



# **Participant's Manual and Workbook**

**KPC Training Module 3:  
Training Post-Survey  
Analysis Team**



## Key Contributors



The **CORE Group**, a membership association of international nongovernmental organizations (NGOs) registered in the United States, promotes and improves the health and well being of women and children in developing countries through collaborative NGO action and learning. CORE's *Monitoring and Evaluation Working Group* develops tools and trainings to increase child survival and health program performance and quality through the standardization of use of data, analysis, and reporting. This publication was made possible by support provided to CORE from the Bureau for Global Health, United States Agency for International Development (USAID) under cooperative agreement FAO-A-00-98-00030. This publication does not necessarily represent the views or opinion of USAID.



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**Freedom from Hunger (FFH)** focuses on the vital and interdependent connection between health and financial security for progress against chronic hunger and poverty. FFH works with direct service providers, technical assistance providers and NGOs to disseminate knowledge and tools tested and used on a global scale to build health and financial security for poor women, their families and communities. FFH is a CORE Group member.



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### Abstract

The CORE Group's *Knowledge, Practice, Coverage (KPC) Survey Training Curriculum* provides trainer guidelines and participant handouts and resources to train field workers to carry out a KPC survey. The KPC Participant's Manual and Workbook includes three modules: *KPC Training Module 1: Training the Core Team*; *KPC Training Module 2: Training Supervisors and Interviewers*; and *KPC Training Module 3: Training the Post-Survey Analysis Team*. KPC Training Module 1 includes training resources and a full set of handouts that Core Team members can use during training. KPC Training Module 2 contains training resources and a full set of handouts for Supervisor and Interviewer use during training. KPC Training Module 3 contains training resources and a full set of handouts for Post-Survey Team use during training. All handouts included in the three modules can also be used by the KPC Survey Trainer as slides or overheads.

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The CORE Group's *Knowledge, Practice, Coverage Survey Training Curriculum* includes three manuals:

1. KPC Training of Survey Trainers: Trainer's Guide and Participant's Manual and Workbook

2. KPC Survey Training: Trainer's Guides

- Module 1: Training the Core Team

- Module 2: Training Supervisors and Interviewers

- Module 3: Training the Post-Survey Analysis Team

3. KPC Survey Training: Participant's Manuals and Workbooks

- Module 1: Training the Core Team

- Module 2: Training Supervisors and Interviewers

- Module 3: Training the Post-Survey Analysis Team



## ACKNOWLEDGMENTS

Private voluntary organizations (PVOs) with funding from the U.S. Agency for International Development (USAID) Child Survival and Health Grants Program have used the Knowledge, Practice, and Coverage (KPC) Survey instrument successfully to monitor and evaluate their health programs since the early 1990s. The survey was originally created by the Child Survival Support Program at Johns Hopkins University, and has subsequently been updated and revised by the Child Survival Technical Support Project (CSTS), based at ORC-Macro, and later by the CORE Monitoring and Evaluation Working Group. Numerous PVO staff have been trained in its use, and have trained many of their partner agencies.

The dream of the CORE Monitoring and Evaluation Working Group, under the leadership of the Working Group Chair, Juan Carlos Alegre, has been to institutionalize the training so that it can be more easily adapted locally and accessed by a wider audience of NGOs, consultants, training institutions and US and overseas universities. In 2001, Tom Davis, Julie Mobley and Phil Moses created a draft curriculum that was field tested with PVO field staff of several organizations in Cambodia, and repeated in 2002 with PVO Headquarters, field staff and consultants in Myrtle Beach, NC. Sandra Bertoli, David Shanklin, Jay Edison, Juan Carlos Alegre, and Sharon Tobing provided detailed feedback on how to improve this training.

The final version of the guide is due to the feedback of many people, and the special dedication and attention to detail of the following people. Bill Weiss, Tom Davis and Juan Carlos Alegre provided input into a revised table of contents. Freedom from Hunger was selected to rewrite the curriculum due to their extensive experience in the design and development of training materials in public health and adult learning. Robb Davis, Vicki Denman, Ellen Vor der Bruegge and Renee Charleston gave numerous hours to the development, writing and formatting of the curriculum. FANTA provided funding for this activity under the leadership of Bruce Cogill and coordination of Paige Harrigan. Jennifer Luna and Jay Edison representing the Child Survival Technical Support Plus Project and John Ssekamate-Ssebuliba from Makerere University led a field test at Makerere University in Uganda in 2004 that guided changes for the final draft. Ann Brownlee and Marcelo Castrillo provided detailed comments to several of the drafts to ensure its accuracy and ease of use. CORE staff Karen LeBan and Julia Ross provided input and overall support for the production of the document. Regina Doyle designed the cover.

In addition to those persons mentioned, we want to express our appreciation and gratitude to the many individuals and organizations who were not mentioned but who have used this methodology over the years and provided input into its improvement.

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**KPC Training Module 3: Training Post-Survey Analysis Team  
Participant's Manual and Workbook**

### TR 3-1: Workshop Objectives

By the end of the workshop, the Post-Survey Analysis Team will have:

- Acquired an understanding of what to look for when tabulating/analyzing KPC survey data
- Completed a preliminary exploration of frequencies and differentials in a KPC survey data set
- Compared KPC survey findings with results from other data sources
- Set reasonable intermediate and final targets based on KPC survey baseline data

or

Assessed achievement of targets using KPC survey data, and determined if differences are statistically significant

- Used KPC survey data to identify health problems and possible intervention activities/strategies and the level of effort needed for each intervention
- Decided on follow-up studies/activities that will be conducted after the KPC survey is completed
- Identified other levels (e.g., health-facility level) where change must occur in order to effect changes at the beneficiary level and decided if studies should be undertaken at those levels as well
- Prepared a draft a KPC Survey Report
- Developed a plan for presenting KPC survey data to project communities and other stakeholders

## **TR 3-2: Workshop Agenda**

This page was left blank intentionally. The workshop Trainer will need to provide participants with an adapted workshop agenda. Insert the adapted agenda here. Base the agenda on the Sample Agenda for the Post-Survey Analysis Team on page 5 of the Module 3 Trainer's Guide.

## TR 3-3: Resource List

**Materials on the Resource Table include: Technical Reference Materials (TRM),<sup>1</sup> CSTS Crucial CS Interventions Checklist,<sup>2</sup> DHS<sup>3</sup> and MICS,<sup>4</sup> CSTS Writing the KPC Survey Report.<sup>5</sup>**

**LQAS Manual** (note that the introduction to LQAS in this training is drawn from the LQAS Manual. The manual provides much more detail on many issues including the meaning of supervision areas—SA)

- Valadez, et al., Assessing Community Health Programs, Using LQAS for Baseline Surveys and Regular Monitoring (Trainer’s Guide and Participant’s Manual and Workbook) available from: TALC, P.O. Box 49, St. Albans, Herts, AL 1 5TX UK. [www.talcuk.org](http://www.talcuk.org)

### Writing the KPC Survey Report

- CSTS publication Writing the KPC Survey Report available at: [http://www.childsurvival.com/kpc2000/survey\\_report.doc](http://www.childsurvival.com/kpc2000/survey_report.doc)

### Software Resources

- P.A.N.D.A. (Practical Analysis of Nutrition Data): A tutorial on analyzing nutrition data using SPSS from Kenya. Available at: <http://www.tulane.edu/~panda2/Analysis2/ahome.html>
- EpiNut online manual: <http://www.cdc.gov/epiinfo/epi6man/manchp23.htm>
- Download, Epi-Info 2000: <http://www.cdc.gov/epiinfo/ei2000.htm>
- WebInstall for Epi-Info 2000: <http://www.cdc.gov/epiinfo/>
- Help with statistics of any type: <http://members.aol.com/johnp71/javastat.html>

### Qualitative Research

- Title II Monitoring Toolkit is one resource for how to conduct focus groups and key informant interviews. <http://www.foodaid.org/worddocs/moneval/toolkit/TIIToolkitIIIB.doc>.]

