In-person Data Collection During COVID-19: Considerations and lessons learned from conducting mixed methods social and behavior change research in Niger

This brief provides an overview of considerations and lessons learned from conducting in-person mixed methods research in the context of COVID-19. It is intended for global and regional public health program implementers, evaluators, and donors in U.S. Agency for International Development (USAID) priority countries. Using an applied example from the Resilience in the Sahel Enhanced (RISE) II Integrated Social and Behavior Change (SBC) Evaluation carried out by Breakthrough RESEARCH, the brief provides an overview of the COVID-19 situation in Niger and describes how researchers deliberated on various data collection strategies to conduct a mixed methods evaluation during a global pandemic. The brief then illustrates the steps undertaken to develop and implement a COVID-19 phased risk mitigation approach for in-person data collection and summarizes lessons learned from the experience.

KEY POINTS

Breakthrough RESEARCH considered whether, and how to resume in-person data collection to complete a mixed methods evaluation planned to begin in mid-2020 in Niger.

In a resource constrained setting such as Niger, alternatives to in-person data collection may be limited due to weak feasibility of using remote-based data collection methodologies.

Researchers should develop risk mitigation approaches tailored to local contexts to ensure study teams have a plan to safely conduct in-person data collection at each step of the study.

Background

USAID's RISE II programs target chronically vulnerable populations through programming that strengthens state institutions and local governance; increases sustainable economic well-being through agriculture and livelihood programs; and improves priority health behaviors in maternal, newborn, and child health, family planning, nutrition, and water, sanitation, and hygiene. The programs are being implemented at the community and facility levels through four Resilience Food Security Assistance (RFSA) partners and health service delivery

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mechanisms in select zones in Burkina Faso and Niger. To support implementation, Breakthrough ACTION is providing capacity strengthening and technical assistance to the governments, and RFSA partners to enhance the quality and alignment of the SBC program components.

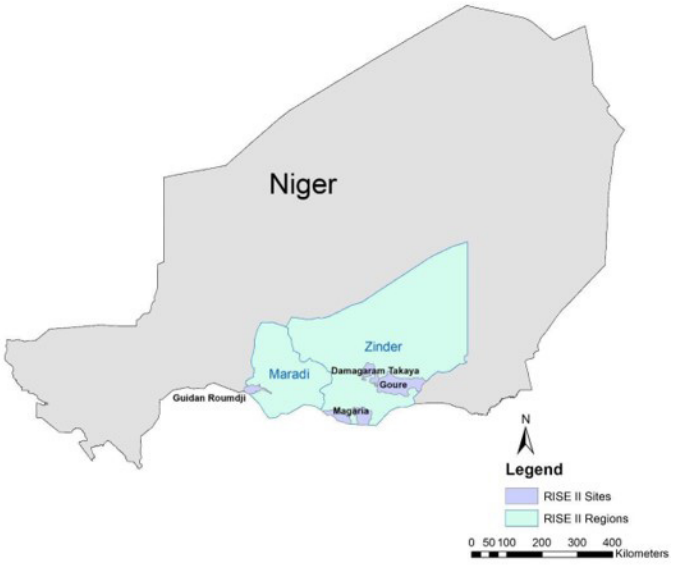
Breakthrough RESEARCH, USAID's flagship SBC research and evaluation project led by the Population Council, designed a mixed methods research study in the Maradi and Zinder regions of Niger (Figure 1) to assess successes and challenges of the RISE II integrated SBC programming, including its effectiveness on priority behaviors and cost-effectiveness in a climate-stressed setting. The study design included in-person in-depth interviews with program participants and three annual cross-sectional household surveys with an intervention and comparison area. The study team planned to start data collection in mid-2020.

On 11 March 2020, the World Health Organization (WHO) declared the coronavirus a global pandemic requiring countries to introduce travel restrictions and limit in-person activities. As a result, plans to begin data collection for the RISE II integrated SBC evaluation were postponed until additional information regarding transmission and effective mitigation approaches emerged in the scientific literature. This brief describes the COVID-19 situation in Niger and summarizes how Breakthrough RESEARCH 1) identified an appropriate data collection strategy; 2) developed a phased risk mitigation approach for in-person data collection; and 3) documented lessons learned from the experience.

