



Transitioning to CATI: Checklists and Resources

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J-PAL South Asia

March 2020

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INTRODUCTION

Computer Assisted Telephone Interviewing (CATI) is an interviewing mode in which an electronic device (computer/tablet/mobile) displays questions on its screen, the interviewer reads them to a respondent over a phone call, and enters the respondent’s answers directly into the electronic device.

CATI typically involves setting up of call centers from where enumerators/interviewers make phone calls to respondents. Keeping in mind the current advisories on managing the spread of COVID 19, it is not advisable to set up such call centers and instead, researchers will have to explore the feasibility of one-person call centers – a setup where enumerators/interviewers are working from home to conduct telephonic interviews with respondents.

The work from home (WFH) based CATI, here on referred to as WFH-CATI, presents several challenges and this guide attempts to present some suggestions and best practices to help address these. These have been put together based on experiences of completed and ongoing J-PAL South Asia projects, J-PAL’s research protocols and best practices, and publicly available resources on CATI.

Data collection activities can be sorted into three types based on the nature of changes that researchers need to undertake. The types and the anticipated changes within each are summarized in the table below. The first step is to carefully assess which type your data collection activities fall under.

Project Type	Changes due to COVID 19
Type 1: Data collection that cannot move from in-person interviews to telephone interviews	<ul style="list-style-type: none">• Suspension of all field activities that will require human contact
Type 2: Data collection that was ongoing through telephone interviews (or was already planned, with IRB approvals in place)	<ul style="list-style-type: none">• Suspension of all field activities that will require human contact• Suspension of CATI based in a central location (call center)• Shifting from CATI to WFH-CATI<ul style="list-style-type: none">○ Revise and update: instruments, survey implementation protocols, survey monitoring protocols, consent forms, and data security protocols○ Submit amendments to IRBs and seek approval for the above changes○ Retrain all staff
Type 3: Data collection that can transition from in-person interviewing to telephone interviews	<ul style="list-style-type: none">• Suspension of all field activities that will require human contact• Shifting from in-person interviews to WFH-CATI<ul style="list-style-type: none">○ Change consent protocol (from written to verbal)○ Revise and update: instruments, survey implementation protocols, survey monitoring protocols, consent forms, and data security protocols○ Submit amendments to IRBs and seek approval for the above changes○ Retrain all staff

Note to user: The rest of the document provides some guidance for data collection activities that fall under types 2 and 3, with a stronger focus on type 3. Please note that this document attempts to provide a checklist of things that you will need to put in place as you plan WFH-CATI. While we have attempted to make this as exhaustive as possible, you will have to go beyond this to meet the specific requirements on your projects.

SURVEY IMPLEMENTATION

A *best practices guide* for WFH-CAPI from an ongoing J-PAL South Asia project can be found in the appendix for reference.

CHANGES TO THE INSTRUMENT

- Carefully evaluate which questions or sections of your instrument cannot be implemented remotely (sections involving physical activities, visual verification, anthropometrics, GPS coordinates etc.)
- Assess the language in all your questions to ensure it adapts well to a telephone interview
- Revise the flow of questions and sections as needed, if changes are made based on the points above
- Revise instructions to enumerators on your instrument to adapt to a telephonic interview setup (including simple instructions like “I am calling from J-PAL...” instead of saying “I have come from J-PAL...”)
- As needed, update survey status sections at the beginning and end of your instruments to capture information on call status (“Phone not answered”, “Incorrect number”, “Call disconnected midway” etc.)
- Pilot your updated instruments thoroughly and budget enough time for this

SURVEY IMPLEMENTATION PROTOCOL

- Reassess and update your protocols for finding and identifying the right respondents
 - E.g. A household may only have one phone and you’ll need to make sure you are talking to the right person within the household
- Identify all the risks associated with interviewing a wrong respondent and create an action plan to address such situations (including reporting to IRBs); always reach out to your PIs in such cases
- Create protocols for how many times a respondent should be approached – how many call attempts should be made to find and interview the respondent (more on this in sections below)
- Go over the respondent privacy protocols that you have put in place (e.g. if your survey required respondent to be alone at the time of interview) and see how these need to be revised for CATI – any changes or any new risks identified should be approved by the IRBs.

