Undertaking rapid assessments in the COVID-19 context:
Learning from UNICEF South Asia

unicef for every child

Community-Based Monitoring to assess the socio-economic impact of the COVID-19 pandemic on vulnerable populations in India

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A Case Study

Context

With the worsening public health due to COVID-19 pandemic and declining economic situation, towards the end of March 2020, UN agencies in India started planning to assess impact of the pandemic on socio-economic conditions of vulnerable populations. Importantly, the information was needed quickly to sharpen programming and inform Government to combat a rapidly changing situation. Moreover, it was required at several points in time as the spread of the pandemic was gradually increasing and its effects were expected to be protracted.

Towards this, UNICEF India and its state offices instituted several studies. One of the studies was a longitudinal Community-Based Monitoring (CBM) mechanism, implemented in partnership with Civil Society Organizations (CSOs) and its civil society volunteers, to gather evidence directly from families living in the habitations that were affected by COVID-19.[1] A CBM mechanism, deploying remote data collection modalities, was thought to be the best strategy to gather primary data on the emerging situation as in-person data collection through a traditional sample survey was not possible and given that adequate administrative data was not available.

The CBM particularly aimed at capturing the reality of socio-economically marginalized and vulnerable families, including pregnant and lactating women, mothers of children of different vulnerable age-groups, and home returnees. To this end a panel of respondents from selected families at habitation level along with the community volunteers was set up from whom data was collected at multiple time points. The CBM gathered information from 12 districts[2] in seven UNICEF programming states (affected by the pandemic, direct or indirectly)[3] over a period of 8-9 months, in four waves (rounds).

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[1] In India, CBM mechanisms have been used in different sectors; for example, communities regularly monitor the progress of National Health Mission interventions in their areas, resulting in community participation, and which contributes towards strengthening health services at the local level. https://nrhmcommunityaction.org/about/

[2] Half of these districts are predominantly rural where the level of urban population is below 30 % and the rest are urban districts.

[3] The seven states are Andhra Pradesh, Gujarat, Maharashtra, Rajasthan, Telangana, Tamil Nadu and Uttar Pradesh.

Implementation arrangements

UNICEF India partnered with a network of 13 CSOs (named as anchor CSO) under a single umbrella CSO (lead CSO), namely—the Centre for Social Equity and Inclusion (CSEI) and Wada Na Todo Abhiyan (WNTA). The CSO partners collected the data through a network of community volunteers (CVs) with UNICEF's guidance and support. One 'anchor' CSO was appointed in each of the 12 districts, managing CVs in each of the selected habitations within the district. Overall, around 300 CVs were engaged in the CBM, with each CV managing and collecting data from one habitation (see Figure 1).

The four waves of data collection were conducted between June and December 2020: the first wave in June-July 2020, and the three subsequent waves in August-September, October-November, and December 2020. The cost of the CBM was approximately USD 170,000 (without staff time investment).

Data collection and analysis

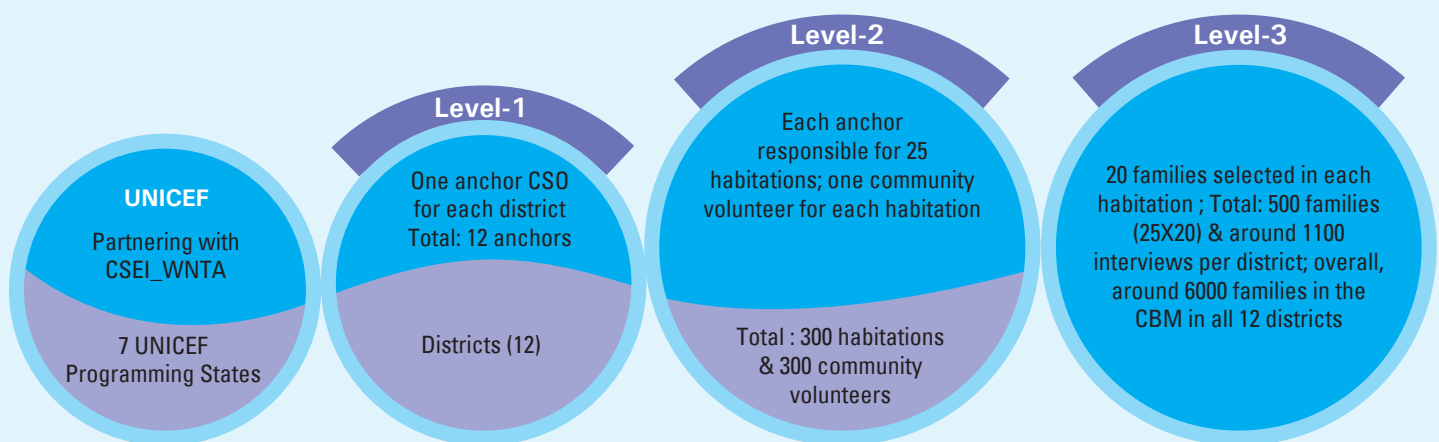The selection and capacity building of CSOs was of critical importance for the quality of the data collection, and therefore will be discussed in the next subsection. In addition, this section reviews the engagement with multiple types of respondents, the deployment of different data collection methods and modalities, the CBM's focus on equity and gender, and the way data processing, monitoring and analysis was organised.

