ASCEND
Accelerating Sustainable Control and Elimination of Neglected Tropical Diseases

ASCEND REPORT

Impact of COVID-19 on Neglected Tropical Disease activities delivered by Community Health Workers: a summary of completed study activities

ASCEND is managed geographically in two lots. Lot 1 focuses on 11 countries in East and Southern Africa and South Asia: Bangladesh, Ethiopia, Kenya, Malawi, Mozambique, Nepal, Sudan, South Sudan, Tanzania, Uganda, Zambia. We gratefully acknowledge the financial support provided by the UK Foreign Commonwealth and Development Office (FCDO) to fund the ASCEND programme.

Lot 1

ASCEND Accelerating Sustainable Control and Elimination of Neglected Tropical Diseases
CROWN AGENTS ACCELERATING SELF-SUFFICIENCY & PROSPERITY
ORIOLE GLOBAL HEALTH
KIT Royal Tropical Institute
Abt Associates

Bangladesh • Ethiopia • Kenya • Malawi • Mozambique • Nepal • South Sudan • Sudan • Tanzania • Uganda • Zambia

Contents

Acronyms

Abt	Abt Associates
ASCEND	Accelerating Sustainable Control and Elimination of Neglected Tropical Diseases
BCC	Behaviour change communication
CDDs	Community drug distributors
CHWs	Community health workers
FGD	Focus group discussion
IEC	Information, education and communication
IRB	Institutional review body
IU	Implementation unit
KIT	Royal Tropical Institute
M&E	Monitoring and evaluation
MDA	Mass drug administration
MMDP	Morbidity management and disability prevention
MoH	Ministry of Health
NGO	Non-Government Organisation
NTDs	Neglected tropical diseases
PI	Principal investigator
PPE	Personal protective equipment
PSIF	Policy Strategic Investment Fund
QA	Quality assurance
SOPs	Standard operating procedures
RAMA	Risk Assessment and Mitigation Action
VL	Visceral leishmaniasis
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation

1. Background

About ASCEND

The FCDO-funded Accelerating Sustainable Control and Elimination of Neglected Tropical Diseases (ASCEND) programme is a £200 million investment from the UK government to advance the impact and sustainability of national programmes tackling neglected tropical diseases (NTDs). The programme consists of two lots – one focusing on South Asia, East and Southern Africa (Lot 1) and the other on West and Central Africa (Lot 2). ASCEND Lot 1 is implemented by a consortium of technical partners, led by Crown Agents with partners including Abt Associates (Abt), Oriole Global Health and the Royal Tropical Institute (KIT). The objective of ASCEND Lot 1 is to strengthen key elements of the national health systems which are required for sustainable NTD control and elimination across 11 priority countries including: Bangladesh, Ethiopia, Kenya, Malawi, Mozambique, Nepal, Sudan, South Sudan, Tanzania, Uganda and Zambia. The programme focusses on five NTDs, including: lymphatic filariasis, onchocerciasis, schistosomiasis, visceral leishmaniasis and trachoma. The programme began implementation in June 2019, and is now entering an early exit, in advance of the previously anticipated end date of March 2022.

About the Policy and Strategic Investment Fund

The Policy and Strategic Investment Fund (PSIF) was set up to provide support for additional strategic investments arising from the implementation of ASCEND. The aim of this ring-fenced funding was to support identifying and producing evidence of cutting-edge approaches to NTD programming, in order to accelerate progress towards control and elimination by addressing known barriers or issues. Studies and activities under the fund aimed to fill emerging critical gaps in intervention coverage; deliver an enhanced learning agenda and add value by complementing the main programme activities.

Background to CHW studies

Following the first call for PSIF proposals, Abt and KIT jointly designed and conducted the initial stages of two simultaneous studies, both focused on community health workers (CHWs) and the disruption to their NTD-related work during the COVID-19 pandemic. Unfortunately, due to the premature termination of the PSIF, in line with ASCEND's early exit, the studies were first suspended and then officially terminated in June 2021 prior to the commencement of data collection. The studies aimed to understand the role of CHWs delivering NTD services during the COVID-19 pandemic, identifying both how CHWs were affected and how their working practice changed.

The first study (known as CHW1) was to be a rapid assessment of CHWs willingness and readiness to continue engagement in mass drug administrations (MDAs) and other NTD services during the pandemic. This was focussed in almost all of ASCEND Lot 1's target countries across East and Southern Africa. The data collection method to be used was based on a mobile-survey, led by VIAMO, using interactive voice response, supplemented by secondary data on COVID-19 epidemiology.

The second study (known as CHW2) was to run concurrently and provide a complementary, more in-depth qualitative investigation into the challenges and opportunities facing CHWs during the pandemic. This study covered a smaller geographic area–specifically, South Sudan, Ethiopia, Kenya and Uganda. Data was to be collected through key informant interviews with government stakeholders and CHWs.

2. Justification

NTD delivery activities within the ASCEND project had been interrupted with the emergence of the COVID-19 pandemic. In accordance with WHO recommended guidance on NTD programming during the pandemic,(1) all ASCEND Lot 1 countries temporarily suspended community-based health interventions, such as, mass drug administration (MDA) campaigns, in March 2020. Many NTD programmes were facing potential negative

impacts as a result of the COVID-19 pandemic, including delays or shortfalls on NTD elimination targets, impending expiry of drug stock, and missed treatment opportunities. Furthermore, interruption of NTD care and treatment may have resulted in loss of committed personnel, trained resources and hamper supply chains.

Community health workers (CHWs)[1] are the frontline healthcare delivery cadre for many national NTD programmes supported by ASCEND. Their role, depending on the CHW system in each country, can include MDA, surveillance for morbidity management and disability prevention (MMDP), advice for healthy water, sanitation and hygiene (WASH) practices, and behaviour change communication (BCC). Fears of disturbances to routine healthcare delivery, as was experienced during the Ebola crisis, being repeated during COVID-19 were substantiated as more research emerged. During the Ebola outbreak, an analysis of the changes to utilisation of reproductive, maternal and neonatal services estimated, in its most conservative prediction scenario, that antenatal coverage decreased by 22 percentage points and an additional 3,600 maternal, neonatal and stillbirth deaths occurred—equivalent to the total number of deaths occurring directly due to Ebola across the entire period of the epidemic.(2) The first qualitative investigations into the effects of COVID-19 on services provided by community-based and other healthcare workforce cadres in low- and middle-income countries (LMICs) had already reported increased staff shortages, reduced patient visits and inpatient admissions, refusal of service to low-risk patient groups, fears of personal risk or of transmitting COVID-19 due to occupational exposure, and the sidelining of other health services.(3,4) The specific impacts on CHWs and their work in national NTD programmes, particularly MDA campaigns that rely on regimen adherence to achieve efficacy and herd immunity at the population level, are as yet undocumented.

COVID-19 epidemiology changed greatly across ASCEND Lot 1 countries in the first year of the pandemic, and governments sought to identify health services that could continue under amended protocols, sensitive to preventing any risk of COVID-19 transmission between and within communities. As of the 5th of August 2020, there had been 2,450 confirmed cases of COVID-19 in South Sudan (test positive rate = 5.0), 1,203 cases in Uganda (test positive rate = 234.8), 19,877 in Ethiopia (test positive rate = 22.8) and 23,202 in Kenya (test positivity rate 13.9).(5) Within ASCEND Lot 1, governments in several countries including Zambia, Malawi, South Sudan, Ethiopia, Mozambique, Tanzania and Uganda were considering continuation of MDAs and other NTD activities. As partners with government, the ASCEND Lot 1 consortium, wished to support governments to set up well-designed procedures for NTD-related activities going forward. However, it was unclear to what extent CHWs had been affected by the COVID-19 pandemic and what support they need in order to continue the delivery of routine health services to the population. There was a need to understand the key obstacles and implications for CHWs in delivering routine health services during the fluctuations in COVID-19 spread. This in turn would help to develop strategies to engage and support CHWs during COVID-19, thus minimising any secondary impact of the COVID-19 pandemic on the population.