### Quality Improvement and Verification Checklist for CHWs.

- [http://www.foodaid.org/worddocs/moneval/toolkit/QIVCs\\_1](http://www.foodaid.org/worddocs/moneval/toolkit/QIVCs_1) for instructions and more information.

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<sup>1</sup> Available at: [http://www.coregroup.org/resources/TRM\\_2000.pdf](http://www.coregroup.org/resources/TRM_2000.pdf)

<sup>2</sup> Available at: <http://www.childsurvival.com/tools/SOTAChecklist.doc>

<sup>3</sup> Available at: <http://www.measuredhs.com>

<sup>4</sup> Available at: <http://www.childinfo.org>

<sup>5</sup> Available at: [http://www.childsurvival.com/kpc2000/survey\\_report.doc](http://www.childsurvival.com/kpc2000/survey_report.doc)



**TR 3-5: Review of Confidence Intervals**

1. Even when sampling and survey protocol are used properly, the results you get are still just an \_\_\_\_\_ of the true value. In other words, the results you get are probably pretty close to the real value, but probably not exactly the same as the real value. The results of a survey using \_\_\_\_\_ should never be considered absolute values.
2. Random error is unavoidable when \_\_\_\_\_ is used, because you are not getting data from all possible values in the population. There is almost sure to be some difference in the results of a sample from what you would have gotten if you had interviewed every \_\_\_\_\_ in the population. Each estimate from a sample, therefore, always has a margin of error around it, which we also call a \_\_\_\_\_.
3. The formula for calculating a Confidence Interval is:

$$P = p \pm Z * \text{SQRT}((p*q)/(n/d.e.))$$

where P = the actual rate/proportion in the general population

p = \_\_\_\_\_

q = \_\_\_\_\_

z = the confidence level

n = \_\_\_\_\_

d.e. = \_\_\_\_\_

SQRT = square root

4. The design effect for a survey is usually estimated as \_\_\_\_\_ for cluster sampling and \_\_\_\_\_ for LQAS and SRS.
5. The confidence level is usually a constant value (from a table) for the level of power that you choose. Often in research and in KPC studies the level \_\_\_\_\_% is chosen. This means that you wish to be \_\_\_\_\_sure that your confidence interval will capture the true value, based on your sample estimate. With a \_\_\_\_\_ confidence level, z = \_\_\_\_\_.

**TR 3-6: Review of 2x2 Tables and Odds Ratios**

- Two-by-two tables are frequently used in epidemiology to explore associations between \_\_\_\_\_ to risk factors and \_\_\_\_\_ or other outcomes. They help us to see if a relationship exists between two (*categorical or continuous*) variables (e.g., whether being male means you are more likely to be malnourished, or whether exclusive breastfeeding means you are less likely to have diarrhea).
- Set up the following situation in a 2x2 table:

There are 105 women in the community, 67 use a family planning method. Among younger women (<25 yrs) 51 use a family planning method. Older women (>=25 yrs) use a method in 16 cases out of a total of 34 older women.

Women	Use a Family Planning Method	Do Not Use a Family Planning Method	
Younger			71
Older			
			105

- The odds of an event are calculated as the number of events \_\_\_\_\_ by the number of non-events. For example, on average 51 boys are born in every 100 births, so the odds of any randomly chosen delivery being that of a boy is:

$$\begin{aligned}
 x / y &= z \\
 x &= ? \\
 y &= ? \\
 z &= ?
 \end{aligned}$$

- If the odds ratio is \_\_\_\_\_ than one, → exposure is associated with a lack of disease (i.e., exposure may be *protective*).
  - If the odds ratio is \_\_\_\_\_ than one, → exposure is associated with the disease (i.e., exposure may be *damaging*).
  - If the 95% confidence interval *includes* \_\_\_\_\_, then the relationship is *not* statistically significant.

**TR 3-7: Review of Anthropometric Concepts**

1. In order to conclude that a population has significant malnutrition, there must be some \_\_\_\_\_ population to which one can compare it. WHO has provided such a population of healthy children that acts as this \_\_\_\_\_ and to which we can compare our population.
2. A \_\_\_\_\_ is a way of describing the anthropometric indices of a population in order to enable comparison with the reference population.
3. Though it may lack strict biological significance, convention says a weight-for-age Z-score of  $< -1$  is a sign of \_\_\_\_\_ malnutrition. A Z-score of  $< -2$  is a sign of \_\_\_\_\_ malnutrition and a Z-score of  $< -3$  is a sign of \_\_\_\_\_ malnutrition.
4. In the reference population about \_\_\_\_% of children have weight-for-age Z-scores below  $< -2$ . Therefore, if our population has a much larger percent with weight-for-age Z-scores below  $< -2$ , we might conclude there is a malnutrition problem in our population.

## TR 3-8: Questions for Analyzing Frequency Tables

### TR 3-8: Questions for Analyzing Frequency Tables

1. Examine the key findings from the survey:
  - **Do they confirm what the project and stakeholders expected? Which results are surprising or troubling?**
  - **Are there percentages that are very high or very low?**
2. Since this a Child Survival project, we are most concerned about knowledge, practices, and coverage levels that are most linked with the survival of children and the women who care for them.
  - **When you look at your data set, what are the things that you suspect are most linked with deaths of children and women in your project area?**

#### Some Things to Pay Particular Attention to Include:

- Indicators related to pneumonia, diarrheal diseases, and immunizations (and malaria, depending on the area): We know that 60% of all deaths are caused by three diseases: pneumonia, diarrhea, and measles. Look at:
  - Use of Oral Rehydration Therapy: About 3 million children die each year from diarrhea, and about half of those deaths are caused by dehydration which could be prevented by ORT.
  - Knowledge of IMCI danger signs during childhood illness and during labor: Pneumonia kills 3.6 million children each year. The majority of those lives could be saved if parents knew the IMCI danger signs.
  - Measles vaccine coverage: About 1 million children die each year from measles.
  - Insecticide-Treated Net use: ITN use by children <5 can reduce mortality.
- Vitamin A coverage: Studies have shown that giving vitamin A supplements in an area that is vitamin A deficient can cut childhood mortality by 23-34%.
- Exclusive breastfeeding: A child who is bottle fed in a community with a poor water source is six times more likely to die than a child who is exclusively breastfed.
- Malnutrition: Malnutrition, even moderate malnutrition, is linked to 54% of childhood deaths.

3. **What are the priority health problems shown?**
4. **How would you target education at the community level based on these findings?**
5. **What other questions that require further investigation are raised by these results?**

**TR 3-9: Questions for Analyzing 2x2 Tables**

- What sub-groups exist that may require additional targeting?
  
- How might this change the education strategy or other interventions to influence behavior?
  
- What questions that require further investigation are raised by these results?

### TR 3-10: Use of a Target Setting Performance Index

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##### Target Setting Performance Index

The study to develop the PI was completed using data from 36 Child Survival projects that were funded in 1991/92 and ended by May 1996. The projects each had a duration of four years. Thirteen PVOs sponsored the 36 Child Survival projects.

The organizations that carried out these KPC surveys included ADRA, Africare, AMREF, CARE, CRS, Foundation for the Peoples of the South Pacific, Project HOPE, IEF, MHV, PCI, SCF, and WR. The 36 projects were evenly distributed among the different world regions, with 11 from Africa, 12 from Latin America and the Caribbean, and 13 from the Asia/South Pacific region.

