

Survey Design for quantitative data collection

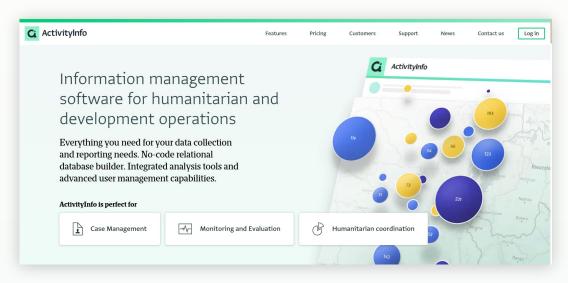
**Starting shortly, Please wait!** 



# Presented by the ActivityInfo Team

All in one information management software for humanitarian and development operations

- Track activities, outcomes
- Beneficiary management
- Surveys
- Work offline/online



# **The Webinar Series**





# Outline

01 The decision

**02** Questionnaire development

**03** Ethical considerations

04 Q/A session

# The decision

# Why do we implement surveys?



# **Key principles**

Implement user-centred design

Include "need-to-know" information

Collect reliable information

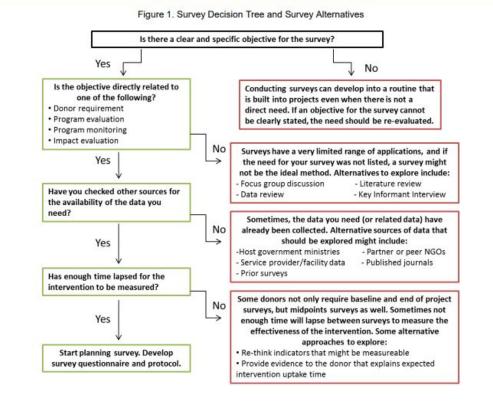
Adhere to ethical standards

Transform data into knowledge

# When to perform a survey?

#### A survey questionnaire should:

- Have a clear objective
- Only collect data that cannot be found elsewhere
- Measure outcomes that have a reasonable chance of changing between baseline and the final survey.





# Questionnaire development

# Standards for questionnaire development

Need to know information



				PMP				
OBJECTIVES STATEMENTS	INDI(ATORS	DATA (OLLECTION			MEANS OF ANALYSIS		VSE oF	
		METHOD	FREQUEN(Y	PERSON RESPONSIBLE	RESPONDENTS	TYPE OF ANALYSIS	(OMPARISON GROUPS	INFORMATION
STRATEGI( OBJECTIVE I								
STRATEGI( oBJE(TIVE 2								
INTERMEDIATE RESULT 1.1								
INTERMEDIATE RESULT 2.1								
ονΤ <b>?</b> νΤ 1.1.1								
ονΤΡνΤ 1-1-2								
KEY ASSUMPTION	VS							
ASSUMPTION I								
ASSUMPTION 2								



- ☐ ToC, Results Framework, MEAL plan
- Data analysis plan

Research question	Survey question(s)
How did attendees rate the event overall?	1. Overall, how satisfied were you with the conference? 2. How useful was this conference compared to other conferences you have attended?
What parts/aspects of the conference did attendees like the best?  What parts/aspects of the conference need to be improved?	3. How would you rate the difficulty of the workshop?  4. Overall, do you think the conference provided too much, too little, or about the right amount of networking?  5. In general, how would you rate the food at the conference?  6. Do you feel the temperature in the conference building was too hot, too

# Standards for questionnaire development

#### Quantitative questions



Question Type	Example				
	Question	Response Example			
Numerical	1. "How long have you been displaced?"	# of Months, or I don't know.			
Two-option response	"Are there handwashing facilities at the latrine?"  If no, skip Question 3 below.	☐ Yes ☐ No			
Multiple choice	3. "Which handwashing resources are currently available at the latrine?"	Water and soap Water only Soap Neither water or soap Other I don't know			
Rating scale or Likert scale	Indicate the extent to which you agree with this statement: "My household has enough water to meet our household consumption needs"	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree			

- ☐ Closed ended or numerical questions
- ☐ State the units used in each question

**Field Testing** 



- ☐ Gain additional insights prior to data collection
- Core to localization
- Core to usefulness



# **Step-to- Step approach**

**Identify Objectives** 



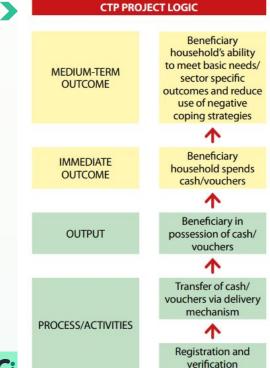
Design questionnaire



- 1. Align survey question to survey objectives
- 2. Review feasibility of the questionnaire
- 3. Review data analysis plan
- 4. Review questionnaire: structure and format
- Translate
- 6. Use ICT4D technology for data collection
- 7. Field test
- 8. Incorporate feedback
- 9. Train enumerators