3. Aim and research questions

This complementary pair of studies (CHW1 and CHW2) sought to generate both initial insights into the effects of the COVID-19 pandemic on CHWs, and explore these findings more deeply with a view to future pandemics and other health system shocks.

[1] CHWs in this case, may refer to an officially designated or informal health cadre involved in the delivery of NTD programmes nationally. While the term CHWs is used to refer to frontline and community-based health cadres more generally, the specific remit and name of this cadre will differ per study country, for example, health extension workers in Ethiopia, village health teams in Uganda, health surveillance assistants in Malawi, community health assistants in Zambia. Depending on the country, this cadre may be an institutionalized part of the health workforce (e.g. Ethiopia) or voluntary (e.g. Uganda). These will be more precisely defined at country level and will mostly involve frontline community drug distributors (CDDs).

The first study's (CHW1) objective was to explore willingness and preparedness of CHWs to deliver NTD-related activities in the COVID-19 operating environment. This objective was translated into a series of research questions:

1. How do CHWs feel towards resuming community-based NTD activities in the context of COVID-19?
2. How prepared did CHWs feel to perform their normal role or adapted role towards COVID-19?
3. How did the health system support the resumption of their community-based NTD practice?
4. What other factors play(ed) a role in the effectiveness of this resumption?

The objective of the second study (CHW2) was to identify challenges and opportunities regarding CHW engagement in delivering COVID-19-related and regular services during COVID-19 pandemic. Again, this was translated into a series of research questions:

1. What is the role of CHWs in implementing COVID-19 related activities?
2. To what extent was the provision of general and NTD-related healthcare services by CHWs disrupted during COVID-19 pandemic?
3. What are the main challenges that CHWs experience delivering NTD services during the COVID-19 pandemic?
4. How did the government envisage to engage CHWs and what operational provisions, training and support was provided?
5. How can CHWs be better supported during times of health emergencies, in terms of remuneration and equipment (e.g. PPE) to perform successfully?

4. Detailed description of methodology and tools

The initial rapid assessment (CHW1) would use a mobile-based survey of 400-600 CHWs across 15 implementation units (IUs) (i.e., administrative areas in countries, such as districts or counties, which were supported by ASCEND) in each study country , and would be complemented by an in-depth, qualitative investigation (CHW2) using interviews with CHWs and government stakeholders across 10 implementation units. **Table 1** shows a breakdown of the study countries, methods and samples across studies CHW1 and CHW2.

Table 1. Overview of countries, methods and sample comprising each study.

Study	Geographical scope	Method	Sample
CHW1	**Kenya, Ethiopia, South Sudan, Uganda**, Tanzania, Zambia, Malawi, Mozambique	Mobile-based survey using interactive voice recording; secondary data collation on COVID-19 epidemiology	400-600 respondents per country
CHW2	**Kenya, Ethiopia, South Sudan, Uganda**	Key informant interviews with CHWs and government stakeholders; FGDs with CHWs	30-35 interviews and 1-2 FGDs per country

Study design and sampling strategy

CHW1: This study planned to involve all CHWs (and in certain countries, community drug distributors [CDDs]) operating in 15 selected IUs across the target countries. To access their contact details, we linked with the national or local focal points in each country who managed the database of CHWs and CDDs.

Participants will be selected based on the following three inclusion criteria:

- Being registered at the local departments
- Operating in the selected IU
- In possession of a valid telephone number

This study initially sought to draw a stratified random sample from the 15 IUs to extrapolate the findings of the mobile survey to the country at large. As we couldn't ensure the participation of a sufficient number of CHWs across the 15 IUs in each country with a valid telephone number and from typical response rates of mobile surveys (10-50%), we changed our strategy to a convenience sample. The purposeful selection of IUs aimed to achieve a diversity of the following characteristics: epidemiological situation related to COVID-19, socioeconomic status, geographic characteristics (urban vs rural) and plan for MDA implementation in 2020.

CHW2: Sampling followed a two-stage selection process. First, we purposefully selected 10 IUs from the initial 15, seeking variation in similar characteristics to the first study: the epidemiological situation related to COVID-19 in IUs (based on number of new cases), socio-economic status (low, medium, high), geographic characteristics (urban, peri-urban, rural) and the plan for MDA implementation (delayed, continuing, restarted) in 2021. The specific categorisations of IUs (e.g. low vs medium vs high COVID transmission) was relative within each country rather than between countries. We sought to select CHWs from IUs to ensure each characteristic was represented at least once. Secondly, we purposefully selected five CHWs from each IU to be individually interviewed, with the intention of including 'rich cases': i.e., those willing to be interviewed and that can explain the problem field in detail. With increasing level of saturation of information, the number of CHWs per IU would decrease. We anticipated that a sample of 35 CHWs spread over 10 IUs would be large enough to account for the variation in perceptions of the main challenges and opportunities CHWs faced during the COVID-19 pandemic. We also planned to conduct focus group discussions (FGDs) with CHWs opportunistically, for example when participating in MDA trainings. In this case, two groups of a maximum of eight participants would be invited, or the max number which can safely congregate in a designated space in line with social distancing measures. Outdoor sites, depending on ambient noise, would also be explored for FGDs. Finally, individual interviews would also be held with relevant government employees responsible for managing CHWs and CHW policy, as well as those involved in local COVID-19 outbreak team. In total, five to seven would interviews would be conducted per country.

Data collection

CHW1: Data collection was split across two phases: formative research and primary data collection. The formative research phase comprised a rapid scoping literature review (see **Annex 1**) to identify potential issues CHWs might face in delivering NTD programmes during COVID-19. Secondly, we planned to perform a rapid epidemiological inventory of the number of reported and suspected COVID-19 cases by IU in each country, or to the lowest administrative division for which data were available. Finally, our discussions with both ASCEND staff and health ministry stakeholders about the ongoing domestic situation with regards to COVID-19 and NTD programming would also inform the design of the mobile questionnaire.

Primary data would be collected using mobile-based survey technology;, the interactive voice response (IVR) medium offered by VIAMO . IVR is a form of "robocall", where the questionnaire forms part of a pre-recorded message and respondents are given keypad options to respond. A questionnaire comprising 20 closed questions was developed, revised with inputs from all research teams, and underwent a quality assurance review from subject matter experts. The finalised questionnaire tool template is available in **Annex 2**; this template was adapted for each country to be surveyed with key terminology changed (e.g., CHWs are called health extension workers in Ethiopia).The adapted questionnaire would then be verbally recorded, in appropriate local languages for the range of IUs surveyed (**Table 2**), and form part of a call to about 400-600

CHWs operating across the 15 selected IUs (based on an average of 40 CHWs per IU). CHWs would use their mobile phones to answer the questionnaire using the keypad.

Table 2. Planned language translations for the mobile survey questionnaire in each country, determined with country research teams, ASCEND staff and health ministry stakeholders.