Selection and capacity building of anchor CSOs and CVs

CSOs at district level were selected based on several factors, like their depth of presence in the district, strength of network in terms of CVs, their apolitical stance, engagement within communities, and, importantly, their readiness to follow agreed ethical and implementation instructions. This ensured that they were able to mobilise the local capacity necessary for periodic data collection on the ground with quality, ethics and political sensitivity in mind.

The lead CSO and anchor CSOs, in collaboration with UNICEF, were responsible for recruiting and training CVs, coordinating/monitoring their work, ensuring their participation or appropriate replacement if needed during the entire assessment period.[4] For selection of CVs, approximately 40 CVs per district were

Figure 1: CBM implementation mechanism

UNICEF
Partnering with CSEI_WNTA
7 UNICEF Programming States

Level-1
One anchor CSO for each district
Total: 12 anchors
Districts (12)

Level-2
Each anchor responsible for 25 habitations; one community volunteer for each habitation
Total : 300 habitations & 300 community volunteers

Level-3
20 families selected in each habitation ; Total: 500 families (25X20) & around 1100 interviews per district; overall, around 6000 families in the CBM in all 12 districts

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[4] Only 4-5 CVs had to be replaced due to personal reasons. 95 % of the CVs were residing in the selected habitation or in its neighbourhood, so could maintain easy access to the households. UNICEF had understood this in advance; thus, residing in the selected habitation was one of the priority selection criteria of the CVs.

initially proposed by the anchor CSO. Among these 25 CVs were selected, based on, amidst other criteria, the habitation they lived in and the duration of stay in the habitation, their ownership of a smart phone, some familiarity with technology (to handle Apps on a smart phone), and their education level. Each CV was responsible for gathering data from around 20 families (see sampling discussed below).

The capacity of CVs and the constant hand-holding support to the CSO network were critical for robust data collection. This required UNICEF to invest extensively in cascade training of the CSO network, including the CVs, ahead of all data collection waves.[5] Furthermore, several WhatsApp groups were created to support the capacity building process as well as monitoring and coordination of the work at the district and state levels.[6] This process helped build a cadre of 300 CVs with the skills and confidence to monitor their own work in their habitations.
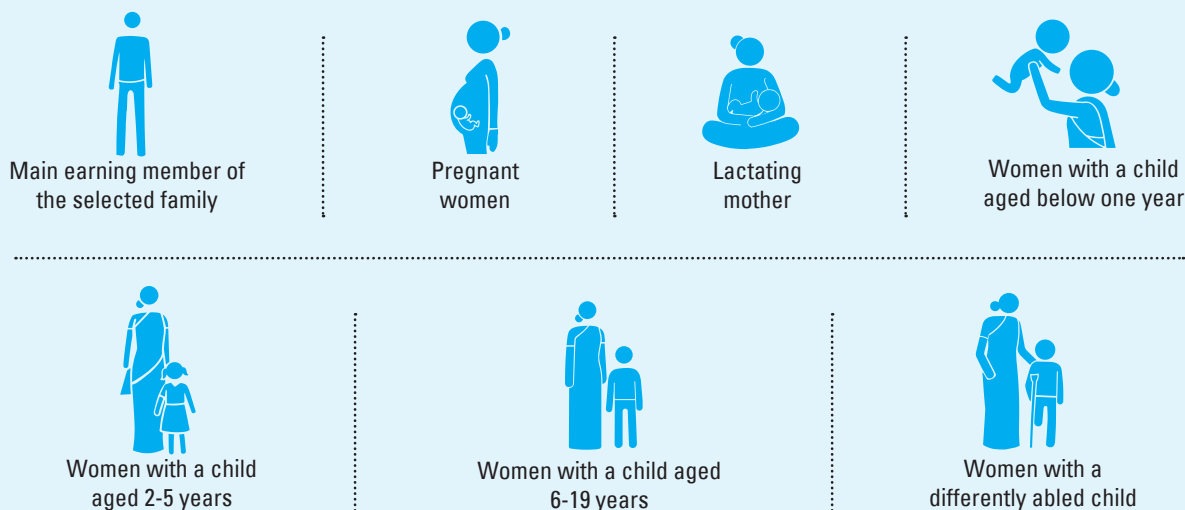
Data collection phases/methods and respondents