If one project increases an indicator from 5% to 10%, it has doubled it, representing a 100% increase. However, if an organization increases an indicator from 80% to 85%, it has only increased it by 6.25%. However, increasing an indicator from 80% to 90% is often as hard as increasing an indicator from 25% to 50%. A study looking at different ways to find out how population levels of health indicators changed in communities where PVO CS projects have worked, determined that one of the best measures for determining how much a project achieved compared to what was possible to achieve is called the Target Setting Performance Index. The index is calculated by dividing the absolute achievement (the difference between baseline and final levels) by the possible achievement (the difference between baseline level and the ceiling of 100 percent). The formula used for developing the Performance Index (PI) is:

$$PI = (\text{final level} - \text{baseline level}) / (100 - \text{baseline level})$$

Through mathematical calculations, a formula was also developed to help you use the PI to set potential final targets. The formula you can use is:

$$F = PI + ((1 - PI) * B)$$

where:

F = Potential Final Target

PI = Performance Index (see **TR 3-11**)

B = Baseline

## TR 3-11: Setting Targets

Child Survival Indicator	Performance Index (%) PI = (Change from Baseline to Final / Possible Change)	Use This Formula to Calculate the Probable Final Level $F = PI + ((1-PI) * B)$	Example: Final = $PI - (Baseline * PI) / 100 + Baseline$	
			Baseline	Probable Final
Access to immunizations for children 12–23 months by card (DPT 1)	36% (26 – 45)	Final = 0.36 + (0.64*Baseline)	20%	49%
Immunization coverage of children 12–23 months by card (OPV 3)	34% (26 – 42)	Final = 0.34 + (0.66*Baseline)	10%	41%
Measles immunization coverage of children 12–23 months by card	31% (23 – 39)	Final = 0.31 + (0.69*Baseline)	8%	37%
Reduction in vaccination drop-out by card (DPT 1– DPT 3 / DPT1)	41% (32 – 50)	Final = 0.41 + (0.59*Baseline)	13%	49%
Initiation of breastfeeding within eight (8) hours of birth	34% (24 – 44)	Final = 0.34 + (0.66*Baseline)	42%	62%
Exclusive breastfeeding among infants less than four (4) months of age	29% (14 – 43)	Final = 0.29 + (0.71*Baseline)	3%	31%
Continued breastfeeding during diarrheal episodes	25% (16 – 34)	Final = 0.25 + (0.75*Baseline)	28%	46%
Continued fluids during diarrheal episodes	36% (26 – 46)	Final = 0.36 + (0.64*Baseline)	26%	53%
Continued foods during diarrheal episodes	22% (13 – 32)	Final = 0.22 + (0.78*Baseline)	23%	40%

**TR 3-11: Setting Targets**

Child Survival Indicator	Performance Index (%)  PI= (Change from Baseline to Final / Possible Change)	Use This Formula to Calculate the Probable Final Level  $F = PI + ((1-PI) * B)$	Example: Final = $PI + (Baseline * PI) / 100 + Baseline$	
			Baseline	Probable Final
ORT use during diarrheal episodes	38% (28 – 47)	Final = $0.38 + (.062 * Baseline)$	15%	47%
Possession of a maternal card	15% (5 – 24)	Final = $0.15 + (0.85 * Baseline)$	8%	22%
Tetanus toxoid immunization coverage (TT2) of pregnant mothers (card)	12% (3 – 21)	Final = $0.12 + (0.88 * Baseline)$	5%	16.4%
One or more ante-natal visits during last pregnancy by card	13% (2 – 24)	Final = $0.13 + (0.87 * Baseline)$	20%	30%
Family planning: Use of a modern contraceptive, among mothers who do not want another child in the next two (2) years	9% (4 – 14)	Final = $0.09 + (0.91 * Baseline)$	12%	20%
Immunization knowledge: Timing of measles vaccine to be at 9 months	29% (17 – 40)	Final = $0.29 + (0.71 * Baseline)$	60%	72%
Immunization knowledge: Tetanus toxoid protects both mother and child	22% (10 – 35)	Final = $0.22 + (0.78 * Baseline)$	43%	56%
Pregnancy care knowledge: To seek ante-natal care before third trimester	44% (32 – 55)	Final = $0.44 + (0.56 * Baseline)$	31%	61%

**If you wanted to be on the conservative side**, you could use the lower range of the confidence interval for performance. For this last indicator, for example, you would use 32% rather than 44%. The formula would change:

$$\text{From:} \quad \text{Final} = 0.44 + (0.56 * \text{Baseline})$$

$$\text{To:} \quad \text{Final} = 0.32 + (0.68 * \text{Baseline})$$

Notice that the second number in the equation is 1 minus the first number.

For example  $1.00 - 0.44 = 0.56$

**If you expect to do much better than average**, you could use the higher range of the confidence interval for performance. For this last indicator, for example, you would use 55% rather than 44%. The formula would change:

$$\text{From:} \quad \text{Final} = 0.44 + (0.56 * \text{Baseline})$$

$$\text{To:} \quad \text{Final} = 0.55 + (0.45 * \text{Baseline})$$

**Remember:** The higher the performance index, the greater the expected change in the indicator from baseline to final. When an indicator has a high performance index (e.g., the immunization dropout rate with a performance index of 41%), it means that Child Survival projects have generally been able to make substantial improvements. When an indicator has a low performance index (e.g., contraceptive usage, with a performance index of 9%), it means that Child Survival projects usually have *not* been able to make substantial improvements in the situation.

Extrapolated from: Performance of Private Voluntary Organizations in Increasing Population Levels of Child Survival Behaviors and Knowledge in Developing Countries. William M. Weiss, MA, Dory Storms, ScD, MPH, and Peter J Winch, MD, MPH.