Country	Languages
Kenya	Swahili
Ethiopia	Amharic; Afan Oromo; Tigrinya
Uganda	Luganda; Lusamya; Lugbar; Karamajong; Pokot; Acholi; Lunyoro
South Sudan	English
Zambia	Bemba; Nyanja; Tonga; English
Malawi	Chichewa; English
Mozambique	Portuguese

CHW2: As with the first study, data collection involved a formative research phase comprising the scoping literature review (**Annex 1**), followed by a primary data collection phase of in-depth, semi-structured interviews.

Semi-structured interview and focus group topic guides were developed (**Annex 3**) based on a combination of the problem areas and theory identified by the literature review and through informal discussions with government stakeholders and ASCEND staff on the problems facing CHWs domestically. These guides underwent a quality assurance review by subject matter experts. Separate guides were developed for CHWs and government stakeholders. For both, the interviews begin with a description of the study's rationale, the aims of the interview and a brief agenda, and the body of the guides comprise open questions exploring the local situation, and attempting to identify challenges and opportunities CHWs face during COVID-19 pandemic. Interviews with government stakeholders and departments responsible for managing CHWs and national NTD programmes would allow us to provide a complete picture of challenges met at different levels and identify implementation challenges.

Data collection teams would be trained on the use of tools across two sessions: the first being hosted virtually between the central and in-country principal investigators, and the second taking place face-to-face or virtually between in-country principal investigators and their co-investigators. All interviews would be performed in a local language appropriate for the interviewee. All study data would be secured on the password protected ASCEND SharePoint, with access only permitted to the research teams for the duration of the study period.

Interviews would be conducted face-to-face (respecting locally appropriate distancing and hygiene measures) or by telephone. We planned to make use of MDA or other trainings for the conduct of FGDs. Each interviewer and focus group facilitator will have a budget of $50 for personal protective equipment (PPE). All

research activities will follow national guidance on social distancing and any protective measures necessary (such as, face masks, hand sanitisers, minimum physical distance). The option of conducting interviews and FGDs outside will be explored if ambient noise or other disruptions will not hinder discussion and audio recordings.

Data processing and analysis

CHW1: Data would be analysed using descriptive statistics (e.g. frequencies, ranges). The identification of potential associations would be further explored inferentially, looking at the relationships between the local epidemiological situation due to COVID-19, national demographics and characteristics, and status of NTD implementation.

CHW2: Interviews would be recorded and transcribed by research teams. After transcription, a limited selection of five transcripts would be read by the in-country and central principal investigator for quality and completeness, after which a coding framework would be developed. The coding framework would be based on a combination of the theoretical framework, and any emerging themes from the qualitative data. The coding of interviews would follow a similar approach: a first round of inductive coding would be followed by subsequent rounds of deductive coding based on the theoretical framework and further inductive coding for the identification of sub-themes relevant to local contexts. Atlas.ti would be used for transcription, coding and the centralised management of files to enable member checks from in-country research teams and the central PI. The coding and analysis of qualitative data would be supported by virtual meetings involving in-country research teams and the central PI to discuss necessary coding framework revisions and country-level differences in themes. The internal member checks, between in-country research team members, would aim to achieve a code set which is internally valid to the national context, while external discussions with other national research teams and the central PI will aim to achieve some means of comparison of insights across different contexts. The consolidated insights would finally be re-interpreted among the findings of the literature review to place the findings within the existing body of knowledge.

5. Implemented activities and results

Ethical approval

While it was initially planned that only the second study's (CHW2) research protocol would require review from national institutional review bodies (IRB), in the end protocols for both studies were submitted for review for all seven countries where the studies would be conducted. The national bodies we sought ethics review from in each country (**Table 3**) were determined through discussions with research teams. In Kenya and Uganda, additional research permits were required from the National Commission for Science, Technology and Innovation (NACOSTI) and Uganda National Council for Science and Technology (UNCST), respectively, for researchers conducting primary research in the country, and these were obtained after the initial approvals of the study protocols were received.

Table 3. Institutional review bodies where ethics review was sought for CHW1 and CHW2 research protocols.

Country	Institutional review bodies
Kenya	Amref Health Africa Ethics & Scientific Review Committee; National Commission for Science, Technology and Innovation (NACOSTI)
Ethiopia	College of Public Health and Medical Sciences Ethics Review Board, Jimma University
Uganda	Vector Control Division (MoH) Research and Ethics Committee; Uganda National Council for Science and Technology (UNCST)
South Sudan	Ministry of Health, Republic of South Sudan
Zambia	ERES Converge IRB
Malawi	National Health Sciences Research Committee
Mozambique	Ministry of Health, Mozambique

Quality assurance process

Technical assistance for quality assurance was required and drawn on when planning the execution of the two studies. We engaged two subject matter experts to carry out quality assurance checks and in turn minimise bias influencing the design and use of the research tools. Given CHWs are a specific healthcare cadre that also vary greatly in set up and organisation across different countries, it was important that our research tools remained applicable across different countries to achieve valid comparisons. Both experts reviewed and provided feedback on the mobile-based questionnaire for CHW1 and interview guides for CHWs and government stakeholders. Had the studies progressed, we had planned to further engage both QA experts to review the final knowledge translation materials and plans.

Research team by country

Researchers and research teams were identified and set up in two ways: i) through existing connections with the ASCEND programme, such as in relevant departments (e.g. community health department or vector control department) of health ministries; ii) through searches of literature and research networking sites. Research teams were only set up in Kenya, Ethiopia, Uganda and South Sudan, given the second study (CHW2) would be conducted in these countries and this involved in-person primary data collection (i.e., interviews and FGDs). In countries where only the first study would be conducted (Zambia, Malawi, Mozambique) we benefited from the voluntary engagement of ASCEND staff.

6. Way forward

Despite the premature termination of the PSIF funding, significant groundwork has been laid in setting up the studies for data collection and beyond. Wishing to capitalise on such groundwork, the local research teams may look to continue the studies independently, if alternative domestic sources can be identified. Furthermore, there is potential to seek additional funding from international donors in order to continue the studies in their current multi-country set up and leverage the existing preparatory work. Indeed, this idea was largely supported by research teams during a debrief call after the project's closure. Potential international funders are being identified by KIT in order to solicit interest and develop a formal proposal. In order to keep the possibility of the studies continuing on either a country-by-country or international basis, a short letter has been sent to all institutional review bodies where ethics review has been solicited, informing them of the current status and requesting their approvals remain valid in case other funding sources are found. Similarly, all final versions of research tool templates have been shared with research teams in case the study can continue domestically.

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Annex 1

Rapid scoping literature review to inform research tool design

The studies conducted in the wake of the COVID-19 pandemic highlight some early insights into its impacts on CHWs and NTD programmes, the challenges both CHWs and health systems face, as well as some suggested mitigations. The NTD modelling consortium, a collaboration of public health and data science departments across nine universities[2], predicted in a report in July that a one year interruption to NTD programmes focusing on the seven main NTDs, will have a maximum average impact of 1-2 year delays on 2030 NTD Roadmap goals, including the elimination of transmission of certain NTDs and the elimination of others as a public health problem (6). Other studies modelling the potential impact of disruption to essential health services by COVID-19, such as those on; maternal, child health and sexual and reproductive health services, have predicted large burdens resulting in both additional deaths and unmet needs for services (7,8). Amongst this backdrop, CHWs have been lauded as a potential spearhead of the pandemic response given the ambulatory nature of the care they provide in communities (9). Semaan and colleagues have, so far, conducted the most in-depth analysis into the effects of COVID-19 on health workers delivering routine health services (3). Through an online, global cross-sectional survey of 714 maternal and new-born health professionals working across 81 countries, they reported challenges to care availability and use, care content and quality and adaptations to care processes. Staff shortages due to (suspected) exposure or transport restrictions had increased workloads and caused frequent work schedule changes. Further, only 19% of this sample felt they were completely knowledgeable to provide care to COVID-19 maternity patients, even as half of respondents in LMICs and 82% in high-income countries had received updated guidance on providing services during the outbreak (3). Finally, health workers saw fewer patients at facilities due to fear of infection and travel restrictions, as well as cancellations or postponement of non-essential services, and where possible, shifts in care to telemedicine. While these challenges predominantly reflect the experiences of health professionals working at facilities (only 2% of the respondent sample were CHWs), they raise issues of healthcare delivery that may also apply in communities (such as, having adequate knowledge to shift work towards COVID-19), or indicate ways community health systems may bear the cost of disrupted essential health services.

