Selfie consents, remote rapport, and Zoom debriefings: collecting qualitative data amid a pandemic in four resource-constrained settings

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ABSTRACT
In-person interactions have traditionally been the gold standard for qualitative data collection. The COVID-19 pandemic required researchers to consider if remote data collection can meet research objectives, while retaining the same level of data quality and participant protections. We use four case studies from the Philippines, Zambia, India and Uganda to assess the challenges and opportunities of remote data collection during COVID-19. We present lessons learned that may inform practice in similar settings, as well as reflections for the field of qualitative inquiry in the post-COVID-19 era. Key challenges and strategies to overcome them included the need for adapted researcher training in the use of technologies and consent procedures, preparation for abbreviated interviews due to connectivity concerns, and the adoption of regular researcher debriefings. Participant outreach to allay suspicions ranged from communicating study information through multiple channels to highlighting associations with local institutions to boost credibility. Interviews were largely successful, and contained a meaningful level of depth, nuance and conviction that allowed teams to meet study objectives. Rapport still benefitted from conventional interviewer skills, including attentiveness and fluency with interview guides. While differently abled populations may encounter different barriers, the included case studies, which varied in geography and aims, all experienced more rapid recruitment and robust enrollment. Reduced in-person travel lowered interview costs and increased participation among groups who may not have otherwise attended. In our view, remote data collection is not a replacement for in-person endeavours, but a highly beneficial complement. It may increase accessibility and equity in participant contributions and lower costs, while maintaining rich data collection in multiple study target populations and settings.

INTRODUCTION
As qualitative researchers, we champion the value and necessity of rapport building, empathy, open and honest dialogue, and a sense of closeness between research teams and interview respondents. Throughout our careers, we have adhered to a longstanding (if unstated) view that face-to-face engagement, in a location that is comfortable for and familiar to the respondent, is the gold standard in qualitative data collection—and anything else is second best.1 2 Face-to-face interviewing facilitates a qualitative researcher’s ability to observe non-verbal cues (eg, furtive glances, fidgeting, or an eye roll), use silence as an element of patient dialogue, and to record and probe about the artefacts or tools that reflect a person’s life (eg, the material objects that hold meaning or value for an individual).3 COVID-19 and associated lockdowns and social distancing have forced us to challenge these perceptions in pursuit of gathering trustworthy, rigorous and authentic qualitative data in low- and middle-income countries (LMICs).4-6

Several academics, often doctoral students, have highlighted the pros and cons of collecting data remotely.7-9 James and Busher described doctoral data collection...
using email, and noted disadvantages of the asynchron- 
ous approach, which could sometimes cause a loss of 
coherence and flow of thought, leaving the data feeling 
‘dry’ due to an absence of visual and auditory cues.5

The authors also highlighted concerns about consent 
and anonymity given the nature of electronic messaging 
and data storage.9 Similarly, researchers using phone 
interviews to collect qualitative data described a lack of 
non-verbal data, which contributed to a limited under- 
standing of context.10 Several others, however, detailed 
the benefits of phone interviews offering richer discus- 
sions on sensitive topics due to increased perceptions 
of anonymity,11,12 and improved access to hard-to-reach 
respondents13 and settings that may otherwise be consid- 
ered unsafe for research.9

More recently, studies have examined video communica- 
tion platforms such as Zoom, Skype or WhatsApp,8,15–18 
and identified mixed, but largely positive experiences. 
Deakin and Wakefield highlighted tremendous poten- 
tial for Skype to facilitate data collection across a wide 
range of geographical perspectives while operating on 
modest budgets.15 At least two studies directly compared 
in-person to online communication,8,16 and found relat- 
ively modest differences across the approaches in terms 
of participant satisfaction and data quality,8 although 
microphones, webcams and uneven internet reliability 
presented challenges. Most recently, studies have 
explored the use of mobile instant messaging applica- 
tions to elicit respondents’ daily experiences, feelings 
and thoughts.17,18 Kaufmann and Peil18 state that the use 
of WhatsApp messaging has proven useful in capturing 
participant’s daily experiences via multimedia options 
including pictures, videos, screenshots, emojis, filters and 
hashtags.

