

# CATAPULT DESIGN WORKSHOP SERIES

## WORKSHOP

### RAPID COMMUNITY HEALTH ASSESSMENT

In many impoverished regions, individual and community health are directly impacted by the unsatisfactory conditions in which people live. Chronic diseases and acute injuries related to environmental, cultural, behavioral, economic, and political factors frequently recur across entire communities. Identifying current health problems in a community, evaluating probable contributing and mitigating factors, and collecting qualitative accounts are critical activities that enable a field team to provide valuable information. Through observing the lives of community members and conducting interviews with individuals and health organizations a general understanding of community health trends, challenges, and opportunities is developed. This information will prove instrumental in any product initiative intended to impact health.



**AUTHOR** Tyler is the COO and co-founder of Catapult Design. Before launching Catapult, he worked as a project manager for Plant Construction building multi-million dollar commercial buildings in downtown San Francisco and as a mechanical engineer for Chevron. In 2007, after two years spent working and exploring in Latin America, he began volunteering with Engineers Without Borders as part of a team focused on designing technologies for impoverished communities. That work became all-consuming and in late 2008 Catapult Design was born.

The majority of our world's population lacks access to life's basic needs. We develop and implement human-centered products to help them thrive.

[www.catapultdesign.org](http://www.catapultdesign.org)



## WORKSHOP

# RAPID COMMUNITY HEALTH ASSESSMENT

For this workshop, you will need supporting documents.  
USAID TIPS Rapid Appraisal Methods [download [here](#)]  
WHO RHR Assessment [download [here](#)]  
Health Information Pyramid [see attached]  
EWB Monitoring and Evaluation Survey [see attached]

### Introduction

What's the purpose?

What are we hoping to learn?

How will this information be used?

### What is a Rapid Health Appraisal?<sup>1</sup>

Rapid Health Appraisals (often called Rapid Rural Appraisals, though they need not be rural in focus) are “quick and dirty” broad-level assessments. Rapid appraisal methods seek to gain community perspectives of local health and social needs and to translate these findings into action. Such methods have been designed to draw inferences, conclusions, hypotheses, or assessments in a limited period of time, often at the cost of statistical accuracy, and are thus relevant to health service research.

Data are collected generally from three main sources: (see WHO RHR page 68 for details):

1. Interviews with a range of local informants
2. Existing written records about the village/ neighborhood
3. Observations made in the village/ neighborhood and in the homes of the interviewees.

Using information from these sources an information “pyramid” can be assembled describing the village/ neighborhood’s problems and priorities. The scientific rigor and the validity of this approach depend on triangulation. Data collected from one source are validated or rejected by checking with data from at least two other sources or methods of collection. Informants are not selected randomly but “purposefully” that is, asking a range of people who are in the best position to understand the issues.

We may be called upon to perform one of the three following types of assessments:

1. **Tabula Rasa:** evaluate the general health of a community. In this case we should directly involve a public health expert or epidemiologist to design or even manage the assessment program.

2. **Disease Specific Evaluation:** evaluate the health of a community with regard to a specific disease or health issue. In this case, consult a public health expert to help select the indicators and data collection methods.

3. **Technology Specific Evaluation:** evaluate how the general health of a community might be affected by the introduction of a technology or product. In this case, indicators and data collection methods will be organized around the benefits of a particular product. An epidemiologist should be consulted to help select the indicators.

Review: USAID TIPS: Rapid Appraisal Methods [read on your own]

### Best Practices <sup>2</sup>

- Your client should provide a starting point for any health assessment prior to beginning work.
- Field Teams should work with a limited list of objectives, or data collection guidelines, tailored to the program evaluation goals. This permits focused work, which can be carried out relatively quickly.
- Guidelines should be like shopping lists rather than questionnaires. Phrasing is deliberately brief to encourage the development of local wording. These guidelines cover topics such as availability, use, and personal opinions of both traditional and western biomedical health resources, definitions of disease and illness, common illnesses and their treatment, as well as personal experience with disease and injury.
- Get verbal consent, name, age, and village from all participants. Log date and time.
- A diverse range of informants is needed (gender, age, occupation, social status, and socio-economic standing)
- Compare notes among team after each interview or at end of day.
- Use cultural interpreters whose roles extend beyond translation to also acting as cultural brokers and advocates to help minimize the risk that the community will only be appraised through a “western cultural filter”. For example, Tanzania - EWB doesn’t give the survey themselves. They train a teacher from outside the community to conduct the survey (usually speak good English and Swahili). They translate the survey and then deliver it the same way every time. This removes bias from the survey.
- Conducting interviews in homes is usually more effective than in other, less “safe” locations.