Alongside the challenges to community and facility health services, the health system also faces the challenge of striking the right balance between orienting resources towards COVID-19 and maintaining a basket of essential and non-essential services. An initial challenge to all health systems was the vast demand for personal protective equipment for health workers, which spawned initiatives such as the COVID-19 Action Fund for Africa aiming to raise $100 million to supply PPE to CHWs in 24 African countries for a year.[3] For community health services, there are potential knock-on effects of COVID-19 if it impacts volunteerism for unpaid CHW roles, or makes aspects of their work harder, such as community surveillance systems that help identify potential non communicable diseases (NCDs) hotspots (10). With each of these challenges, countries will also be trialling if decisions related to COVID-19 responses should be taken at local or more centralised administrative levels.

Finally, the analyses of COVID-19's impact on NTD programmes and CHWs have also produced recommendations for practice and policy. For example, the 'no touch' policies used as part of integrated community case management during the Ebola outbreaks helped continue their job with reduced risk and fear of infection (11). For NTD programmes specifically, adaptations can be made such as community-directed treatment, where the community is responsible for drug administration,(10) or scheduling catch-up campaigns to regain the progress made towards elimination targets (3). For governments and public health decision makers, designating or setting up trusted channels of information on COVID-19 can ensure health professionals and patients remain clearly informed about their expected behaviour (3,4). The excess burden

[2] https://www.ntdmodelling.org/about/who-we-are

[3] https://www.directrelief.org/cafafrica/

on poorer or rural families to stay at home, when food must be bought daily, can also be lessened through the provision of basic needs, such as clean water, food and cash transfers (4). One consideration when making these programme adaptations, however, is their potential disruption to established patient-provider relationships that inform health-seeking behaviour, meaning that desired responses from communities must be clearly communicated and supported by the system's design (3). This research will be looking to inform potential NTD programme adaptations and CHW delivery through analyses of both the challenges and adaptations already made by CHWs.

Annex 2

Mobile survey questionnaire tool

Legend: [square brackets indicate where terms can be changed based on country]; (round brackets indicating programming instructions); **bold indicates** keypad instructions; {curly brackets indicates text that doesn't need to be recorded}

Key terms – to be changed based on country:

Term	Explanation
[Ministry of Health]	Change to correct name based on country
[neglected tropical diseases]	Some countries only focus on one disease (e.g. Trachoma) so can change the term based on this
[NTD programme]	Some countries may have an official name for their national NTD programme which will be better understood by respondents
[community health worker]	Change to correct name based on country (e.g. health extension worker in Ethiopia). Please don't use the abbreviation, use the full name.
[mass drug administration/surveys/active case finding]	Some CHWs may only do certain types of activities in line with the diseases their national NTD programme focuses on. Can change or delete as appropriate.
[local or district health offices]	Change based on correct name in country (e.g. county health department in South Sudan)
[Facebook, Twitter, WhatsApp, or others based on country]	Change or delete to reflect social media apps/websites used in each country, and which people use to get information.
[community health committee]	Change name based on country. This should be the community-led committee (if any exists) that works with CHWs or has a role in community health (e.g. Boma health committees in South Sudan).

{Introduction}

Hello, this is a call from the Royal Tropical Institute, on behalf of ASCEND, a programme working with the [Ministry of Health] to combat [neglected tropical diseases]. We would like to ask you some questions about how COVID-19 has affected your work and the treatment of [neglected tropical diseases].

For taking part in the survey, all respondents will receive [$1.50] of airtime, which will be automatically transferred to your phone once you have completed the survey. You will also receive a follow-up SMS message in the coming months which summarises the results. The survey will take no longer than ten minutes.

Please note that your answers may be used in reports, workshops or other publications to support the [Ministry of Health] and [NTD programme]. Be assured that all your answers will be anonymous, however. If you agree to participate in this survey, this will mean you have consented for the uses of your answers as described.

During the survey, you will a question and then a series of answer options. You answer by pressing the number on your phone's keypad which corresponds to your desired answer.

Press 1 to participate in this survey**. Press 2** if you do not want to participate in this survey, or hang up at any time.

Thank you for agreeing to participate. Remember, for each question, you will hear several answer options. Please remember to listen to all answer options before choosing your response on the keypad.

{Section 1: Sociodemographic information}

The first five questions are about you and the type of work you do as a [community health worker].

1. Are you:
    a. Female, **press 1**
    b. Male, **press 2**
    c. Other, **press 3**
    d. If you prefer not to say, **press 4**
2. Which of the following age groups do you fall in?
    a. If you are between 18-24, **press 1**
    b. If you are between 25-34, **press 2**
    c. If you are between 35-44, **press 3**
    d. If you are between 45-54, **press 4**
    e. If you are older than 55, **press 5**
3. How many years have you been working as a [community health worker] in your current community?
    a. If has been 6 months or less, **press 1**
    b. If it has been between 6-12 months, **press 2**
    c. If it has been between 1-2 years, **press 3**
    d. If it has been between 2-5 years, **press 4**
    e. If it has been more than 5+ years, **press 5**
4. Which services do you provide?
    a. For NTDs only, **press 1**
    b. For NTDs, plus others, such as health services, or integrated community case management, **press 2**

5. What services for [neglected tropical disease] do you provide? If you provide multiple services, please select the one you spend the most time doing.
    a. If you distribute medicines as part of mass drug administration campaigns, **press 1**
    b. If you perform community surveillance or mapping of [neglected tropical diseases], **press 2**
    c. If you provide advice for healthy water, sanitation and hygiene practices, **press 3**
    d. If you help produce, distribute or use posters or other communication materials for uptake of NTD services or good community practices against NTDs, **press 4**

{Section 2: CHW willingness}

Thank you. The next seven questions are about how COVID-19 has affected your work.

6. Do you feel at risk of infection from COVID-19 currently due to your work?
    a. If yes, **press 1**
    b. If no, **press 2**
    c. If you don't know, **press 3**
7. How comfortable do you currently feel working as a [community health worker] given the national COVID-19 situation?
    a. If you are very comfortable, press 1
    b. If you are quite comfortable, press 2
    c. If you are neither comfortable or uncomfortable, press 3
    d. If you are a little uncomfortable, press 4
    e. If you are very uncomfortable, press 5
8. Do you currently or did you provide services related to COVID-19 as a [community health worker]?
    a. If yes, **press 1** (go to question 9)
    b. If no, **press 2** (go to question 11)
    c. If you don't know, **press 3** (go to question11)
9. What activities were you involved in? If you were involved in multiple activities, please choose the activity you spent the most time doing.
    a. If you provided education or health promotion to communities on COVID-19, **press 1**
    b. If you referred potential persons infected with COVID-19 to health facilities, or were involved with community surveillance and contact tracing, **press 2**
    c. If you distributed PPE, face masks or other hygiene products to communities, **press 3**
    d. If you distributed other resources, like, food, water, or sanitary products, **press 4**
    e. If you provided other services, **press 5**
10. How comfortable do you feel about performing tasks related to COVID-19?

a. If you feel very comfortable, **press 1**
b. If you feel somewhat comfortable, **press 2**
c. If you feel somewhat uncomfortable, **press 3**
d. If you feel very uncomfortable, **press 4**

11. If the [Ministry of Health] planned to conduct NTD-related interventions, such as [mass drug administration/surveys/active case finding], would you be willing to take part?
    a. If yes, **press 1**
    b. If no, **press 2**
    c. If you are not sure, **press 3**

{Section 3: CHW readiness}

Thank you. Finally, the last eight questions are about how you have been supported and prepared to work during COVID-19.