- Identify the difficult-to-administer questions in your instrument and assess if additional instructions need to be given to enumerators (e.g. rating questions involving Likert scales)
- If your survey involved participant compensation, assess how this will be delivered remotely (e.g. if respondents were originally given cash as compensation, what payment modality can you use now?)
- Create a calling protocol ([example](#)) that guides enumerators on the steps involved (what to do when there is no answer, or if the phone number is incorrect etc.)

CONSENT

- If your survey involved obtaining a written consent, write to the IRBs seeking approvals to change this to a verbal one
- Update the language in your consent based on the changes in instrument and implementation protocol

SURVEY SETUP: SOFTWARE & HARDWARE

- As you transition from in-person interviews to CATI, you will need to consider your technology options that fall within your budget constraints:
 - Digital version of your forms – these are most likely already on SurveyCTO, if not, you have to digitize them using a similar platform
 - Laptops or Tablets with internet and audio headsets with mics for your enumerators – the choice between devices and the number of devices depends on the scale and complexity of your operations
 - Consider the availability of these devices in your area and time it will take for you to procure/rent and set up
- For the actual calls:
 - SurveyCTO is in the process of integrating phone communication into forms and providing case-management examples to facilitate CATI. Please reach out to SurveyCTO directly to get more information
 - Provide SIM cards for tablets or phones from which calls will be made (enumerators should not end up having to use their personal numbers for interviews)
 - You can explore other data collection platforms or software that allow in-app calling – be cognizant of the cost, time to customize and set up, and time to train yourself and your team

SURVEY SETUP: TEAM (RE)STRUCTURE

- As you pilot your revised instruments, take a close look at survey duration and update your productivity assumptions and survey timeline – this will guide the size of the team you need
- Hire enumerators or restructure your existing teams based on the revised assumptions and the survey monitoring plan

- Take into account that the transition from in-person interviews to CATI can be tricky. A primer on what to look out for when hiring or training enumerators for CATI can be found in the best practices guide in the appendix.

TRAINING YOUR TEAM

- While you update your survey instruments, remember to update survey manuals and staff training manuals
- Create scripts, FAQs, and pre-call and post-call checklists for your enumerators and use these in training (details in the best practices guide; sample training manual also linked in the guide)
- Train all your staff on the revised instruments, protocols, and any new devices and software

Training of enumerators and other staff will have to be done remotely, keeping in mind the social distancing advisory. This is a crucial point to address when planning your transition to CATI from in-person interviews. Video conferencing through Zoom, Google Hangouts, Skype etc. needs to be assessed as an option.

SURVEY MONITORING

SURVEY TRACKING

- Update your survey assignment (to enumerators) plan and survey assignment sheets to account for new team structures
- Update enumerator tracking sheets to capture information on call attempts and call status
- As you pilot your instruments, create an exhaustive list of reasons why a call could be unsuccessful and add these to the tracking sheet (should be part of your calling protocol document as well). [Example](#) of this is added in the appendix.
- Design the workflow for how, and at what frequency, assignment and tracking information will flow between you and your enumerators

If you are considering using a cloud based platform for live tracking or assignments, carefully assess the data security features and also take into account internet connectivity issues. Tracking or assignments data that has PII should always be encrypted.

DATA QUALITY ASSURANCE

A good starting point to think about monitoring surveys and data quality is to review your current monitoring plans and see how these can be adapted to a WFH-CATI scenario. Inability to conduct in-person supervision, spot checks, and accompaniments can become a hindrance in ensuring adherence to protocols and in data quality assurance. A few

monitoring measures that can be instituted are highlighted here but you should explore all options available to you for your context.

One big challenge with WFH-CATI will be the diminished ability to ensure quiet spaces for making phone calls. This can be ensured in an office based setup but will be tricky to enforce when enumerators work from home. This could also create undue burden on the enumerators if quiet spots are not easily available to them at their homes. Please be considerate and discuss this early into your planning with all your staff.

