

## ESTABLISHING REMOTE MONITORING AND ASSESSMENT CAPACITIES FOR COVID-19 RESPONSE

### A practical guide for VAM Officers in Regional Bureaus and Country Offices

March 2020

#### I. Background

Since the outbreak of the Coronavirus Disease (COVID-19), many countries have put in place isolation and/or quarantine measures to reduce transmission risks and curb the spread of the virus. Without access to communities, traditional modalities to collect information and monitor the food security and basic needs of affected populations cannot be relied upon; in addition, face-to-face surveys could expose enumerators to further risk of contagion. Nonetheless, the same information is needed, including the ability to answer key questions on the impacts of the outbreak on food security and livelihoods, health, access to services, markets and supply chains, as well as people's challenges and needs, among others.

#### II. WFP's remote monitoring tools

As such, continuity on vulnerability and market monitoring systems is critical in times of a public health emergency. In COVID-19 affected countries or countries at risk of an outbreak, Country Offices should consider the use of remote monitoring tools as they provide a more flexible and efficient way to collect information: they are cheaper, faster, and can be conducted even in conflict- or epidemic-affected areas without putting enumerators at risk. WFP's remote monitoring toolkit includes:

- **mVAM near real-time monitoring systems:** WFP's mobile-VAM (mVAM) initiative involves conducting mobile surveys through live telephone interviews.<sup>1</sup> High frequency data is collected from households and key informants (e.g. traders). mVAM was piloted in 2013 and scaled up in 2014 to Guinea, Liberia, and Sierra Leone to support the Ebola emergency response. Take up of mVAM tools has been rapid, and the approach is now being used in over 40 WFP countries, including Level 3 emergencies. Since 2018, WFP started implementing near real-time monitoring systems to provide continuous updates on food security, nutrition and other key indicators in countries facing food crises. These systems are now active in 14 countries,<sup>2</sup> with a plan to scale-up to 30 countries by the end of 2020.
- **Web surveys:** Leveraging the increasing number of internet users across the globe (59% in 2020), WFP has since 2018 increasingly gained experience in using web surveys to collect near-real time quantitative and qualitative information from women and men across all age-groups. To date, web-surveys have been successfully conducted in over 10 countries including Syria, Jordan, Lebanon, Turkey, Iran, Libya, Nigeria, Colombia, Ecuador and Peru. The method has proven to be

<sup>1</sup> Also known as Computer Assisted Telephone Interviewing (CATI). Other data collection methods include text messages (SMS), Interactive Voice Response (IVR) and two-way communication systems.

<sup>2</sup> As of March 2020, mVAM near real-time monitoring systems have been established in Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, El Salvador, Guatemala, Honduras, Mali, Mozambique, Niger, Nigeria, Syria and Yemen.

effective in collecting high-frequency data from different population groups, including displaced populations. The self-administered survey provides respondents with secrecy, freedom and confidence to respond, without providing incentives. Information covered so far included questions related to how people meet their food and other essential needs, livelihoods, impacts of shocks, migration drivers and remittances, challenges and priorities.

Whenever possible, Country Offices should build upon existing systems, especially in countries or regions where they have already been established (see [Annex I: List of countries](#)).<sup>3</sup> Both mVAM and web surveys can be expanded to other countries without prior existence, however, for web surveys, internet coverage and use should be considered (see [Annex II](#)).<sup>4</sup> A combination of the two approaches can also be considered.

### III. Preparedness phase

Given the rapidly escalating situation of the COVID-19 outbreak, COs must ensure that they are adequately prepared to set up and maintain remote vulnerability and market monitoring capacities to inform WFP's operational response in the event of an outbreak. Preparedness measures include:

#### a) mVAM systems

- Mobile surveys are conducted through live telephone interviews – also known as Computer Assisted Telephone Interviewing (CATI) – via call centers. Currently, through a Long-Term Agreement (LTA), WFP has hired Mobile Accord Inc. (GeoPoll) alongside other regional and national call centers to manage calls made by trained operators in local call-centers. If you are interested in establishing mVAM near real-time monitoring systems for the COVID-19 outbreak, contact the HQ team to find out if your country is included in the existing LTA with GeoPoll, and how long it will take to establish mVAM in your country. You should also check your CO's budget availability for conducting mVAM surveys.

