

How to cost an immunization campaign?

METHODOLOGICAL GUIDANCE

**Practical tips on data
collection and reporting
for immunization
campaign costing studies**

September 2021

ABOUT ICAN

This guide has been developed by the Immunization Costing Action Network (ICAN), which was implemented by ThinkWell with support from the Bill & Melinda Gates Foundation (BMGF). ICAN was a research and learning network working to increase the visibility, availability, understanding, and use of immunization delivery cost information. ICAN built country capacity to generate cost evidence that is policy-relevant and a priority for the immunization program. ICAN also worked with countries to improve interpretation and translation of cost evidence so that it is used in country decision-making processes and informs routine planning and budgeting. ICAN believed that when equipped with relevant and user-friendly cost evidence, immunization managers, program planners, and policymakers will be empowered in fundraising and advocacy efforts and will make better resource allocation decisions, improving the efficiency and equity of immunization programs, including campaigns.

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AUTHORS

Laura Boonstoppel, ThinkWell
Christina Banks, ThinkWell
Flavia Moi, ThinkWell
Kelsey Vaughan, ThinkWell
Annette Ozaltin, ThinkWell
Logan Brenzel, Bill & Melinda Gates Foundation

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Introduction

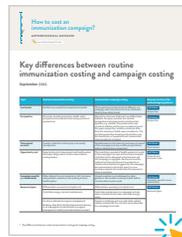
PURPOSE OF THIS GUIDE

This is a supplement to a guide that specifies methods for the costing of immunization campaign costing studies. While the main guide discusses the design, scope and methods used for campaign costing studies, this supplement addresses the practicalities of implementing such a study. This guide provides practical advice on forming a study team, the timeline for a campaign costing study, tips for training data collectors and piloting data collection tools, how to best organize data collection and data cleaning activities, and tips to prepare data for further analysis. Just like the main methods guide, this guide was reviewed by and incorporates inputs from an advisory group with a wide range of practical expertise in costing and conducting campaigns (see Acknowledgements). The audience for this guide includes principle investigators and field researchers, including data collectors and data collection supervisors. The guide discusses campaign costing studies specifically, but many practical tips are relevant for all immunization costing studies.

This guide should be used in conjunction with other related campaign costing materials:



1
How to cost an immunization campaign? Methodological guidance



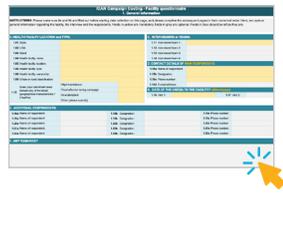
2
Key differences between routine and campaign costing (one-pager)



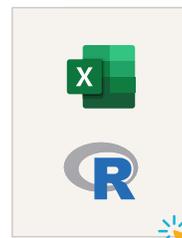
3
Practical tips on data collection and reporting for immunization campaign costing studies



4
Frequently asked questions about campaign costing



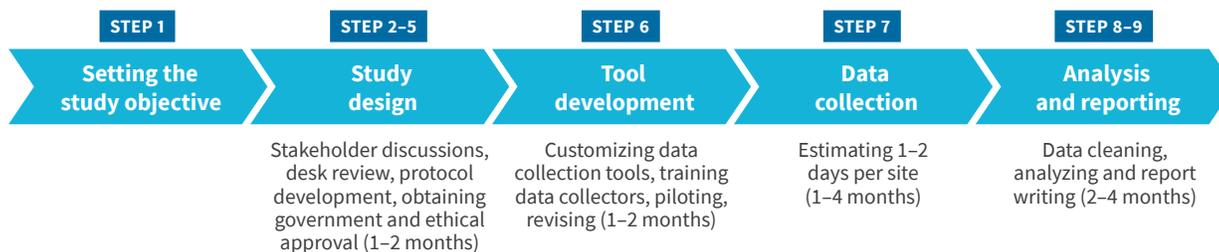
5
Data collection and analysis tools for campaign costing studies and a user manual



6
Practical examples in Excel and STATA/R: annualizing capital costs, calculating unit costs, and calibration

Planning a campaign costing study

FIGURE 1 Illustrative timeline for a campaign costing study



WHAT DOES THE TYPICAL TIMELINE LOOK LIKE?

