/barriers-to-health-care-related-to-disability-and-covid-19/>
71. Armitage, R., & Nellums, L. B. (2020). The COVID-19 response must be disability inclusive. *The Lancet Public Health*, 5(5), e257. [https://doi.org/10.1016/S2468-2667\(20\)30076-1](https://doi.org/10.1016/S2468-2667(20)30076-1)
72. Translators without Borders. (2020). *Do you speak COVID-19?* [https://translatorswithoutborders.org/wp-content/uploads/2020/04/TWB\\_PolicyBrief-COVID19.pdf](https://translatorswithoutborders.org/wp-content/uploads/2020/04/TWB_PolicyBrief-COVID19.pdf)
73. Abramowitz, S. A., McLean, K. E., McKune, S. L., Bardosh, K., Fallah, M., Monger, J., Tehoungue, K., & Omidian, P. A. (2015). Community-Centered Responses to Ebola in Urban Liberia: The View from Below. *PLOS Neglected Tropical Diseases*, 9(4), e0003706. <https://doi.org/10.1371/journal.pntd.0003706>
74. Wilkinson, A., & Fairhead, J. (2017). Comparison of social resistance to Ebola response in Sierra Leone and Guinea suggests explanations lie in political configurations not culture. *Critical Public Health*, 27(1), 14–27. <https://doi.org/10.1080/09581596.2016.1252034>
75. Alif, A. (2020, March 19). Coronavirus: Frustration rising over inadequate hotline services. *Dhaka Tribune*. <https://www.dhakatribune.com/bangladesh/dhaka/2020/03/19/coronavirus-hotline-numbers-haphazard>
76. Osho Oluwatosin, S. (2020, May 13). *Referred to the General Hospital*. <https://www.justempower.org/coronadiaries>
77. Kimani, J. (n.d.). The Hard Nut Of Cracking Who Is Vulnerable In Our Communities In The Context Of Covid-19. *Adobe Spark*. Retrieved 28 May 2020, from <https://spark.adobe.com/page/18i5rTz3NfZl/>
78. Bangkok Post. (2020, May 7). Hotline clears Covid-19 barriers. <https://www.bangkokpost.com/thailand/general/1913772/hotline-clears-covid-19-barriers>
79. Xinhua. (2020, April 22). *Feature: Visually-impaired get information about COVID-19 on braille*. [http://www.xinhuanet.com/english/2020-04/22/c\\_138999389.htm](http://www.xinhuanet.com/english/2020-04/22/c_138999389.htm)
80. UNICEF. (2020, May 21). *UNICEF reaches nearly 150 million people with information on COVID-19 across the Middle East and North Africa*. <https://www.unicef.org/mena/press-releases/unicef-reaches-150-million-people-information-covid-19-middle-east-north-africa>
81. Farm Radio International. (2020, April 17). *Supporting radio journalism in the time of COVID-19*. Farm Radio International. <https://farmradio.org/supporting-radio-journalism-during-covid-19/>
82. Vota, W. (2019, February 13). *Why Does South Asia Have the World Largest Mobile Phone Gender Gap?* ICT Works. <https://www.ictworks.org/south-asia-mobile-phone-gender-gap/>
83. Broom, D. (2020, April). Coronavirus has exposed the digital divide like never before. *World Economic Forum Coronavirus*. <https://www.weforum.org/agenda/2020/04/coronavirus-covid-19-pandemic-digital-divide-internet-data-broadband-mobility/>
84. Tech Desk. (2020, March 30). COVID-19 lockdown: Vodafone, Jio offer double data, free internet to help you work from home. *The Indian Express*. <https://indianexpress.com/article/technology/techook/covid-19-lockdown-vodafone-jio-offer-double-data-to-help-you-work-from-home-6338633/>
85. ProshareNG. (n.d.). *MTN Floats Y'ello Hope Package To Support Virus Containment Efforts*. COVID-19: MTN Floats Y'ello Hope Package To Support Virus Containment Efforts. Retrieved 14 May 2020, from <https://www.proshareng.com/news/World-of-Business/COVID-19-MTN-Floats-Y-ello-Hope-Package-To-Support-Virus-Containment-Efforts/50394>