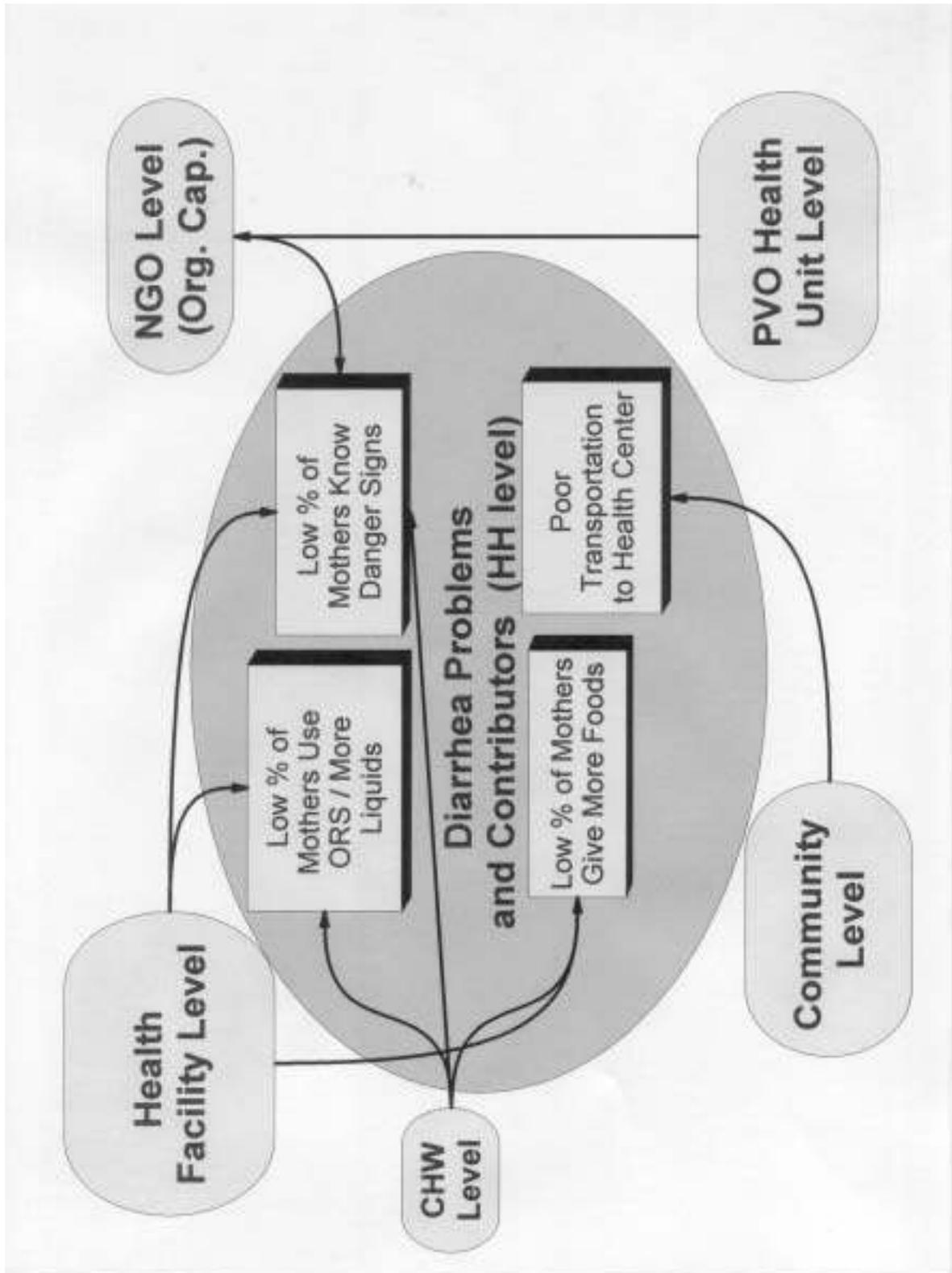
**TR 3-12: Target Worksheet**

Child Survival Indicator	Performance Index Expected (%): Take from TR 3-11: Setting Targets Table	Formula Used to Calculate the Probable Final Level	Use Your Data and TR 3-11: Settings Targets Table	
			Baseline Level Found	Expected Final
1.				
2.				
3.				
4.				

Child Survival Indicator	Performance Index Expected (%): Take from TR 3-11: Setting Targets Table	Formula Used to Calculate the Probable Final Level	Use Your Data and TR 3-11: Settings Targets Table	
			Baseline Level Found	Expected Final
5.				
6.				
7.				
8.				



**TR 3-14: Levels of Action to Manage Diarrhea**



### **TR 3-15: Case Study on Effecting Change**

#### **TR 3-15: Case Study on Effecting Change**

Let us imagine that you conducted a KPC survey and found the following information:

- % of mothers who use ORS/More Liquids = 20%
- % of mothers who know the IMCI danger signs = 15%
- % of mothers who give more food during an episode of diarrhea = 28%

You also know from focus groups that you conducted at baseline that:

- poor transportation is a real problem for mothers to get their children to a health facility when the children have diarrhea and other illnesses;
- that doctors or nurses in the health facilities are counseling mothers to feed children less during illness;
- that the NGO that you are partnering with and the CHWs do not have strong educational skills and use flip charts with a lot of words and pamphlets for a population where few people are able to read; and
- your PVO has not done very much in terms of developing an approach to behavior change communication, especially for low-literacy populations like the one in which you are working.

**Think about the following three (3) questions as you look at the chart in TR 3-16:**

1. In addition to the household or family level, what levels might you need to work at in order to make changes happen at the family or household level?
2. What sort of changes could you make at each of these levels in order to facilitate changes at the household and beneficiary level?
3. If you decided to do each of these things, how could you measure the change that occurred at each level?

## TR 3-16: Responses for Case Study on Effecting Change

Level of Action	Type of Actions	How to Measure Change
Community Level	Helping communities mobilize resources (using matching funds) to improve roads, to facilitate transportation to health facilities,, to create/improve emergency transport system	Measure things at the community level associated with their attempts to improve roads (e.g., number of competitive funding proposals submitted, number of work days organized to improve roads, length of roads improved).
CHW Level	Teaching CHWs to improve their educational skills using culturally appropriate methods of communicating, focusing on behavior change and refining educational messages	Using a quality improvement and verification checklist. See <b>TR 3-3: Resource List</b> for information.
Health Facility Level	Providing education to health workers about proper counseling for caregivers of children with diarrhea, or complete IMCI training. Conduct focus groups with doctors and nurses to identify barriers to change.	Using the WHO Health Facility Assessment if IMCI will be included in the project, or include one part of it to look at counseling by health workers on diarrhea. Visiting supervision areas where performance is good to see what is being done differently.
NGO Level	Helping the NGO develop the capacity to train health workers in counseling during diarrhea (or full IMCI training) and in how to monitor and improve the quality of health workers' educational sessions, improve focus on behavior change communication (BCC).	Using one of several tools for assessing organizational capacity, include an assessment of the NGO's ability to train health workers and assess their use of tools to monitor the quality of educational sessions (e.g., QI checklists) and health-facility level changes (e.g., adoption of IMCI).
PVO Health Unit Level	Developing an improved strategy of BCC.	Assessing whether or not a BCC strategy was articulated at the PVO level (e.g., whether a plan was written), the quality of that plan, who has received training in BCC in the last three years, etc. This could be included as part of the Human Resources Management section of the DOSA (Discussion-oriented Organizational Self-Assessment) or another tool that looks at institutional assessment.

**TR 3-17: Checklist for Preparing a KPC Survey Report**

**TR 3-17: Checklist for Preparing a KPC Survey Report**

<b>CONTENT</b>	<b>HAVE</b>	<b>DO NOT HAVE</b>	<b>WHO HAS IT? WHERE IS IT?</b>	<b>RESPONSIBLE PERSON</b>
<b>BACKGROUND</b>				
A. Project location				
B. Characteristics of the target population				
C. Social, economic and health conditions				
D. National standards/policies regarding MCH				
E. Project goals, objectives, intervention activities				
F. Results of Qualitative Studies				
G. Objectives of the KPC survey				
<b>PARTNERSHIP BUILDING</b>				
A. Identifying and engaging partners/stakeholders				
B. Roles of partners/stakeholders in KPC survey				
<b>METHODS</b>				
A. Questionnaire development				
B. KPC indicators				
C. Sampling design				
D. Training				
E. Data collection and Quality Control procedures				
F. Data management/data analysis				
<b>RESULTS</b>				
Tables of results/graphics for principal findings				
<b>DISCUSSION</b>				
A. Key findings and programmatic implications				
B. Next steps in information gathering				
C. Action plan for community feedback and dissemination of findings				
<b>ANNEXES</b>				
Annex A: Map of Project Area with clusters/sampling areas identified				
Annex B: Logistical Preparations and Schedule				
Annex C: Survey Questionnaire in English and [local language]				
Annex D: Sampling Frame				
Annex E: Training Guide and Schedule for KPC Survey Training				
Annex F: Manual Tabulation Tables				
Annex G: Computer Tables for Each Question				
Annex H: Breakdown of Costs for KPC Survey				
Annex I: Epi-Info PGM File (electronic only)				

**TR 3-18: KPC Survey Report Template**

Parts of the following draw on an example from:  
**Counterpart/India & Sanchetana KPC Report, January 2001**

