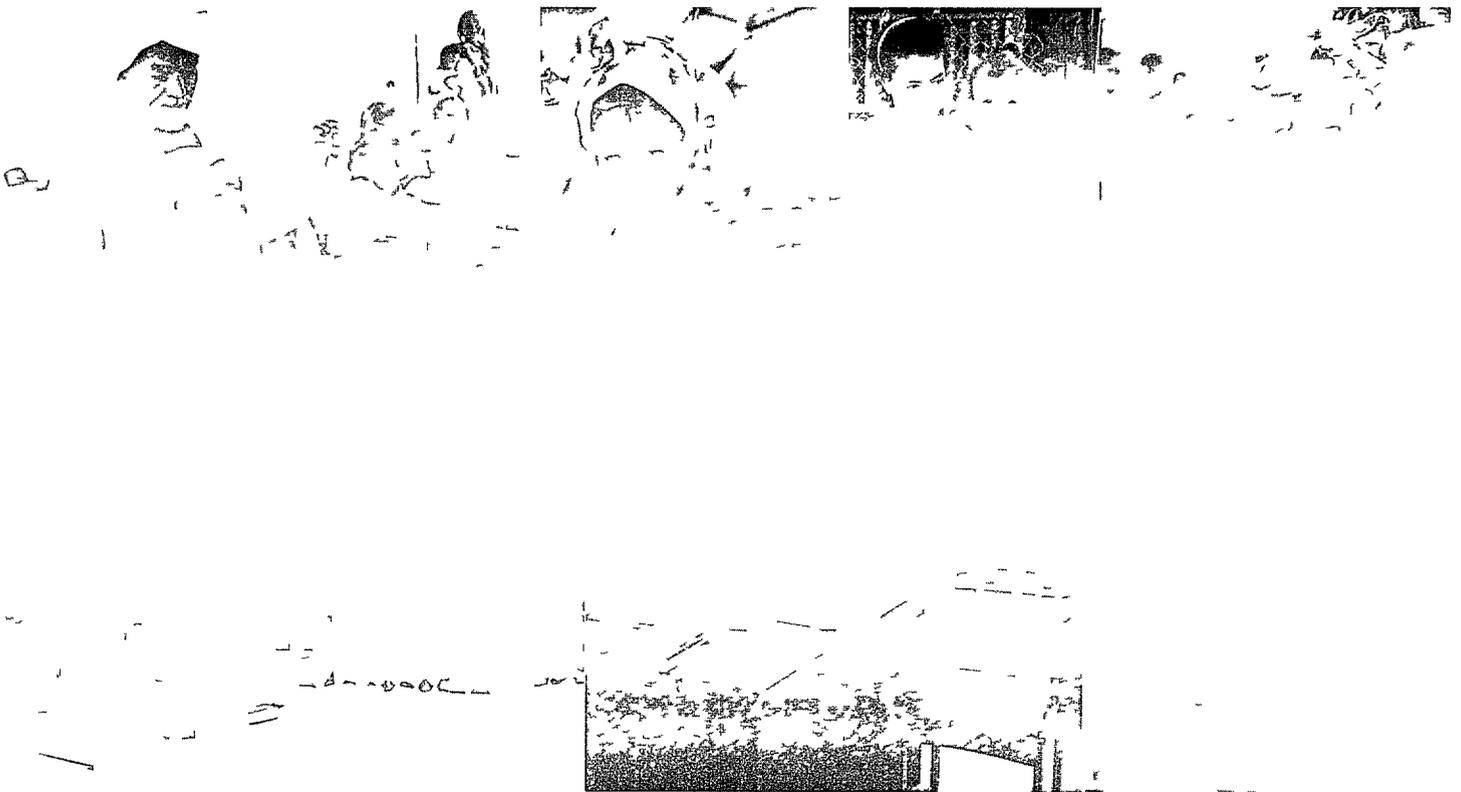


Integrated Health Facility Assessment Manual



**Using Local Planning to Improve the Quality
of Child Care at Health Facilities**

BASICS

Integrated Health Facility Assessment Manual:

**Using Local Planning
to Improve the Quality of
Child Care at Health Facilities**

John Murray

Serge Manoncourt

BASICS

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Abstract

This manual outlines the key steps for planning and conducting an integrated health facility assessment at outpatient health facilities in developing countries. This assessment is designed for use by primary health care programs that are planning to integrate child health care services. The assessment collects information on the case management of all important causes of infant and childhood morbidity and mortality in developing countries (acute lower respiratory tract infections [ARI], diarrhea, malaria, measles, and malnutrition) and on the program elements (health worker training, health worker supervision, drug supply, availability of essential equipment, and health facility organization) that are required to allow integrated practice. It is hoped that as Ministries of Health and other groups develop integrated child health programs, they will consider the implementation of the Integrated Management of Childhood Illness (IMCI) program developed by the World Health Organization and UNICEF in collaboration with other groups. This assessment is designed to be a local level planning tool and is designed for district level health staff. An emphasis is placed on the immediate use of data for making program decisions. Guidelines are presented on the analysis and use of the data collected, including the calculation of key indicators.

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BASICS

Basic Support for Institutionalizing Child Survival
1600 Wilson Blvd., Suite 300
Arlington, VA 22209 USA
Phone: 703 312 6800
Fax: 703 312 6900
E-mail: infoctr@basics.org

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 - Questionnaires
 - Observation Checklist—Sick Child
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 - Health Worker Interview
 - Equipment and Supplies Checklist
 - Validation Checklist (Health Worker Performance)
 - Participant Guidelines

Epi Info Files

Equip chk
Equip qes
Equip rec
Exit chk
Exit qes
Exit rec
Hwi chk
Hwi qes
Hwi rec
Obs chk
Obs qes
Obs rec

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Integrated Health Facility Assessment Manual Using Local Planning to Improve the Quality of Child Care at Health Facilities was developed and written by Drs Serge Manoncourt and John Murray for the U S Agency for International Development's (USAID) Basic Support for Institutionalizing Child Survival (BASICS) Project. The manual was developed and field tested with the support and technical assistance of the ministries of health (MOH) of Eritrea, Madagascar and Ethiopia. The authors owe a large debt to many individuals, all of whom were critical to the planning, implementation, and further development of the assessment. Special thanks are extended to Drs Afeworki Abraham and Mismay Ghebrihiwet and to Teclai Estefanos, Afeworki Berhe, and Tesfa Michael Asfaha of the Eritrean MOH, to Drs Feno Etienne, Emelie Razafarisoa, Odon Andrianarisoa, Marie-Jeanne Andriamanga, and Andriamahefa Rakotoarisoa of the Madagascar MOH, to Drs Mary Carnell and Robertine Rahelimalala and to Bodo Radaody-Ralarosy of BASICS Madagascar, to Drs Estifanos Biru, Shiferew Tefsa Maraim, and Getachew Assefa and to Sr Workenesh Kereta of the MOH in Ethiopia, to Drs Paul Freund, Mengistu Asnake, and Mulageta Betre, and to Wondimu Amdie of BASICS Ethiopia, to Drs Tyane, A Zerrari, H Chekli, A Lyaghfour, M Braikat, and L Rjimat of the MOH in Morocco, and to Dr Maye Olivola of BASICS Morocco. We also wish to acknowledge the diligence and valuable input of all the other MOH staff in Eritrea, Madagascar, and Ethiopia who participated as surveyors and support staff. For their technical reviews and valuable suggestions, we are grateful to Jennifer Bryce, Mariam Claeson, Rebecca Fields, Mary Hamel, Pat Kelly, Eckhard F Kleinau, Thierry Lambrechts, Jane Lucas, Joseph Naimoli, and Ronald J Waldman.