COVID-19 situation in Niger

Following the WHO announcement of the global pandemic in March 2020, Niger began reporting the number of COVID-19 cases. Restrictions were enacted by the government in the first two months of the pandemic. However, the Government of Niger modified the restrictions following protests in Niamey on 20 May 2020 and the airport reopened in August 2021. The protests coincided with growing international concern that the lockdowns and restrictions in sub-Saharan Africa may cause a continent-wide recession making it difficult for countries to meet health and survival needs of populations because of reduced trading, tourism and lower levels of foreign direct investment including foreign assistance. As of 25 August 2021, there have been 5,770 cumulative confirmed cases of COVID-19 with 196 deaths reported by the WHO in Niger. However, given the limited testing, this is likely to be an undercount. Businesses and schools are open, but it is mandatory to wear a face mask (or face covering) in all public places (US Embassy Niger 2020). The Government of Niger is encouraging adherence to WHO guidelines such as social distancing and hand washing. COVID-19 testing is available in major cities and airports and costs approximately $50 per test for air travel. However, testing rates are low and primarily used for international travelers.

FIGURE 1 MAP OF NIGER AND RISE II PROGRAMMATIC AREAS



Identifying an appropriate strategy to conduct the RISE II integrated SBC evaluation

We considered three options to safely achieve the RISE II evaluation study objectives including 1) an alternative timing to in-person data collection; 2) employing remote data collection strategies; and 3) instituting a phased risk mitigation approach for in-person data collection.

1. Alternative timing to in-person data collection

We considered both eliminating the first cross-sectional survey (i.e., baseline) and delaying in-person data collection beyond the planned start of July 2020 until more evidence on COVID-19 transmission, risk levels, and appropriate mitigation strategies were documented. However, conducting the baseline survey beyond the first quarter of 2021 would prevent the study team from establishing baseline measures as study participants would have

been exposed to the integrated SBC activities. Without a baseline, we would not be able to provide information on behavioral determinants, which would inform program learning and adaptation. We would also be unable to measure changes in health outcomes over time or understand the effectiveness of the integrated model. Given these considerations, we determined that modifying the study design or delaying data collection would not allow us to achieve the RISE II evaluation study objectives.

2. Employing remote data collection strategies

We considered the use of remote data collection methods such as using computer assisted telephone interviewing to reduce the possibility of transmission that could occur through in-person data collection. We first reviewed key indicators related to mobile penetration and electricity access and then reviewed access to mobile broadband networks. The Central Intelligence Agency world factbook indicates that there are 46 mobile subscriptions per 100 inhabitants in Niger and less than 5% of the rural population has access to electricity which is necessary to charge mobile devices. In addition, based on a 2020 GSMA West Africa report, we determined that 82% of the Niger population is not covered by a mobile broadband network. Given these limitations, remote data collection techniques that rely on telecon phone registry lists, interactive voice response surveys, and short message service surveys would not be viable in the RISE II context.

3. Instituting a phased risk mitigation approach to in-person data collection

Finally, we considered a phased approach to in-person data collection with risk mitigation approaches in place beginning in late 2020 and continuing through the first quarter of 2021 prior to implementation of the fully integrated SBC approach at scale. This approach would enable our study team to engage more cautiously and assess the efficacy of our approaches before implementing them on a wider scale. We proposed piloting one in-person data collection activity in one region, specifically 20 in-depth interviews. Data collection would be suspended if a member of the research team did not follow the risk mitigation procedures, tested positive for COVID-19, or presented with any COVID-19 related symptoms. Similarly, study participants would be screened prior to the interview and if they reported COVID-19 symptoms, the interview would be suspended, and the participant would be referred for testing. In this situation, the research team in Niger would follow the local COVID-19 guidelines in coordination with the Ministry of Health. If this approach was deemed successful and no adverse events were recorded, the team would proceed with the remaining qualitative interviews and the quantitative household survey which would reach approximately 2,400 women and 1,200 men with risk mitigation approaches in place for all activities. Given the study objectives and limitations with alternative approaches, we considered the phased risk mitigation approach to in-person data collection the most appropriate strategy in that it enabled us to achieve the study objectives while reducing risk for our staff and study participants.