The entire process of conducting a full campaign costing study can take on average 5-12 months to complete, depending on the size of the study and how it is organized. Each study should kick off by framing the study objective together with key stakeholders in country. Following this, a thorough review of all available campaign documentation and stakeholder discussions is necessary to obtain a good understanding of how the campaign will be or has been delivered. This is essential for the shaping of the scope and methodology of the study, and to help with the customization of the data collection tools. The research protocol and data collection tools should be submitted for ethical approval. Next, a data collection team should be recruited, trained, and involved in extensive pilot testing of the data collection tools. Data collection will take about 1.5 day per site on average, depending on the scope and length of the questionnaire and the completeness of records. Depending on the size and availability of the data collection team, the need for translation of data collection materials, and travel time, data collection can take anywhere from three weeks to four months for a sample of 30 to 50 facilities, followed by an analysis and write-up phase of around two months. Finally, time should be allocated to the dissemination of results. Figure 1 shows an illustrative timeline for each of the steps. In reality, several of these steps may be particularly prone to delays (Box 1 presents some examples).

HOW MUCH DOES IT COST TO CONDUCT A CAMPAIGN COSTING STUDY?

The budget for a study that estimates the cost of an immunization campaign mostly depends on the size of the sample. Primary data collection, review and analysis are the biggest drivers of the cost for a campaign costing study. Data collection for immunization costing studies conducted as part of EPIC and ICAN, for which typically between 37-82 different sites were visited, costed between US\$500-1,300 per visited site. This excludes data analysis, and remote technical assistance. The sites included all administrative levels visited from national down to the districts and facilities that were visited for the study. In some studies, outreach posts and schools were included as well. Data collection costs can be reduced in various ways:

- Engaging ministry of health staff to conduct data collection reduces data collector fees while building capacity and increasing government ownership over the study.
- Particularly in large countries or countries with difficult terrain, sampling sites close to the capital city or to where the data collectors are located (although we do not generally recommend purposive sampling) can considerably reduce travel costs.
- Investing generously in extensive training and pilot testing will also reduce the time of data collection visits and the need for future follow up, and thus reduce costs.
- Typically, the larger the sample, the lower the cost per site visited.
- When in-person data collection is not feasible and network quality is sufficient, some interviews can also be conducted over the phone, which would reduce data collection costs. However, this also has its limitations as it requires a solid briefing ahead of time on the precise types of information that would be needed to respond to certain questions.

BOX 1 Tips to avoid potential study delays

- Ethical approval processes can take several months and some countries have lengthy government approval processes as well. Sometimes submitting rough data collection tool examples, rather than fully vetted and finalized materials is sufficient, and for multi-country studies, IRB approval from an international body can be accepted in lieu of individual country IRB approvals.
- Obtaining a complete dataset on campaign sites and characteristics for sampling purposes can be challenging in countries where data is weak. Scope out available data early on and adjust your sampling criteria using the data that can reasonably be obtained.
- Ensure data collectors are fully available over a short period of time. For a campaign costing study conducted in Sierra Leone, data collectors had full-time government jobs, which meant that facility visits had to be spaced out over a long period of time.
- Facility level data collection can be delayed further due to natural disasters, flooding or disease outbreaks (e.g. Ebola, COVID-19). Take this into account when planning data collection timelines or even in your sampling criteria.
- Data collection can sometimes be held up due to internal government approval processes. Ensure a champion in the government that understands the procedures and can help ensure cooperation at all data collection sites.
- Data cleaning and following up on clarifications can take a considerable amount of time. Regular supervision during data collection can help reduce the need for follow up afterwards.
- Evidently, the larger the sample, the longer the study. Consider the research objective carefully to determine how big a sample is sufficient for your purpose.

ASSEMBLING A TEAM

The study team should consist of a mix of health economists to lead scoping and data analysis and enumerators to collect and clean data, and include health financing or policy experts from the government. Enumerators and supervisors need to be well-trained on the data collection tools, and they should participate in the pilot testing of questionnaires in order to familiarize themselves with data collection challenges that may come up. Assume 1.5 days of data collection at each site, and estimate one supervisor for every two teams to ensure they have a manageable workload. Data collectors can travel in pairs of two so that they can exchange the task of recording and asking questions, and split up at larger facilities and district offices. In addition to the data collection phase, allocate adequate time for training, pilot testing (often underbudgeted), several rounds of data review, cleaning and follow-up, and the dissemination of results in-country.