86. BBC Media Action, & Translators without Borders. (n.d.). COVID-19: Older Rohingya community. *What Matters Humanitarian Feedback Bulletin*, 34. Retrieved 14 May 2020, from <https://app.box.com/s/5391re83v137blggbt88b5w8l8l484m0>

87. Manivannan, A. (2015, June 15). Gender Inequalities in Access to Information about Ebola as Gender-Based Violence. *Harvard Human Rights Journal*. <https://harvardhrj.com/2015/06/gender-inequalities-in-access-to-information-about-ebola-as-gender-based-violence/>
88. IFRC, WHO, & UNICEF. (n.d.). *Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response*. Retrieved 29 May 2020, from [https://www.who.int/publications-detail/risk-communication-and-community-engagement-\(rcce\)-action-plan-guidance](https://www.who.int/publications-detail/risk-communication-and-community-engagement-(rcce)-action-plan-guidance)
89. Farrington, M., & Santos, R. F. D. (2020). *Community Engagement During Covid-19: A guide for community facing staff*. <https://reliefweb.int/sites/reliefweb.int/files/resources/gd-covid-19-oxfam-community-engagement-guide-270420-en.pdf>
90. IFRC. (2019). *Radio tackling rumours and misinformation in DRC's deadliest Ebola outbreak*. <https://www.youtube.com/watch?v=vTFqUFdGEjY>
91. Yenka Africa. (2020). *How one journalists' association is responding to COVID-19*. <https://www.yenkasa.org/how-one-journalists-association-is-responding-to-covid-19/>
92. Muungano. (2020, May 14). *UPDATED Coronavirus response: Possible isolation areas – maps*. Muungano Wa Wanavijiji. <https://www.muungano.net/browseblogs/2020/4/27/coronavirus-response-possible-isolation-areas-maps>
93. The Business Standard. (2020, March 24). BRAC producing masks, plans PPE production to battle coronavirus. *The Business Standard*. <https://tbsnews.net/coronavirus-chronicle/coronavirus-bangladesh/brac-producing-masks-plans-ppe-production-battle>
94. World Bank. (2020). *In India, women's self-help groups combat the COVID-19 (Coronavirus) pandemic*. World Bank. <https://www.worldbank.org/en/news/feature/2020/04/11/women-self-help-groups-combat-covid19-coronavirus-pandemic-india>
95. Dahab, M., van Zandvoort, K., Warsame, A., Spiegel, P., Waldman, R., & Checchi, F. (2020). *COVID-19 control in low-income settings and displaced populations: What can realistically be done?* LSHTM. <https://www.lshtm.ac.uk/newsevents/news/2020/covid-19-control-low-income-settings-and-displaced-populations-what-can>
96. Butler, N., & Rohan, H. (2020). *Considerations and principles for shielding people at high risk of severe outcomes from COVID-19 (April 2020)*. Social Science in Humanitarian Action (SSHAP). <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15286/SSHAP%20COVID-19%20Brief%20Shielding.pdf?sequence=1&isAllowed=y>
97. UNICEF. (2020). *Everything you need to know about washing your hands to protect against coronavirus (COVID-19)*. <https://www.unicef.org/bangladesh/en/everything-you-need-know-about-washing-your-hands-protect-against-coronavirus-covid-19>
98. Farha, L. (2020). *COVID-19 Guidance Note: Protecting Residents of Informal Settlements (28 March 2020) - World*. <https://reliefweb.int/report/world/covid-19-guidance-note-protecting-residents-informal-settlements-28-march-2020>
99. WHO. (2020). *Water, sanitation, hygiene, and waste management for the COVID-19 virus: Interim guidance*. [https://apps.who.int/iris/bitstream/handle/10665/331846/WHO-2019-nCoV-IPC\\_WASH-2020.3-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/331846/WHO-2019-nCoV-IPC_WASH-2020.3-eng.pdf)