Acronyms

ARI	acute lower respiratory tract infection
BASICS	Basic Support for Institutionalizing Child Survival
CDC	U S Centers for Disease Control and Prevention
EPI	Expanded Program on Immunization
HF	health facility
HW	health worker
ID	identification
IMCI	integrated management of childhood illness
LRTI	lower respiratory tract infection
MOH	Ministry of Health
OPV	oral polio vaccine
ORS	oral rehydration salts
ORT	oral rehydration therapy
RHF	recommended home fluid
TT	tetanus toxoid
UNICEF	United Nations Children's Fund
URTI	upper respiratory tract infection
USAID	U S Agency for International Development
WHO	World Health Organization

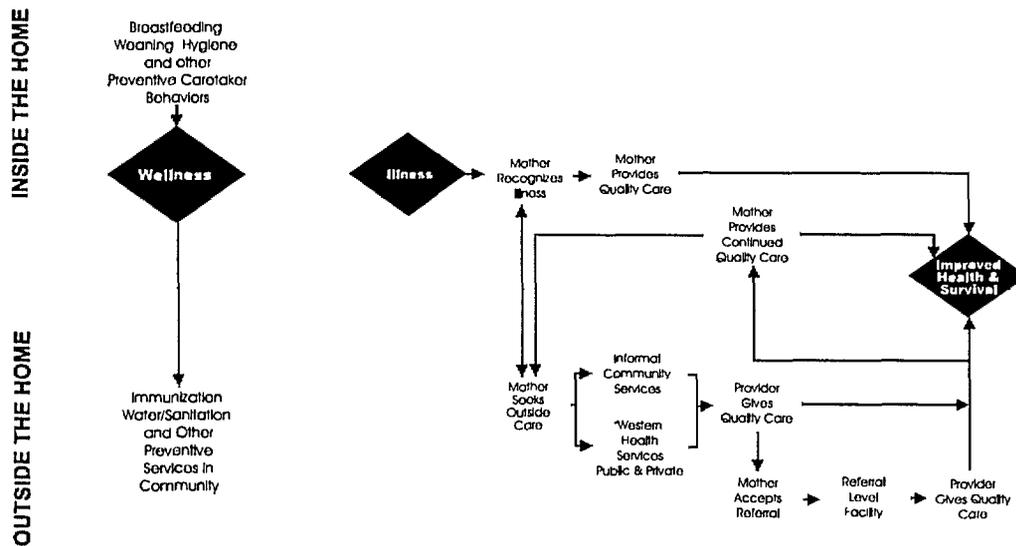
Overview

The Pathway to Survival: Linking Primary Health Care Activities to Communities

BASICS, the U S Centers for Disease Control and Prevention (CDC), and the U S Agency for International Development (USAID) have developed a conceptual framework, the *Pathway to Survival* (Figure 1), to assist with the development and monitoring of integrated child's health programs. This framework outlines the key steps between a child being well, developing an illness, and then surviving this illness. Data from many countries suggest that a large component of the prevention and treatment of childhood illness must take place in the home and community since many populations do not have access to health facilities or, if they do, do not seek care appropriately. In order to have a measurable impact on childhood morbidity and mortality, public health programs need to focus on health-related behaviors in the home, in particular the behavior of caretakers. Approaches to developing integrated primary health care programs at the household and community levels have been developed by the BASICS project and are available to assist program managers and planners. These tools include—

- **Community-Based Mortality Surveillance**—instruments and strategies for investigating why infants and children die and developing community programs to reduce infant and child mortality
- **Community Assessment and Planning to Develop Maternal and Child Health Programs A Participatory Approach**—instruments and strategies for developing integrated community programs aimed at addressing the common causes of infant and child morbidity and mortality

Figure 1 The Pathway to Survival



Toward Integrated Case Management

This assessment is seen as a tool for planning primary health care programs to integrate the management of infants and children at outpatient health facilities. The assessment is designed to measure the core elements of integrated case-management practices and the facility supports required for these practices. This information will allow primary health care program planners and health workers to design strategies (drug management and training programs, for example) and to monitor and evaluate progress toward integrated health worker practice.

Improvements in the quality of integrated child care will require that the knowledge and practices of health workers are improved by training. However, a number of other elements are important for supporting and sustaining these practices, including regular supervision, the availability of essential drugs, equipment and materials, and a clinic organization that allows adequate time for each caretaker and child.

This facility assessment is designed to measure a number of the core elements required for the conduct of integrated management of childhood illness (IMCI). It does not specifically evaluate the development of policies or a number of planning and management tasks. It is designed to help identify gaps in health worker performance and to develop strategies for addressing these.

Chapter 1.

Introduction

Purpose of This Assessment

The purpose of this integrated health facility assessment is to collect information on the case management of all important causes of infant and childhood morbidity and mortality in developing countries—acute lower respiratory tract infections (ARI), diarrhea, malaria, measles, and malnutrition. The assessment is intended to help managers of primary health care programs and health workers to plan and develop integrated child health care programs.

Information collected by this assessment will help managers of primary health care programs and health workers plan and prioritize a number of elements that are essential for integration of child health services, including—

- Health worker training
- Health worker supervision
- Drug supply
- Availability of essential equipment
- Health facility organization

This assessment will provide information for developing strategies to improve integrated health worker performance. As ministries of health (MOH) and other groups develop integrated child health programs, it is hoped that they will consider the implementation of the integrated management of childhood illness (IMCI) program, developed by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF).

Features of This Assessment

The assessment has five key characteristics—

- **It is designed to be rapid.** The total duration of the survey, including training of surveyors, data collection, data entry, and analysis, is three weeks.
- **It is designed to be conducted before IMCI training has been implemented.** This survey is an important tool for preparing for the implementation of IMCI. If necessary, the performance of health workers can be compared with the IMCI case management algorithm, by having validators check the classification of each sick child.