Customizing data collection tools

CUSTOMIZE THE DATA COLLECTION TOOLS

To collect primary data from campaign sites and planning levels, questionnaires should be developed to use for interviewing campaign implementers. ICAN has developed standard data collection tools, which can be adapted to country- and vaccine-specific settings. The package consists of questionnaires for facilities, districts and national level stakeholders, and an Excel tool that combines the data from the questionnaires into one for analysis. The data collection tools start with a sheet that allows you to customize the questionnaire to the country where the study takes place, the health system's specific characteristics and terminology, and the specific interventions that were a part of the campaign under study. The accompanying user manual guides the researcher through these different steps. The tools are all unlocked and set up in the simplest way possible, so that modifications can easily be made in case the options presented are inadequate for a particular context or study.

TYPES OF DATA COLLECTION TOOLS

The tool accompanying this methodological guidance is Excel-based, as an evaluation of various data collection methods indicated this as the most researcher- and data collector-friendly method. Primary data can be collected on paper or digitally using laptops or tablets, and for the development of this guide, all three methods have been tested. Tablet-based questionnaires were more time-consuming to develop, harder to adapt for a researcher without training on the specific platform, and more challenging to trouble shoot in the field in case tablets froze or data was lost. Paper-based data collection had the disadvantage that checks on the completion and format of the data would all have to be performed manually, and still requires data entry into Excel afterwards. Therefore, the tool accompanying this methodological guidance is Excel-based. Most researchers and data collectors are familiar with the software, it required the least amount of training while still providing the benefit of helping data collectors and researchers to double check the data entered into the tool. If desirable, the Excel file could be completed on a tablet as well, and as a backup in case of emergencies (e.g. low battery on a laptop) a hard copy print out of the tool's sheets can still be carried along.

DEVELOP A DATA ANALYSIS PLAN

Once the data collection tools are finalized, a data analysis plan should be developed. In the data analysis plan, you will specify exactly how you will analyse the data that will be collected. This is to ensure that you have not overlooked any specific data required for the analysis but that are not currently captured in the tool. It should capture how each resource type (line item) for each activity will be estimated, including how shared costs will be allocated, how the unit costs for each facility and each level will be estimated, how these will be aggregated, and how the data will be extrapolated beyond the sample. The data collection plan should be cross-checked against the study purpose and intended outcomes to ensure coherence.

Training and pilot testing

OBTAIN ALL NECESSARY APPROVALS

Before the start of data collection, make sure you have all necessary ethical and government approvals in place. In some countries, obtaining ethical approval can be fairly quick, with a processing time of around two weeks, but in other countries this process can take up to several months. Therefore, sending off the research protocol and the questionnaires early on is recommended. Obtaining all necessary government approvals (both nationally and at subnational level) before starting data collection is crucial too, and subnational levels included in the sample should be notified of the study before the data collection teams arrive. Data collectors should also carry the permission letters with them while out in the field, as otherwise they might be refused at health facilities, and health workers might not want to be interviewed.

TRAIN DATA COLLECTORS

Depending on their level of experience and the complexity of the data collection tools, spend at least two days on training the data collectors. All data collectors should be trained, even if some are very experienced and they collect data in teams, as it is important to have a common understanding of the interpretation of the questions. The data collector training should have appropriate time for exercises, role play and question and answers sessions. Example exercises can be found with the user manual of the data collection tool. If data collection needs to be delayed for a given reason, a short refresher training before the start of data collection may be helpful.



BOX 2 Training and re-training of data collectors in Nigeria

The data collector training for the Yellow Fever campaign costing study in three Nigerian states was held virtually in March 2020 over two days, with an additional two days of pilot testing and one more day of final debrief. However, due to the COVID-19 pandemic and the ensuing lockdowns, parts of the campaign and the study's data collection were delayed. As data collection eventually started seven months after the initial training in the first state, over a year after in the other two states, two half-day refresher virtual training was held before each data collection session.