12. Have you felt sufficiently and reliably informed to adjust your normal work in line with COVID-19, in terms protecting yourself and the communities you serve?
    a. If yes, **press 1**
    b. If no, **press 2**
    c. If you don't know, **press 3**
13. What was your main source of information for changing your work practices in line with COVID-19?
    a. If it was trainings or guidelines from the [national Ministry of Health] , **press 1**
    b. If it was trainings or guidelines from [local or district health offices], **press 2**
    c. If it was trainings or guidelines from an NGO, **press 3**
    d. If it was from TV, radio, posters, or the internet, **press 4**
    e. If it was from social media, such as [Facebook, Twitter, WhatsApp, or others based on country], **press 5**
14. What measures have helped you to continue providing services despite COVID-19? If more than one measure has helped, please choose the most important for you.
    a. If it is personal protective equipment or other hygiene measures, **press 1**
    b. If it is the effective treatment and quarantine of infected persons in the community, **press 2**
    c. If it is the provision of trainings from the government or other providers, **press 3**
    d. If it is supervision from managers, **press 4**
    e. If incentives or financial supports from the government, like risk allowances, **press 5**
    f. If it is other measures, **press 6**

15. What measures could be improved to help you continue providing services despite COVID-19? If more than one measure could be improved, please choose the most important for you.
    a. If it is personal protective equipment or other hygiene measures, **press 1**
    b. If it is the effective treatment and quarantine of infected persons in the community, **press 2**
    c. If it is the provision of trainings from the government or other providers, **press 3**
    d. If it is supervision from managers, **press 4**
    e. If incentives or financial supports from the government, like risk allowances, **press 5**
    f. If it is other measures, **press 6**
16. Who has provided personal protective equipment in the area you work?
    a. If bought personally, **press 1**
    b. If it was provided by the [Ministry of Health] or [local or district health offices], **press 2**
    c. If it was provided by private or international development partners, **press 3**
    d. If it was provided by other sources, **press 4**
17. If you identified a person in the last few months whose illness required care from another healthcare provider, such as a doctor or nurse, what would you or did you advise the person or family to do? If you would advise multiple options, please choose the most important piece of advice.
    a. If you would have advised them to go to the nearest health facility, **press 1**
    b. If you would have referred them to the appropriate health facility, **press 2**
    c. If you would have informed a [community health committee] or team, **press 3**
    d. If you would have informed your supervisor, **press 4**
    e. If you would have advised them to stay at home, **press 5**
    f. If you would have done nothing, **press 6**
18. During the change to your working practice because of COVID-19, did you receive any visits from supervisors?
    a. If yes, **press 1**
    b. If no, **press 2**
    c. If you don't know, **press 3**
19. If you compare the number of people you provided services to before COVID-19 and now, would you say it is the same, there are more people now or less now?
    a. If it is the same, **press 1**
    b. If it is more now, **press 2**
    c. If it less now, **press 3**

{Section 4: Closing}

20. Would you be interested in taking part in an interview of 30-60 minutes to discuss more about the challenges you have faced in your work during COVID-19?
    a. If yes, **press 1**
    b. If no, **press 2**
    c. If you don't know, **press 3**

{Conclusion}

Thank you for your responses, they are greatly appreciated. This is the end of the survey. Remember, you will receive [$1.50] of airtime for taking part, as well as a follow-up SMS message in the coming months which summarises all the responses. And remember that all your answers will be anonymous. Thank you.

Annex 3

Interview guide for CHWs

IMPORTANT INFORMATION TO INTERVIEWER PRIOR TO PRINTING

1. **TO BE TRANSLATED INTO A LANGUAGE UNDERSTANDABLE TO THE INTERVIEWEE**
2. **ADJUST CHW TERMINOLOGY BASED ON COUNTRY (SEE UNDERLINED TEXT IN BRACKETS)**
3. **DELETE THESE INSTRUCTIONS BEFORE PRINTING**

Interview guide: community health workers

This interview guide is designed to explore perceptions of community health workers delivering NTD-related healthcare services during the COVID-19 pandemic. The interview should be guided by seeking to answer the following research questions:

1. **What is the role of CHWs in implementing COVID-19 related activities?**
2. **To what extent was the provision of general healthcare services provided by CHWs disrupted during COVID-19 pandemic?**
3. **What are the main challenges that CHWs experience delivering services during the COVID-19 pandemic?**
4. **How did the government envisage to engage CHWs and what operational provisions, training and support was provided?**
5. **How can CHWs be better supported during times of health emergencies, in terms of remuneration and equipment (e.g. PPE) to perform successfully?**

Legend: [square brackets denote actions]; (round brackets indicate text to be adjusted based on interviewee).

Section 1. Preamble

[Introductions]. Thank you for agreeing to take part in this interview. This study is part of the ASCEND lot 1 consortium, which is supporting national NTD programmes in 12 countries. The study wants to help national NTD programmes, and specifically community health workers (adjust term based on country), in the delivery of NTD-related health services amidst COVID-19, and the challenges you may have faced during this time.

Today, I would like to take 30-45 minutes of your time to discuss your work, the challenges you have faced, and how you could be better supported now and in the future, if shocks such as COVID-19 happen again.

With each question, if you feel uncomfortable answering at any time, you can let me know and we can move onto another topic. Also, do not feel obliged to answer a question. Your responses will be kept completely confidential and your identity will be anonymous. The results of this interview will be combined with interviews with other CHWs (change term) and summarized into a report for the relevant department in the Ministry of Health managing the national NTD programme and CHWs (change term), as well as the ASCEND consortium. We will also develop other kinds of information and literature to communicate the results of these studies, such as blog posts, policy briefs, and a scientific article. For this, we may want to use a quote of yours, which would be anonymized and contain no information which could be linked back to yourself. We also hope to discuss the different challenges raised by CHWs at a workshop in the coming months.

So, at this point, do you have any questions about the study, the interview process, or how the findings will be used? [Show consent form] I would like to record our conversation today so I can review our discussion at a later date, would this be okay with you? If you're happy for it to be recorded, you can sign the consent form, or you can also state this when I start recording. [If consented, start recording] Could you confirm that you have consented to take part in the interview? Thank you. If you do not want parts of our conversation recorded, please let me know and I will turn it off. Finally, I will also occasionally make notes during the interview, however I will still be listening. Do you have any further questions before we start?

Section 2. Pitch

In March 2020, the WHO recommended countries suspend certain community-based activities relating to NTDs, such as community-based surveys, active case-finding and mass drug administration. Since that time, countries have re-started or are planning to start NTD activities that were stopped by COVID-19. Today I would like to speak about your experience of this time, how it has affected you, your work, and what can be done to better support you and other CHWs. We will try to focus on areas of your work related to NTDs—such as MDAs, BCC or WASH—however I also realise that certain things will affect all your work, and there will be links between the NTD services you provide, and the wider system in which you work.