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RAPID COMMUNITY HEALTH ASSESSMENT

- Consult experts on any specific health issues prior to determining your indicators.
- Don't have too many indicators; this can overburden your team.
- Use the Health Information Pyramid to direct and organize your research. TIP: record information from different source types on different color post-its and arrange on the pyramid, then you can see how balanced your information is.
- Beware of confounders. A confounder is something that you don't ask about that can make the data point to something that's incorrect (e.g. carrying matches is a cause of cancer). This is particularly a problem if you're trying to deduce causal inference and test a hypothesis.
- Triangulate: interviews, focus group discussions, observations, and document review.
- Ask your participants what the major health problems are and ask them to rank the problems with regard to severity. Upon review, ask yourselves these questions:
  - What were the major problems?
  - Who told you about these problems?
  - Did your observations confirm these problems?
  - Do the documents suggest that these are problems?

## Planning

Review: WHO RHR [pages 65, 66, 69, 70, 71] [read on your own]

## Sequence of Events 3

1. Determine and document what you want to learn about the community.
  - Review available sources of information; decide what information is already known and what is needed.
  - Consult health professional (develop Assessment Advisory Committee)
  - Determine indicators to assess. Indicators should follow these guidelines:
    - Relevant to project goals
    - Important and understandable to community members
    - Readily measurable or having existing data available
    - Valid - truly measure what you want to measure
    - Reliable - consistently measure the same thing
    - Calculable without complicated statistical

- analysis
- Worded positively where possible (e.g. number of children with a healthy body weight, rather than the number of overweight children)

2. Define the primary users and target audience for the assessment results.
3. Clarify the purpose and uses of the assessment.
4. Determine the geographic area and target populations.
5. Create a data collection plan.
  - Decide how to obtain the information
  - Draw up a plan of action: estimate the cost and time frame
6. Collect primary and secondary data.
  - Identify and train the assessment team
  - Collect the information
7. Evaluate data quality and validity.
8. Analyze data.
9. Report.
  - Review the findings; identify needs, possible interventions, and resources.
  - Provide feedback on the outcome of the assessment to all stakeholders involved in it.

## Data Collection Options

Review USAID Rapid Appraisal Methods and WHO RHR pg 68. Below are the different methods for collecting data (see USAID Rapid Appraisal Methods page 4 for pros/cons): 4

**Informal interviewing:** Open-ended questions are asked and recorded about specific topics following a general outline and allowing additional subjects to be incorporated as they arise.

**Conversations:** Informal conversations with informants or with small groups are incorporated in the data.

**Observation:** Careful documentation of observed events and behaviours provides valuable nonverbal clues as to what is actually occurring.

**Participant observation:** Participation in and observation of the daily socio-cultural context of a household or community.

**Focus groups:** Small homogenous groups are gathered for group discussions of appropriate research topics.

**Collection of data from secondary sources:** Previously published and unpublished research, government and community records, and health services records.

**Structured questions** Used for inventories and demographic information.

### General Information to Collect

Review Health Information Pyramid and WHO RHR (Appendices III and IV).

The following are basic types of information to collect that can be organized into a Health Information Pyramid. 5

- Demographics
- Birth and Death Characteristics
- Disease Incidence and Prevalence
- Health Status and Health Behavior
- Health Care Utilization
- Social and Community Issues
- School and Student Population Characteristics

The following observations might also prove insightful:

- What do you think are the main problems or issues affecting your population?
- What do you think causes these problems?
- Information regarding local health professionals and access to care.
- Questions for health clinic including personnel and supplies.
- Do people see traditional healers? For what problems?
- Observations regarding disease transmission and basic hygiene (e.g. build-up of rubbish and food scraps, preference to wash in small streams and roadside gutters despite availability of clean water sources). People often have very skewed views regarding the cause and treatment of disease.