Source: Costing study of the yellow fever campaign in three Nigerian states (ongoing)

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PILOT TESTING

Allow for at least 1 day of pilot testing at each level from which data will be collected. Pilot testing will ensure that the questionnaires make sense for each given audience and at each level. This is often rushed and underbudgeted, but extremely important. If geographic areas are considered sufficiently different, pilot testing should be conducted in each of these areas. This might be the case in countries with a high degree of decentralization where campaign operations might have significantly differed in each region, or if, for example, areas have different levels of capacity and record keeping standards. In case of doubts regarding the tool, a mini-pilot can be conducted to ensure the questionnaires have been properly contextualized to their setting, and finalized before conducting the larger pilot. The pilot testing sites should ideally be outside of the sample, but closely reflect the sites that are a part of the sample. However, if the campaign was small enough to be able to include all sites as part of the sample, then this may not be possible. In that case, if tools are revised after data collection at the first site, data collectors should check whether all relevant data for the revised template has also been collected from the first site, and if not, follow up on this.

The main pilot should include all data collectors, if possible, or at a minimum all team supervisors with time for a debrief and followed by review of data collected. Annex B contains a checklist with things to look out for during the piloting of the data collection tools. Following the pilot, a debrief should be organized to agree on changes to the questionnaires, and a mini analysis should be conducted to ensure that the data collected yields the expected results. If a lot of changes to the tools are needed, an additional pilot may be needed, or additional supervision and checks following the start of the first few days of data collection. Also cross-check the revised data collection tools against the data analysis plan to ensure these are still aligned or update accordingly.

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DATA COLLECTION PROCESS

Data collection should start at the highest administrative level, followed by intermediate administrative levels, and end at facilities. Courtesy visits at the administrative level above facilities are often required before starting data collection at facilities to ensure participation from the staff at the facilities that are part of the sample. Starting at higher administrative levels also helps to set the scene of the activities conducted at each level, and allows data collectors to collect information on the facilities in the sample that may not be available at the facilities themselves, as facilities often do not keep a copy of records that they share with higher administrative levels. This is specifically relevant for stock level information, the number of vaccinated persons, equipment and supply details, utility costs, and vehicle data. The supervising administrative level can also validate the sample, and flag any facilities that have wrongfully been included, e.g., in the case of a facility that has not participated in the campaign at all. For more on replacement strategies, see the Methodological guide. However, if the data collection process is expected to take up to several months and economic costs are being collected, then facility level data collection can be prioritized to minimize recall bias.

Data collectors should follow a checklist on what steps to undertake before, during and after each visit. Annex A includes an example of a step-by-step process checklist, including what not to forget, what to bring along and what to pay attention to. When data are missing, detailed notes should be taken on why, and a strategy needs to be in place for following up on that data. Data collectors should be encouraged to complete missing data wherever possible, for example, through a quick visit the following day to meet a respondent who was not present during the initial visit, or a phone call to a district-level supervisor. However, there is a trade-off between the value add of certain information and the time spent on gathering this information. Most of the data allocation rules will be applied after data has been collected, but in cases where allocation rules already need to be utilized in the field in order to capture costs in the right format of the questionnaire, it can be beneficial to add a 'quick reference sheet' to the data collectors' package that converts e.g. number of hours spent on a given day to percentages of a workday.



BOX 3 Virtual data collection in Sierra Leone and Nigeria

Due to the COVID-19 pandemic and resulting lockdowns, elements of data collection for the costing studies Nigeria and Sierra Leone had to be conducted virtually. In Sierra Leone, data was collected through email correspondence for some national level agencies and partners in Sierra Leone. Compared to in-person data collection, it was harder to get a quick response and completed questionnaire and in some cases, it led to misinterpretations of questions and thus a need for additional follow up and review. In Nigeria, virtual and phone interviews with government agencies and development partners were conducted during federal level data collection. This allowed for stronger supervision of data collectors as members of the study team could join virtual interviews. However, some key informants reported a preference for in-person interviews as those allow for easier sharing of supporting documentation.

Source: Immunization Costing Action Network (ICAN). 2021. Estimating the Cost of the integrated Measles-Rubella Campaign in Sierra Leone. Washington, DC: ThinkWell.