Section 3. Screening questions

Q1. Do you receive payment for your work as a CHW, and if so how (adjust term)? [circle answer]

a. Yes, receive a regular salary
b. Yes, receive cash or in-kind payment based on services delivered
c. Yes, receive a regular salary and cash or in kind incentives on top of that based on services delivered
d. No

Q2. Do you provide services for NTDs only or other diseases and health conditions? [circle answer]

a. NTDs only
b. NTDs plus other health services

Q3. What NTD services do you provide? [circle all answers that apply]

a. Distribute medicines as part of mass drug administration campaigns
b. Community surveillance or mapping of NTDs
c. Provide advice for health water, sanitation and hygiene practices
d. Production, distribution or use of posters or other communication materials for uptake of NTD services or good community practices against NTDs

Section 4. Interview body

Challenges to continued NTD provision

Q4. After the WHO suspended community-based activities in March, can you describe how your work/practice changed, if it was completely stopped, and up to the resumption of normal working practice or an adapted version?

Probes:
What led to these changes?
Were they led by local or central government?

Q5. How were you supported to resume or continue your activities related to NTDs?

Probes:

Who supported you professionally?

Were you provided sufficient personal protective equipment (PPE) to protect or minimize your risk of infection and subsequent transmission?

Were there clear sources of information on COVID-19?

If new guidance was provided, how was this put into practice? Did you receive trainings?

Did your interactions with supervisors change?

Did this support recognize the potential impact of COVID-19 on your personal life?

Q6. Has the engagement of communities changed since the pandemic?

Probes:

Has the number of people you see increased/decreased?

Has community participation in NTD programmes changed due to COVID-19?

Preparedness towards COVID-19

Q7. Do you or did you provide services related to COVID-19 as a community health worker (adjust term based on country). Note to interviewer: you may already know this based on answers to earlier questions, and if so you can move to the next question.

a. Yes
b. No

Q8. If Q4 = Yes: What activities toward COVID-19 were you involved in? If Q4 = No, go to next section.

Probes:

If the respondent provided one of the services listed below please follow up to ask if they felt sufficiently prepared and supported to conduct this type of task.

a. Providing education to communities on COVID-19 and how communities can protect themselves from infection
b. Referral of potential persons infected with COVID-19 to health facilities
c. Surveillance of COVID-19 in communities, such as reporting numbers of new cases in the community
d. Contact tracing i.e., identifying and informing people who have been in close contact with a known positive case of COVID-19

e. Distribution of PPE, face masks or other hygiene products to communities to minimise chances of infection
f. Distribution of basic needs commodities (e.g., food, water, sanitary products) to help compliance with lockdown and curfews
g. Changed normal working practices in line with COVID-19 e.g., providing medicines that will last three months rather than one month

Q9. How were these activities delivered? Community meetings, house visits, or a combination of ways?

Q10. Did you feel sufficiently supported to take on this new role? How?

Opportunities for pandemic response

During the COVID-19 pandemic, public health researchers have said that community health workers could play a leading role in the pandemic response, given you travel to communities and households and can continue to provide care if people are told to stay at home. **Community health workers may be expected to take part in vaccination campaigns in their community.**

Q11. How would you feel about taking part or being expected to take part in vaccinations for COVID-19?

Q12. How do you feel about community health workers being expected to play a role in pandemic response in general?

Probes:
Do you feel comfortable taking on a role in pandemic response? If not, why?

Q13. Do you think your community will be willing to be vaccinated?

Probes:
Do you think community health workers could play a role in trying to improve vaccine uptake? If so, how?

Q14. What do you think should be CHWs main role in pandemic response?

Q15. Is the community health worker programme in your country set up to effectively respond to a pandemic?

Probes:
Were you provided guidance on which tasks were essential and must continue and which tasks were non-essential and can be suspended?
Were there disruptions to supply chains or funding?
How was supervision and training set up during the pandemic?
Did you or supervisors engage the community in the pandemic response?
Were there changes in the way information was provided to yourself or you had to provide to others?
Were you provided sufficient personal protective equipment (PPE) to protect or minimize your risk of infection and subsequent transmission?

Q16. Were you consulted in the preparation or implementation of the plan for your work during the COVID-19 pandemic? At what stage did this happen?

Q17. Did community perceptions towards you change during the pandemic?

Q18. Were some of the challenges you faced during COVID-19 present before the pandemic?

1.

Q19. Do you anticipate there would be any challenges if extra rounds of [mass drug administration], or other community-based activities, were planned to try 'catch up' to pre-pandemic levels? If so what challenges?

Ethics

Q20. Is it possible for you to provide services for both NTDs and COVID-19? Do you feel conflicted about this?

Learnings from COVID-19

Q21. What is currently missing to effectively engage community health workers (change term based on country) in the pandemic response while maintaining routine services?

Q22. How could those most affected by COVID-19 or the interruption to NTD programmes be best supported at the community level and national level?

Closing

- Do you have any other comments about our discussion you would like to add?

As mentioned at the start of the interview, your answers will be anonymized and only members of the research team will have access to the content of our discussion. When I review our discussion, if I have any further questions about your responses, would you be happy for me to contact you? If so, what would be the best method for contacting you? (If phone) What time of day is usually convenient for a phone call?

So our discussion will be transcribed by myself, and if we have any further questions or would like to clarify something, we will follow up by phone or email.

(Email)_____

(Phone number)_____

Finally, I mentioned at the start of the interview we will plan some workshops with groups of CHWs (adapt term as necessary) to discuss some of the points we have raised today further. Would you be interested in taking part in such a workshop?

Yes/No (delete as appropriate)

Do you have any last questions for me? Thank you, have a good day!

Identifying information [to be completed by data collection team after interview]

District/implementation unit	Tick [please tick ✓ to indicate)
001districtnameone	
002districtnametwo	
003districtnamethree	
004districtnamefour	
005districtnamefive	
006districtnamesix	
007districtnameseven	
008districtnameeight	
009districtnamenine	
010districtnameten	

Interview guide for government stakeholders

IMPORTANT INFORMATION TO INTERVIEWER PRIOR TO PRINTING

4. **TO BE TRANSLATED INTO A LANGUAGE UNDERSTANDABLE TO THE INTERVIEWEE**
5. **ADJUST CHW TERMINOLOGY BASED ON COUNTRY (SEE UNDERLINED TEXT IN BRACKETS)**
6. **DELETE THESE INSTRUCTIONS BEFORE PRINTING**

Interview guide: community health workers

This interview guide is designed to explore perceptions of community health workers delivering NTD-related healthcare services during the COVID-19 pandemic. The interview should be guided by seeking to answer the following research questions:

1. **What is the role of CHWs in implementing COVID-19 related activities?**
2. **To what extent was the provision of general healthcare services provided by CHWs disrupted during COVID-19 pandemic?**
3. **What are the main challenges that CHWs experience delivering services during the COVID-19 pandemic?**
4. **How did the government envisage to engage CHWs and what operational provisions, training and support was provided?**
5. **How can CHWs be better supported during times of health emergencies, in terms of remuneration and equipment (e.g. PPE) to perform successfully?**

Legend: [square brackets denote actions]; (round brackets indicate text to be adjusted based on interviewee).

Section 1. Preamble

[Introductions]. Thank you for agreeing to take part in this interview. This study is part of the ASCEND lot 1 consortium, which is supporting national NTD programmes in 12 countries. The study wants to help national NTD programmes, and specifically community health workers (adjust term based on country), in the delivery of NTD-related health services amidst COVID-19, and the challenges you may have faced during this time. Today, I would like to take 30-45 minutes of your time to discuss your work, the challenges you have faced, and how you could be better supported now and in the future, if shocks such as COVID-19 happen again.