A majority of literature on the use of remote means 
,eg, internet or phone based) to gather qualitative data 
precedes the current COVID-19 pandemic, and comes 
from high-income countries (HICs). As noted above, 
researchers working in HICs have highlighted that 
remote data collection facilitates reaching people who 
are isolated, geographically dispersed, stigmatized, over- 
looked or ignored.19–22 They note the novelty of remote 
data collection, because it represents a substantive adap- 
tation or pivot from the status quo. In contrast, there 
is little research on remote data collection in LMICs. A 
counterpoint to expanded participation, remote data 
collection may create or foment selection bias because 
access to electricity, mobile phones, and the Internet, 
while expanding, is not nearly as universal in LMICs as 
in HICs.23–25 Though mobile phone ownership among 
women has been increasing, a gender gap persists: women 
are 10% less likely than men to own mobile phones 
across LMICs with the largest gap observed in South 
Asia.25 Similarly, women in LMICs are 23% less likely 
than men to use ‘mobile internet’, a term that refers to 
accessing the Internet via a smartphone or tablet using 
a wireless or cellular connection.25,26 Broadly speaking, 
rural populations in LMICs are also 40% less likely to 
use mobile internet than urban populations.25 Hence, 
while researchers in LMICs have had to adapt and pivot 
for decades in the interest of getting data amid major 
structural challenges (we have, for example, contended 
with natural calamities, political unrest, epidemics and 
resource shortages), we have rarely considered electronic 
or mobile data collection as a promising solution.

In relation to the current pandemic, we are aware of 
blog entries27 and Twitter discussions, though relatively 
little academic literature to guide the research commu- 

nity, particularly the qualitative community, on how 
to adapt amid the ongoing pandemic. In this practice 
paper, drawing from our experiences collecting data 
remotely via online and mobile phone-based interviews 
across four LMICs, we share methodological and prac- 
tical adaptations and lessons learned to guide fellow qual- 
itative researchers who are contending with the ongoing 
pandemic—and who may want to consider remote 
means of data collection well into the future. We do not 
emphasize general tenets of qualitative research, or tips 
for collecting high-quality qualitative data generally, but 
instead focus on remote qualitative research specifically.

CASE STUDIES

Our case studies stem from research underway in the Phil- 
ippines, Zambia, India and Uganda. While comprehen- 
sively discussing comparative historical, cultural, struc- 
tural and social differences is beyond the scope of this 
paper, we present a snapshot of demographics, COVID- 
19-related details, pertinent information regarding each 
country’s access to electricity, mobile phone subscrip- 
tions, internet connectivity and information related to 
our ongoing research (table 1).

We begin by highlighting our experiences in the field 
and the challenges both prior to and during data collec- 
tion with special emphasis on an overarching theme or 
challenge that emerged within a given research team, 
and the workaround pursued to mitigate this challenge.

Case study 1: overcoming fear of online interviewing in the 
Philippines

Fear is perhaps the best word to describe our collective 
feeling upon realizing that an online shift was inevitable 
in order to collect data for ‘Project SALUBRONG: Building 
Vaccine Confidence via Empathy and Narratives’ in the 
Philippines. We feared how review boards, fellow scien- 
tists and research participants would react, particularly 
because vaccines are a controversial topic, and we felt that 
controversial topics necessitate direct, in-person engage- 
ment. Fear also describes the perspective of our interview 
teams in terms of engaging with online platforms. Several 
of our younger data collectors are tech-savvy, and highly 
conversant on the nuances of tech and ‘tech speak’; they 
understand toggling, and amplify their communication 
stylist with hashtags and emojis. Meanwhile, many of our 
older staff members are self-proclaimed ‘technophobes’ 
who felt overwhelmed by the number of buttons and
navigation links on mobile devices and computers. We addressed these fears head-on. We modified trainings to include modules on computer applications, video calling platforms and online voice recorders, as well as data backup and protection procedures. To train interviewers, we used Zoom breakout rooms, which allowed
Table 2  Challenges, mitigations and lessons learned amid remote, qualitative data collection across four settings