- **It is designed to be cost-effective** Costs are reduced by keeping the total number of surveyors to a minimum (a total of 15 surveyors and supervisors is proposed) and by completing all survey activities in a three-week period
- **It is designed to be a local-level program planning tool** It is hoped that lower-level health staff will use this survey for evaluating and monitoring child health programs in their areas and for developing local strategies to improve the delivery of integrated child health services
- **It is designed to be one step in a process of integrated infant and child health program development** The data that are collected should be used by local program managers and health staff to develop strategies that are appropriate for the local conditions

Objectives

The objectives of the health facility assessment are—

- 1 To determine—
 - Current knowledge and practices of health workers at outpatient clinics regarding the assessment and management of sick children
 - Principal barriers to effective case-management practices
 - Adequacy of training and supervision of health workers
- 2 To use the information to—
 - Prioritize and plan improvements in the quality of care at outpatient health facilities, including staffing, clinic organization, equipment requirements, drug and material supplies and case-management practices
 - Improve or develop pre- and in-service training for outpatient health workers
 - Improve or develop a strategy for supervising and monitoring health worker performance over time
- 3 To train local health workers in survey techniques, in collection and analysis of survey data, and in the use of data to improve the quality of integrated case management in outpatient health facilities

Information Collected

This assessment collects information on the case management of the most important causes of infant and child morbidity and mortality in developing countries and on health worker communication with caretakers at the time of the visit with a sick child. It also gathers information on the facility supports (essential medications, equipment, and materials) required for the management of these conditions. Information is collected on the management of the following clinical presentations—

- Fever (malaria, measles, ear infection)
- Acute lower respiratory tract infection (pneumonia)
- Diarrhea (simple watery diarrhea, persistent diarrhea, or dysentery)
- Undernutrition

Any infant or child presenting to a health facility with fever, cough or difficulty breathing, or diarrhea is included in this assessment. Examples of the type of information collected on the quality of case management are—

- The assessment, diagnosis, and treatment of children with diarrhea, fever and malaria, and acute lower respiratory tract infections
- Whether the vaccination status of women of childbearing age and children is checked during the sick child visit and whether these women and children are vaccinated appropriately
- How well caretakers are able to provide home treatment for their children
- How well health workers counsel caretakers about preventive and curative care
- The quality of training and supervision received by health workers

Examples of the type of information collected on facility elements required to support integrated case management are—

- Availability of essential equipment (e.g., weighing scales, sterilizer, refrigerator)

- Availability of essential materials (e.g., measuring cups for oral rehydration salts, patient registers, stock cards, maternal and child health cards, growth monitoring charts)
- Availability of essential drugs and vaccines for the prevention and management of the most important causes of childhood morbidity and mortality
- Adequate number of staff and sufficient time for them to spend with each caretaker and child
- Adequate number of vaccination sessions to avoid missed opportunities to vaccinate infants and women of childbearing age

When to Conduct This Assessment

This assessment is designed to be a local-level planning tool. Data collected by this survey can be used by local health staff and health planners to solve problems and develop programs in their own areas based on the local conditions.

The complexity of integrated child health programs increases the need for ongoing evaluation and revision of programs in close collaboration with local staff. Local health staff should be involved in planning and decision-making. Therefore, for this assessment to be most useful, a number of programmatic decisions should have been made, including—

- Clear national policies and guidelines on the management of sick children
- A commitment by the primary health care program at the national and subnational levels to develop integrated infant and child health programs, using local data to tailor program interventions to local conditions
- A commitment from the national primary health care program to allow local program managers and facility-based health staff to develop strategies to improve the delivery of integrated infant and child services
- Motivated local program managers and local health staff who are committed to the development of integrated infant and child health care programs and prepared to follow up activities over time
- Adequate resources available to allow follow-up of the facility assessment, including development of local program strategies and ongoing monitoring of these activities

Chapter 2.

Assessment Instruments

This section contains the four assessment instruments, or survey questionnaires

- 1 Observation Checklist—Sick Child (direct observation of health worker practice)
- 2 Exit Interview—Sick Child (interview with the caretaker after the consultation)
- 3 Health Worker Interview
- 4 Equipment and Supplies Checklist

The questionnaires are also available for reproduction (see Appendix A) and for electronic adaptation (see WordPerfect® 5.1 files on diskette in back jacket)

A	All danger signs (Q 5 to Q 8 [or Q 13]) assessed?	Y N
B	All main symptoms (Q 9 to Q 12) assessed?	Y N
C	Number of diarrhea assessment tasks completed? (Circle one) (History and Examination)	0 1 2 3 4 5
D	Number of ARI assessment tasks completed? (Circle one) (History and Examination)	0 1 2 3 4
E	Number of fever assessment tasks completed? (Circle one) (History and Examination)	0 1 2 3 4
F	Nutritional status correctly assessed? (Q 3, Q 25 to Q 27)	Y N

Immunization and Screening

- 28 a Does the health worker ask for the *child's* immunization card? Y N
If NO, go to question 29
 b **If YES**, does the child have the card? Y N
 c Is the *child* referred for vaccination?
 ___ Today ___ Another day ___ Not referred ___ Up to date
- 29 a Does the health worker ask for the *caretaker's* vaccination card? N/A Y N
If NO or N/A, go to question 30
 b **If YES**, does the caretaker have the card? Y N
 c Is the *caretaker* referred for vaccination?
 ___ Today ___ Another day ___ Not referred ___ Up to date

Diagnosis

How does the health worker classify the child?					
30	Simple diarrhea	Y N	39	Very severe febrile disease	Y N
a	Severe dehydration	Y N	40	Malaria	Y N
b	Some dehydration	Y N	41	Severe complicated measles	Y N
c	No dehydration	Y N	42	Complicated measles	Y N
31	Dysentery	Y N	43	Measles	Y N
32	Severe persistent diarrhea	Y N	44	Fever, other cause	Y N
33	Persistent diarrhea	Y N		(specify)	

34	Severe pneumonia	Y N	45	Mastoiditis	Y N
35	Pneumonia	Y N	46	Acute ear infection	Y N
36	Upper respiratory infection (cough or cold)	Y N	47	Chronic ear infection	Y N
37	Severe malnutrition/anemia	Y N	48	No diagnosis	Y N
38	Moderate malnutrition/anemia	Y N			

If validation is performed

G a	Health worker classification agrees with validator?		Y	N
G b	Severely ill children classified correctly?	N/A	Y	N

Treatment

What does the health worker administer or prescribe for the child?				
49	Immediate referral?	Y	N	
50	Antimalarial injection	Y	N	57 ORS/RHF
51	Antimalarial tablets/syrup	Y	N	58 Antidiarrheal/antimotility
52	Paracetamol/aspirin	Y	N	59 Metronidazole tablets/syrup
53	Tepid bath	Y	N	60 Tablets/syrup unknown type
54	Antibiotic injection	Y	N	61 Injection unknown type
55	Antibiotic tablets/syrup	Y	N	62 None
56	Vitamin A or vitamins	Y	N	63 Other (specify) _____

H	Is the medication appropriate for the diagnosis?	Y	N
----------	---	---	---

I a	Diarrhea case received appropriate medication?	N/A	Y	N
I b	Pneumonia case received appropriate medication?	N/A	Y	N
I c	Malaria case received appropriate medication?	N/A	Y	N

If validation is performed

J a	Is the child treated correctly?	Y	N
J b	Severe classification correctly referred?	N/A	Y
J c	Pneumonia case correctly treated?	N/A	Y
J d	Diarrhea case correctly treated?	N/A	Y
J e	Malaria case correctly treated?	N/A	Y