- Design a data flow document that also provides protocols for how and when data needs to be securely transferred on a day-to-day basis
 - How frequently, at what times, and how enumerators are expected to upload data, tracking information and any other data they are collecting from their homes
- Track enumerator productivity through tracking data and survey data [HFCs]
 - Projects in the past have also asked enumerators to submit completion reports over a phone call or through an SMS/WhatsApp text at the end of the work day. This helps in cases where access to data might be delayed.
- Ensure right respondents are surveyed using tracking data, assignments and survey data [HFCs]
 - Set the frequency for this beforehand; try to run high frequency checks everyday
- Make sure to track attrition rates and call success rates right from day 1 of surveying (some [resources](#) on dealing with attrition are provided in the end)

Back checks

- Devise a back check strategy that involves some of your senior or experienced field staff calling a random subset (10% or above) of your respondents to administer a back check survey
- Audio back checks:
 - IRB approvals are must for audio recordings. If you plan to include these, take into account the time it will take to receive IRB approvals
 - Consider using the audio audits functionality in SurveyCTO – detailed information is available [here](#). Note that audio audits will only record conversations once the enumerator starts filling the SurveyCTO form
 - You can also consider using other recording applications to record entire calls. An example of this can be found in the best practices guide
 - Create a plan for how audio back check data will be used: who will listen to the recordings, how frequently, how will they access these securely etc.

Audio recordings: Keep in mind that the size of audio recording files can be quite large and will add to the time it takes to upload or download data in SurveyCTO. This is a critical point to account for when designing your data flow, especially in areas where internet connectivity is not reliable.

DATA SECURITY

Updates to data security protocols need to be reported to the IRBs.

- Ensure that all devices used for data collection are password protected
- Ensure that your SurveyCTO forms have encryption enabled
- Create an asset handling and security manual for your enumerators that is easy to understand and implement
- If you are doing audio recordings outside SurveyCTO, ensure that the storage and transfer of these recordings is encrypted
 - This also means having to train your enumerators on your encryption method, and folder management.

RESOURCES

Attrition management

- Berk Ozler & P. Facundo Cuevas (November 21, 2019). *Reducing Attrition in Phone Surveys*, retrieved from <https://blogs.worldbank.org/impac evaluations/reducing-attrition-phone-surveys>
- David McKenzie (September 23, 2012). *Help for attrition is just a phone call away – a new bounding approach to help deal with non-response*, retrieved from <https://blogs.worldbank.org/impac evaluations/help-for-attrition-is-just-a-phone-call-away-a-new-bounding-approach-to-help-deal-with-non-response>

Other resources

- Hoogeveen et al. (June 2012). *Collecting High Frequency Panel Data in Africa Using Mobile Phone Interviews*, retrieved from <http://documents.worldbank.org/curated/en/146361468008771877/pdf/WPS6097.pdf>
- Dabalen, Andrew, Alvin Etang, Johannes Hoogeveen, Elvis Mushi, Youdi Schipper, and Johannes von Engelhardt. 2016. *Mobile Phone Panel Surveys in Developing Countries: A Practical Guide for Microdata Collection*. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-1-4648-0904-0, retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/24595/9781464809040.pdf>

APPENDIX A

BEST PRACTICES: ADMINISTERING PHONE SURVEYS WITH REMOTE MONITORING

Resource created on: 18th March, 2020

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Note to the reader

Please feel free to reach out to any of the team members for more details on protocols and challenges. Ambika and Mustufa are both RAs on the Interventions to Improve Child Utilization of Government Health Insurance project in Rajasthan. The best practices are based on their experience of administering phone surveys with remote monitoring for a pilot study to understand why health insurance utilization among girl children is low in order to design targeted interventions.

1. Hiring surveyors: Things to look out for

- **Familiarity with the local dialect:** It is very important that the surveyors are versed to understand multiple dialects spoken in the demographic region to be able to instill confidence within the respondent.
- **Ability to navigate unexpected questions:** Since phone surveys require surveyors to ease the respondent into trusting the validity of the research purpose, organization, and questions, it is important that the surveyors are able to answer any potential questions from the respondent (or their family's) side.
- **Clarity of diction and voice:** to be able to maintain a steady conversation through the duration of the survey.
- **Familiarity/understanding with handling tablets independently:** Remote surveys would require surveyors to record call attempts and subsequently upload recordings to a Dropbox/Google Drive, hence it's important that they have a basic understanding of navigating these applications on a tablet.
- **Rapport building:** to be able to ease the respondent into answering sensitive questions, particularly given questions are being asked over the phone

2. Training surveyors:

A brief training manual can be accessed [here](#). Sections 4 and 8 would be particularly relevant.