Once the study team agreed on the approach, we set out to carefully and thoughtfully develop a risk mitigation plan that would guide the phased approach to in-person data collection. Development of the risk mitigation plan involved the research team, led by the principal investigator and including the local field team, the project and organizational leadership. Figure 2 provides a timeline from the onset of COVID-19 and key events leading up to and through the phased implementation.

FIGURE 2 BREAKTHROUGH RESEARCH RISE II INTEGRATED SBC EVALUATION STUDY TIMELINE FOLLOWING ANNOUNCEMENT OF COVID-19 PANDEMIC

Implementing a phased risk mitigation approach to in-person data collection

1. Requesting institutional review board study approval in the context of COVID-19

Breakthrough RESEARCH submitted a study application to the Population Council institutional review board (IRB) and the Niger Ministry of Health ethics committee in April 2020. The Niger Ministry of Health did not provide guidance or request specific mitigation strategies during their review and provided approval in May 2020. The Population Council IRB responded and requested mitigation strategies to address the COVID-19 risks. The study team provided general risk mitigation strategies that illustrated how we would address different aspects of survey implementation to prevent the spread of COVID-19 to the study team and study participants. The Population Council IRB approved the protocol with these outlined risk mitigation measures in June 2020.

2. Developing a phased risk mitigation plan

Given the limited amount of information at the time on COVID-19, the Population Council as an institution required Breakthrough RESEARCH to develop a comprehensive activity-based phased risk mitigation plan to accompany the general measures outlined in the approved protocol. The Breakthrough RESEARCH study team prepared the phased risk mitigation plan for in-person data collection using a standard template developed by the Population Council which was approved in December 2020. The RISE II integrated SBC risk mitigation plan records a summary of the study activities, per the study protocol, along with roles and responsibilities related to risk mitigation actions for international and in country-based research staff to carry out to ensure the safety of the research team and study participants. Table 1 describes the inputs and considerations needed when study teams are developing the risk mitigation plan.

3. Qualitative interviewer training and data collection

The phased risk mitigation plan proposed staggering data collection to allow time to reflect on how the plan was working with the smaller qualitative data collection team (five-member team) and sample (N=20) before advancing to the larger quantitative household survey effort. As a result, the data collection period for the qualitative study began in the Zinder region in December, followed by a pause in January and concluded in February prior to the Presidential run-off elections to ensure that no adverse events occurred following the initial data collection activities. Study participants were contacted in advance through mobile phones to ensure that they agreed to the interview and were available before the study team traveled to the community. We did not experience any reduced response rates due to perceived COVID-19 risks and study participants expressed appreciation for the medical masks provided by the study team prior to the interview. We did not observe any breaches in the risk mitigation plan during the qualitative training and data collection efforts and no illnesses were reported.

4. Monitoring community-level events (e.g., presidential run-off election) during COVID-19

As shown in Figure 3 (page 6), from April through November 2020, cumulative COVID-19 cases in Niger remained below 1,500. However, a spike in cases occurred in December and January following the 27 December presidential election. Cases declined in February but then increased slightly in March and April following the 22 February presidential runoff when numerous protests took place in Zinder region.

5. Quantitative interviewer training

The 35-member study team convened in the city of Zinder for the quantitative training the first week of March 2021. The study team included members from Niamey who had received negative COVID-19 tests prior to travel and study team members based in Zinder. At the onset of the training, several asymptomatic study team members based in Zinder received positive COVID-19 polymerase chain reaction (PCR) tests. The study team immediately informed the Ministry of Health and the principal investigator. The study team was asked to quarantine for one week before a follow-up COVID-19 test could be administered ensuring that all study team members were negative before proceeding with the training. Follow-up tests were negative, and the training proceeded with mitigation strategies in place as outlined in the risk mitigation plan.