100. Ghanaian Times. (2020, March 19). Akpeteshie not substitute to sanitiser in COVID-19 prevention. *Ghanaian Times*. <https://www.ghanaiantimes.com.gh/akpeteshie-not-substitute-to-sanitiser-in-covid-19-prevention/>
101. Andrew, A., Armand, A., Augsburg, B., & Taveras, I. K. (2020, March 30). *Challenges of adopting coronavirus precautions in low-income countries*. <https://www.ifs.org.uk/publications/14779>
102. South China Morning Post. (n.d.). *Hong Kong cage home resident finds space too small for self-quarantine amid coronavirus outbreak*. Retrieved 19 May 2020, from <https://www.youtube.com/watch?v=Nbqv4hjGEUk>
103. Leung, H. (2020, April 20). Why Singapore, Once a Model for Coronavirus Response, Lost Control of Its Outbreak. *Time*. <https://time.com/5824039/singapore-outbreak-migrant-workers/>
104. Sharma, M., & Scarr, S. (2020, May 22). How migrant worker outbreaks supercharged coronavirus spread in Singapore. *Reuters*. <https://www.reuters.com/article/us-health-coronavirus-singapore-clusters-idUSKBN22Y29U>
105. Voice of America. (2020, May 10). *Singapore's Coronavirus Outbreak Sends Malaysia Scrambling to Test Migrant Workers | Voice of America—English*. <https://www.voanews.com/covid-19-pandemic/singapores-coronavirus-outbreak-sends-malaysia-scrambling-test-migrant-workers>
106. Channel News Asia. (2020, April 10). In full: PM Lee appeals to older Singaporeans to stay at home during COVID-19 'circuit breaker' period. *CNA*. <https://www.channelnewsasia.com/news/singapore/covid-19-pm-lee-address-elderly-stay-at-home-workers-dormitories-12630842>
107. WHO. (2020). *Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (COVID-19) outbreak*. [https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)
108. WHO. (2020). *Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages*. [https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC\\_PPE\\_use-2020.3-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC_PPE_use-2020.3-eng.pdf)
109. Martineau, F., Wilkinson, A., & Parker, M. (2017). Epistemologies of Ebola: Reflections on the Experience of the Ebola Response Anthropology Platform. *Anthropological Quarterly*, 90(2), 475–494. <https://doi.org/10.1353/anq.2017.0027>
110. Cohen, E. (2014, September 26). Woman saves three relatives from death. *CNN*. <https://www.cnn.com/2014/09/25/health/ebola-fatu-family/index.html>
111. TechnoChic. (2020, March 24). *DIY Face Shield Made with 2 Headbands, a Hair Tie, Transparency Film, Duct Tape, and Hot Glue*. <https://www.youtube.com/watch?v=fsU3wylLELI>
112. Hope Healthcare and Hospice. (2020, March 21). *How to Make and Put On Personal Protective Equipment (PPE)*. <https://www.youtube.com/watch?v=ty1mhZCLOjE>
113. Dr Tajay. (2020, March 29). *How to make COVID 19 PPE at home*. <https://www.youtube.com/watch?v=HGqwa0B8iOs>
114. Lewis, D., & Harding Giahue, J. (2014, October 20). Home care kits highlight gaps in West Africa's Ebola response. *Reuters*. <https://www.reuters.com/article/us-health-ebola-kits-idUSKCN01928220141020>
115. Islamic Relief Worldwide. (2020). *You can save lives with our Coronavirus hygiene kits appeal*. <https://www.islamic-relief.org/coronavirus-appeal/>

116. WIEGO. (2020). *Waste pickers: Essential service providers at high risk*. <https://www.wiego.org/waste-pickers-essential-service-providers-high-risk>
117. Wu, Y., Guo, C., Tang, L., Hong, Z., Zhou, J., Dong, X., Yin, H., Xiao, Q., Tang, Y., Qu, X., Kuang, L., Fang, X., Mishra, N., Lu, J., Shan, H., Jiang, G., & Huang, X. (2020). Prolonged presence of SARS-CoV-2 viral RNA in faecal samples. *The Lancet Gastroenterology & Hepatology*, 5(5), 434–435. [https://doi.org/10.1016/S2468-1253\(20\)30083-2](https://doi.org/10.1016/S2468-1253(20)30083-2)