With each question, if you feel uncomfortable answering at any time, you can let me know and we can move onto another topic. Also, do not feel obliged to answer a question. Your responses will be kept completely confidential and your identity will be anonymous. The results of this interview will be combined with interviews with other CHWs (change term) and summarized into a report for the relevant department in the Ministry of Health managing the national NTD programme and CHWs (change term), as well as the ASCEND consortium. We will also develop other kinds of information and literature to communicate the results of these studies, such as blog posts, policy briefs, and a scientific article. For this, we may want to use a quote of yours, which would be anonymized and contain no information which could be linked back to yourself. We also hope to discuss the different challenges raised by CHWs at a workshop in the coming months.

So, at this point, do you have any questions about the study, the interview process, or how the findings will be used? [Show consent form] I would like to record our conversation today so I can review our discussion at a later date, would this be okay with you? If you're happy for it to be recorded, you can sign the consent form, or you can also state this when I start recording. [If consented, start recording] Could you confirm that you have consented to take part in the interview? Thank you. If you do not want parts of our conversation recorded, please let me know and I will turn it off. Finally, I will also occasionally make notes during the interview, however I will still be listening. Do you have any further questions before we start?

Section 2. Pitch

In March 2020, the WHO recommended countries suspend certain community-based activities relating to NTDs, such as community-based surveys, active case-finding and mass drug administration. Since that time, countries have re-started or are planning to start NTD activities that were stopped by COVID-19. Today I would like to speak about your experience of this time, how it has affected you, your work, and what can be done to better support you and other CHWs. We will try to focus on areas of your work related to NTDs—such as MDAs, BCC or WASH—however I also realise that certain things will affect all your work, and there will be links between the NTD services you provide, and the wider system in which you work.

Section 3. Screening questions

Q23. Do you receive payment for your work as a CHW, and if so how (adjust term)? [circle answer]

e. Yes, receive a regular salary

f. Yes, receive cash or in-kind payment based on services delivered

g. Yes, receive a regular salary and cash or in kind incentives on top of that based on services delivered

h. No

Q24. Do you provide services for NTDs only or other diseases and health conditions? [circle answer]

c. NTDs only

d. NTDs plus other health services

Q25. What NTD services do you provide? [circle all answers that apply]

e. Distribute medicines as part of mass drug administration campaigns

f. Community surveillance or mapping of NTDs

g. Provide advice for health water, sanitation and hygiene practices

h. Production, distribution or use of posters or other communication materials for uptake of NTD services or good community practices against NTDs

Section 4. Interview body

Challenges to continued NTD provision

Q26. After the WHO suspended community-based activities in March, can you describe how your work/practice changed, if it was completely stopped, and up to the resumption of normal working practice or an adapted version?

Probes:
What led to these changes?
Were they led by local or central government?

Q27. How were you supported to resume or continue your activities related to NTDs?

Probes:
Who supported you professionally?

Were you provided sufficient personal protective equipment (PPE) to protect or minimize your risk of infection and subsequent transmission?

Were there clear sources of information on COVID-19?

If new guidance was provided, how was this put into practice? Did you receive trainings?

Did your interactions with supervisors change?

Did this support recognize the potential impact of COVID-19 on your personal life?

Q28. Has the engagement of communities changed since the pandemic?

Probes:

Has the number of people you see increased/decreased?

Has community participation in NTD programmes changed due to COVID-19?

Preparedness towards COVID-19

Q29. Do you or did you provide services related to COVID-19 as a community health worker (adjust term based on country). Note to interviewer: you may already know this based on answers to earlier questions, and if so you can move to the next question.

c. Yes

d. No

Q30. If Q4 = Yes: What activities toward COVID-19 were you involved in? If Q4 = No, go to next section.

Probes:

If the respondent provided one of the services listed below please follow up to ask if they felt sufficiently prepared and supported to conduct this type of task.

h. Providing education to communities on COVID-19 and how communities can protect themselves from infection

i. Referral of potential persons infected with COVID-19 to health facilities

j. Surveillance of COVID-19 in communities, such as reporting numbers of new cases in the community

k. Contact tracing i.e., identifying and informing people who have been in close contact with a known positive case of COVID-19

l. Distribution of PPE, face masks or other hygiene products to communities to minimise chances of infection

m. Distribution of basic needs commodities (e.g., food, water, sanitary products) to help compliance with lockdown and curfews
n. Changed normal working practices in line with COVID-19 e.g., providing medicines that will last three months rather than one month

Q31. How were these activities delivered? Community meetings, house visits, or a combination of ways?

Q32. Did you feel sufficiently supported to take on this new role? How?

Opportunities for pandemic response

During the COVID-19 pandemic, public health researchers have said that community health workers could play a leading role in the pandemic response, given you travel to communities and households and can continue to provide care if people are told to stay at home. **Community health workers may be expected to take part in vaccination campaigns in their community.**

Q33. How would you feel about taking part or being expected to take part in vaccinations for COVID-19?

Q34. How do you feel about community health workers being expected to play a role in pandemic response in general?

Probes:
Do you feel comfortable taking on a role in pandemic response? If not, why?

Q35. Do you think your community will be willing to be vaccinated?

Probes:
Do you think community health workers could play a role in trying to improve vaccine uptake? If so, how?

Q36. What do you think should be CHWs main role in pandemic response?

Q37. Is the community health worker programme in your country set up to effectively respond to a pandemic?

Probes:

Were you provided guidance on which tasks were essential and must continue and which tasks were non-essential and can be suspended?

Were there disruptions to supply chains or funding?

How was supervision and training set up during the pandemic?

Did you or supervisors engage the community in the pandemic response?

Were there changes in the way information was provided to yourself or you had to provide to others?

Were you provided sufficient personal protective equipment (PPE) to protect or minimize your risk of infection and subsequent transmission?

Q38. Were you consulted in the preparation or implementation of the plan for your work during the COVID-19 pandemic? At what stage did this happen?

Q39. Did community perceptions towards you change during the pandemic?

Q40. Were some of the challenges you faced during COVID-19 present before the pandemic?

Q41. Do you anticipate there would be any challenges if extra rounds of [mass drug administration], or other community-based activities, were planned to try 'catch up' to pre-pandemic levels? If so what challenges?

Ethics

Q42. Is it possible for you to provide services for both NTDs and COVID-19? Do you feel conflicted about this?

Learnings from COVID-19

Q43. What is currently missing to effectively engage community health workers (change term based on country) in the pandemic response while maintaining routine services?

Q44. How could those most affected by COVID-19 or the interruption to NTD programmes be best supported at the community level and national level?

Closing

- Do you have any other comments about our discussion you would like to add?

As mentioned at the start of the interview, your answers will be anonymized and only members of the research team will have access to the content of our discussion. When I review our discussion, if I have any further questions about your responses, would you be happy for me to contact you? If so, what would be the best method for contacting you? (If phone) What time of day is usually convenient for a phone call?

So our discussion will be transcribed by myself, and if we have any further questions or would like to clarify something, we will follow up by phone or email.

(Email)_____

(Phone number)_____

Finally, I mentioned at the start of the interview we will plan some workshops with groups of CHWs (adapt term as necessary) to discuss some of the points we have raised today further. Would you be interested in taking part in such a workshop?

Yes/No (delete as appropriate)

Do you have any last questions for me? Thank you, have a good day!