CBM data collection had two phases per wave in order to capture a comprehensive set of information at community- and family/individual-level, using two distinct methods. First, information at the community-level—such as availability of services (e.g. WASH facilities, schools, health institutions), awareness about social benefits and role of local government during the pandemic—was gathered from the concerned CV of the habitation through a structured, self-administered questionnaire. Subsequently, in the second phase, all CVs conducted around 50 interviews in their respective habitation among families and their members registered in the panel, targeting seven different respondent types (see Box 1) in order to cover all the necessary thematic areas of assessment and vulnerabilities. For example, respondent type (d) was for capturing immunization of children and fear of pandemic restricting access to immunization centres, while respondents of type (f) were asked questions on continuing education and availability

Box 1
Respondent types at family level

Seven different respondent types were targeted for interviews to be covered in each habitation:

Main earning member of the selected family

Pregnant women

Lactating mother

Women with a child aged below one year

Women with a child aged 2-5 years

Women with a child aged 6-19 years

Women with a differently abled child

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[5] A central team in Delhi, with representatives from UNICEF and the lead CSO, conducted extensive Training of Trainers for anchor CSOs, followed by anchors, along with a few central team members, training CVs in groups of 25-30 participants in their respective districts. All trainings were conducted virtually

[6] There was one WhatsApp Group for every district with all CVs and anchors in the group plus the Delhi core team.

of digital infrastructure for studying from home. In total, approximately 12,000 interviews were conducted at the family level in each wave.[7]

Seven types of structured question sets were developed for each type of respondents with inputs from various UNICEF sections. Key areas of enquiry included, livelihood and employment, access to select social protection programmes, food security, WASH and hygiene practices, COVID-related preventive practices, awareness and stigma/fear, and awareness and perceptions about safety of COVID-19 vaccine. While questions were not pretested, data and questions were reviewed after each wave to examine whether questions were well understood. The question sets were modified before each wave to capture the evolving situation of the pandemic, although some questions were retained across all the waves to allow for trend analysis.[8]

Data collection modalities

To mitigate infection risk, data collection was done remotely using different modalities. Data collection among CVs was done via an easy to deploy Google Form, which the CVs completed on their phones. In the case of family-level data

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collection, initially in wave 1, an attempt was made to collect data through interactive voice response calls (IVRs) on the Rapidpro platform.[9] The Rapidpro system was used to push out pre-recorded automated calls to registered respondents (using phone numbers registered by the CVs). Messages were recorded in the 'broad' spoken language of the state. The IVR modality was chosen because community members can respond to IVRs on a basic phone and it does not require respondents to be literate and technically savvy in using a mobile phone. However, there were challenges with collecting data through the IVRs. For one, the IVR response rate was low (around 30%) despite CVs using their network on the ground to try and increase response. Furthermore, the IVR modality suffered from respondents not using a good mobile handset, which resulted in bad audio, and had operational issues such as poor network and unstable connections. There were issues of call drop, as calls were made from Delhi. In some cases, respondents could not understand the questions, as the language used was different from local dialects.