118. Quilliam, R. S., Weidmann, M., Moresco, V., Purshouse, H., O'Hara, Z., & Oliver, D. M. (2020). COVID-19: The environmental implications of shedding SARS-CoV-2 in human faeces. *Environment International*. <https://doi.org/10.1016/j.envint.2020.105790>
119. Ng, S. C., & Tilg, H. (2020). COVID-19 and the gastrointestinal tract: More than meets the eye. *Gut*, 69(6), 973–974. <https://doi.org/10.1136/gutjnl-2020-321195>
120. Balasubramaniam, P., Forsberg, B., Bloom, G., Awor, P., Gautham, M., Lakew, D., Tsevelvaanchig, U., & El Jardali, F. (2020, May 27). *A Voice From the Front Line: Reaching out of the box to engage private non-state healthcare actors in LMICs to combat COVID-19*. <http://blogs.ishtm.ac.uk/hppdebated/2020/05/27/voices-from-the-front-line-reaching-out-of-the-box-to-engage-private-non-state-healthcare-actors-in-lmics-to-combat-covid-19/>
121. Ahmed, S. M., Hossain, M. A., & Chowdhury, M. R. (2009). Informal sector providers in Bangladesh: How equipped are they to provide rational health care? *Health Policy and Planning*, 24(6), 467–478. <https://doi.org/10.1093/heapol/czp037>
122. Suah Shilue, J., & Fotouma, F. (n.d.). Liberia: Indigenous Health Practitioners as Community-based Allies. *Elrha*. Retrieved 28 May 2020, from <https://www.elrha.org/project-blog/liberia-indigenous-health-practitioners-as-community-based-allies/>
123. Perry, H. B., Dhillon, R. S., Liu, A., Chitnis, K., Panjabi, R., Palazuelos, D., Koffi, A. K., Kandeh, J. N., Camara, M., Camara, R., & Nyenswah, T. (2016). Community health worker programmes after the 2013–2016 Ebola outbreak. *Bulletin of the World Health Organization*, 94(7), 551–553. <https://doi.org/10.2471/BLT.15.164020>
124. Sabina, N., Zakir Hussain, A., & Villar Uribe, M. (2020, April 28). Bangladesh should use its community health workers to respond to the Covid-19 pandemic. *Dhaka Tribune*. <https://www.dhakatribune.com/feature/2020/04/28/bangladesh-should-use-its-community-health-workers-to-respond-to-the-covid19-pandemic>
125. Manguvo, A., & Mafuvadze, B. (2015). The impact of traditional and religious practices on the spread of Ebola in West Africa: Time for a strategic shift. *The Pan African Medical Journal*, 22(Suppl 1). <https://doi.org/10.11694/pamj.supp.2015.22.1.6190>
126. Taremwa, A. (2019). *Traditional healers in the fight to keep Uganda free of Ebola*. UNICEF. <https://www.unicef.org/uganda/stories/traditional-healers-fight-keep-uganda-free-ebola>
127. Hewlett, B. S., & Amola, R. P. (2003). *Cultural Contexts of Ebola in Northern Uganda—Volume 9, Number 10—October 2003—Emerging Infectious Diseases journal—CDC*. <https://doi.org/10.3201/eid0910.020493>
128. Cyranoski, D. (2020). China is promoting coronavirus treatments based on unproven traditional medicines. *Nature*. <https://doi.org/10.1038/d41586-020-01284-x>
129. DW News, D. (2020, May 5). WHO cautions against the use of traditional herbs in Africa. *DW.COM*. <https://www.dw.com/en/covid-19-who-cautions-against-the-use-of-traditional-herbs-in-africa/a-53341901>
130. Butler, N. (2020). *Key considerations: Online information, mis- and disinformation in the context of COVID-19*. Social Science in Humanitarian Action (SSHAP). <https://www.socialscienceinaction.org/wp-content/uploads/2020/03/SSHAP-Brief.Online-Information.COVID-19.pdf>
131. Rosoff, P. M. (2010). Should palliative care be a necessity or a luxury during an overwhelming health catastrophe? *The Journal of Clinical Ethics*, 21(4), 312–320.