Interpersonal Communication

For all oral medications—

64 a	Does the health worker explain how to administer medications/ORS?	N/A	Y	N
b	Does the health worker demonstrate how to administer medications/ORS?	N/A	Y	N
c	Does the health worker ask an open-ended question to verify the comprehension of how to administer medications/ORS?	N/A	Y	N

K	Number of treatment tasks performed? (Circle one)	N/A	0	1	2	3
----------	--	-----	---	---	---	---

65	Does the health worker explain when to return for follow-up?	Y	N
66	Does the health worker explain the need to give more liquid at home?	Y	N
67	Does the health worker explain the need to continue feeding or breastfeeding at home?	Y	N

- 68 Does the health worker tell the caretaker to bring the child back for the following signs?
- | | | |
|---|---|---|
| Child is not able to drink or drinking poorly | Y | N |
| Child is not able to breastfeed/eat | Y | N |
| Child becomes sicker | Y | N |
| Child develops a fever | Y | N |
| Child develops fast or difficult breathing | Y | N |
| Child develops blood in the stool | Y | N |
| Change in consciousness/lethargic | Y | N |

L Are at least three of the Q 68 messages circled?	Y	N
---	---	---

- 69 Does the health worker give the caretaker any advice on nutrition? Y N

<p>Check the time of the observation as the caretaker leaves Time _____</p> <p>Duration of observation _____ minutes</p>
--

END OF HEALTH WORKER OBSERVATION

- | |
|---|
| <ul style="list-style-type: none"> • The surveyor may need to ask the health worker about the diagnosis made and the treatment given during the consultation, but only if these two components were not stated during the consultation • The surveyor <i>must complete</i> this form <i>before</i> the next child observation |
|---|

2. EXIT INTERVIEW—SICK CHILD

Province/District _____	Date ____/____/____
Facility Name _____	Facility Type _____ Facility Status _____
Interviewer No _____	Child's Age (months) _____ Child ID No _____

Greet the caretaker and say that you would like to ask some questions about his/her visit to the health facility today

- 1 Did the health worker give you or prescribe any oral medicines at the health facility today? Y N
If NO, go to question 2
If YES, compare the caretaker's medications with the samples for identification of the oral medicines

Complete the table below for the listed oral medications. Fill in the information in the table below by asking—

HOW MUCH medicine will you give the child EACH TIME?
HOW MANY TIMES will you give it to the child EACH DAY?
HOW MANY DAYS will you give the medicine to the child?

If the caretaker's answer is—

'As required' write AR in the appropriate cell
 'Until completed,' write UC in the appropriate cell
 "I don't know," write DK in the appropriate cell

Medicine	How Much Each Time?	How Many Times/Day?	How Many Days?	All Correct? (Y or N)
Chloroquine tablets/syrup				
Antibiotic tablets/syrup Name _____ Dose/tablets _____				
Aspirin tablets/syrup OR Paracetamol tablets/syrup Dose/tablets _____				
ORS/RHF				
Other _____				

A Caretaker knows how to give ALL essential medications correctly? N/A Y N

- 2 What will you do for your child when you return home? (Check all that apply)
- Doesn't know
 - Continue feeding or breastfeeding the child
 - Give the same quantity or more fluids to the child
 - Complete course of medications/ORS/RHF
 - Bring the child back if he/she doesn't get better or gets worse
 - Other (specify) _____

B Caretaker knows at least two aspects of home case management?	Y	N
--	----------	----------

- 3 How will you know if the child becomes worse at home? (Check all that apply)
- | | |
|--|---|
| <input type="checkbox"/> Doesn't know | <input type="checkbox"/> Child unable to drink |
| <input type="checkbox"/> Fever begins or doesn't go away | <input type="checkbox"/> Child has convulsions |
| <input type="checkbox"/> Child unable to eat | <input type="checkbox"/> Child has difficulty breathing |
| <input type="checkbox"/> Diarrhea continues | <input type="checkbox"/> Blood in stool |
| <input type="checkbox"/> Child has chest indrawing | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Vomiting begins or continues | |

C Caretaker knows at least two signs of child getting worse at home?	Y	N
---	----------	----------

- 4 Which diseases will be prevented by the immunizations you or your child has received? (Check all that apply)
- | | |
|---|--|
| <input type="checkbox"/> Doesn't know | <input type="checkbox"/> Measles |
| <input type="checkbox"/> Diphtheria | <input type="checkbox"/> Tuberculosis |
| <input type="checkbox"/> Tetanus | <input type="checkbox"/> Polio |
| <input type="checkbox"/> Whooping cough | <input type="checkbox"/> Other (specify) _____ |
- 5 a Do you know what might happen as a side effect after the immunization? Y N
- b **If YES**, what do you know? (Check all that apply)
- | | |
|---|--|
| <input type="checkbox"/> Fever | <input type="checkbox"/> Swelling |
| <input type="checkbox"/> Irritability/crying | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Pain at injection site | |
- 6 How many vaccination visits does a child need in the first year of life to complete the series of vaccinations? _____
- Correct Incorrect Doesn't know
- 7 a Did your child receive an immunization today? Y N
- b **If NO**, was your child referred for vaccination another day? (Prompted question **Check a single response**)
- Referred for vaccination another day Not referred for vaccination Up to date
- 8 Do you have your child's vaccination card?
- Yes Lost Never received Left at home

If the caretaker has the card, record the dates of ALL VACCINES GIVEN, both today and in the past, and the child's birth date and age
 Birth date ___/___/___
 Age ___ Months

Immunization	Received
Polio 0 (birth)	Y N
BCG	Y N
DPT-1	Y N
Polio 1	Y N
DPT 2	Y N
Polio 2	Y N
DPT 3	Y N
Polio 3	Y N
Measles	Y N

D Child is up to date? Y N

9 Do you have your own vaccination card?
 ___ Yes ___ Lost ___ Never received ___ Left at home ___ N/A

If YES, copy the caretaker's tetanus toxoid vaccinations in the table at right If the caretaker's TT doses are recorded on the child's vaccination card, copy them here also

Immunization	Received
TT 1	Y N
TT-2	Y N
TT-3	Y N
TT 4	Y N
TT 5	Y N

E Caretaker has received at least TT-2? Y N

- 10 a Did you receive a tetanus vaccination today? N/A Y N
 b If NO, were you referred for vaccination another day? (Prompted question **Check a single response**)
 ___ Referred for vaccination another day ___ Not referred for vaccination ___ Up to date
- 11 a Were you prescribed any oral medication at your last visit? Y N
 b If YES, were you able to get your medication? Y N
 c If YES where did you get your medication?
 ___ This health facility ___ Drug vendor
 ___ Private pharmacy ___ Other (specify) _____
 ___ Another health facility/hospital
- d If NO, why could you not get the medication?
 ___ No drugs available ___ Other (specify) _____
 ___ No money/could not afford

END OF EXIT INTERVIEW

Thank the caretaker for answering your questions and ask if he/she has any questions Be sure that the caretaker knows how to prepare ORS for a child with diarrhea, when to return for vaccination, how to give the prescribed medications, and when to return if the child becomes worse at home