#### b) Web surveys

- Web surveys are administered through survey forms that reach anonymous and random internet users on the web. Through an LTA, WFP has engaged with RIWI Corporation to use their proprietary Random Domain Intercept Technology (RDIT) to capture responses. As users surf the web and click on a broken link or make a mistake in the URL, they receive a survey form instead of a broken link notification. Surveys can be geo-targeted in areas of particular interest and capture different target groups such as residents, migrants, internally displaced persons, among others. If you are interested in initiating web surveys for the COVID-19 outbreak, contact the HQ team to evaluate the feasibility of this method based on the internet coverage and use in your country. Surveys can generally be launched within a few days at relatively low costs for COs and initial results are available within days.

#### c) Market monitoring

- COs should consider collecting phone numbers from traders in advance. In case of an outbreak where the movement of people could be restricted due to quarantine measures,

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<sup>3</sup> This spreadsheet contains a list of countries with existing mVAM systems (including near real-time monitoring systems), web surveys, confirmed coronavirus cases and WFP presence.

<sup>4</sup> Internet coverage and use by country, 2020.

these traders can then be contacted via mobile surveys. To reduce the burden of this preparedness exercise, consider starting with CBT-contracted traders where possible.

- COs should assess the potential risks and impact that the restrictions of movement of goods and people may have on international and national supply chains. A checklist of questions to be addressed to importers, distributors, wholesalers, and retail-chain operators was jointly developed by Supply Chain and the Research, Assessment and Monitoring divisions and is available [here](#).
- In countries where a price monitoring system exists, COs should make an effort to keep the global WFP [Dataviz](#) up-to-date, and consider implementing weekly price data collection where needed. In other countries, COs should consider establishing a price monitoring system following this [guidance](#).
- In countries where [statistical offices](#) and government partners are willing to share market information, we recommend to establish partnerships with these actors. Prices can be reported in Dataviz through the reporting system. HQ remains available to draft specific agreements for data sharing.

#### IV. Implementation phase

If the situation is deteriorating in your country and if your country falls under Category 1 or Category 2 in the WFP risk map (see [WFP Operational Plan: Global Response to COVID-19](#) on [OPweb](#)), you should strongly consider establishing remote monitoring capacities. Factors for consideration include confirmed or rapidly increasing number of COVID-19 cases; presence of underlying vulnerabilities, e.g. high food insecurity, weak health systems; coping capacity; exposure to a large number of flights to and from outbreak epicenters; close proximity to other countries with a high number of confirmed cases; high mobility, e.g. presence of migrants, IDPs and refugees who would be highly vulnerable in case of an outbreak; and WFP operations that would be heavily impacted in case of an outbreak.

A particular focus of the survey for COVID-19 should be placed on the monitoring of health and illness, access to health services, access to food and markets, and impacts on market prices and supply chains. General support to the monitoring systems across emergency clusters and/or sectors should also be considered. The survey should aim to answer the following key questions:

- *How has the situation changed as a result of the outbreak and the enforcement of the quarantine?*
- *Are people able to access basic services, including health services? Are people able to meet their food and other essential needs?*
- *Have markets and supply chains been disrupted, if so, how?*
- *What are the plans of the government and other partners for addressing the needs of the population under quarantine?*
- *What types of WFP assistance would be needed and is possible given the constraints? Is it possible to monitor this assistance effectively?*

To facilitate mVAM surveys, web surveys and market monitoring, we are promoting the adoption of a [meta-data template](#) where you are required to provide specifics such as contact information, data collection method, cleaning procedures, and means to release the data. The meta-data template is crucial to disseminate a complete and clear set of information.

**mVAM surveys** should include: (1) a household survey with questions on health and illness, access to health services, access to food and market, food consumption; and (2) a trader-based survey to understand and track COVID-19 related impacts on market prices, market access and supply chains. A [household questionnaire template](#) for COVID-19 has been developed to help COs select questions for their survey. A separate [trader-based questionnaire template](#) based on the mobile Market Functionality Index (mobile MFI) is also available.