**REPORT ON THE [BASELINE]  
KNOWLEDGE, PRACTICE AND COVERAGE SURVEY**

**[Month & Year]**

*[Name of Project]*

**CHILD SURVIVAL PROJECT**

**in**

**[Geographic Area]**

**[Name of PVO] *in partnership with* [Names of local partners]**

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### **Acknowledgements**

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#### **KPC Trainers (in alphabetical order)**

*[List Trainers here]*

#### **Supervisors**

*[List Supervisors here]*

#### **Interviewers**

*[List Interviewers here]*

*John Doe (YOURORG)*

#### **Other Key Participants**

*[List other participants who were neither Supervisors or Interviewers]*

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## **I. EXECUTIVE SUMMARY (2 pages)**

Brief summary of project and KPC survey methodology:

**Objectives:**

The objectives of the survey are:

**Methods:**

The methods used in the survey include: *(brief summary)*

**Key Findings:**

Some of the key findings of this survey are:

Intervention #1:

- 

Intervention #2:

- 

Intervention #3, etc.:

- 

**Implications:**

The key implications of the results for the program include:

## **II. BACKGROUND**

### **A. Project location and background on the area**

*Where the project will be implemented. List municipalities, communities, urban areas, etc. See program map in **Annex A**.*

- Population of the area
- Other key information

### **B. Characteristics of the target population**

Ages, sex, ethnic group, etc. of target groups

**C. Social, economic and health conditions within the project area**

The following information can be included in this section (among other things):

- Literacy
- GNP per capita
- Causes of under-five and maternal mortality
- Health care delivery in the area and staffing of health facilities

**D. National standards/policies regarding maternal and child health**

Maternal and child care services are delivered according to Ministry of Health standards...

**E. Overview of the Child Survival project: goals, objectives, intervention activities**

- History of the PVO in the country
- Partner and why selected
- Current beneficiaries and program location
- When funded
- Goals of the project
- Interventions
- Objectives and indicators (or reference another section)
- Main strategies and activities

**F. Results of qualitative studies**

- Describe quality studies conducted and list findings

**G. Objectives of the KPC survey**

- Main goals of the KPC survey

**III. PARTNERSHIP BUILDING**

**A. Methods of identifying and engaging local partners stakeholders in the KPC SURVEY**

- Who stakeholders are and how they were involved

**B. Specific roles of local partners/stakeholders in the writing of the proposal and the KPC survey**

## IV. METHODS

### A. Questionnaire development

- What was used as a foundation (e.g., the Rapid CATCH) and what modules were used of the KPC 2000+.
- How the questionnaire was developed, pre-tested, etc.
- Include a final copy of the survey questionnaire in an annex.

### B. KPC indicators

The **objectives and indicators** for the project to be measured in this KPC survey are provided in the table on the following page. This should include a definition of the indicator, including the number(s) of the question(s) on the questionnaire which correspond to each indicator, and a clear definition of the numerator and denominator.

The table on the following page is a sample only.

Intervention	Objective	Indicator	Definition of Indicator
<b>Pneumonia</b>	60% of mothers children < 2 will seek care promptly from an appropriate provider upon early recognition of key signs of pneumonia	<ul style="list-style-type: none"> <li>▪ % of mothers of children 0–23 months of age who know at least two (2) signs of childhood illness that indicate the need for treatment.*</li> <li>▪ % of mothers with children &lt;2 who seek medical treatment from a qualified provider when a child shows danger signs of pneumonia</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers who know at least two (2) correct responses (C-I) for Question #31/Total mothers answering #31.</li> <li>▪ Mothers who state either hospital, health center, or health post (or another health facility that has qualified providers) for Q50/Total number of mothers saying yes to both Q44 and Q45</li> </ul>
<b>Diarrhea</b>	50% of children with diarrhea in the last two weeks will be treated with ORT	<ul style="list-style-type: none"> <li>▪ Percent of children under 24 months with diarrhea in the past two (2) weeks whose mothers report they were treated with ORT (ORS, cereal based ORT, recommended home fluids, or increased amount of fluids)</li> <li>▪ Percent of mothers who can demonstrate correct preparation of ORS</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers who state B, C, or H for Q36/total children with diarrhea (yes to Q35).</li> <li>▪ Mothers for whom 1 is checked for Q43/total number of mothers interviewed</li> </ul>
	75% of mothers will be able to identify and seek medical care for the danger signs of dehydration, dysentery and persistent diarrhea	<ul style="list-style-type: none"> <li>▪ % of mothers of children 0–23 months of age who know at least two (2) signs of childhood illness that indicate the need for treatment.*</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers who state C, D, E, F, G, H, or I for Q31/total number of mothers interviewed</li> </ul>
<b>Nutrition</b>	50% of newborns will be put to the breast immediately after birth.*	<ul style="list-style-type: none"> <li>▪ % of mothers of children aged 0–23 months who were breastfed within 1 hour after delivery.*</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers who state response #1 to Q16/Total number of mothers responding to Q16</li> </ul>
	40% of infants will be exclusively breastfed for four months	<ul style="list-style-type: none"> <li>▪ % of children age 0–5 months who were exclusively breastfed during the last 24 hours.*</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers of 0–5 months children who do <u>not</u> state responses B-S for Q22 or &gt; 0 for Q24/Mothers of 0–5 months children who state Yes to Q20 (are you currently breastfeeding).</li> </ul>

Intervention	Objective	Indicator	Definition of Indicator
<b>Nutrition (continued)</b>	50% of infants will be given food in addition to breast milk at about six months of age	<ul style="list-style-type: none"> <li>▪ % of children age 6–9 months who received breastmilk and complementary foods during the last 24 hours*</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers of 6–9 months children who are currently breastfeeding (Yes to Q20) and gave at least one response J-Q or Q24 &gt; 0 / mothers of children 6–9 months of age</li> </ul>
<b>Immunization</b>	80% of women 15–49 will receive two doses of tetanus toxoid (TT) before delivery	<ul style="list-style-type: none"> <li>▪ Percent of mothers of children less than 24 months who received at least two (2) doses of TT before the birth of their youngest child</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mothers who said “twice” or “more than two times” for Q64I/Mothers responding to Q64H. (Note: about 4% of mothers were not asked this question due to improper skipping.)</li> </ul>
	60% of children under age 1 will be fully immunized	<ul style="list-style-type: none"> <li>▪ Percent of children 12–23 months infants who were fully immunized in the first year of life</li> </ul>	<ul style="list-style-type: none"> <li>▪ Children 12–23 months of age who had a date &lt; one year before their first birthday recorded for the BCG, Polio3, DPT3 and Measles sections of Q61</li> </ul>
	60% of children under age 1 will receive measles vaccine	<ul style="list-style-type: none"> <li>▪ Percent of children 12–23 months of age who have received measles vaccination in the first year of life</li> </ul>	<ul style="list-style-type: none"> <li>▪ Percent of children 12-23 months of age who had a date &lt; one year before their first birthday recorded for the Measles section of Q61.</li> </ul>

### C. Sampling Design

- Target population for the survey (mothers of children under 2)
- How the organization decided upon a sampling design
- How the sampling frame was prepared if one was used (e.g., LQAS, 30-cluster)
- Who was trained in how to select first households
- Where clusters were selected (or put in an annex)
- Determining cluster boundaries and household selection
- Respondent selection and precautions taken to avoid selection bias
- Sample size

In the case of cluster sampling for a KPC survey, a sample size of 300 (10 per cluster) is generally used to ensure that sub-samples (e.g., children with diarrhea) are large enough to obtain useful management type information. If a sample size other than 300 was used for cluster sampling, include an explanation of how the sample size was determined.