3. Things to keep in mind

a. Before the survey

- **Reference script for surveyors:** Develop a script that can act as a reference point for the surveyors for introducing themselves and answering any potential questions from the respondents. Emphasize that they are not to deviate from the content of the script while answering any questions, thereby ensuring that the surveyors do not communicate anything beyond the scope of the document.
- **Informing the difference between initial introduction and consent:** In order to not overwhelm the respondent (who might not be aware that they are being approached for the study), it's important to prepare a very simple initial introduction followed by the detailed consent.

- **Communicating the importance of reading consent verbatim:** Reiterate throughout the training that it is crucial that consent is read out as it is.
- **Pre-call checklist:** To demonstrate and communicate that their tablets, apps, and SCTO should be ready before the call is initiated to the respondent.
- **Conveying data quality and monitoring protocols instituted:** It helps greatly if the surveyors are aware of the fact that checks have been put in place to monitor them remotely. Demonstrating how one plans to do it also reinforces the strict nature of the monitoring mechanism.
- **Practice:** Surveyors would need to hold the respondents' attention while operating SCTO, recording apps, and dialer, hence the more they practice, the better. The more familiar they are with the consent and introduction, the higher the chances of increasing the participation rate in the survey.
 - Projects should budget for headsets so surveyors can operate the tablets and take additional notes while on the call. In addition to headsets, surveyors should be asked to procure a separate sim that can be inserted into the tablet and used for calling.

b. During the survey

Calling protocols for surveyors available [here](#).

- **Train them to identify the correct respondent:** Based on the project's directive, the surveyors might need to conduct the survey with a specific person in the household. That person might/might not be the one answering the call. Explain the importance of conducting the survey with the target respondent and at the same time provide them with strategies to reach the designated member of the household.
- **Dealing with distractions/diversions during the call:** Phone surveys do not give the luxury of ensuring that the respondent's attention isn't diverted due to their immediate surroundings. Train surveyors to manage such situations.
- **Choosing the right answer:** During phone surveys, at times, the respondent may consult other members present around them. Train and establish a protocol for surveyors to be able to identify the respondent's final answer.
- **Protocol if the respondent hands over the phone to someone else mid-survey:** This happens more often than we'd like it to (especially if the survey is taking too long or the respondent feels they might not know the correct answer to questions being asked). Instituting a project-specific protocol in place and training the surveyors accordingly might help in maintaining the survey completion rate as well.

c. After the survey:

- **Post-call checklist:** The surveyors were asked to check that there were no pending forms (except for later appointments) or recordings from a particular day and all call attempts had been duly recorded by doing a quick check against their tracking sheets.

4. Best practices/ strategies for monitoring surveyors working remotely

Document laying out data monitoring protocols and guidelines is available [here](#).

- **Monitoring call status and attempts**
 - Status of call recordings and SCTO forms uploaded every day

- Matching of the total number of recordings per surveyor with the total number of forms uploaded (assuming each call recording corresponds to a new form)
- Time variation between multiple call attempts made to the same number (to ensure surveyors are not just finishing call attempts for a particular number in a narrow time frame)
- Monitoring successful calls for survey quality, administration of questions and consent, probes and language use.
- Monitoring of unsuccessful calls for call status (to ensure valid and unreachable numbers are attempted again).
- 15% back checks by listening to the call recording/ conducting a back check survey.

- **Use of audio recording app**

You will need to ensure that your consent form explicitly indicates to the respondents that the conversation would be recorded. You would also need to explicitly indicate to the IRB that surveys would be recorded for quality assurance and monitoring purposes. Audio recordings will be made using software on the surveyor's phone. Once used for quality checks, the recordings will not be stored or used as a source of data for the research.

- The project used a recording app called [Automatic Call Recorder \(ACR\)](#). All tablets were equipped with the app.
- Surveyors were trained to open the app at the beginning of each day to ensure that the app was enabled and working. The importance of this step was reiterated and they were told that any survey attempt without a corresponding recording would not be counted. At the end of each day, they would select all recordings for a given day and upload them on google drive. The files would then be moved from drive to the project's Dropbox folder which the research team had access to.
 - The RAs would map recordings to survey forms using the start time on the SCTO form and call time on the uploaded recording.