**Web surveys** should include quantitative questions on demographics of respondents, markets, livelihoods, food security, health, access to services, needs, population movements, awareness and preventives measures related to COVID-19. Additional qualitative questions can be added to further capture the voices of the respondents with regards to their biggest concerns. A [master web questionnaire](#) has been developed to help COs select questions for their survey. Ideally, the same questionnaire should be used in subsequent rounds of surveys to establish trends over time.

**Market monitoring:** Market prices are collected through the regular price upload provided by COs through the reporting system. In addition, a reduced version of the Market Functionality Index (MFI) is included as part of the mVAM COVID-19 survey.

### a) mVAM systems

mVAM near real-time monitoring systems are recommended for the COVID-19 response as they provide continuous updates on a daily basis. The main advantage of this approach is that data is available more frequently – data is collected on a rolling basis and processed daily through automated statistical engines. Daily updates are then produced showing a snapshot of the current situation<sup>5</sup> over the past 15 or 30 calendar days. Here are the instructions for setting up mVAM near real-time monitoring systems:

#### Step 1: Contact the HQ team to express your interest in establishing an mVAM system and discuss the methodology for data collection

The methodology for data collection differs by survey type. There are two recommended surveys for mVAM in the context of COVID-19 : (1) a household survey that includes questions on health, access to health services, access to food and market, food consumption; and (2) a trader-based survey to monitor impacts on market prices, market access and supply chains.

	Survey 1: Household survey	Survey 2: Trader-based survey
<b>Questionnaire</b>	<p>Conduct a household survey to monitor households' health/illness, access to services, access to food and market, and food consumption. You can adapt the household questionnaire based on your country needs:</p> <ul style="list-style-type: none"> <li>• <b>Scenario 1:</b> If your CO does not have an existing mVAM near real-time monitoring system, conduct a household survey that includes modules on 1. food consumption score, 2. access to food and market, 3. Access to health services 4. health/illness.</li> <li>• <b>Scenario 2:</b> If your CO has an existing mVAM near real-time monitoring systems<sup>2</sup> add modules on</li> </ul>	<p>Conduct a trader-based survey (separate to the household survey) to monitor impacts on market prices, market access and supply chains.</p> <ul style="list-style-type: none"> <li>• The trader-based questionnaire should be based on the <b>mobile Market Functionality Index (MFI)</b> – see template below. This should be considered as the minimum set of question, which can be augmented based on additional information needs.</li> </ul>

<sup>5</sup> With a slight time lag of 2-4 days to ensure data quality.

	<p>health and illness, access to health services, access to food and market, food consumption to your existing questionnaire (note that there could be a slight increase in cost if the sample size needs to be increased). For the most affected administrative areas, consider conducting a follow-up stand-alone household survey with a more comprehensive questionnaire.</p> <ul style="list-style-type: none"> <li>• If <b>translation</b> is required, translate the questionnaire into local languages before providing it to the call center. If not, additional costs would be incurred for translation.</li> <li>• Click here to download the <a href="#">household questionnaire template</a></li> </ul>	<ul style="list-style-type: none"> <li>• If <b>translation</b> is required, the CO should translate the questionnaire into local languages before providing it to the call center. If not, additional costs would be incurred for translation.</li> <li>• Click here to download the <a href="#">trader-based questionnaire template (mobile Market Functionality Index)</a></li> </ul>
<p><b>Respondent selection</b></p>	<p>Determine the respondent selection approach based on the scenario that applies to your country.</p> <ul style="list-style-type: none"> <li>• <b>Scenario 1:</b> If your country office has a nationally representative database of phone numbers (e.g. collected through the latest face-to-face assessment), provide the phone numbers to the call center.</li> <li>• <b>Scenario 2:</b> If your country office does not have a nationally representative database of phone numbers, check with the call center if they have access to a sizeable and representative database of phone numbers.</li> <li>• <b>Scenario 3:</b> If none of the two scenarios above apply, random digit dialing (RDD) will be used to reach and recruit households. Each month new households will be contacted.</li> </ul>	<p>Determine the markets in which you would like to conduct the survey.</p> <ul style="list-style-type: none"> <li>• For countries with CBT programmes, the <b>retailers for WFP CBT programmes</b> should be included in the survey.</li> <li>• Ensure that your country office has access to or can collect <b>sufficient phone numbers from traders</b> to conduct the survey (it is recommended to collect at least 3 times the sample size per marketplace).</li> </ul>
<p><b>Sampling</b></p>	<p>Determine the sampling approach for your survey. Sample sizes can be adapted to specific country needs, based on your country context and available budget.</p> <ul style="list-style-type: none"> <li>• <b>Option 1:</b> 180 households per admin area per month<sup>6</sup> to provide estimates in a 15 to 30-day window, depending on the severity of the situation.</li> <li>• <b>Option 2:</b> National representative survey of 800 households to provide estimates in a 30-day window (or 400 households in a 15-day window), depending on the severity of the situation. If the situation intensifies, consider doubling the sample size within the same survey period.</li> </ul>	<p>Purposive sampling is normally the approach used in market assessments. While no prescriptive indication can be done in terms of sample size, it is recommended to call between <b>3 and 12 traders per marketplace</b>.</p>