3. HEALTH WORKER INTERVIEW

Province/District _____	HW Category _____	Date ____ / ____ / ____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____		

Introduce yourself to the health worker Tell him/her that you would like to ask some general questions about the health facility, followed by some questions about his/her job

- 1 Where does the health facility *usually* get medications and supplies?
(Check a single response)

<input type="checkbox"/> Government supplier	<input type="checkbox"/> NGO/Mission
<input type="checkbox"/> Community pharmacy	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Private pharmacy supplier	
- 2 How are supplies *usually* received? (Check a single response)

<input type="checkbox"/> Delivered to facility	<input type="checkbox"/> Both
<input type="checkbox"/> Picked up from the supplier	<input type="checkbox"/> Other (specify) _____
- 3 What is the *most common* cause of a delay in delivery of supplies?
(Check a single response)

<input type="checkbox"/> Inadequate transport	<input type="checkbox"/> Insufficient staff
<input type="checkbox"/> Administrative difficulties	<input type="checkbox"/> Rupture of stock at the central store
<input type="checkbox"/> Financial problems	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Insufficient fuel	
- 4 Do you have a regular supervisor? Y N
If NO, go to question 9
- 5 Do you have a schedule for supervisory visits? Y N
- 6 How many times have you had a visit from a supervisor—

- In the last 6 months	_____ (number of times)
- In the last 12 months	_____ (number of times)
- Supervisor works here and sees worker daily	_____
- 7 What did your supervisor do the last time he/she supervised you? (Check all that apply)

<input type="checkbox"/> Delivered supplies (fuel, medicines, etc)
<input type="checkbox"/> Observed immunization technique
<input type="checkbox"/> Observed management of sick children
<input type="checkbox"/> Reviewed reports prepared by health worker
<input type="checkbox"/> Updated health worker on current information
<input type="checkbox"/> Discussed problems with supplies and equipment
<input type="checkbox"/> Other (specify) _____
- 8 a Did you receive feedback from that supervisory session? Y N
 - b If YES, in what form?

<input type="checkbox"/> Supervisory register	<input type="checkbox"/> Written report
<input type="checkbox"/> Oral report	<input type="checkbox"/> Other (specify) _____

9 What are the most difficult problems that you face in doing your job?

(Check all that apply)

- Lack of training
- Caretakers don't bring children to clinic
- Lack of time
- Staff shortages
- Lack of supplies and/or stock
- Lack of supervision
- Lack of feedback on performance
- Inadequate transport
- Lack of motivation
- Poor working environment (health facility, housing)
- Other (specify) _____

10 Have you discussed these problems with your supervisor? N/A Y N

11 How many child-health-related training sessions have you received in the last 12 months? _____

If no training received, go to question 14

12 What type of training was it? _____ Y N

13 Did your *last* training involve clinical practice? Y N

14 In this health facility, at what ages do you give—

(Age in WEEKS but in MONTHS for measles only)

	First	Second	Third	Fourth
DPT				
Polio				
BCG				
Measles				

A EPI vaccination schedule all correct? Y N

15 To whom do you give tetanus toxoid? (Check all that apply)

- Doesn't know
- Pregnant women
- Women of childbearing age (15–49)

16 On what occasion would you give tetanus toxoid? (Check all that apply)

- Antenatal clinic visit
- Visit for curative services of mother
- Visit with child for immunization or treatment

17 On what days are immunizations given? (Circle days)

M T W Th F Sa Number of immunization days/week _____

18 a Does the health facility have an antenatal clinic? Y N

b If YES on what days is the clinic held? (Circle days)

M T W Th F Sa Number of clinic days/week _____

c If NO why are antenatal clinics not held? (Check all that apply)

- Doesn't know
- No staff
- No supplies
- No training
- No space available
- Other (specify) _____

- 19 What are the signs that would make you refer a child to the next level of health facility?
(Check all that apply)
- | | |
|---|--|
| <input type="checkbox"/> Child is lethargic/abnormally sleepy/unconscious | <input type="checkbox"/> Child looks very unwell |
| <input type="checkbox"/> Child has not responded to usual treatment | <input type="checkbox"/> Child has a very high fever |
| <input type="checkbox"/> Child is not eating or drinking | <input type="checkbox"/> Child vomits everything |
| <input type="checkbox"/> Child has severe dehydration | <input type="checkbox"/> Child has severe pneumonia |
| <input type="checkbox"/> Child has severe malnutrition/anemia | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Child has had convulsions | |

B Health worker knows at least three signs for referral?	Y	N
---	----------	----------

- 20 a Have you ever wanted to refer a child to the next level of health facility but have not been able to do so? Y N

If NO, go to question 21

- b **If YES, why could you not refer the child? (Check all that apply)**
- | | |
|--|--|
| <input type="checkbox"/> Next level of health facility too far | <input type="checkbox"/> Caretaker/parents refused to go |
| <input type="checkbox"/> No transport available | <input type="checkbox"/> No fuel available |
| <input type="checkbox"/> Parents didn't have enough money | <input type="checkbox"/> Other (specify) _____ |

- 21 What do you see as your role in communicating with caretakers when they bring their child to the health facility? **(Check all that apply)**

- Giving information on danger signs to watch for
- Giving information on what to do at home
- Giving information on how to give medicine at home
- Finding out what caretakers have done at home and what are the symptoms of the child's illness
- Giving information on how to prevent illness
- Telling caretakers when to come back to the health facility
- Ensuring that caretakers understand what to do at home
- Giving group talks
- Other (specify) _____

- 22 What prevents you from communicating with caretakers when they bring their children to the health facility? **(Check all that apply)**

- | | |
|--|---|
| <input type="checkbox"/> I don't know how | <input type="checkbox"/> It isn't really my role |
| <input type="checkbox"/> Someone else does it | <input type="checkbox"/> No time |
| <input type="checkbox"/> They don't listen | <input type="checkbox"/> They don't understand/comprehend what we say |
| <input type="checkbox"/> Language barriers prevent effective communication | |
| <input type="checkbox"/> I don't have any education materials | |
| <input type="checkbox"/> It isn't important | <input type="checkbox"/> Other (specify) _____ |

END OF HEALTH WORKER INTERVIEW

Thank the health worker for his/her cooperation and answer any questions that he/she may have about the correct recommendations for immunizations or management of sick children

4. EQUIPMENT AND SUPPLIES CHECKLIST

Province/District _____	Date ____ / ____ / ____
Facility Name _____	Facility Type _____ Facility Status _____
Interviewer No _____	

Category of health staff with child case management responsibilities (curative and preventive)

Category	Number Assigned to the Facility	Number Present the Day of the Survey
Physician		
Nurse		
Midwife		
Health assistant		
Community health worker		

Patient and Worker Accommodation

- | | | | |
|-----|---|---|---|
| 1 | Is there adequate seating for patients? | Y | N |
| 2 | Is there a covered waiting area? | Y | N |
| 3 | Is there potable water? | Y | N |
| 4 | Is there a <i>functional</i> toilet or latrine? | Y | N |
| 5 | Is there a <i>functional</i> waste disposal area/pit? | Y | N |
| 6 a | Are health information posters displayed? | Y | N |
| | b If YES, are they written in the local language? | Y | N |
| 7 | Is an ORT corner present and being used? | Y | N |

Equipment and Supplies

Are the following equipment and supplies present in the health facility?