6. Quantitative data collection

Following the conclusion of the interviewer training, the study team deployed for data collection the first week of April. Consistent with the qualitative study experience, the study team did not experience any reduced response rates due to perceived COVID-19 risks and study participants

TABLE 1 STUDY TEAM RISK MITIGATION PLAN INPUTS

Inputs	Description
Contact information	Indicates whose contact information will be collected (i.e., data collectors, supervisors, drivers, study participants, etc.) and who will maintain this information in case it is necessary to conduct contact tracing.
Personal protective equipment (PPE) and related equipment	Identifies who is responsible for the procurement and distribution of PPE and related equipment to the study team per USAID's guidance.
Pre-event and daily attestations of health	Provides guidance on procedures to ensure study team receives information on COVID-19 including risks, sources of exposure, routes of transmission, how to monitor for COVID-19 symptoms, how to use a medical mask, what to do if they display symptoms, and whether a negative PCR COVID-19 test result is needed prior to participating in any study-related activities. Provides daily COVID-19 monitoring checklists for research staff to maintain throughout the study.
Venue	Provides guidance on steps taken to ensure proper ventilation (e.g., opening windows, carrying out activity outdoors) and maintaining social distance between study team members and study participants.
Transportation to/from location	Provides guidance on steps taken to ensure proper ventilation (opening car windows) and wearing a medical mask while traveling.
Food and drink	Provides guidance on steps to ensure the study team is socially distanced during meals and there is safe distribution of food and drinks.
Lodging	Provides guidance on steps to ensure proper ventilation (opening windows), wearing a medical mask, and maintaining social distance and whether participants will share a room
Reporting procedures for someone who exhibits symptoms, becomes aware they are exposed, or tests positive during the activity or within 14 days of its conclusion	Establishes procedures for ensuring that the Ministry of Health and study team are notified in the event research staff display COVID-19 symptoms or tests positive for COVID-19 and ensures that Ministry of Health guidelines are followed.
Isolation procedures for someone who exhibits symptoms, becomes aware they are exposed, or tests positive during the activity or within 14 days of its conclusion	Procedures are in place to ensure that Ministry of Health guidelines are followed in case research staff exhibit symptoms or tests positive for COVID-19.
Communication plan for regular updates to principal investigator	Establishes procedures for daily meetings between field-based study team and headquarters team

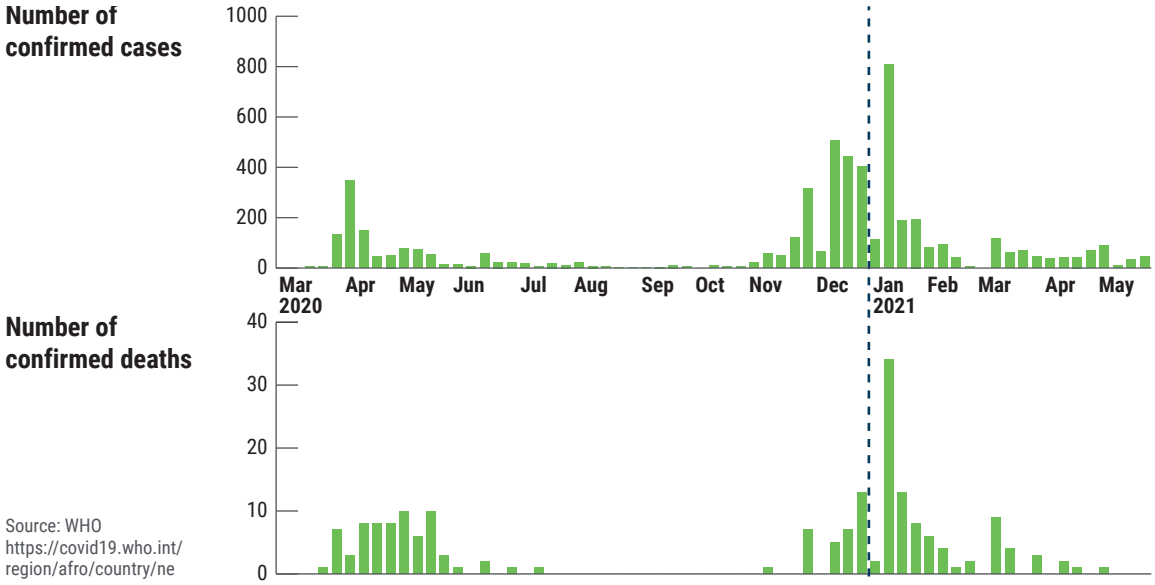
expressed appreciation for the medical masks provided by the study team prior to the interview. Interviewers administered a symptom screening questionnaire to each participant prior to initiating the interview and interviewers ended interviews with study participants who responded yes to any of the symptoms. Quantitative data collection concluded the first week of May and no adverse events were reported at the conclusion of the study.