### Example Health Assessment form

Review the EWB-SFP Tanzania M&E Survey and discuss.

### ACTIVITY: HEALTH INFORMATION PYRAMID

As a group, look at the Health Information Pyramid and generate at least 3 questions for each category.

#### Option 1:

The major health problems afflicting Native Americans today are:

- Obesity
- Diabetes
- Hypertension
- Alcoholism

Choose one of these 4 major health issues and review the information provided regarding each of these major diseases. Now generate an additional 10 questions specific to this disease. Try and spread them as best as possible across the pyramid.

#### Option 2:

Our clients are often interested in developing products that focus on the following technology categories:

- Electricity
- Water
- Lighting

Choose one of the 3 technology categories and generate an additional 10 questions specific to this technology and the problems it will address. Try and spread them as best as possible across the pyramid.

#### Post-health clinic / hospital visit:

Based on our conversations with the doctor and community members, answer as many questions as possible. Try and corroborate your answers with observation. Finally, as a team, discuss your findings.

#### ACTIVITY NOTES:

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### HYPERLINKS: Supporting Documents

#### USAID TIPS Rapid Appraisal Methods

[http://pdf.usaid.gov/pdf\\_docs/PNABY209.pdf](http://pdf.usaid.gov/pdf_docs/PNABY209.pdf)

#### WHO RHR Assessment

[http://whqlibdoc.who.int/hq/2001/WHO\\_RHR\\_00.13.pdf](http://whqlibdoc.who.int/hq/2001/WHO_RHR_00.13.pdf)

#### Health Information Pyramid

<http://www.bmj.com/cgi/content-nw/full/318/7181/440/Fu3>

### FOOTNOTES

1. Experiences with “rapid appraisal” in primary care: involving the public in assessing health needs, orientating staff, and educating medical students. <http://www.bmj.com/cgi/content/full/318/7181/440>

2. Adaptation of anthropological methodologies to rapid assessment of nutrition and primary health care. <http://www.unu.edu/unupress/food2/UIN08E/uin08e05.htm#2>. adaptation of anthropological methodologies to rapid assessment of nutrition

3. Association for Community health Improvement’s Community Health Assessment Toolkit [www.assesstoolkit.org](http://www.assesstoolkit.org)

4. Adaptation of anthropological methodologies to rapid assessment of nutrition and primary health care. <http://www.unu.edu/unupress/food2/UIN08E/uin08e05.htm#2>. adaptation of anthropological methodologies to rapid assessment of nutrition

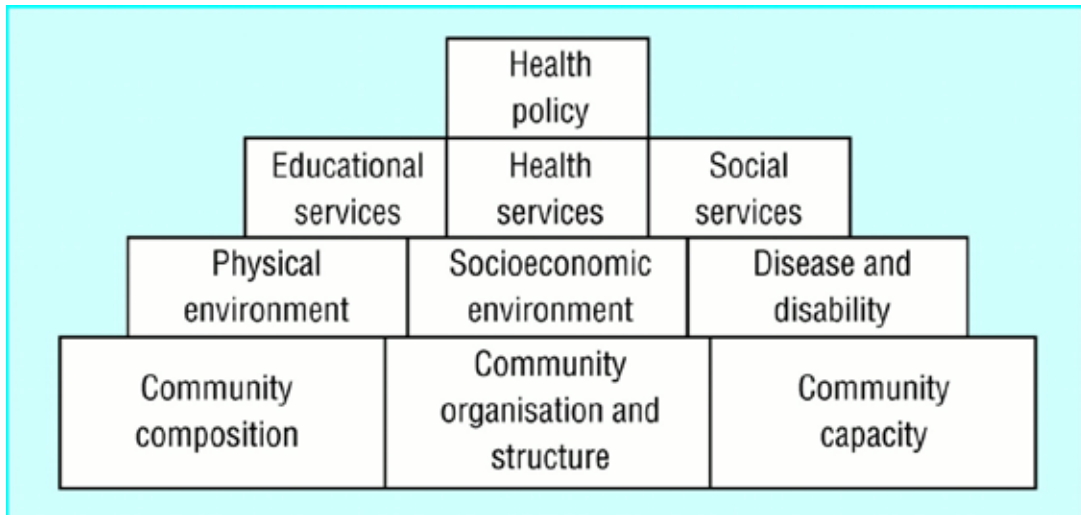
5. Indian Community Health Profile Project Toolkit: Northwest Tribal Epidemiology Center and Northwest Portland Area Indian Health Board - June 2005