132. Matzo, M., Wilkinson, A., Lynn, J., Gatto, M., & Phillips, S. (2009). Palliative care considerations in mass casualty events with scarce resources. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, 7(2), 199–210. <https://doi.org/10.1089/bsp.2009.0017>
133. Etkind, S. N., Bone, A. E., Lovell, N., Cripps, R. L., Harding, R., Higginson, I. J., & Sleeman, K. E. (2020). The Role and Response of Palliative Care and Hospice Services in Epidemics and Pandemics: A Rapid Review to Inform Practice During the COVID-19 Pandemic. *Journal of Pain and Symptom Management*. <https://doi.org/10.1016/j.jpainsymman.2020.03.029>
134. Brown, N., & Beasley, D. (2020, April 9). From fine to flailing—Rapid health declines in COVID-19 patients jar doctors, nurses. *Reuters*. <https://www.reuters.com/article/us-health-coronavirus-usa-deaths-idUSKCN21Q36V>
135. Pappas, S. (2020). *'Silent hypoxia' may be killing COVID-19 patients. But there's hope*. Livescience.Com. <https://www.livescience.com/silent-hypoxia-killing-covid-19-coronavirus-patients.html>
136. Ripoll, Santiago. (2020). *Key Considerations: Dying, Bereavement and Mortuary and Funerary Practices in the Context of COVID-19*. Social Science in Humanitarian Action (SSHAP). <https://www.socialscienceinaction.org/resources/key-considerations-dying-bereavement-mortuary-funerary-practices-context-covid-19/>
137. Oosterhoff, P., Mokuwa, E. Y., & Wilkinson, A. (2015). *Community-Based Ebola Care Centres*. Ebola Anthropology Response Platform. [http://www.ebola-anthropology.net/case\\_studies/community-based-ebola-care-centres-a-formative-evaluation/](http://www.ebola-anthropology.net/case_studies/community-based-ebola-care-centres-a-formative-evaluation/)
138. Parpia, A. S., Ndeffo-Mbah, M. L., Wenzel, N. S., & Galvani, A. P. (2016). Effects of Response to 2014–2015 Ebola Outbreak on Deaths from Malaria, HIV/AIDS, and Tuberculosis, West Africa. *Emerging Infectious Diseases*, 22(3), 433–441. <https://doi.org/10.3201/eid2203.150977>
139. NZ Herald. (2020, March 24). Covid-19 coronavirus: New Zealanders who live alone can have a 'buddy system' for lockdown. *NZ Herald*. [https://www.nzherald.co.nz/lifestyle/news/article.cfm?c\\_id=6&objectid=12319577](https://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=12319577)
140. Cooper, J. L. (2015). Mental health and psychosocial support in the face of Ebola in Liberia: The personal and professional intersect. A personal account. *Intervention*, 13(1), 9.