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DATA CLEANING

Ongoing data cleaning is required, should start right away, and not be underestimated in terms of time and resources. The time required for data review and cleaning depends on the capacity and level of experience of the data collectors, the quality and availability of data at the sites from which data has been collected, and the complexity of the data collection instruments. At a minimum allow for two rounds of review. We also recommend to pause after a first dataset has been collected, review this in detail together with the data collection team (ensure at least two reviewers per dataset), clarify any issues and misunderstandings, and make additional changes to the data collection tools, if necessary. The data collection tool already includes a lot of checks for internal consistency of the data for one specific site, but to ensure consistency in the type of data entered across facilities and across data collection teams, a cross-site comparison should be conducted as well. Annex C includes a list of things to look out for. Throughout the remainder of the data collection period, ensure that the quality of the data is checked continuously, rather than in bulk at the end of the exercise. That facilitates asking follow up questions while the team is still in the area, and ironing out misunderstandings in how certain pieces of information are captured. Data collectors usually work long days during this period and fatigue is a real problem. Data cleaning at the end of the day will usually not be feasible, and it may be better to either build in dedicated time for this as part of the data collection process, or to dedicate a specific person to the cleaning of collected data (e.g. on a rotating basis) while the rest of the team continues to collect data from the next site.

DATA COMPILING AND CROSS-SITE CHECKS

The campaign data collection tool automatically calculates the total and unit cost of each site , and allows for easy compilation of data across sites. The tool allocates the cost to each campaign activity and line item, specifies which costs are part of the incremental or full cost of the campaign, and whether they are financial or economic cost, according to the rules outlined in the Methodological guide. Compiling data across sites will allow the user to run a number of checks and cross-site comparisons to spot outliers (e.g. much higher transport cost at one site in a given district) and missing data (e.g. no training per diem received at a given facility). Wherever possible, such irregularities should be cross-checked with the facility itself with a phone call. Certain pieces of missing information can be imputed from other facilities. For example, if the facility knew each staff received a per diem but could not provide the amount, the daily amount will likely have been the same as for other facilities. Unit costs for certain supplies will likely also have been similar across facilities. The methodological guidance includes examples of missing data strategies and pre-analysis checks to perform. Once all data is cleaned and compiled into a single database, data analysis can start (see Methods guide).

Reporting results

COMPREHENSIVE REPORTING

Reporting results is an important step in any costing study. While there are no campaign-specific reporting issues to consider, this issue has been poorly addressed in previous immunization costing guidance. A full campaign costing study report may be requested by a donor, or a manuscript may be submitted to a peer-reviewed journal to help build the international evidence base and inform other researchers. However, reports often are not comprehensive on the data, assumptions and methods used in the study. Researchers should follow **ICAN's reporting checklist** for immunization costing studies to ensure comprehensiveness. The checklist includes a number of campaign-specific considerations.

TARGETED MESSAGING

Targeted messaging should be used to report results to specific stakeholders, including the study's target audience.

The target audience for your results is likely explicitly or implicitly mentioned in the study purpose. For example, a study whose purpose is to better understand the differences in cost drivers between urban districts as compared to hard-to-reach areas is probably seeking to help the EPI manager better allocate funding for a next campaign. For an incremental costing study aiming to identify the funding required for a campaign in addition to what is provided by the routine system, the audience is likely donors.

Study results should be packaged for a specific audience, in a format suitable for that audience, and simple, clear definitive takeaway points are important. For some country-level stakeholders, this may mean a two-page summary, ten-slide PowerPoint presentation or five-minute video as opposed to a lengthy report. Regardless of the audience, however, most users are going to be less interested in the methods than the implication of the results for their budget or planning, so this preference should be reflected in your reporting.

FROM EVIDENCE TO POLICY

While outside the scope of this guidance document, researchers should consider strategies and techniques to help increase the uptake of evidence. The Evidence to Policy and Practice (EPP) facilitated process developed as part of the ICAN project represents a journey that countries and their development partners can embark on to increase the likelihood that health policymakers will use cost evidence. The process led to increased recognition of the importance of generating and using cost evidence in all ICAN countries.

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Pilot testing and data collection process

PILOT TESTING

Things to look out for:

- What questions were misunderstood by the respondent that should be rephrased?
- Any costs that staff mentioned for which there is no field to capture it in the tool?
- Health worker cadres: are those the ones that participated in the campaign?
- Do the metrics make sense: currency, kms/miles, litres, etc.?
- Do the number of fields available make sense e.g. for the number of staff at the facility, the number of vehicles you had to record, etc.