If LQAS was used as the sampling method for the KPC Survey, a sample size of 19 is generally used. If a sample size other than 19 was used for LQAS sampling, include an explanation of how the sample size was determined. Also include the number of Supervision Areas used.

Include the total number of people interviewed (e.g., 300 mothers of children under 2). The estimates of confidence limits for the survey results were calculated using CSAMPLE, a program within Epi-Info. The HIS manager was taught how to calculate these confidence intervals both manually and using Epi-Info's CSAMPLE module.

### D. KPC training

- KPC training curriculum was prepared using several sources:
  - ♦ List sources used for training notes, e.g., the KPC Field Guide, the KPC 2000+ curricula
  - ♦ How staff participated in the design of the training
- Selection and training of Interviewers:
- Selection and training of Supervisors:
- Training schedule (or include in an annex)
- Pre-testing and translation of questionnaire:

Describe how the questionnaire was pre-tested and translated, and list what changes were made to the questionnaire because of the pretest.

- List who conducted the various raining activities and whether that person (s) received TOST training.

**E. Data collection and quality control procedures**

- When data was collected
- Average length of interview
- What was done when respondent was not available
- How many mothers were not available for the KPC
- How many refused to be interviewed and suspected or stated causes
- Any problems encountered with the questionnaire *during* the data collection
- Any interviewing problems experienced
- What tool was used to monitor the quality of interviews, if anything (e.g., a QI checklist), how that was used

**F. Data management/data analysis**

- Who entered data
- Who supervised data entry and how
- How quality was monitored during data entry
- Who wrote the QES, CHK, and PGM files if Epi-Info was used (include an electronic version of the PGM file),
- How the analysis program was tested
- How data was cleaned and common errors that were found during cleaning
- When data was analyzed
- If manual tabulation was conducted, how it was conducted
- What follow-up studies will be conducted
- How stakeholders participated in data analysis

The table that follows is a sample only.

IV. RESULTS<sup>6</sup>

<b>Pneumonia Indicators</b>	<b>Numerator</b>	<b>Denominator</b>	<b>Proportion</b>	<b>Confidence Intervals<sup>7</sup></b>
▪ % of mothers of children 0–23 months of age who know at least two (2) signs of childhood illness that indicate the need for treatment	164	303	54%	47% – 61% or +/- 7%
▪ % of mothers with children < 2 who seek medical treatment from a qualified provider when child shows danger signs of pneumonia	56	65	86%	76.7 – 95.3% or +/- 9.3%
<b>Diarrhea Indicators</b>	<b>Numerator</b>	<b>Denominator</b>	<b>Proportion</b>	<b>Confidence Intervals</b>
▪ Percent of children under 24 months with diarrhea in the past two (2) weeks whose mothers report they were treated with ORT (ORS, cereal-based ORT, recommended home fluids, or increased amount of fluids)	20	111	18%	10.4 – 25.6% or +/- 7.6%
▪ Percent of mothers who can demonstrate correct preparation of ORS and explain its use	47	303	16%	10.3 – 21.7% or +/- 5.7%
▪ % of mothers of children 0–23 months of age who know at least two (2) signs of childhood illness that indicate the need for treatment (same as pneumonia, above)	164	303	54%	47.8% – 60.2% or +/- 6.2%

<sup>6</sup> Given the rather wide 95% confidence intervals for this type of survey, reporting data to one decimal point seems misleading (in terms of accuracy). For that reason, we have chosen to present most of the proportions rounded to the nearest integer. Also, given the large number of percentages used in this report and the occasional use of decimals, we have broken with convention: Percentages that begin a sentence are written as numbers rather than as words (e.g., “43%” rather than “Forty-three percent”).

<sup>7</sup> Confidence intervals were calculated using Epi-Info’s CSAMPLE module.

**TR 3-18: KPC Survey Report Template**

<b>Nutrition Indicators</b>	<b>Numerator</b>	<b>Denominator</b>	<b>Proportion</b>	<b>Confidence Intervals</b>
<ul style="list-style-type: none"> <li>▪ % of mothers of children aged 0–23 months who were breastfed within 1 hour after delivery.*</li> </ul>	58	303	19%	13.4 – 24.9%
<ul style="list-style-type: none"> <li>▪ % of children age 0–5 months who were exclusively breastfed during the last 24 hours*</li> </ul>	26	63	41%	31.2 – 51.4%
<ul style="list-style-type: none"> <li>▪ % of children age 6–9 months who received breastmilk and complementary foods during the last 24 hours</li> </ul>	32	49	65%	51.1 – 79.5%
<ul style="list-style-type: none"> <li>▪ Percentage of children age 12–23 months who are wasted*</li> </ul>	33	154	21%	14.9 – 27.9%
<b>Immunization Indicators</b>	<b>Numerator</b>	<b>Denominator</b>	<b>Proportion</b>	<b>Confidence Intervals</b>
<ul style="list-style-type: none"> <li>• Percent of mothers of children less than 24 months who received at least two (2) doses of TT before the birth of their youngest child</li> </ul>	205	284	72%	64.4 – 80.0
<ul style="list-style-type: none"> <li>• Percent of children 12–23 months infants who were fully immunized in the first year of life</li> </ul>	14	162	15%	4.7 – 12.6

The Rapid CATCH indicators measured during this survey are presented in the table below:

Other Rapid CATCH Indicators	Numerator	Denominator	Proportion
▪ Percentage of children age 0–23 months who were born at least 24 months after the previous surviving child	34	73	47%
▪ Percentage of children age 0–23 months whose births were attended by skilled health personnel	160	303	53%
▪ Percentage of children age 0–23 months who slept under an insecticide-treated bednet the previous night	5	303	2%
▪ Percentage of mothers with children age 0–23 months who cite at least two (2) known ways of reducing the risk of HIV infection.	11	303	4%
▪ Percentage of mothers with children age 0–23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	28	299	9%
▪ Percentage of sick children age 0–23 months who received increased fluids and continued feeding during an illness in the past two (2) weeks	5	160	3%
▪ Percentage of children age 0–23 months with diarrhea who received medical treatment	68	111	61%
▪ Percentage of children age 12–23 months who received a measles vaccine	27	162	17%

Other frequencies and results are presented in **Annex XX** (if you choose to include some or all of the suggested annexes, see VII. Annexes, following page).

## **VI. DISCUSSION**

### **A. Discussion of key findings from the KPC survey and programmatic implications:**

1. [Intervention #1]  
Report on key finds for the intervention, referring to the indicator table, and programmatic implications.
2. [Intervention #2]  
Report on key finds for the intervention, referring to the indicator table, and programmatic implications.
3. Other Rapid CATCH Questions  
Include discussion of the Rapid CATCH indicators, as well.