<sup>6</sup> In line with Integrated Food Security Phase Classification (IPC) guidelines on the minimum sample size for mobile surveys.

### **Step 3: Prepare a scope of work**

A scope of work is a guiding document that defines the protocol and methodologies for the call center to carry out mobile surveys. It should contain sections such as country context/background, objective, methodology for respondent selection, indicators to be collected, sample size/sample frame, languages, respondents and quotas, geographic scope, timeline for data collection, and call center and survey management. The recommend period for COVID-19 mVAM surveys is **at least 3 months**.

Click here to download a [sample scope of work for Iran](#) which can be adapted for your CO.

### **Step 4: Obtain a quote and create a Purchase Order (PO) for the service**

Send the scope of work to the call center and request a Proforma Invoice that covers the estimated budget for your survey. Send the Proforma Invoice to your admin or procurement unit to create a PO.

### **Step 5: Train call center operators and conduct pre-test**

Once the PO is created, contact the call center to organize a training for call center operations. The training should be provided by WFP COs and should take place over a two-day period. It should cover key topics such as project background & goals (including operator job aid in a Q&A format for potential questions from the respondent), indicators to be collected, questionnaire review and mock interviews. A representative from the call center will cover data entry and management software-related topics such as call center protocols – including ethics and best protocols, data entry and data management software and quality control. Please contact the HQ team for coordinating the training materials (see contact details in Section V).

Following the training, request the call center to conduct pre-test calls and share the pre-test data with your CO and HQ. Pre-test calls are meant to test the feasibility of data collection, assess data quality and determine if any adjustments need to be made to the questionnaire.

### **Step 6: Start data collection and monitor progress**

If you are satisfied with the pre-test results, notify the call center to commence data collection. Data quality checks should be conducted regularly to ensure that the call center follows the approaches and methodologies established in the scope of work.

Data is processed through automated statistical engines and is accessible daily. COs with strong Tableau capacities can produce dashboards to visualize the data. For other COs who are interested in data visualization, please contact the HQ team (see contact details in Section V).

## **b) Web surveys**

Web-surveys offer a rapid, effective and cost-efficient solution to collecting quantitative and qualitative information from affected populations. Data collected is accessible in near-real time for analysis through RIWI's proprietary dashboard. This methodology can be used to collect baseline information and monitor trends overtime. The key deliverables will be short baseline/monitoring reports, and where possible include a combination of mobile phone and web survey data for a more complete picture of the situation. These reports can serve as advocacy tools for fundraising and other purposes. An example of such an advocacy tool can be accessed [here](#).

## Step 1: Contact the HQ team to express interest in conducting web surveys

The HQ team can help assess your information needs and advise on the feasibility of web surveys in your country depending on internet usage and connectivity. Generally, it is advisable to conduct web-surveys in countries where internet coverage reaches at least 20 percent of the population ([Annex II](#)). See contact information below.

## Step 2: Questionnaire development and sampling design

### *Questionnaire and target population(s)*

A [master web questionnaire](#) has been developed to help your CO create a survey tailored to your information needs and context. Typically, the survey allows for 25 close-ended questions and 1 or 2 open-ended questions. The HQ team will remain available to help you design your questionnaire. Should your CO require information from different target groups (e.g. migrants and residents), questionnaires can include specific skip logics. Furthermore, it is recommended that the CO translate its questionnaire in the local language(s) of the country. RIWI can also provide this survey at an additional cost.