141. WHO. (2020). *Coping with stress during the 2019-nCoV outbreak*. [https://www.who.int/docs/default-source/searo/bangladesh/2019-ncov/coping-with-stress.pdf?sfvrsn=1bff513d\\_6](https://www.who.int/docs/default-source/searo/bangladesh/2019-ncov/coping-with-stress.pdf?sfvrsn=1bff513d_6)
142. WHO. (2020, March). *Mental health and psychosocial considerations during the COVID-19 outbreak*. [https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af\\_2](https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_2)
143. Brighton Cooking Club. (2020). *Brighton Cooking Club*. <https://www.brightoncookingclub.com/>
144. Samuel, S. (2020, March 24). *How to help people during the pandemic, one Google spreadsheet at a time*. Vox. <https://www.vox.com/future-perfect/2020/3/24/21188779/mutual-aid-coronavirus-covid-19-volunteering>

145. Avert. (n.d.). *Boost—A new mobile resource for community health workers*. Retrieved 19 May 2020, from <https://boost.avert.org/slideshow/covid-19>
146. Knight Raskin, M. (2018, November 12). In Liberia, Survivors of Ebola and Civil War Now Struggle With Mental Illness. *Pulitzer Center*. <https://pulitzercenter.org/reporting/liberia-survivors-ebola-and-civil-war-now-struggle-mental-illness>
147. Jin, J.-M., Bai, P., He, W., Wu, F., Liu, X.-F., Han, D.-M., Liu, S., & Yang, J.-K. (2020). Gender Differences in Patients With COVID-19: Focus on Severity and Mortality. *Frontiers in Public Health*, 8. <https://doi.org/10.3389/fpubh.2020.00152>
148. Oxfam International. (2020, April 1). *¿Quién cuida a las que nos cuidan del Coronavirus?* Medium. <https://medium.com/@Oxfam/qui%C3%A9n-cuida-a-las-que-nos-cuidan-del-coronavirus-3003c75829e7>
149. Promundo. (2020, March 18). COVID-19 demands that we pay attention to who does the care work – and how we support them. *Promundo*. <https://promundoglobal.org/covid-19-demands-that-we-pay-attention-to-who-does-the-care-work-and-how-we-support-them/>
150. Wenham, C., Smith, J., & Morgan, R. (2020). COVID-19: The gendered impacts of the outbreak. *The Lancet*, 395(10227), 846–848. [https://doi.org/10.1016/S0140-6736\(20\)30526-2](https://doi.org/10.1016/S0140-6736(20)30526-2)
151. Smith, J. (2020). *Gender matters in responding to major disease outbreaks like Ebola*. The Conversation. <http://theconversation.com/gender-matters-in-responding-to-major-disease-outbreaks-like-ebola-120524>
152. Pasquali, M. (2020, March 30). *Growth of domestic violence and sexual abuse reports during the COVID-19 lockdown in selected Latin American countries as of April 2020*. Statista. <https://www.statista.com/statistics/1113975/gender-violence-growth-coronavirus-latin-america/>
153. Usher, K., Bhullar, N., Durkin, J., Gyamfi, N., & Jackson, D. (2020). Family violence and COVID-19: Increased vulnerability and reduced options for support. *International Journal of Mental Health Nursing*, n/a(n/a). <https://doi.org/10.1111/inm.12735>
154. Jabola-Carolus, K. (2020, March 17). Column: Ease heavy burden of women affected by COVID-19 pandemic. *Honolulu Star-Advertiser*. <https://www.staradvertiser.com/2020/03/17/editorial/island-voices/column-ease-heavy-burden-of-women-affected-by-covid-19-pandemic/>
155. Harman, S. (2016). Ebola, gender and conspicuously invisible women in global health governance. *Third World Quarterly*, 37(3), 524–541. <https://doi.org/10.1080/01436597.2015.1108827>
156. Nyblade, L., Stockton, M. A., Giger, K., Bond, V., Ekstrand, M. L., Lean, R. M., Mitchell, E. M. H., Nelson, L. R. E., Sapag, J. C., Siraprasiri, T., Turan, J., & Wouters, E. (2019). Stigma in health facilities: Why it matters and how we can change it. *BMC Medicine*, 17. <https://doi.org/10.1186/s12916-019-1256-2>