Given the limitations with the IVR mode, the data collection modality was changed quickly during wave 1 to a phone survey. UNICEF's Technology for Development (T4D) team developed a Survey App on the RapidPro platform, which enabled CVs—after thorough training—to call respondents on the respondent's registered mobiles and collect information on the App. The response rate increased substantially (to around 97 %) because of CVs' familiarity with the families. Furthermore, there were fewer network issues with local calls, and CVs could directly schedule the calls with respondents. Challenges of language were significantly reduced as CVs speak the same language as respondents. One limitation of the phone-based survey administered by a CV is that in-depth information about the individual family or any of its members, especially sensitive information such as on violence, sexual abuse and child marriage, is not appropriate to collect. Furthermore, similar to an IVR mode, the

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[7] For example, in wave 2 the following number of respondents were interviewed: 298 CVs, 5,700 main earning members, 850 pregnant women, 974 lactating women, 612 mothers with a child aged up to one year, 1,280 mothers with a child aged 2-5 years, and 2,384 mothers with a child aged 6-19 years.

[8] For example, questions on home returnees reduced over the waves as a number of home returnees began to return to their place of work, whereas questions on economic conditions, access to social support schemes, access to health and nutrition services, immunization of children etc were maintained across the waves.

[9] https://community.rapidpro.io

amount of information that can be collected needs to remain limited to keep the interview short.

Equity and gender

Equity, gender and ethics were driving considerations in the data collection and its analysis. Respondents were selected to represent the most vulnerable groups, which are often hard to reach through remote data collection. Mothers of differently abled children were specifically sampled—which were challenging to identify and register—in order to examine how the pandemic had affected their children's access to education.[10] Furthermore, special attention was paid to include female headed households in the sample (around 15-17 % of the total families). Themes that were especially relevant to understand the situation of women and children were included. For example, women respondents were asked about access to maternal and child health care services and schemes, communication on breastfeeding, children's education and access to social protection. Furthermore, as the CBM included a few sensitive questions, covering issues such as violence against women and children, and there were several questions around welfare of children (to be asked from mothers), mostly female CVs were selected to collect data (more than 75% of the total CVs). Sensitive questions were asked indirectly at community level rather than focusing on the experience of the individual respondent. During analysis, equity and gender was further examined through data disaggregation by gender and the economic/employment status of the household head.

Data processing, monitoring and analysis

The CBM had a component of real time data monitoring. As data entered by the CV were uploaded on the server in real time, a dashboard facilitated the monitoring of data collection status. In addition, the dashboard provided a 'timestamp', enabling the central team to assess how much time, on an average, was taken by each volunteer to complete a questionnaire. This helped in giving feedback to the anchor CSO about possible slippages on data quality. Anchors and central team members also

made call-back to respondents (about a 10% of the families) to verify if they had received a call from the volunteer.

Once the individual survey was completed, all the information was transferred to the server at the back end and a spreadsheet was generated, and thus, data were immediately accessible for analysis. Analysis, in view of the in-depth respondent stratification, explored the impact of the pandemic different population groups and also allowed cross-tabulation across a range of issues. These included economic conditions, debt burden, livelihoods, access to health and social services, cash assistance, media preferences and COVID-related topics (e.g. preventive practices, perceptions, vaccination), especially by rural and urban districts.

Sampling

As discussed above, the CBM was designed as longitudinal data collection with a panel of CVs and registered families in specific habitations in selected districts and states. To understand the vulnerabilities in the context of COVID-19, states and districts were purposively selected to include areas with high prevalence of COVID-19 infections and a large proportion of home returnees (those who had returned to the area after the pandemic). Six predominantly rural and six predominantly urban districts were selected. In addition to the percentage of COVID-19 positive cases, the selection of rural districts considered the percentage of agricultural workers to capture home returnees affected by the lockdown due to the pandemic, and urban districts were selected based on the percentage of slum populations where infection level and exodus of families was high.

The selection of habitations (which consisted of villages, gram panchayats or a part of it) was based on a broad study framework of direct or indirect impact on the habitation due to the COVID-19 pandemic. One of the selection criteria was that the habitation should not be in close proximity to each other so geographical spread was guaranteed.[11] Each anchor CSO was responsible for the selection of one CV per habitation under their jurisdiction. As

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[10] Data collection among differently abled children was dropped after the first wave because, as schools remained closed, there was little value in monitoring their access to schools.