### *Sampling*

The sample size should be adapted to specific country needs, context and available budget. Two options are recommended:

- **Option 1 – National representation:** For surveys representative at national level, the minimum required sample size is of 1,000 respondents which are spread proportionally across all admin zones to ensure representation of all geographic areas and demographic groups (see [Annex III](#) for costing)
- **Option 2 – Administrative-level representation:** For surveys representative at administrative one level, the minimum requires sample size is of 120 by administrative zone (see [Annex III](#) for costing). In reality, the actual sample sizes will be much higher as the system continues to run until all regions have at least 120 surveys completed. During the analysis a sample weight will be established to mitigate potential bias created by sex and age distributions and generate representative results at national level.

## Step 3: Prepare a budget and scope of work (SoW)

The questionnaire length, target group(s), sample (and translation if needed) will determine the budget and SoW. With the support of WFP HQ, the CO should write up a SoW including the project scope, geo-targeting requirements, survey specifications, field dates, deliverables and project scope according to pricing. The finalized questionnaire should be sent together with the SoW to RIWI with WFP HQ team in copy. RIWI will provide feedback according to data goals and help optimize questions to fit the RIWI platform across all browsers, device types and screens.

See here an example of [SoW for web surveys in Iran](#).

## Step 4: Obtain a quote and create a Purchase Order (PO) for the service

Once the SoW, budget and questionnaire have been agreed upon with RIWI, the CO will proceed to create a PO for the service. You must send a copy of the SoW to your administrative assistant, including in the

email the purpose of the service, the budget code, the start date of payment as well as the procurement process number (HQ16NF291 – LTA – 3).

### **Step 5: Survey deployment, data collection and monitoring**

Upon reception of the procurement contract, RIWI will proceed to program the survey and send the CO an initial link to review. It is crucial to review and test the link carefully, and report back small edits on wording and skip logic. At this stage, the content of questionnaire should not change (only very minimal changes will be accepted by RIWI).

Once the link has been successfully tested, surveys will be launched in relevant geographies and continue to collect data until all sample requirements are met. RIWI will communicate with the CO if it finds difficulties in meeting sample requirements. Should this be the case, the CO will be billed only for completed questionnaires in the agreed areas. Alternative solutions may also be identified on a case-to-case basis.

RIWI will deliver the data to COs in its proprietary dashboard through which data files in SPSS and Excel can be downloaded. It will be critical to monitor data collection through the dashboard in the first 48 hours of the launch. Should there be significant respondent drop-off rates linked to certain questions, these can be removed or slightly modified to help increase retention rates. Continue to monitor data collection until sample requirements are fully met.

### **Step 6: Data analysis and reporting**

Once data collection is complete, you will be notified by RIWI that surveys have been stopped. Data analysis is usually done based on an analysis plan. Across all countries, weighting systems are generally introduced to mitigate potential technology biases. Upon request, the HQ team can offer light support for weighting systems and analysis. The team will remain available to review final reports and assist in dissemination (if relevant).

To help track changes and establish trends over time, it is recommended to conduct 2–3 rounds of web-surveys within a 3–5-month period.

## **c) Market monitoring**

Collection of market price data provides key information for programme implementation and household vulnerability monitoring. The outbreak of pandemics can affect the supply chain, leading to volatility in availability and price of commodities. A rigorous and continued effort is required to understand market development. All COs are required to submit regularly and timely all market price data available through the reporting system ([reporting.vam.wfp.org](http://reporting.vam.wfp.org)). Supply chain, school feeding, and CBT colleagues are constantly looking into the information provided by such data.

A network of regional focal points is available to support the exercise. A standard template for the collection of price data with XLS based data collection tools (ONA-MoDa-Kobo-ODK) is available ([template link](#)).

## V. Contacts

For more information, please contact:

**mVAM systems** (managed by the Hunger Monitoring Unit)

Jonathan Rivers: [jonathan.rivers@wfp.org](mailto:jonathan.rivers@wfp.org)

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