<table>
<thead>
<tr>
<th>Challenges exacerbated by remote approaches</th>
<th>How we mitigated these in our studies</th>
<th>Lessons learned</th>
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</thead>
<tbody>
<tr>
<td><strong>Research phase: data collector training</strong></td>
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<tr>
<td>► All research team members need to know how</td>
<td>► Do special, opt-in pretraining on online</td>
<td>► More time is needed for staff to practice using</td>
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<tr>
<td>to use the remote technology; Internet, break-out</td>
<td>learning prior to the start of formal training</td>
<td>remote platforms and to pilot interview guides</td>
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<td>room creation, etc.</td>
<td>► Embrace (and openly recognize) that</td>
<td>► Build an “experiential” practice team to create a</td>
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<td>► Greater need to train research team members on</td>
<td>some team members have strengths that others lack;</td>
<td>win-win situation (a dyad of a low-tech and high-</td>
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<td>how to navigate and prioritize sections of interview</td>
<td>urge openness and patience with tech challenges</td>
<td>tech person)</td>
</tr>
<tr>
<td>guides to allow for unplanned, abbreviated dialogues</td>
<td>► Facilitate interviewer familiarity and</td>
<td>► Have a stand-by “go-to” person to help</td>
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<td>(if electricity or internet drops) and to reduce</td>
<td>practice with interview guides in advance of</td>
<td>troubleshoot concerns (someone from information</td>
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<td>to reduce silences that aren’t linked to probing</td>
<td>implementation</td>
<td>technology or someone who is relatively more tech-</td>
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<td>(reducing the time that an interviewer might shuffle through papers)</td>
<td>► Spend time revisiting interviewing techniques</td>
<td>capable in the team)</td>
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<tr>
<td>► Active listening, concentration, and attentiveness become even more important when language is the only tool to communicate</td>
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<tr>
<td><strong>Research phase: respondent recruitment</strong></td>
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<tr>
<td>► Getting permission from local authorities and</td>
<td>► Communicate via multiple, official pathways (email addresses and letters via official channels such as couriers and phone calls)</td>
<td>► Establish a good working relationship with the</td>
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<td>regulatory bodies</td>
<td>► Develop a phone script for the remote</td>
<td>respective secretaries or focal persons of the local</td>
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<tr>
<td>► Identifying and electronically coordinating with</td>
<td>recruitment process to ensure you have reached the right person before inviting them to participate in the study</td>
<td>authorities to ensure study follows highest ethical and</td>
</tr>
<tr>
<td>gatekeepers (healthcare providers or village health</td>
<td>► Place special focus on introducing yourself and your organisation as well as explaining how you got the respondent’s phone number. Give a chance to the participant to verify that the person doing recruitment is not an impersonator</td>
<td>legal standards</td>
</tr>
<tr>
<td>teams for facility-based recruitment; community</td>
<td>► Allow participants to pick the date and time of the interview and reinforce they should schedule the interview for when they can be in a private, quiet place, and have their phone charged (for phone-based interviews), and can be prepared to write down important contact details (when using verbal consent)</td>
<td>► Via phone or live video (not recorded to ensure data privacy), partner with gatekeepers and</td>
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<td>groups, and community health workers for</td>
<td>► Have the same person doing recruitment be a part of data collection, where possible.</td>
<td>stakeholders in selecting study participants based on</td>
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<td>neighbourhood recruitment; city councils for</td>
<td>► Establish a good working relationship with the respective secretaries or focal persons of the local authorities to ensure study follows highest ethical and legal standards</td>
<td>your inclusion and exclusion criteria</td>
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<td>established community groups; state or district</td>
<td>► Place special focus on introducing yourself and your organisation as well as explaining how you got the respondent’s phone number. Give a chance to the participant to verify that the person doing recruitment is not an impersonator</td>
<td>► Call potential participants to set-up phone-call meetings; and, any follow-up communication to clarify the research and any pending permissions, review or approvals</td>
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<td>health/medical associations for private health</td>
<td>► Develop a phone script for the remote recruitment process to ensure you have reached the right person before inviting them to participate in the study</td>
<td>► The recruitment process provides an opportunity to prepare participants for the differences in person and remote interviews and to build initial rapport</td>
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<td>providers)</td>
<td>► Place special focus on introducing yourself and your organisation as well as explaining how you got the respondent’s phone number. Give a chance to the participant to verify that the person doing recruitment is not an impersonator</td>
<td>At recruitment, emphasize to participants the need to fully charge phone batteries and or access a reliable phone</td>