### RESOURCES

1. Experiences with “rapid appraisal” in primary care: involving the public in assessing health needs, orientating staff, and educating medical students. <http://www.bmj.com/cgi/content/full/318/7181/440>
2. Adaptation of anthropological methodologies to rapid assessment of nutrition and primary health care. <http://www.unu.edu/unupress/food2/UIN08E/uin08e05.htm#2>. adaptation of anthropological methodologies to rapid assessment of nutrition
3. Association for Community health Improvement’s Community Health Assessment Toolkit. [www.assesstoolkit.org](http://www.assesstoolkit.org)
4. Elisa Pepall, Jaya Earnest, and Ross James. Understanding community perceptions of health and social needs in rural Balinese village: results of a rapid participatory appraisal. Centre for International Health and School of Public Health, Curtin University of Technology
5. Indian Community Health Profile Project Toolkit. Northwest Tribal Epidemiology Center and Northwest Portland Area Indian Health Board - June 2005
6. Susan Rifkin, Hugh Annett and Iraj Tabibzadeh. Rapid appraisal to assess community health needs: A focus on the urban poor.
7. Michael Hubbard, Robert Leurs, and Andrew Nickson. Using Rapid Rural Appraisal for project identification: Report on a training exercise in Jama’are local government area, Bauchi State, Northern Nigeria
8. Performance Monitoring and Evaluation TIPS: USAID Center for Development Information and Evaluation. Using Rapid Appraisal Methods. 1996, Number 5
9. Reproductive Health During Conflict and Displacement: a guide for programme managers. Department of Reproductive Health and Research: World Health Organization – 2000.
10. Nevin S. Scrimshaw and Gary R. Gleason, Editors. Rapid Assessment Procedures - Qualitative Methodologies for Planning and Evaluation of Health Related Programmes. <http://www.unu.edu/unupress/food2/UIN08E/uin08e00.htm>
11. Monitoring and Evaluation Survey—Ngelenge Village, 2009. Engineers Without Borders – San Francisco Professionals Chapter, Tanzania Project.

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## Health Information Pyramid



Murray, S. A *BMJ* 1999;318:440-444

BMJ

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Download: <http://www.bmj.com/cgi/content-nw/full/318/7181/440/Fu3>

**Monitoring and Evaluation Survey—Ngelenge Village, 2009**

- Administered to female heads of household only.
- 0=no; 1=yes; 99=respondent does not know or cannot answer; 88=question does not apply.
- Where # is indicated after the question means that the survey administrator must indicate the respondents answer as a number.

<b>1. What sub-village do you live in?</b>	<i>circle one</i>
	Kivukoni
	Chama Cha Mapunduzi (CCM)
	Magland
	Schuleni
	Falklands

<b>2. How many people sleep in your house on most nights? (#)</b>	_ _ _
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<b>3. How many children under 5 years old are living in your household? (#)</b>	_ _ _
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<b>4. How many children under 5 years old had diarrhea during the past two weeks? (#)</b> <i>If there are no children under 5 in the household, write '88' →</i>	_ _ _
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<b>5. How many child(ren) under 5 years old in your household were ill with a fever in the past two weeks? (#)</b> <i>If there are no children under 5 in the household, write '88' →</i>	_ _ _
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<b>6. How many child(ren) under 5 years old in your household who were ill with a fever in the past two weeks received an anti-malarial drug? (#)</b> <i>If there are no children under 5 in the household, write '88' →</i>	_ _ _
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<b>7. How many times have you or a member of your household visited a health dispensary with an illness or an injury during the past month? (#)</b>	_ _ _
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<b>8. I will read a list of common illnesses in the area, please answer yes or no if members of your household had the following illnesses during the <u>past year</u>:</b>  (0=no; 1=yes; 99=do not know)	<i>Illness</i>	<i>(0/1/99)</i>
	Diarrhea	_ _ _
	Lung infections/respiratory diseases	_ _ _
	Anemia	_ _ _
	Yellow eyes / Jaundice	_ _ _
	Malaria	_ _ _
	Bodily injuries, broken limbs	_ _ _
	Bilharzia	_ _ _
	Trachoma	_ _ _
Worms	_ _ _	