- | | | | | | |
|----|-------------------------------|---|---|---------------------------|-----|
| 8 | Transportation | | | | |
| | Vehicle | Y | N | If YES in working order? | Y N |
| | Motorcycle | Y | N | If YES, in working order? | Y N |
| | Bicycle | Y | N | If YES, in working order? | Y N |
| 9 | Social mobilization equipment | | | | |
| | Megaphone | Y | N | If YES, in working order? | Y N |
| | Flip chart | Y | N | If YES, in working order? | Y N |
| | Counseling cards/pamphlets | Y | N | If YES in working order? | Y N |
| 10 | Weighing equipment | | | | |
| | Adult weight scale | Y | N | If YES in working order? | Y N |
| | Baby weight scale | Y | N | If YES in working order? | Y N |
| | Salter | Y | N | If YES, in working order? | Y N |
| | Medical Supplies | | | | |
| 11 | Thermometer | Y | N | If YES, in working order? | Y N |
| 12 | Stethoscope | | | | |
| | - Regular | Y | N | If YES, in working order? | Y N |
| | - Obstetrical | Y | N | If YES, in working order? | Y N |
| 13 | Otoscope | Y | N | If YES in working order? | Y N |

- 14 Tongue depressor Y N **If YES**, in working order? Y N
- 15 Watch with a second hand or other timing device Y N **If YES**, in working order? Y N
- 16 Steam sterilizer Y N **If YES** in working order? Y N
- 17 Cooker or stove Y N **If YES**, in working order? Y N
- 18 Measuring and mixing utensils Y N
- 19 Cups and spoons Y N
- 20 a Refrigerator Y N
- If NO, go to question 21**
- b **If YES**—
- Type Electric Kerosene Gas Solar Mixed
- Condition Good Fair Poor Nonfunctional
- Freeze-watch indicator? Y N
- Working thermometer inside? Y N Temp _____ °C
- Temperature chart? Y N
- If NO, go to question 21**
- c In the last 30 days, temperature record up to date? Y N
- Temperature above 8°C _____(number of days)
- Temperature below 0°C _____(number of days)
- 21 Cold packs Y N
- 22 Cold boxes Y N
- Condition Good Fair Poor Nonfunctional

Availability of Drugs and Other Supplies the Day of the Survey

(Circle Y or N for each item)

- Supplies— Available**
- Drugs for pneumonia
- 23 *Penicillin tablets/syrup* Y N *Ampi/amoxicillin tablets/syrup* Y N
- Drugs for Shigella
- 24 *Cotrimoxazole tablets/syrup* Y N *Nalidixic acid* Y N
- Drugs for malaria
- 25 a *Chloroquine tablets/syrup* Y N *Fansidar* Y N
- b *Injectable quinine* Y N
- 26 *Injectable penicillin* Y N
- 27 *Injectable chloramphenicol* Y N
- 28 *Paracetamol* Y N
- 29 *Aspirin* Y N
- 30 *Tetracycline eye ointment* Y N
- 31 *Gentian violet* Y N
- 32 *Iron* Y N
- 33 *Vitamin A* Y N
- 34 *Mebendazole* Y N
- 35 *Sterile water for injection* Y N
- 36 *ORS* Y N
- 37 *IV solution for severe dehydration* Y N
- 38 *Needles* Y N
- 39 *Syringes* Y N
- 40 a *Are expired drugs in the health facility?* Y N
- b **If YES**, which ones? _____

Vaccines—	Available
41 BCG	N/A Y N
42 OPV	N/A Y N
43 DPT	N/A Y N
44 Measles	N/A Y N
45 Tetanus toxoid	N/A Y N
46 a Are expired vaccines in the refrigerator?	N/A Y N
b If YES which ones? _____	
47 Are frozen vials of DPT or TT in the refrigerator?	N/A Y N
48 Rupture of stock in the last 30 days?	Y N

If YES—

Item	Number of Days of Stock Outs/Last 30 Days
Vaccines	
Syringes/needles	
ORS	
Essential drugs	
Cards/forms	

49 Are drugs and other supplies adequately organized and appropriately stored? Y N

Documentation and Record Keeping

Are the following items present in the health facility?

50 a Immunization register	Y N
b If YES is it up to date?	Y N
51 Immunization tally sheets	Y N
52 Stock of vaccination/child health cards	Y N
53 Stock of TT/maternal health cards	Y N
54 Stock of essential drugs cards	Y N
55 Notifiable disease report forms	Y N
56 a All essential monthly reporting forms	Y N
b If YES are they up to date?	Y N
57 a Is a patient register kept?	Y N
b If YES is it up to date?	Y N
58 Number of patients seen in last month	_____
59 Number of patients 0–4 years of age seen in last month	_____
60 Average number of patients seen per day	_____

END OF EQUIPMENT AND SUPPLIES CHECKLIST

Chapter 3.

Question-by-Question Discussion of Survey Instruments

This chapter discusses the survey questions contained in the four different questionnaires and offers instructions on how to complete them. Some of the questions and directions for answers will need to be adapted to the local context or according to specific objectives established during preparation for conducting the assessment. These are highlighted in *italics* (Note that the questionnaires are available for adaptation in WordPerfect® 5.1 files on the diskette in back jacket.)

Identifying Information

Every survey questionnaire has a box at the top for identifying information

Province/District _____	HW Category _____	Date ____/____/____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____	Child's Age (months) ____	Child ID No _____

Province/District

Enter the name of the province or district where the surveyed health facility is located

Possible adaptation
Choose the most appropriate geographical unit for identification. In some cases you may need two variables, such as Province _____
District _____

Health Worker Category

This variable describes the type of health worker observed (Questionnaire 1) or interviewed (Questionnaire 3). Categories of health worker (e.g., physician, nurse, health assistant, etc.) need to be defined in advance with surveyors.

Facility Type and Status

The facility **type** refers to the different categories of health facility being assessed (e.g. hospital, health center, or health station). The facility **status** refers to whether the health facility is a public or private institution, although other categories may need to be considered (e.g., Mission or NGO). At the sampling stage, the facilities to be surveyed will have been identified, so their type and status are known in advance. Interview teams can, therefore, enter all facility information at the start of each workday in order to save time.

Interviewer Number

The training facilitator will assign each team member an individual interviewer number, which should be entered whenever a questionnaire is completed. It is useful for interviewers to write their numbers in the space provided on all the forms at the start of a day's work in order to save time. The interviewer number remains the same for the duration of the survey, even though the province, facility name, and facility type will change. If interviewers forget their numbers, they should check with the supervisor, who will keep a list.

Child's Age

The age of the child is recorded in months. The range is from 0 to 59. Less than one month is zero.