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<td>► National regulations on use of communication technology and use of phone numbers to reach a wider audience</td>
<td>► Develop a standard operating procedure to ensure that elements of a good informed consent process can be achieved (e.g. give complete but shortened information followed by 2–3 questions to confirm comprehension)</td>
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<td>► Participants may not be prepared or feel comfortable to undertake interviews at the time of recruitment, particularly when cold called. They may feel suspicious about how you get their contact information and why you are contacting them</td>
<td>► If written consent is required, send copies of information sheet and consent forms days prior to the discussion via email, text message (e.g. WhatsApp, Viber) or courier</td>
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<td>► Participants may not be prepared or feel comfortable to undertake interviews at the time of recruitment, particularly when cold called. They may feel suspicious about how you get their contact information and why you are contacting them</td>
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<td>► Getting consents correctly and privately</td>
<td>► Develop a standard operating procedure to ensure that elements of a good informed consent process can be achieved (e.g. give complete but shortened information followed by 2–3 questions to confirm comprehension)</td>
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<td>► Ensuring ongoing consent both throughout the interview, and at each interaction if conducting longitudinal and iterative interviews</td>
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<td>► Partner with community health workers to help distribute information sheets and consent forms; and collection of signed informed consents</td>
<td>► Provide reminders to respondents to return signed consent forms in advance of interviews by email or text message (e.g. WhatsApp)</td>
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<td>► Work closely with local ethical boards to ensure that your electronic procedures align with good health and research practices</td>
<td>► If written consent is required, send copies of information sheet and consent forms days prior to the discussion via email, text message (e.g. WhatsApp, Viber) or courier</td>
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<td>► Audio/video record the signing or statement of consent</td>
<td>► Use verbal consent procedures and audio-record confirmation of comprehension and consent</td>
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<td>► Accept local preferences if they align with local ethics review boards (e.g. in one setting, we found that respondents prefer “selfie” consents so we adopted it)</td>
<td>► Provide reminders to respondents to return signed consent forms in advance of interviews by email or text message (e.g. WhatsApp)</td>
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<td>► If printing, signing and sharing written consent forms is not possible (due to lack of access to printer, fax machine, etc.), consider an electronic/digital signature as an endorsement of consent</td>
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<td>► Prepare to invest much more time in this phase as a means to build rapport</td>
<td>► If written consent is required, send copies of information sheet and consent forms days prior to the discussion via email, text message (e.g. WhatsApp, Viber) or courier</td>
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<td>► Exchange more dialogue in whichever preferred mechanism the respondent suggests (emails, WhatsApp, Facebook messenger, phone calls, etc.)</td>
<td>► Reinforce that the study can provide technical assistance to participants and data collectors in setting up online platforms to alleviate fear of technology</td>
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<td>► Be transparent. Let participants know if someone is with you during the interview session (i.e., presence of a note taker or observer); introduce this person and let the other person say their pleasantries</td>
<td>► Arrange mobile money set-up to supply remote participant reimbursement</td>
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<td>► Prepare for additional follow-up to ensure respondents have received reimbursements (e.g. via mobile banking or airtime incentives)</td>
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Continued
Our study sought to understand care-seeking experiences and preferences among newly diagnosed (<3 weeks), adult patients with tuberculosis (TB) at three health facilities, identified through health facility registers. We transitioned from the planned in-person to mobile phone-based data collection. When calling potential participants, we first confirmed the identity of the person answering the phone by asking for details that we could verify via facility-based client records, such as their name and recent care-seeking behaviour. Persons called were often suspicious, questioning how and why they were contacted. Providing a clear and comfortable introduction was thus part of rapport building, requiring interviewers to allay concerns by quickly outlining our purpose and explaining how we obtained their phone number. Mentioning their health facility in the introduction ‘signaled’ the interview topic, leading some to immediately decline participation. For others, the association with the health facility built trust and credibility, including allowing participants to confirm the study’s aim with facility staff prior to participation. Additional rapport-building followed usual in-person techniques of answering participant questions, listening carefully, starting with comfortable topics, and using third-person examples for sensitive questions. We had thought phone interviews might be shorter, or that data gathered by phone may be less forthright or revealing. In fact, this was not the case. In comparison to in-person in-depth interviews (IDIs), participants’ tone of voice and the detailed