### **B. Next steps in information gathering**

### **C. Action Plan for community feedback and dissemination of findings**

- How feedback sessions were/will be conducted for communities and other stakeholders

## **VII. ANNEXES**

Possible annexes to include:

- Annex A: Map of Project Area with clusters/sampling areas identified
- Annex B: Logistical Preparations and Schedule
- Annex C: Survey Questionnaire in English and [local language]
- Annex D: Sampling Frame
- Annex E: Training Guide and Schedule for KPC Survey Training
- Annex F: Manual Tabulation Tables
- Annex G: Computer Tables for Each Question
- Annex H: Breakdown of Costs for KPC Survey
- Annex I: Epi-Info PGM File (electronic only)

### TR 3-19: Presenting KPC Survey Data to Stakeholders

#### Analysis of KPC Survey Data:

Some questions to ask:

- What are the most important results to present and how should that data be presented?
- When will you present the data? [small meetings (donor), workshops (partners) and community meetings]
- How will you present the data? [flip charts, graphics, tables, role play, PowerPoint, written report]

Some things to remember:

- Do not try to put all your information into graphics. Use graphics to highlight the most important findings
- Be careful about using colors—all graphics and documents should also be understandable in black and white because most reports will be photocopied in black and white
- Clearly present what your denominator is for each indicator

Some methods to use:

- Tables show frequencies (include numerator, denominator, proportion, and CI) or cross-tabulations

Percentage of children age 12–23 months fully vaccinated (against the five [5] vaccine-preventable diseases) before the first birthday:

n= 261

	Number	Percent	Cumulative Percent
Received all vaccines	141	54%	54%
Did not receive all vaccines	120	46%	100%

Sick children age 0–23 months who received increased fluids and continued feeding during an illness in the past two (2) weeks by mother's age

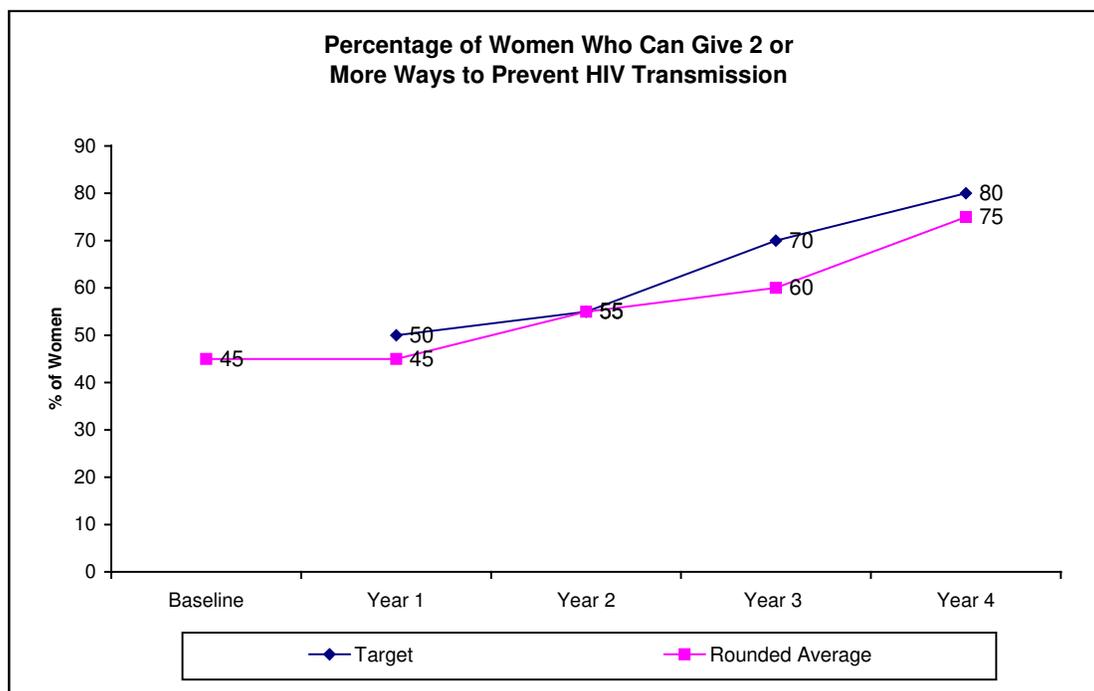
n = 119

	Mother's Age < 25 years	Mother's Age ≥ 25 years	
Received both more fluids and the same and/or more food	40	7	47
Did not receive both more fluids and the same and/or more food	19	53	72
	59	60	119

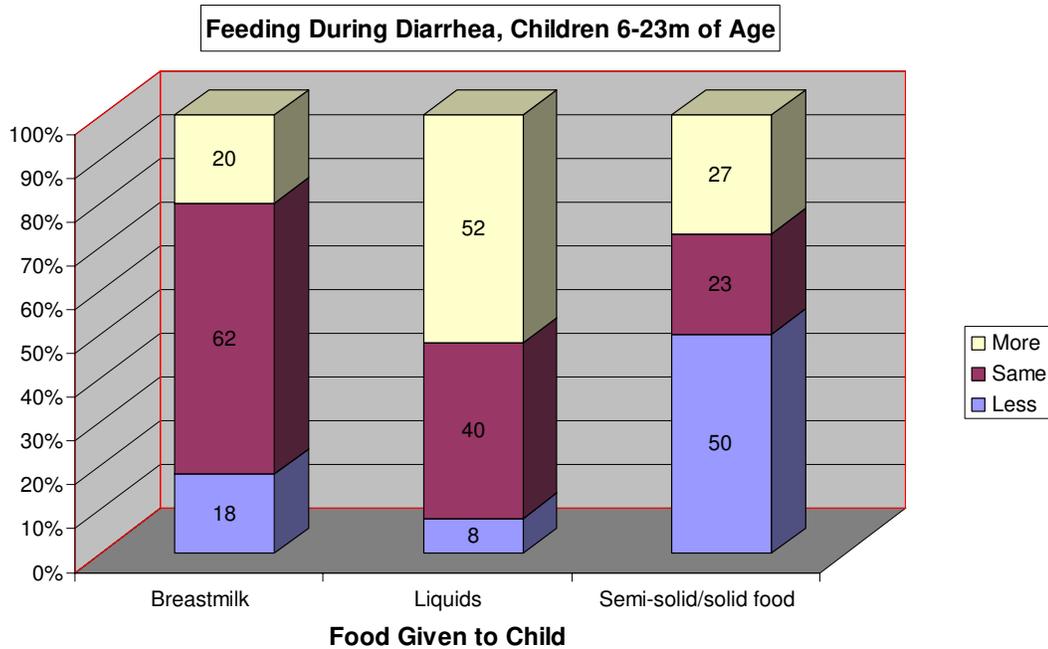
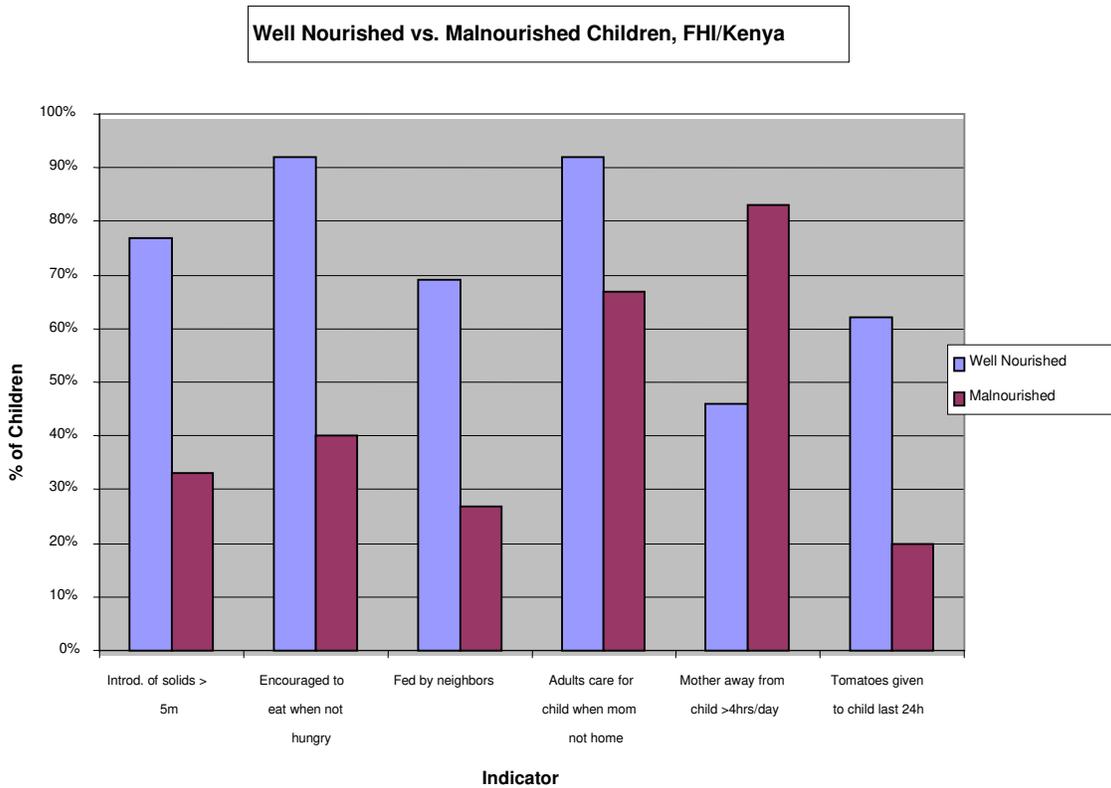
### TR 3-19: Presenting KPC Survey Data to Stakeholders