BEFORE ARRIVAL AT THE FACILITY

- Finalise schedule for the week: what office or facility will be visited when
- Call ahead:
 - Provide a brief introduction of the project
 - Indicate what information will be collected and who will be required
 - Indicate how long you'll expect to take
 - Confirm visit with facilities, arrival time, and that relevant staff will be present
 - Ask for a short meeting at the start of the day with the facility manager, before speaking to other staff
 - Ask for an interview room, if possible
 - Is there any information they can collect before you arrive?
- Print: introduction sheet, checklist, and questionnaires (in case the laptop fails), hard copies of approval letters
- What else to bring: laptop with reasonable battery life, notebook and pen, list of important names and numbers, mobile with full charge

UPON YOUR ARRIVAL AT THE FACILITY

- Introduce the data collection team to facility in-charge and provide a short briefing
- Establish if all the staff that are required are available: have a plan B in place if certain staff aren't available
- Set up a schedule for the day: determine whether the interview will be held in a group with everyone at the same time or whether you will sequence it
- Request a short de-brief at the end of the day.

DURING YOUR VISIT

- Health workers should sign consent forms, see ahead of the start of an interview, see Annex B – Example consent form for an example
- Start and complete the interview process and collect the required data
- Keep detailed notes of possible errors and missing data
- Taking pictures of equipment and reporting documents can be helpful, but avoid taking pictures of staff due to confidentiality considerations
- Where data is not available, detailed and specific notes must be made as to why. E.g. instead of “data not available” write “utility costs were paid by Mr XYZ at NGO, tel xxxxxxxx”
- Split up the data collection team if necessary to make sure all parts of the questionnaire are covered and combine responses and source documents
- Attend a short de-brief and report back to the facility in-charge and double check any dubious responses
- Develop a clear plan for getting missing information: follow-up visit, phone calls, emails, etc.
- When in doubt, call your supervisor

AFTER THE VISIT

- Back up your data on a cloud or an external hard drive/USB stick if there is no internet access
- Keep hardcopy notes in a safe place
- Assign responsibility for following up on any missing information and by when
- Report back to the team supervisor and highlight any major issues or areas for improvement and learning
- Review the data for inconsistencies, missing data, etc. as much as possible while the team is still in the geographic area as it eases follow up
- Try and address gaps as soon as possible
- Send reviewed data off to the supervisor as soon as possible

Annex B

Example consent form

TITLE OF STUDY

Estimating the Cost of the integrated Measles-Rubella Campaign in Sierra Leone

PRINCIPAL INVESTIGATOR

Name
Job title
Organization
Address
Contact number
Email address

DISTRICT REPRESENTATIVE

Name of district Focal Point

INTRODUCTION

My name is _____. I am a consultant working on the Estimating the Cost of the integrated Measles-Rubella (MR) Campaign in Sierra Leone study, funded by the Bill & Melinda Gates Foundation (BMGF).

I am going to give you information and invite you to be a part of this activity. Before you decide, you can talk with anyone you feel comfortable with about whether to participate. As I go through this information sheet with you, there may be words or ideas with which you are not familiar. Please interrupt me at any time and ask questions. If you have questions later, you can ask them of myself or another researcher involved in this study.

PURPOSE

What it costs for a country to implement an immunization campaign is an area in need of more research. A deeper understanding of what elements constitute the main cost drivers of a campaign and also how costs and cost drivers vary by delivery strategy, geographical area and age group can potentially help facilitate future budgeting and planning. The purpose of the study is to retrospectively estimate the full cost of the implementation of the MR catch-up campaign in Sierra Leone using a mixed methods approach, combining financial expenditures and bottom-up micro-costing (or ingredients-based). In other words, we want to identify and add up the costs for all campaign related activities.

PROCEDURE

To help us learn more about the costs involved in implementing the MR campaign, we are inviting you to participate in a survey for health workers as we feel that your experience can contribute a great deal to our understanding of the campaign.

If you accept, you will be asked a series of questions related to the MR campaign, including about time spent on different campaign activities, equipment and vehicles used by your facility to carry out the campaign, trainings, and social mobilization activities.

You will not be asked any personal or sensitive questions or share any knowledge that you are not comfortable sharing. We anticipate that this survey will take up between 1-2 hours of your time.

Your participation may be terminated by the investigator without regard to your consent if you appear to be suffering any physical, emotional or psychological distress.

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BENEFITS

There will be no direct benefit to you from participating in this activity, but your participation is likely to help us find out more about the costs of the implementation of the MR campaign. You will not be provided any incentive to take part in this interview.