Table 2 Continued

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<td>Difficulty following the flow in a natural way due to outside (or technology related) distractions</td>
<td>Confirm that participants have private, quiet place to engage in interview</td>
<td>Invest in good lighting devices to facilitate facial expressions and eye contact when video calling</td>
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<tr>
<td>Participant suspicion around why interviewer is calling, who they are and how their number was obtained</td>
<td>Have a clear opening/interview introduction, explaining interviewer identity, how participant’s phone number was obtained and, if possible, association with clinic or institution (as a means to lend credence)</td>
<td>Wear identifying material if that seems appropriate (ID card, etc., to affirm your research role)</td>
</tr>
<tr>
<td>Needing to confirm to whom interviewer is speaking while avoiding possible disclosure of sensitive information (e.g., HIV status)</td>
<td>Ask for intended participant by name, be prepared to provide a benign reason for calling that can be given if the intended person does not answer the phone so as not to raise suspicions about health issues</td>
<td>Wear a headset to minimise background noise</td>
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<td>Participants requesting call-backs at later times when phone available to them or when they are not busy</td>
<td>Clarify among the research team what is allowable for participants based on study protocol and nature of interviews (e.g., can another person be present in the interview)</td>
<td>Set up downloadable video- and audio-recording tools (e.g., Audacity, Movavi Screen Captures, and QuickTime)</td>
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<td>Possibility of phone cutting due to network or charging issues</td>
<td>Be flexible in terms of timing (conducting interviews in the morning/evening before respondents begin their workday)</td>
<td>Practice the recording formats and ways of computer transfer in advance</td>
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<td>Being prepared with latest information and national guidance for possible questions related to COVID-19 (even if this is not the focus of the study)</td>
<td>Prioritize most important questions first, probe sub-themes if time permits</td>
<td>Use parallel audio recorders as back-ups</td>
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<tr>
<td>► Diffficulty gathering all team members since interviews happen at very different times and teams are in disparate locations</td>
<td>Give data collectors scripts regarding COVID-19 and phone numbers to refer people with additional questions</td>
<td>Prepare for the reality that many interviews will last the full, planned time period (or even longer) despite being over the phone</td>
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Research phase: debriefing teams post interview

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<td>Difficulty gathering all team members since interviews happen at very different times and teams are in disparate locations</td>
<td>Schedule debriefings at a time in the evening rather than immediately after data is collected</td>
<td>Make sure data collectors get into a rhythm in relation to a debriefing timeline</td>
</tr>
<tr>
<td>► Diffficulty gathering all team members since interviews happen at very different times and teams are in disparate locations</td>
<td>Practice Zoom—and Zoom breakout rooms—for those who require a refresher</td>
<td>For those who are less tech savvy, if they speak less in a debriefing, draw out their insights more pointedly and make sure the tech supporter (see text above) is on hand</td>
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<tr>
<td>► Diffficulty gathering all team members since interviews happen at very different times and teams are in disparate locations</td>
<td>Provide a structured debrief form for data collectors to fill out after data collection (and send via email or sync to a shared file) to capture immediate postinterview reflections</td>
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Case study 2: allaying respondent suspicions and building mobile rapport in Zambia