Lessons learned

Prior to data collection

- There is not a one-size-fits-all approach to in-person data collection in the context of COVID-19. To identify the most appropriate and effective strategy, it is important to carefully consider all alternatives in consultation with implementing partners, IRBs, and ministries of health.

FIGURE 3 WHO COVID-19 DASHBOARD: NIGER STATUS OF CUMULATIVE CASES AND DEATHS BETWEEN MARCH 2020 AND MAY 2021



Source: WHO https://covid19.who.int/region/afro/country/ne

- Research teams should plan for and include time in their workplan to thoughtfully develop risk mitigation strategies tailored to the context of COVID-19 in which they are proposing to work and include time for any institutional reviews and approvals of this plan.
- Study teams should include mitigation plans in IRB applications and be prepared to communicate any adverse events to the government, donor, institutional leadership, and IRBs.
- U.S. and field-based teams should monitor communications with the U.S. Embassy and maintain communication with the USAID in-country staff for any additional local guidance as recommended in the USAID COVID-19 implementing partner guidance frequently asked questions.
- Field-based study teams should routinely engage with the Ministry of Health authorities to assess any changes in an increase in cases at study sites as well as changes in Ministry of Health regulations that restrict movement or in-person meetings.
- In addition to monitoring weekly cases, programs should consider current events and avoid initiating in-person data collection following political events or major holidays which may result in a temporary increase in COVID-19 cases.

During training and data collection

- Research staff should consider conducting trainings in remote locations outside major cities to minimize interviewer transport back and forth to the training site.
- Field-based study teams should establish communication with Ministry of Health staff and develop procedures to address adverse events that may arise during research implementation.
- Cultural barriers and biases regarding the use of medical masks in the context of COVID-19 were not observed during training and data collection. However, further evidence on attitudes toward and behaviors of COVID-19 mitigation strategies may be needed if the general population is not observing mitigation strategies outside the study setting.
- Ministry of Health policies, which prioritize the availability of PCR testing for symptomatic cases or individuals who are traveling internationally, may result in limited availability of testing for those who are not symptomatic particularly outside of major cities. Researchers should consider recruiting interviewers from areas that have routine access to testing to ensure that all study team members are able to be tested prior to the initiation of study activities.
- Compliance with lengthy mitigation strategies may be challenging for field-based teams working in remote areas because supervisors are not able to continuously monitor interviewer and study participant compliance to proper mask wearing and social distancing requirements in a dispersed setting. While no challenges were recorded during our study, study teams should engage and seek input from field-based teams to ensure that proposed mitigation strategies are feasible.
- International organizations should consider local policies and procedures and determine if more stringent

safety criteria should be applied to ensure the safety of the research team.

- Screening study participants for COVID-19 symptoms may create a false assurance for the interviewer and may be difficult to consistently apply particularly for symptoms such as fatigue. Efforts may be better spent focusing on mitigation measures (e.g., distancing, masks, hand sanitizing).

After data collection

- Given the continuously evolving COVID-19 context, study teams should hold after action reviews to reflect on what went well and where improvements can be instituted going forward.

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