157. Carew Kraft, J. (2016, November 22). Cultural factors complicate Zika prevention in American Samoa. *NBC News*. <https://www.nbcnews.com/news/asian-america/american-samoa-cultural-factors-could-make-zika-worse-n686781>
158. The New Nation. (2020, May 17). Covid-19 patients continue to escape from hospital. *The New Nation*. <http://m.thedailynewnation.com/news/253654/covid-19-patients-continue-to-escape-from-hospital>
159. Times Now News. (2020, April 29). *Shocking negligence as COVID-19 patient escapes from the centre in Pune*. <https://www.timesnownews.com/videos/times-now/india/shocking-negligence-as-covid-19-patient-escapes-from-the-centre-in-pune/59879>
160. Channels Television. (2020, May 5). *COVID-19 Patients Flee, Protest At Gombe Isolation Facility*. <https://www.youtube.com/watch?v=5U7Lk0zLvy8>
161. Uganda Ministry of Health. (2020). *Guidelines on Quarantine of Individuals in Uganda*. <https://www.health.go.ug/covid/document/guidelines-on-quarantine-of-individuals-in-the-context-of-containment-of-coronavirus-disease-covid-19-in-uganda/>
162. Andula Agency. (2020, May 6). *Nigeria: COVID-19 patients protest over 'ill treatment'*. <https://www.aa.com.tr/en/africa/nigeria-covid-19-patients-protest-over-ill-treatment/1830966>
163. Wilkinson, A. (2020). *Key considerations: COVID-19 in informal urban settlements (March 2020)* [Brief]. Social Science in Humanitarian Action (SSHAP). [https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15185/SSHAP\\_COVID-19\\_Key\\_Considerations\\_Informal\\_Settlements\\_final.pdf?sequence=3&isAllowed=y](https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15185/SSHAP_COVID-19_Key_Considerations_Informal_Settlements_final.pdf?sequence=3&isAllowed=y)
164. Nigeria CDC. (2020). *Self Isolation and Quarantine Guide*. [https://covid19.ncdc.gov.ng/media/files/SelfIsolation\\_QuarantineGuide\\_mHv8tpr.pdf](https://covid19.ncdc.gov.ng/media/files/SelfIsolation_QuarantineGuide_mHv8tpr.pdf)
165. Nigeria CDC. (2020). *NCDC Coronavirus COVID-19 FAQs*. <https://covid19.ncdc.gov.ng/faq/>
166. South Africa National Department of Health, & National Institute for Communicable Diseases. (2020). *Clinical Management of COVID-19 disease Version-3*. [https://www.nicd.ac.za/wp-content/uploads/2020/03/Clinical-Management-of-COVID-19-disease\\_Version-3\\_27March2020.pdf](https://www.nicd.ac.za/wp-content/uploads/2020/03/Clinical-Management-of-COVID-19-disease_Version-3_27March2020.pdf)
167. India Ministry of Health and Family Welfare. (2020). *Guidelines for Home Isolation of very mild presymptomatic COVID19 cases*. <https://www.mohfw.gov.in/pdf/GuidelinesforHomeIsolationofverymildpresymptomaticCOVID19cases.pdf>
168. India Ministry of Health and Family Welfare. (2020). *Guidance document on appropriate management of suspect/confirmed cases of COVID-19*. <https://www.mohfw.gov.in/pdf/FinalGuidanceonManagementofCovidcasesversion2.pdf>
169. The Jakarta Post. (2020, March 20). Dozens of COVID-19-positive people are in home-isolation in Jakarta. How does it work? *The Jakarta Post*. <https://www.thejakartapost.com/news/2020/03/20/dozens-of-covid-19-positive-people-are-in-home-isolation-in-jakarta-how-does-it-work.html>
170. Federal Government of Malaysia Ministry of Health. (2020). *Guidelines COVID-19 Management in Malaysia, Management of Person Under Investigation (No. 5/2020 Annex 2)*. [http://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm/Annex\\_2\\_Management\\_of\\_PUI\\_22032020\\_.pdf](http://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm/Annex_2_Management_of_PUI_22032020_.pdf)
171. Government of Mexico. (2020). *Proceso de prevencion de infecciones para las personas con covid-19*.
172. Peru Ministry of Health. (n.d.). *Cuidar a un paciente sospechoso de haber contraído coronavirus (COVID-19)*. Retrieved 26 May 2020, from <https://www.gob.pe/8733>