[11] An analysis of the selected habitations showed that these were distributed in 144 postal pin code areas.

Figure 2: Family and respondent stratification strategy
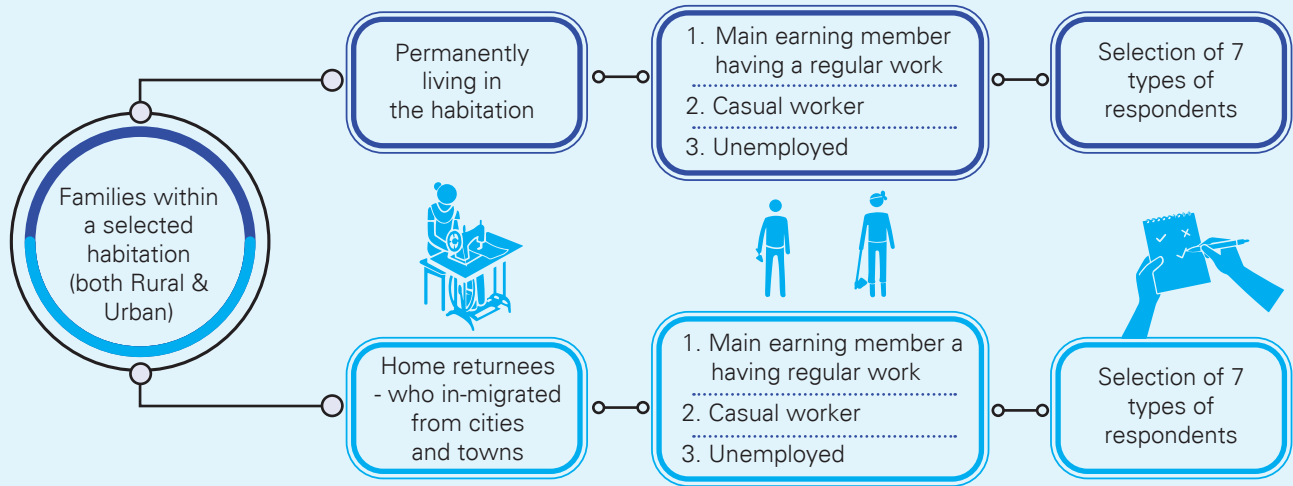
discussed above, CVs were selected based on a set of criteria provided by UNICEF in consultation with the lead CSO.

Finally, 20 families were selected per habitation following a stratification strategy to ensure representation of families and respondents with different vulnerabilities (see Figure 2). Given the purposeful sampling, the sample size was determined to enable minimal coverage of different types of respondents across the different family types of interest within a habitation.[12] Applying the selection criteria, CVs registered eligible families and its members (respondents) and gathered critical data from them for enrolment in the study. Overall, in the 12 districts, approximately 6,000 families were targeted. As discussed above, except for wave 1, this target sample size was largely achieved, and CVs were able to ensure respondents' continued participation with limited attrition.

Given that a non-probabilistic design was chosen due to lack of robust (inclusive) up-to-date sample frames, the results should be interpreted with adequate care and do not allow statistical inference to the population in the districts or states. Nonetheless, it allows for an assessment of the situation and trends over time among specific marginalized groups. Furthermore, while collecting data among specific vulnerable groups was a focus of the CBM, the most vulnerable who do not own a phone may be underrepresented.

Partnerships

The partnerships between UNICEF and the CSO network was critical to set up the CBM. Through this model, both UNICEF and the CSOs built on each other's strengths and capacity. The process of collecting data through a CSO network on the ground allowed the gathering of information from vulnerable communities, which may be otherwise difficult to reach. The CSOs were able to roll out the data collection at local level as they had a long history and presence on the ground and had the knowledge, expertise and social capital for last mile connectivity. This enabled them to recruit CVs and support their training.

UNICEF built capacity of the CSOs and anchors, ensured quality of the data gathered, and brought methodological rigor to the study, to ensure robust

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[12] It was estimated that 50 respondents had to be interviewed for such minimal coverage.

findings. Through this process CSOs, anchors and CVs had a sense of value that people were listening to them and community issues were being tracked and highlighted. This led to their active participation and motivation to learn new innovative technology to be used for the CBM. Furthermore, for CSOs, it created a strong cadre of local volunteers who now are trained and sensitive to quality of data and aware of the power of evidence gathering, which can be used to monitor many future interventions.