Our study sought to understand care-seeking experiences and preferences among newly diagnosed (<3 weeks), adult patients with tuberculosis (TB) at three health facilities, identified through health facility registers. We transitioned from the planned in-person to mobile phone-based data collection. When calling potential participants, we first confirmed the identity of the person answering the phone by asking for details that we could verify via facility-based client records, such as their name and recent care-seeking behaviour. Persons called were often suspicious, questioning how and why they were contacted. Providing a clear and comfortable introduction was thus part of rapport building, requiring interviewers to allay concerns by quickly outlining our purpose and explaining how we obtained their phone number. Mentioning their health facility in the introduction ‘signaled’ the interview topic, leading some to immediately decline participation. For others, the association with the health facility built trust and credibility, including allowing participants to confirm the study’s aim with facility staff prior to participation. Additional rapport-building followed usual in-person techniques of answering participant questions, listening carefully, starting with comfortable topics, and using third-person examples for sensitive questions. We had thought phone interviews might be shorter, or that data gathered by phone may be less forthright or revealing. In fact, this was not the case. In comparison to in-person in-depth interviews (IDIs), participants’ tone of voice and the detailed
narration of their experiences suggested that, for many respondents, it was easier to discuss sensitive topics and challenging life experiences while not in the physical presence of another person. Rapport extended beyond the initial interview, with several participants seeking TB or COVID-19 information from researchers during or after the call (in order to provide consistent information, we created COVID-19 interviewer scripts that included referral phone numbers). To prevent possible problems, early in the interview we discussed data use and/or times for a follow-up call in case of an abbreviated interview due to network or phone battery challenges, and we collected details required for mobile money reimbursements. Regular research team debriefs over Zoom and memos written within 24–48 hours post interview helped us to address challenges in real time.

Case study 3: rapid recruitment of respondents for remote interviews in India

Our study aims to provide immediate, actionable evidence to inform the government’s efforts on leveraging the private health sector’s capacity to meet the health needs of poor and vulnerable populations, like migrants, who have been disproportionately affected by COVID-19 in Uttar Pradesh (UP), India. Given the diversity of private health providers who play a critical role in providing services to these populations—ranging from small nursing homes and single-doctor clinics to experience-based practitioners, such as rural medical practitioners (RMPs)—we have had to adopt different strategies to remotely recruit respondents for phone and online interviews during the pandemic. First, we identified professional networks of private health providers (e.g., allopathic, Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy), and experience-based practitioners at state and district levels. Building rapport with the Heads of health associations and district health leadership over multiple phone conversations and engaging them as key informants proved to be a useful strategy to recruit both providers from small hospitals and nursing homes as well as experience-based practitioners across the study sites in UP. We complemented this strategy by identifying other small hospitals and larger hospitals through UP’s Health Management Information System and cold calling them using a recruitment script that was designed to introduce the research objectives as well as establish researcher and institutional identity. We found our institutional affiliation with Johns Hopkins University brought legitimacy to our interactions with respondents who we had directly approached. Lastly, we relied on snowball sampling as an important recruitment strategy and found it to be especially effective for identifying single-doctor clinicians, as well as, gaining their trust in interviews. In addition, snowball sampling was particularly important for reaching RMPs, given our inability to conduct an in-person mapping exercise to identify them. Overall, conducting remote interviews has allowed for an unexpected level of speed and flexibility with scheduling. Often our respondents have been willing to participate in a phone interview on the same day or the next, and they have been willing to schedule interviews outside normal working hours, for example, during evenings and weekends. Furthermore, with data collectors based across time zones, we have had a unique opportunity to schedule interviews during early mornings, afternoons and late evenings, per the respondents’ convenience.