# Writing content: modules



#### Content includes:

- Areas expected to change (i.e levels of theory of change) different modules
- Information that field teams need complementary to MEAL plan and core the project operations (i.e. safeguarding, feedback complaint and response mechanism)
- Questionnaire length (1Hr for an adult and less than 45 min for children depending on age)

Element	OBJECTIVE STATEMENT	Indicator	Definition	Way of calculation
Objective	participants meet their household's basic needs	% of household who report using at one negative coping strategy the past 4 weeks	negative coping strategies: sold households items, begging, engaged in risky activities for money, borrowed/took loan, withdrew a children from school, bought items on credit	Numerator: report using at one negative coping strategy the past 4 weeks  Denominator: Total number of respondents
		% of households who report being able to meet their basic needs, according to their priorities	Basic needs: food, hygiene items, clothing or shoes, health costs, transportation	Numerator: number of respondents reporting that their household can meet "all" or "most" of its needs Denominator: the total number of respondents
Intermediate results	participants consider the assistance relevant and efficient	% of beneficiaries reporting being satisfied with the provided assistance		Numerator: number of respondents reporting very satisfied or fairly satisfied Denominator: Total number of respondents

# Writing content: modules



#### **Example of modules**

- Participants Meet basic needs
  - Reducing coping strategies (<u>guidance</u>)
  - Ability to cover basic needs (<u>guidance</u>)
- Satisfaction with Cash Assistance
- Feedback complaint and response mechanism



# Writing content: actual questions

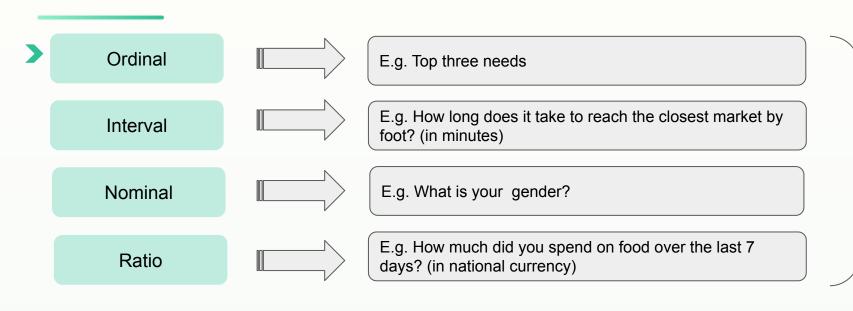
#### **Reduced Coping Strategy Index**

- Determine question type
- Validation: Constraints? Skip logic?
- Number questions
- Review questions order within the module

Code	Question	Answer	constraint
csi_note	**In the past 7 days, if there have been times when you did not have enough food or money to buy food, how many days has your household had to:**		
csi_1	Rely on less preferred and less expensive foods?		. <= 7 and . >= 0
csi_2	Borrow food, or rely on help from a friend or relative?		. <= 7 and . >= 0
csi_3	Limit portion size at mealtimes?		. <= 7 and . >= 0
csi_4	Restrict consumption by adults in order for small children to eat?		. <= 7 and . >= 0
csi_5	Reduce the number of meals eaten in a day?		. <= 7 and . >= 0



# **Determining question type**



Categorical
Multiple choice
Ranking
Itemised rating (i.e. Likert)
Quantity



# Writing content: actual questions

- Write short, precise and clear questions limit to a single piece of information
   Was the doctor you saw yesterday professional and helpful?
  - 1) Was the doctor you saw yesterday professional?
  - 2) Was the doctor you saw yesterday helpful?
  - Use neutral and non bias way of writing
     Change: Why don't your children go more often to school?
     Into: What are the reasons that the school-aged children in this household are not able to regularly attend school?
  - Avoid questions that can lead to heated answer and limit amount of difficulty questions. Carefully ask sensitive questions
     In your village, have you seen an increase in children working during school hours since the earthquake
  - Ask only question that the respondent has knowledge to respond to.
  - Ensure that questions are culturally appropriate, use appropriate language, facilitate recall.

    In general, last year's harvest of rice was very good because there was a lot of rain. How would you compare your current harvest to last year's?



## Writing content: Extra Tips

#### Identify questions

- Refer to previous questionnaire and international guidance (<u>USAID</u>/ <u>Indikit</u>/ OCHA/ UNHCR/sector specific site e.g <u>Shelter cluster</u>)
- Multiple select or single select can be created based on existing qualitative exercises, feedback staff

#### Single select options

Mutually and Jointly exclusive options

#### **Avoid missing answers:**

- Specify an "other" option
- Specify how enumerators should record missing quantitative data ( -999)
- Specify a "Do not wish to answer" option
- Specify a "Do not know" option

#### Coding answers

Question	Response	Code
Is the student	Yes	1
in secondary	No	0
school now?	No response	888
	Don't know	999

# **Common problems and solutions**

Initial: Which percentage of your average monthly income, did you spend on Hygiene product?