- **Phone check-ins with surveyors**

- Daily check-ins with a subset of surveyors depending on their recent productivity, data quality and hours worked to make them well aware that they were being closely monitored. This would ensure that the surveyors can independently convey their doubts and queries to their supervisor/RA and problems can be rectified.

- **Tracking surveyor productivity and survey completion**

Incorporated within the HFC do-files using the different call statuses and survey completion checks through the following parameters:

- Call status acquired by
 - Adding a question following the call was made and before consent was acquired from the intended respondent.
 - By instilling willingness to continue questions at the start of every section in cases of incomplete surveys,
- Confirming the identity of the respondent that was surveyed to that of the participant that was supposed to be surveyed using means such as name, gender, relation to head of the household etc.
- Mapping the frequency of various reasons provided for the absence of the intended study participant or willing respondent to identify any recurring patterns.

- The number of surveys completed daily - The expectation was maintained at 5 surveys/day for a survey with an average duration of 30 minutes. The actual productivity was about 4 surveys on average.
 - Number of phone calls made/HHs reached daily - This provided us with the total attempts being made during the day, which served to
 - Provide us with the conversion rate of calls made to surveys completed
 - Validate the efforts made by surveyors
 - Tracking call timings on survey SCTO to monitor working hours of each surveyor
- **In-person weekly debrief sessions**
 - Through the course of data collection, weekly in-person debrief sessions were platforms for a speedy resolution of errors and also acted as an opportunity for the entire field team to meet each other and discuss their specific experiences/difficulties. The sessions were generally divided into the following parts:
 - **Doubt resolution:** The RAs would inquire and understand if surveyors were facing any challenges and explain steps to resolve them. The surveyors could also discuss and learn from each other's survey tactics.
 - **Error resolution:** The RAs would discuss common mistakes and strategies to address them.
 - **Form and batch management:** Debrief sessions were also used to assign additional lists of respondents to surveyors as well as go over updated survey forms, in case of changes to the previous version.
 - **Strategies for productivity and time management:** Ways to increase surveyor productivity were discussed. Surveyors also initiated discussions to learn from each other.
 - In the absence of in-person sessions, projects will need to consider smaller team sizes and debrief sessions via WhatsApp video/google hangouts.

APPENDIX B

Sample Tracking Sheets for Phone Surveys

Enumerator ID: _____

Respondent ID	Name	Phone number	Date	Time	Call Attempt Number	Call Status	If status [01], next appointment	Comments

Call Status Codes

01: Answered by respondent but asked to call back
 02: Answered by someone but respondent not available
 03: Answered by someone who doesn't know respondent
 04: No one answered the phone
 05: Number not working
 97: Other

Enumerator ID	Respondent ID	Phone number	Date1	Time1	Attempt Number	Status	Comments

Status codes

Not connected (out of network, switched off, etc.)
 Connected, but hung up before intro
 Connected, but hung up after intro
 Connected, but refused after intro
 Connected, but language or preference issue

APPENDIX C

CALLING PROTOCOL SAMPLE (TRUNCATED)

Starting Survey

1. Find Respondent ID to be called on Tracking Sheet
2. Surveyor start new e-survey form
 - Select own name
 - Enter Respondent ID from drop down list
 - Verify Respondent name and ID in tablet against tracking sheet.
3. Call the printed phone number on Tracking Sheet
4. If phone answered, introduce self and asks for patient

Sr. No	Status	Steps		
		On SurveyCTO	On Tracking Sheet	For Next Call
1	No child under 6 years in HH	Select corresponding option in call status question. Go to end of the survey, finalise and send the form at the end of the day.	Enter call status in the corresponding call attempt column.	Do not call again
2	Refused survey	//	//	Do not call again
3	Answered; Start survey	Select corresponding option in call status question. Proceed with completing the remainder of the survey.	//	Do not call again
4	Answered; call later on same number	Select corresponding option in call status question. Go to end of the survey, finalise and send the form at the end of the day	Enter call status and enter call-back appointment time.	Call back at the time of appointment provided, and start new survey form.
5				
6				

Daily Survey Submission

At the end of each day, all forms should be sent to the server automatically. Please check the 'Send Finalized Form' tab at the end of each day to ensure that no forms are left on the tablet.