Identifying information [to be completed by data collection team after interview]

District/implementation unit	Tick [please tick ✓ to indicate)
001districtnameone	
002districtnametwo	
003districtnamethree	
004districtnamefour	
005districtnamefive	
006districtnamesix	
007districtnameseven	
008districtnameeight	
009districtnamenine	
010districtnameten	

Focus group topic guide for CHWs

IMPORTANT INFORMATION TO FACILITATOR PRIOR TO PRINTING

7. **TO BE TRANSLATED INTO A LANGUAGE UNDERSTANDABLE TO THE INTERVIEWEE**
8. **ADJUST CHW TERMINOLOGY BASED ON COUNTRY (SEE UNDERLINED TEXT IN BRACKETS)**
9. **DELETE THESE INSTRUCTIONS BEFORE PRINTING**

Facilitator guide: community health worker focus group discussion (FGD)

This focus group topic guide is designed to explore perceptions of community health workers delivering NTD-related healthcare services during the COVID-19 pandemic. The discussion should be guided by seeking to answer the following research questions:

1. **What is the role of CHWs in implementing COVID-19 related activities?**
2. **To what extent was the provision of general healthcare services provided by CHWs disrupted during COVID-19 pandemic?**
3. **What are the main challenges that CHWs experience delivering services during the COVID-19 pandemic?**
4. **How did the government envisage to engage CHWs and what operational provisions, training and support was provided?**
5. **How can CHWs be better supported during times of health emergencies, in terms of remuneration and equipment (e.g. PPE) to perform successfully?**

Legend: [square brackets denote actions]; (round brackets indicate text to be adjusted based on respondents).

Section 1. Welcome, introductions and instructions to participants

Welcome

Welcome and thank you all for agreeing to take part in this focus group discussion. This study is part of the ASCEND lot 1 consortium, which is supporting national NTD programmes in 12 countries. The study wants to help national NTD programmes, and specifically community health workers (adjust term based on country), in the delivery of NTD-related health services amidst COVID-19, and the challenges you may have faced during this time. Today, I would like to take 1-1.5 hours of your time to discuss your work, the challenges you have

faced, and how you could be better supported now and in the future, if shocks such as COVID-19 happen again.

Confidentiality and use of data

With each question, if any of you feel uncomfortable answering at any time, you do not have to take part in the conversation, and you can also let me know so we move onto the next topic. Do not feel obliged to answer a question. I would like to record the conversation to allow us to review it at a later time. Your responses will be kept completely confidential and your identity will be anonymous. The results of this focus group will be combined with other interviews and focus groups and summarized into a report for the relevant department in the Ministry of Health managing the national NTD programme and CHWs (change term), as well as the ASCEND consortium. We will also develop other kinds of information and literature to communicate the results of these studies, such as blog posts, policy briefs, and a scientific article. For this, we may want to use a quote of yours, which would be anonymized and contain no information which could be linked back to yourself. We also hope to discuss the different challenges raised by CHWs at a workshop in the coming months.

So, at this point, do you have any questions about the study, the focus group process, or how the findings will be used? May I turn on the recorder to record the conversation?

[Show consent form] If you're happy for it to be recorded, you can sign the consent form, or you can also state this when I start recording. [If consented, start recording] Could you confirm that you have consented to take part in the discussion? Thank you. If you do not want parts of our conversation recorded, please let me know and I will turn it off. Finally, I will also occasionally make notes during the discussion, however I will still be listening. Do you have any further questions before we start?

Ground rules

In order to have a flowing discussion, there are a few instructions which you should try follow:

- Only one person should speak at a time. This is the most important rule. There may be times when you want to interrupt as you have a relevant point to make, but please try wait until the individual has finished speaking.
- There are no right or wrong answers.
- We are not looking to come to an agreement on the subject of today's conversation – you do not have to agree with each other, and you will have each had different experiences.

- When you have something you want to say, please do so! I would like to hear from all of you and not just one or two people.
- Any questions?
- Let's start!

Introductions

First, I would like to ask each of you to introduce yourselves. Could you tell us your name, where you work, how long you have been a CHW (adjust term based on country), and why you agreed to take part in today's discussion.

Section 2. Facilitated discussion

In March 2020, the WHO recommended countries suspend certain community-based activities relating to NTDs, such as community-based surveys, active case-finding and mass drug administration. Since that time, countries have re-started or are planning to start NTD activities that were stopped by COVID-19. Today I would like to speak about your experience of this time, how it has affected you, your work, and what can be done to better support you and other CHWs. We will try to focus on areas of your work related to NTDs—such as MDAs, BCC or WASH—however I also realise that certain things will affect all your work, and there will be links between the NTD services you provide, and the wider system in which you work.

Topic 1 – Change to working practice

- After the WHO suspended community-based activities in March, I'd like you to think about how your work/practice changed—maybe it was completely stopped—and how it started again, towards the resumption of normal working practice or an adapted version. I'll give you 30 seconds to think about this. [Allow 30 secs for deliberation]. Is anyone happy to share their experience?

Guiding questions

- Who led these changes to your working practice? Were they led by central or local government?
- How were you supported to resume or continue your activities related to NTDs?
- Who supported you professionally?
- Were there clear sources of information on COVID-19?
- If new guidance was provided, how was this put into practice? Did you receive trainings?

- Did your interactions with supervisors change?
- Did this support recognize the potential impact of COVID-19 on your personal life?

Topic 2 – Integration of COVID-related work

- Do you or did you provide services related to COVID-19 as a community health worker (adjust term based on country)? Note to facilitator: you may already know this based on answers to earlier questions, and if so you can move to the next question.

Guiding questions

- Did you feel sufficiently supported to take on this new role? How?
- Are there parts of NTD service provision that are inconsistent with COVID-19 activities or pandemic response?

Topic 3 – Opportunities for pandemic response

During the COVID-19 pandemic, public health researchers have said that community health workers could play a leading role in the pandemic response, given you travel to communities and households and can continue to provide care if people are told to stay at home. **Community health workers may be expected to take part in vaccination campaigns in their community.**

- How would you feel about taking part or being expected to take part in vaccinations for COVID-19?
- Do you think your community will be willing to be vaccinated? Is there a role for community health workers in this?
- How do you feel about this in general? Do you feel comfortable taking on a role in pandemic response? If not, why?
- Is the community health worker programme (adjust term based on country) in your country set up to effectively respond to a pandemic?

Guiding questions

- What do you think should be CHWs main role in pandemic response?

- Were you provided guidance on which tasks were essential and must continue and which tasks were non-essential and can be suspended?
- Were there disruptions to supply chains or funding?
- How was supervision and training set up during the pandemic?
- Did you or supervisors engage the community in the pandemic response?
- Were there changes in the way information was provided to yourself or you had to provide to others?
- Were you provided sufficient personal protective equipment (PPE) to protect or minimize your risk of infection and subsequent transmission?

Topic 4 – Learnings from COVID-19

- What is currently missing to effectively engage community health workers (change term based on country) in the pandemic response while maintaining routine services?
- How could those most affected by COVID-19 or the interruption to NTD programmes be best supported at the community level and national level?

Section 3. Closing

Concluding question

- Do you have any other comments about our discussion you would like to add?

Conclusion

I'd like to thank you all again for participating and the discussion we have had today. Your opinions will be a valuable asset to the study and understanding the challenges of the COVID-19 pandemic. As mentioned at the start of the focus group, your answers will be anonymized and only members of the research team will have access to the content of our discussion. Do you have any last questions for me? Thank you, and have a good day!

Demographic information [to be completed by participants prior to FGD]

Name	District/implementation unit	Years of experience (	
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months
		_____years	_____months