<b>9. How many deaths have there been in your household during the past year? (#)</b>	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>		

<b>10. If the answer was 'yes' to question 9, ask the respondent the age(s) and sex of the person(s) that died. If the answer was 'no' to question 9, fill in '88' for age and sex.</b>	Age	Sex (M / F)	Death during pregnancy?*(0/1/88)

\*If the respondent reports a death of a female of child bearing age (11 – 55), ask if she died during pregnancy or one month after giving birth, if 'yes' and write '1.' If the respondent reports death of a male or a young girl/older woman, write '88.'

<b>11. Can I see the 'clay pot' you use to store water inside your home?</b> (0=no; 1=yes; 88=does not have a clay pot)	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>		
<i>12. Observation:</i> The clay pot has a lid. (0=no; 1=yes; 88=does not have a clay pot)	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>		
<i>13. Observation:</i> The clay pot has a tap. (0=no; 1=yes; 88=does not have a clay pot)	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>		

<b>14. How many buckets of water does your household collect each day? (#)</b> <i>If the respondent says more than one number, write the largest number →</i>	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>			<b>THESE ARE THE MOST IMPORTANT QUESTIONS</b>

<b>15. How many of these buckets are 20L? (#)</b>	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>			<b>THESE ARE THE MOST IMPORTANT QUESTIONS</b>
<b>16. How many of these buckets are 10L? (#)</b>	<table border="1"> <tr> <td> </td> <td> </td> </tr> </table>			<b>THESE ARE THE MOST IMPORTANT QUESTIONS</b>

**\*\*CHECK 14- 16 FOR INTERNAL VALIDITY: #15 and #16 should sum to # 14\*\***

<b>17. Which well(s) does your household usually collect water from?</b>  <b>**RESPONDENT MAY INDICATE MORE THAN ONE WELL**</b>	<i>circle the response(s)</i>
	New Schuleni (EWB)
	Magland (Concern)
	Old CCM (Concern)
	New CCM (EWB)**
	Old Kivukoni (Concern)
	New Kivukoni (EWB)
	Other (example: Ilela well)
None	

\*\*not in operation as of July 2009

18. How many meters away from your house is the well that you usually visit? (# meters; 88=household does not go to a well to collect water)	_ _ _ _
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19. How many minutes does it take you to walk back to your house from the well after you get the water? (# minutes; 88=household does not go to a well to collect water)	_ _ _ _
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20. How long do you wait in line for water at the well? (# minutes; 88=household does not go to a well to collect water)	_ _ _ _
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21. Have you or any one in your household brought water from the lake back to your house in the past week? (0=no; 1=yes; 99=do not know)	_ _ _ _
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22. Have you or any one in your household brought water from the river back to your house in the past week? (0=no; 1=yes; 99=do not know)	_ _ _ _
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23. Do you add anything to the water to make it cleaner? (0=no; 1=yes; 99= respondent does not know)	_ _ _ _
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24. If the answer to 32 is 'yes,' then ask the respondent, "What do you use to make the water cleaner?" <i>write the response →</i>	
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25. How many times did your family eat <u>meat</u> in the last week ( <u>not fish</u> )? (#)	_ _ _ _
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26. How would you compare your household's wealth this year compared to last year, better, worse, or the same?	<i>circle one</i>
	Better
	Worse
	The same
	I do not know
	Respondent could not answer

27. <i>Observation:</i> The household has a metal roof. (0= no; 1= yes) <b>SURVEY ADMINISTRATOR LOOKS AT ROOF AFTER INTERVIEW IS COMPLETE TO DETERMINE THIS</b>	_ _ _ _
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