Identification Number

An identification number is given to each child included in the survey. For each child, the same number is used for the observation and exit interview questionnaires and validation checklist (if validation is performed). At each facility, each child seen that day will be allocated a number, starting with number 1 for the first child seen, 2 for the second, and so forth. At each new facility, the numbering for each new child seen begins again with number 1. The facility assessment checklist and health worker knowledge questionnaire, which are conducted only once at each facility, do not require child ID numbers.

Observation Checklist—Sick Child

This questionnaire should be used for all children who meet the case definition for inclusion in the survey. Health workers should be observed as they conduct the consultation with the caretaker and child. It is important that surveyors position themselves in the consultation room so that they can both see and hear the interaction between the health worker and the caretaker. Surveyors should be as unobtrusive as possible, however, and not interrupt the consultation.

Each consultation should be **timed** from the moment the caretaker enters the room with the child. The surveyor should note on the survey instrument the time when the caretaker comes into the room, and calculate the duration of the consultation in minutes.

Reason for Bringing the Child

Q 1

A check should be placed next to the reason closest to that which the caretaker gives for bringing the child to the health facility on the day of the visit. There may be more than one reason checked. If, however, there is a reason other than those noted on the questionnaire, the surveyor should check with the supervisor because there is a chance that the child should not be included in the survey.

Screening

Q 2–12

The surveyor completes this section of the questionnaire by observing the interaction between the health worker and the caretaker and by listening carefully to questions asked by the health worker. It is important to circle **Y** or **N** for *all* questions. The information required for questions 2 to 4 is sometimes recorded on the child's record before the consultation. If this is the case, the health worker has this information and the response to these questions is considered to be **Y**. Question 9 a refers to any information asked about diarrhea (quality of the diarrhea, number of stools per day, consistency, etc.), if the health worker asks about the presence of blood in the stool or about the duration of the diarrhea, these should be circled separately. In like manner, questions 10 a, 11 a, and 12 a refer to any general information asked about each of these symptoms, if the health worker asks the other questions listed, these should be circled separately.

Often health workers will ask only one or two questions and not follow the order of the questionnaire. Sometimes they will ask more questions during the clinical examination. It is important that surveyors be very familiar with these questions so they can return and circle appropriate responses if necessary.

Examination

Q 13–27

The surveyor completes this section by direct observation of the health worker. **Y** or **N** should be circled for every question to indicate whether health workers examined these different areas for each child.

Supervisor Coding

- A All danger sign questions assessed?** To circle **Y** all questions from 5 to 8 should be circled **Y** If Q 8 is not marked **Y** but Q 13 is marked **Y**, then the child has been assessed for lethargy or conscious state
- B All main symptoms assessed?** To circle **Y**, all HISTORY questions (history of diarrhea, of cough/difficulty breathing, of fever, of ear problems) from 9 to 12 should be circled **Y** It is not necessary that other supplementary questions be circled **Y**
- C Number of diarrhea assessment tasks completed?** Add the number of **Y** responses for questions 9 b, 9 c, 14, 15, and 16
- D Number of ARI assessment tasks completed?** Add the number of **Y** responses for questions 10 b, 17, 18, and 19
- E Number of fever assessment tasks completed?** Add the number of **Y** responses for questions 11 b, 20, 21, and 22
- F Nutritional status assessed correctly?** To circle **Y**, questions 3, 25, 26, and 27 should be circled **Y**

Immunization and Screening

Q 28–29

It is important to circle **Y** or **N** for all questions concerning the assessment of vaccination status. If the health worker does not ask for the vaccination card at all, then several parts of these questions are skipped. Occasionally, the caretaker will not be the mother of the child (for example, the father may have brought the child to the facility). In this case, questions 29 a, b, and c will not be applicable.

Diagnosis and Treatment

Q 30–48

It is important to circle all of the conditions listed in the diagnosis section. Health workers may diagnose a child as having one or several conditions. Sometimes it will be difficult during the interview to determine what diagnosis the health worker has made. In this situation, surveyors should not interrupt the consultation. Instead, they should wait until the end of the consultation and then ask the health worker directly what condition(s) he or she diagnosed in that child. If the health worker has not made a diagnosis, then this should be recorded in question 48. If the child is sent to the laboratory, the surveyor should put the questionnaire aside until the child is brought back with the laboratory result and then complete the

diagnosis and treatment section and the end of the questionnaire. In this case, the surveyor will need to record the time when the child leaves for the laboratory examination and when he or she returns. To calculate the total time of the interview, surveyors will need to add the duration of the interview before the laboratory exam and the duration of the interview after the laboratory exam. If the child is admitted, questions 50–68 may be left blank because these are often not applicable when children are admitted directly to hospital.

Supervisor Coding (If Validation Is Performed)

G a Health worker classification agrees with that of the validator? If the diagnosis of the health worker is being checked by reexamining each child using the IMCI protocol, then this box can be completed. If there is agreement between the supervisor and the health worker classification, then **Y** can be circled, and the health worker classification is considered to be correct.

G b Severely ill child classified correctly? Circle **Y** if the child has a gold standard classification of severe illness AND the health worker also classifies as severely ill.

NOTE Validation of health worker performance is covered in Chapter 9

Q 49–63

All the treatment questions should be answered. The health worker may administer or prescribe medications. If the health worker writes a prescription, it may not be immediately possible to know what drugs are prescribed, in that case, the health worker should be asked the prescription at the end of the interview. If the health worker does not administer or prescribe any medicine, then question 63 must be circled **Y**.

Supervisor Coding

- H Is the medication appropriate for the diagnosis?** In order to circle **Y** in the box, the responses in the treatment section should be appropriate for *all* the diagnoses made. Otherwise the supervisor should circle **N** in the box. General coding rules for appropriate treatment are summarized in Table 1.
- I Is the medication appropriate for a specific diagnosis?** The supervisor should circle **Y** or **N** according to the guidelines summarized in Table 1. **N/A** should be circled for children who have not been diagnosed with that condition.

Possible adaptation

The medications for the treatment of pneumonia and malaria should be adapted according to the first- and second-line medications recommended by the national treatment guidelines. The names of these medications should be inserted into the coding table for supervisors. If a large number of cases of measles or dysentery are expected, these diagnoses can be included in this coding box.

Validator Coding (If Validation Is Performed)

- J Is the child treated correctly?** If the treatment recommended by the validator following a reexamination of the sick child is the same as that recommended by the health worker, then circle **Y**. This is completed for children with any severe classification and for pneumonia, diarrhea, or malaria according to the gold standard examination.