Examples of graphics commonly used to present KPC survey indicator data:

- Line graphs can clearly show change over time:

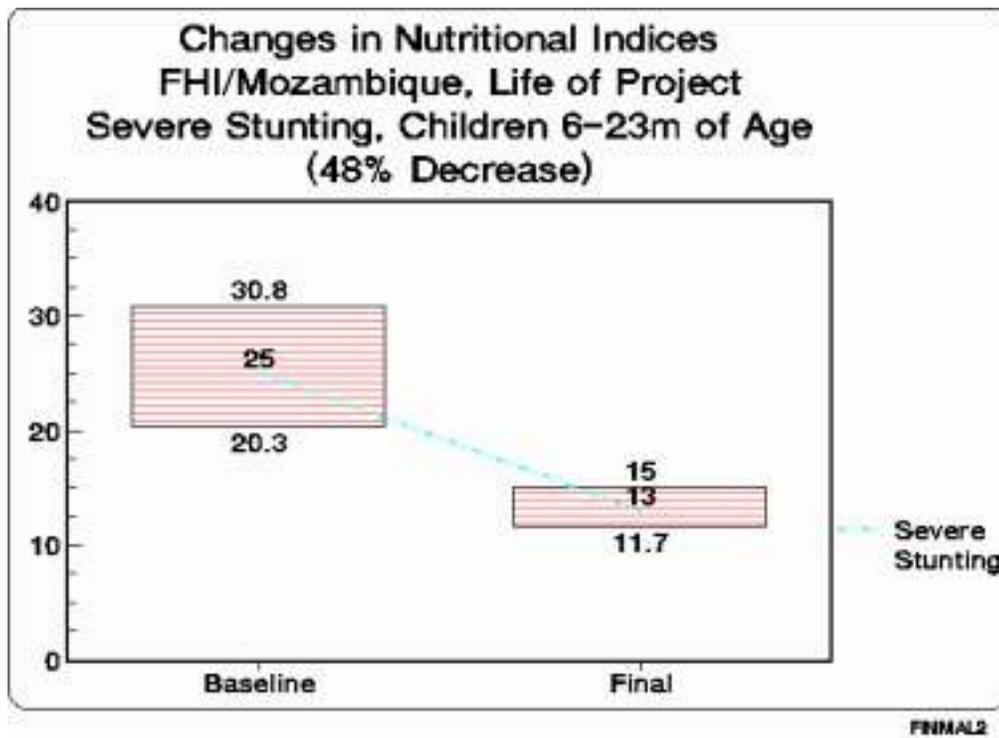


- Bar graphs are especially good at showing comparisons—cross-tabulations, baseline vs. final:



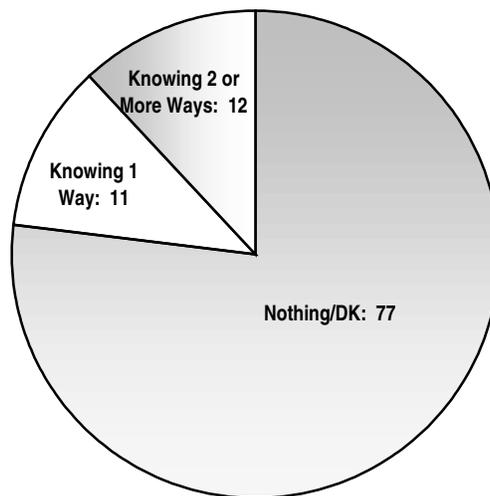
**TR 3-19: Presenting KPC Survey Data to Stakeholders**

Keep in mind how to graphically display Confidence Intervals:



Pie Charts can be used effectively to show the breakdown by response categories:

**Responses to Ways to Prevent HIV/AIDS**



**KPC survey results should be shared with project communities to:**

- give feedback to communities
- promote analysis of problems at the community level
- get commitments from stakeholders regarding involvement in project activities and other community-level activities to make permanent changes in behavior

Methods for providing feedback need to take into consideration the level of literacy of community members and the level of understanding of mathematical concepts such as percent.

Using PRA-type activities:

- Stones to represent well-nourished and malnourished children
- “Tortilla” Chart (or other local materials to represent pie charts) to represent children receiving vitamin A supplements
- “Spaces occupied in the canoe” typically ten (10) people fit into a canoe; of these ten (10) people, XX people represent mothers who give more liquids during illness:

Of every ten (10) children,

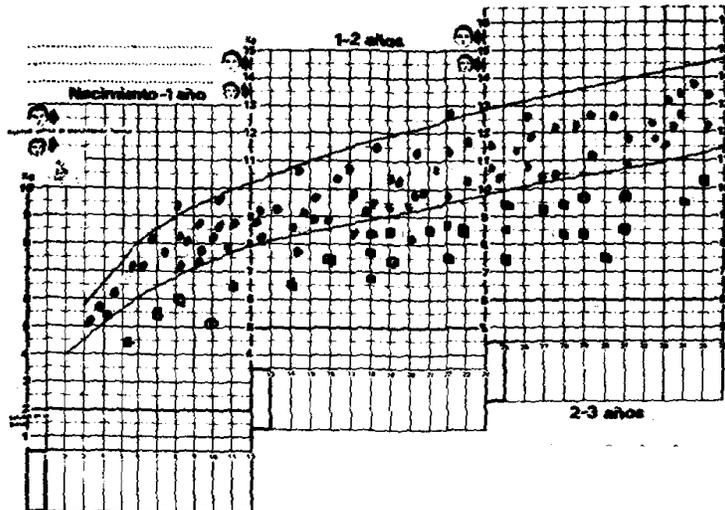


Only four (4) have all of their vaccines



The other six (6) children are unprotected from many illnesses

Use a large growth chart to visually show nutrition indicators.



### **TR 3-19: Presenting KPC Survey Data to Stakeholders**

**It is always useful to put survey data into an understandable context. This can be accompanied by comparing it to other studies or other areas. Some useful data sources to compare with the KPC survey results include:**

- a. Demographic and Health Survey data for the country in which you are working
- b. Other local surveys
- c. Ministry of Health (MOH) statistics
- d. MOH objectives or standards
- e. PVO's own project objectives
- f. Reported national data
- g. WHO/UNICEF objectives or standards

The objective of feedback is to promote reflection about “why” things are changing or staying the same and to motivate actions, not to just passively receive information.