Case study 4: addressing interview fatigue in Uganda

‘Musawo [health care worker], these questions are many’. This statement was featured in one of our first in-person interviews, conducted prior to the national lockdown that halted data collection. Interviews were running well over an hour, and some participants seemed impatient by the end, with responses becoming thin. Our study uses a variety of qualitative methods to engage participants on the often difficult-to-discuss topic of mental health.
among people living with HIV in South-western Uganda. As we navigated shifting to telephone-based data collection, we were particularly concerned about fatigue and patience based on experiences in prior interviews. Surely participants would be more likely to get fatigued, impatient, and distracted when over the phone, and now we would not be able to see it. We shortened our guides, but wondered if it was enough. We had also lost our ability to use a timeline visual that we had developed. It had centred the interviews and worked well. It was now condensed into a script—more added time! To address these concerns, interviewers developed strategies for explaining the timeline by first summarising the points on the timeline and stating they would walk through time points in chronological order. Interviewers continued to keep a hardcopy of the timeline in front of them during the interview, allowing the tool to guide questions. We discussed plans in case participants wanted to cut interviews short or seemed tired, such as having a pre-agreed on back-up time, and considered if we should split the interviews into two sessions. When recruiting participants, we stressed they should find a comfortable and private place for the interview. To build rapport, we chatted briefly about the rainy season, well-being of their family and checked-in verbally throughout interviews: ‘Are you still doing ok?’, ‘Is the time alright for you?’. To our surprise, interviews ran over an hour but participants were not fatigued, with rich responses continuing through to the end of the interviews. Only one person has refused participation to date.

ADAPTED QUALITATIVE COMPONENTS AMID THE PANDEMIC
The continuing need for qualitative interviewing to personalize and adapt during the pandemic suggests unlearning and re-learning some of the traditional approaches that have shaped the discipline. In table 2, we break down the deceptively ‘simple’ act of remote interviewing across all of our case study settings and by study phases (from training data collection teams to conducting debriefings post-interviews), using succinct bullet points to guide qualitative research teams as they collect data remotely.

NOTABLE CHALLENGE: ACCESSING RURAL AND REMOTE POPULATIONS
We note that in many settings, rural populations are less likely to have mobile and/or internet access, which facilitated enrollment in our case studies. In Uganda, participants (who are people living with HIV) were drawn from an open, population-based cohort study.29 Cohort study participants are asked to provide a telephone number, even if they themselves do not own the phone. Sampling from this existing study with robust procedures in place to obtain contact information increased our ability to reach participants, particularly those in rural areas. Our Uganda-based study is focused on eliciting local models of mental health and although remote data collection may limit the range of perspectives, we feel we are still able to achieve our objectives despite being unable to enroll individuals who lack telephone access. Given the rapid proliferation of mobile technologies, even in rural settings,30 strategies beyond cohort designs to engage participants could include multiple recruitment attempts at different times of day and over a period of time to attempt to make contact when someone is in signal range, and/or supporting access through community healthcare workers and others in closer geographical proximity, and/or scheduling contacts for a time when they can share a mobile device. In India, identifying private providers located in rural locations was difficult in the absence of an existing roster of providers. Once we are able to establish contact with 1–2 providers through snowball sampling however, the lack of access to mobile phones or internet connectivity was not a substantial barrier for conducting remote interviews.

UNANTICIPATED BENEFITS OF REMOTE DATA COLLECTION
Beyond challenges, remote data collection presents unforeseen benefits and opportunities. These opportunities include direct study benefits (eg, faster recruitment), to broader impacts such as reduced carbon dioxide emissions (table 3).

CONCLUSION
We found that conducting qualitative research remotely can initially be daunting, as it requires diverging from common and familiar procedures both prior to and during data collection. Some of our researchers and participants were hesitant—and even technophobic—at the outset of the process. However, with new and adapted procedures, comprehensive training, continuous debriefings to address emerging issues, and increasing familiarity with processes, it was possible to collect high-quality data. Remote data collection allowed broad and rich participation in each of our case studies, proving effective for our populations of interest. We caution, however, that there may be challenges reaching participants in areas where telephone or internet access is poor, requiring inventive strategies to improve enrollment or requiring that researchers be forthright about recruitment limitations. In our view, remote data collection is not wholly a replacement for in-person endeavours, but it is a highly beneficial complement to such approaches. We plan to incorporate online and mobile data collection into our future research efforts, regardless of pandemic-related restrictions.

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REFERENCES