RISKS

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate, there will be no penalty or loss of benefits to which you would be otherwise entitled. If you decide to participate, you may change your mind at any time and withdraw with no negative consequences. Due to the detailed level of data collection we are aiming for, it may be possible that you are engaged in this activity for longer than an hour. However, we are conscious that you have other duties and responsibilities and will endeavor to minimize the amount of time required as we will have pre-filled information where possible and will ensure that the questions asked of you are relevant to your experience and involvement in the campaign. The risks associated with participating in this activity are therefore deemed minimal.

PRIVACY AND CONFIDENTIALITY

This activity being done at the facility may draw attention and if you participate you may be asked questions by other staff at the facility. We will not share information about you to anyone outside of the team undertaking this activity. The information that we collect will be kept private. Any information about you will have a number on it instead of your name. A name and phone number may be taken in case of the need for later data clarification, but these will not be entered into any database.

STUDY APPROVAL

This proposal has been reviewed and approved by the Office of the Sierra Leone Ethics and Scientific Review Committee, which is a committee whose task it is to make sure that research participants are protected from harm. You have the right to contact this committee at any time if you have any issues or questions regarding the study, or if you have sustained a research-related injury.

If you wish to find out more about the ethics committee, contact [Name/phone number]

Office of the Sierra Leone Ethics and Scientific Review Committee
Ministry of Health and Sanitation
Directorate of Policy, Planning & Information (DPPI)
Youyi Building, Fifth Floor, East Wing

You can ask me any more questions about any part of the research study, if you wish to. Do you have any questions?

CONSENT AND SIGNATURE

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked, have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of participant

Signature of participant

Date (DD/MM/YY)

STATEMENT BY THE PERSON TAKING CONSENT/DATA COLLECTOR

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1. A survey will be conducted on topics specified in the information sheet.
2. The views expressed by the participant will be confidential and will be used as specified in the information sheet.

I confirm that the participant was given an opportunity to ask questions about the activity, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Print Name of person taking consent

Print Name of Witness

Signature of person taking consent

Signature of Witness

Date (DD/MM/YY)

Date (DD/MM/YY)

Facility code

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Respondent code

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Annex C

Example data cleaning checklist

- Check whether fields that should logically be filled out are completed. E.g. a campaign using an injectable vaccine would for sure have utilized syringes, and so if such a field is empty, this should be flagged to data collectors as soon as possible, while they are still out in the field to follow up. If the data is unavailable, use can be estimated based on the number of vaccine doses administered.
- Wherever this is not already done automatically by the questionnaire, ensure that data is stored as a number where this is required. For example, the salary grade should read '6' as opposed to 'GL 06' for the costing tool to work correctly. Similarly, percentages should be listed using decimals, i.e. 0.00 format and the % sign should not have been included as text.
- Check for consistency between answers, to extent that the tool does not already do this automatically, e.g.:
 - Comparing the targeted population to the number of doses delivered.
 - Check for consistency across levels, e.g. campaign start and end dates compared to other facilities in the area and to higher level administrative levels.
 - If a facility indicated to have conducted certain activities (e.g. a mop-up), make sure time is recorded for such activities.
 - If the facility indicates to have used cold chain present at the facility during the campaign, check that equipment details for refrigerators and a power source have been provided.
- Incentives paid to community members (as opposed to health workers) can be classified under 'other recurrent costs'.
- Check the coverage achieved (e.g. we can see coverage above 100% if we know target population data was weak, but if it is as high as in the realm of 200% then that is something to flag)
- Check that a salary grade or salary amount is provided for each member of staff.
- Unpaid staff will often be campaign-specific, while health workers on the government's or facility's payroll will usually regularly be deployed outside of the campaign, and are thus a shared cost. If there are other combinations provided in the questionnaire, try to get an understanding of the role of this staff/cadre.
- Check that the hours worked per day are not unreasonably high
- Check that the activities for which hours are recorded make sense depending on the time point, e.g. we would expect hours for record keeping to be recorded after the campaign
- Per diems are a big cost item so check that data has been provided. If blank, check with the data collectors to determine if the missing data is due to per diems not being received, or the respondent being unable to provide information. Ask for any estimate which is possible, e.g. how much did an average person receive, how many of the campaign staff received per diems, in order to try and calculate

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