The CBM was also built on close internal collaboration among UNICEF Sections. Collaboration between UNICEF India's Social Policy Monitoring Evaluation (SPME) Section and Technology for Development (T4D) staff allowed flexibility in the data collection modality and a timely shift from IVR to a phone survey. Programmatic Sections such as Health, Communication for Development (C4D), Nutrition and Child Protection under leadership of the SPME Section all contributed to the design of the data collection tools.

Agility/timeliness

Agile implementation of the CBM to provide evidence quickly was built over time. Planning, conceptualizing and designing the study, including networking with CSOs across the country, began in April 2020 and took a few months. Initially during wave 1, there were concerns about the delay in data collection due to use of the IVR mode and the time needed for training CVs. However, following ongoing and intensive capacity building over several waves, the data collection periods shortened, and the findings of different waves have been presented to key audiences quickly. On average, each data collection wave took eight weeks to complete (2 weeks pre-fieldwork, 3 weeks for data collection among CVs and families, and 3 weeks for data cleaning, validation and analysis), with the last round implemented in four weeks.

The internal capacity of UNICEF's T4D team to quickly shift from IVR to a phone survey allowed to agilely adapt to the initial low response rates. Switching the data collection modality from IVRs to

a phone survey also means a trade-off between time and increasing the response rate because sending out IVR calls is quicker than making individual calls in a phone survey. However, since a sufficiently high response was required to cover registered panel of households, CVs had to spend a lot of time following up with respondents to answer the IVR to increase the response rate which defeated the advantage of sending out IVR calls in a short period of time.

Use of findings

The CBM findings had both internal as well as external audiences. Findings were initially shared at internal UNICEF meetings with programme sections and state offices, which allowed for evidence-informed programme adaptation. For example, the C4D section used the findings to refine their communication strategy. Findings were also shared with UNICEF globally to inform situation reporting on the pandemic. Internal uptake of findings at UNICEF India varied across units because some units were engaged in their own evidence-generating exercises. Also, due to limited geographical coverage at state level, findings remained underused by UNICEF state offices despite their relevance to learn about the evolving situation of vulnerable groups across states.

Findings have also been shared with the Government of India, including with NITI Aayog and Members of Parliament. A fact sheet with key findings was prepared and formally shared with concerned Ministries. In addition, findings were presented at more informal events, such as brownbag lunches with Government staff. Dissemination has been mostly targeted to specific external audiences rather than mass dissemination via the media in order to be able to well explain the findings and avoid out-of-context use, which may be politically sensitive. Government has expressed interest in expanding the CBM mechanism, indicating that the usefulness of the exercise does not just lie in the specific evidence generated through the four data collection waves but also as a demonstration pilot of the mechanism itself that can be used in future humanitarian crises.

Summary learnings

The strengths, challenges, learnings and innovations related to the implementation of this rapid assessment are summarized in the table below.

Table: Community-based Monitoring, India: Summary Learnings

Strengths

- CBM has a strong equity and gender focus, giving voice to different vulnerable groups, in particular women.
- Managing the survey inhouse through the RapidPro platform allowed flexibility to adapt the data collection modality and questionnaires.
- Use of CVs to implement the survey resulted in high response rates and low attrition across the waves.
- CBM is built on a strong partnership with CSOs, which also built their capacity to implement CBM in the future.

Challenges

- Capacity building of CSOs and CVs takes time and close follow-up.
- The phone survey is not well suited to gather qualitative data via open-ended questions or detailed information on sensitive issues.
- The most vulnerable who do not own a phone are likely underrepresented.
- The use of purposeful sampling does not allow for statistical inference to the larger population.

Learnings and innovations

- Remote data collection through CVs using well-structured questionnaires works to frequently monitor and assess the situation of vulnerable groups in times of emergency and can be set up in a few months and with ample coverage; however, it requires partnership with CSOs with an established local presence as well as considerable effort to build capacity and a constant training process.
- The IVR modality is not well suited for a survey that requires high response rates due to constraints in enrolling additional respondents in the sample.
- The combination of surveying both CVs as well as multiple types of respondents enabled a wide range of information to be collected, although it was a challenge to keep the number of questions limited.