Issue: Unlikely that the respondents would be able to provide the answer

Proposed:

What was your income during the past month (in X currency)?

What was the amount that you spent on hygiene products during last month? (in X currency)



# Common problems and solutions

Initial: How far do you live from the cash distribution site?

Issue: lack of specificity: time? Kilometers?

**Proposed**: How much time does it take you to reach the nearest distribution site?

Initial: To which extent are you satisfied with CBI assistance?

Issue: use of abbreviations

**Proposed**: To which extent are satisfied with the cash assistance provided?



# How to format the questionnaire?



#### **Organize**

- Groups questions within modules, order question within modules and order modules
- Start and finish with non-sensitive questions
- Sensitive later in the interview
- Important question early enough

#### Start with unique identifier

Best practice	Example
Start every questionnaire with a chapeau	A1. GPS code:
	A2. Enumerator code:
	A3. District:

#### Include clear introduction



START INTERVIEW: Good afternoon. I am part of an assessment team which is visiting X locations in country X to collect information on the current situation following the earthquake. This survey has been endorsed by the Disaster Management Authority. I would like to invite you to tell us about the situation in your village/community. The survey should take about 50 minutes to complete. There will not be any compensation for participation and we cannot guarantee that additional support will be provided to your community following this interview. However, your perspective is essential in improving our understanding of what the population currently needs. We value your opinion and there are no wrong answers to the questions we will be asking in the interview. Your participation in the survey is voluntary, your responses will be kept confidential. Once the survey is finalised we will send the assessment findings to your office.

R1 Would you like to participate? Yes/No.

# How to format the questionnaire?

#### Write instructions to enumerators

- Specify the consent that the enumerators should read
- Specify the enumerator should record the responses: single or multiple select?
- Specify whether the enumerator should read the responses
   e.g. "now I will read a series of statements and ask you to tell me whether the statement is true, not true, or sometimes true
- Specify additional instructions that the enumerators should provide to the respondent



# How to format the questionnaire?

 Use and table format that includes: Instructions, Question code, Question, possible answers, answer codes and skip or constraints patterns

	numerator: Read the following question espondent gives.	n out loud to the respondent. (	Circle the
<b>Question Code</b>	Question	Coded responses	Skip
A.17	Is attending student in secondary school now?	Yes1 No0	To A.20

- Use consistent formatting choices across
- Leave space for observations



# **Data quality**

- Skip logic: specifies whether a question is relevant
  - 1. Are you aware of any complaint or feedback mechanisms where you could submit a concern if you needed to? Yes/No
  - 2. What feedback mechanisms do you know? (if 1=Yes)

	Enumerator: Read the following que the respondent gives.	estion out loud to the respo	ondent. Circle
<b>Question Code</b>	Question	Coded responses	Skip
A.17	Is attending student in secondary school now?	Yes1 No0	To A.20

Constraints: expected value for given questions
In the past 7 days, if there have been times when you did not have enough food or money to buy food, how many days has your household had to: → expected 0 to 7



# **Ethical Considerations**

### **Ethical considerations**

#### Do Not harm

- The benefits/knowledge to be gained must outweigh risks
- The benefits/knowledge to be gained must outweigh risks

#### Consent

- Purpose of data collection
- Duration
- How data will be used
- Where and for how long the data will be stored
- Rights of affected population

#### Asking sensitive questions

- Rephrase questions
  - "Do you gamble?" simply assume people do, and ask, "How many times have you gambled in the past (specific time period)?" Be sure to provide a none /zero option.
- Make sensitive questions optional



# Key messages



# □ The first draft should be validated against objective □ Consider how you formulate the questions, how you structure and then how you can improve the data quality □ Are the expected answers associated with my objective? □ Can be understood in the same way by different users? □ Are precise and clear? Can lead to biased responses? □ Have I included a unique ID? Consent? □ Have I placed the sensitive questions properly? □ Have I reduced the possibility of missing values? □ Have I mitigated the risk of data entry errors?



## Resources



- M&E MINIMUM STANDARDS
- IRC Research Toolkit: Questionnaire Design and Development
- Quantitative data collection tools
- <u>Indikit</u>
- Questionnaire Design: How to design a questionnaire for needs assessments in humanitarian emergencies
- Monitoring 4 CTP
- <u>USAID</u>



# Questions?

## Follow us:

LinkedIn page: <a href="https://www.linkedin.com/showcase/activityinfo/">https://www.linkedin.com/showcase/activityinfo/</a>

LinkedIn group: <a href="https://www.linkedin.com/groups/5098257/">https://www.linkedin.com/groups/5098257/</a>

Twitter: <a href="https://twitter.com/activityinfo">https://twitter.com/activityinfo</a>