Table 1
Guidelines for Coding Appropriate Treatment

Diagnosis	Medication		
	Appropriate	Inappropriate	Possibly Appropriate
Diarrhea dehydration	IV fluids if severe ORS/RHF	Antimalarial antibiotic antidiarrheal metronidazole	Paracetamol aspirin
Dysentery	Antibiotic ORS/RHF	Antimalarial antidiarrheal metronidazole ¹	Paracetamol aspirin
Persistent diarrhea	Refer if severe Feeding counseling	(As above for dehydration)	Paracetamol aspirin
Pneumonia LRTI	Refer and give 1 st dose antibiotic if severe Antibiotic for other cases	Antimalarial	Paracetamol aspirin
Cold allergy simple cough	Paracetamol aspirin	Antimalarial antibiotic	—
Very severe febrile disease	Refer and give quinine IM antibiotic paracetamol glucose	—	—
Malaria	Antimalarial paracetamol aspirin	Antibiotic	—
Fever other cause	Paracetamol aspirin	Antimalarial	Antibiotic
Measles	Vitamin A antibiotic and refer if severe Vitamin A ± tetracy- cline eye ointment ± gentian violet for mouth ulcers	Antibiotic (if not severe) antimalarial	Paracetamol aspirin
Mastoiditis	Antibiotics paracet- amol and refer	Antimalarial	—
Ear infection	Antibiotic paracet- amol if acute Wicking if acute or chronic	Antimalarial antibiotic (if chronic)	Paracetamol aspirin
Severe malnutrition or severe anemia	Give vitamin A and refer	Antimalarial antibiotic	—
Anemia or very low weight	Give iron antimal- arial if high malaria risk mebendazole if ≥2 years Feeding history and counseling	Antibiotic antimalarial (if not high malaria risk)	—

¹ Metronidazole would be an appropriate treatment for bloody diarrhea if a stool exam has confirmed acute amebiasis or if the national protocol recommends metronidazole as the first-line treatment for bloody diarrhea. In any case, an antibiotic and metronidazole should not be given for the treatment of bloody diarrhea.

Interpersonal Communication

Q 64 a b c

If the health worker gives or prescribes medications for the child, it is important to listen and observe carefully whether the caretaker is instructed about how to give the medications. In addition, it is important to observe what instructions the health worker gives to the caretaker about how to treat the child at home. All questions should be answered **Y** or **N**. **N/A** applies only when no medications have been given or prescribed.

Supervisor Coding

K **Number of treatment tasks performed?** Health workers should explain, demonstrate, and then verify that caretakers understand how to give the oral medication. If all three are done, then **3** is circled. If two are done, then **2** is circled, and so on. If no medications are given or prescribed, then **N/A** should be circled.

Q 65–67

The surveyor should be alert as to whether the health worker ensures that the caretaker has understood when to return for follow-up, the need to continue feeding the child, and the need for liquids. Every question should have **Y** or **N** circled.

Q 68

This question refers to symptoms that could be signs of severity at home. The surveyor should circle **Y** the message(s) that are mentioned by the health worker. Every message should have a **Y** or **N** circled. The surveyor should listen carefully to whether the health worker gives the caretaker instructions on when to return with the child and record what signs the caretaker is told by the health worker.

Supervisor Coding

L **Are at least three of the Q 68 messages circled?** At least three of the seven messages must have been mentioned by the health worker in order to circle **Y**.

Q 69

Nutritional advice should contain information on at least one of the following: (1) the frequency of breastfeeding, (2) how to breastfeed, (3) types of complementary foods, (4) when to give complementary foods, (5) how often to give complementary foods, and (6) how to encourage child feeding.

Duration of Observation

As the caretaker leaves the room, it is important that the surveyor check the time and note this on the questionnaire. The surveyors should also ensure that caretakers see the surveyor responsible for conducting exit interviews as they leave the clinic.

Exit Interview—Sick Child

It is important to be courteous to the caretaker during the interview. If the surveyor asks a question and the caretaker does not know the answer, the surveyor should go to the next question without criticizing the caretaker. If the caretaker has questions for the surveyor, it is best if he/she is asked to wait until the end of the interview.

For most questions, it is important that surveyors not prompt caretakers when asking these questions. Surveyors should wait for the caretakers to answer on their own. For some questions, it may be useful to encourage the caretaker to reply by saying, “Yes, is there anything else that you can think of?” or, “Is there anything else that you would like to say?” For a few questions (questions 7 b and 10 b), surveyors are **required** to prompt caretakers. For these questions, the surveyor needs to read every option listed to the caretaker and then record his/her response. Surveyors should ensure that they become familiar with the prompted questions during the training week.

NOTE This questionnaire needs a careful review for adaptation of prompted answers.

Q 1

Caretakers should be asked what oral medications they were given or prescribed. If no oral medications were given or prescribed, surveyors should circle **N** and go directly to question 2. If any oral medication was given or prescribed, the answer is **Y** and surveyors should ask which medications. If the caretaker doesn't know, the surveyors should check the prescription or the medication in order to determine the type of drugs. If one of these is an antimalarial, an antibiotic, aspirin/paracetamol, or ORS/RHF, surveyors should ask caretakers the three questions—“How much each time?” “How many times per day?” and “How many days?” The surveyor should enter the response in the appropriate cell of the questionnaire. The caretakers must answer the questions themselves, but they can refer to the prescription if necessary. More than one drug may have been given or prescribed. If the caretaker does not know an answer, this should be marked **DK** (don't know) in the corresponding cell. If the caretaker answers “as required,” this should be marked **AR** in the corresponding cell. If the answer is “until completed,” this should be marked **UC** in the corresponding cell.

NOTE If the caretaker does not know or makes mistakes, it is important to instruct him/her about the correct dosage at the end of the interview.

Supervisor Coding

All correct? Drugs need to be consistent with the national treatment guidelines for malaria, ARI, and diarrhea. If the answer in one of the three cells is **DK** or wrong (antibiotic given for less than five days, for example), the supervisor should enter **N** in the last column. “As required” (**AR**) and “until completed” (**UC**) may be correct responses for some medications. Paracetamol may be given “as required” for example. If the dose of medication is stated correctly, then **UC** may be an appropriate response.

A Caretaker knows how to give ALL essential medications correctly? All cells in the “All Correct?” column (if more than one drug was given) must be **Y** in order to circle **Y** in this box.

Possible adaptation

The correct dose for all medications should be modified according to national treatment guidelines.

Q 2

The caretaker should be asked what he/she will do to look after the child at home. Every response mentioned should be checked by surveyors. It is important to remember that the caretakers must not be prompted when asked this question, they must be allowed to answer on their own. If the caretaker does not know, check this response.

Supervisor Coding

B Caretaker knows at least two aspects of home case management? To circle a **Y** in the box, at least two of the possible responses should have been mentioned. Otherwise, the answer in the box is **N**.

Possible adaptation

Options for home case management may need to be adapted according to local practices.

Q 3

This question refers to caretakers’ understanding of the symptoms and the signs of severity. Do not prompt the answers, check all responses mentioned by the caretaker.

Supervisor Coding

C Caretaker knows at least two signs of the child getting worse at home? If at least two of the signs listed in this question are mentioned the response is Y

Q 4-7

These questions all concern immunizations. For questions 4 and 5, surveyors should check all the responses mentioned by the caretaker. For question 6, surveyors should check "correct" or "incorrect" according to the national immunization schedule. Normally, the correct answer is 5. Question 7 is prompted, a single response should be checked. If **No** at question 7 a ask question 7 b. The up to date category can be checked by referring to the child's vaccination card.

Possible adaptation

Questions 4 and 6 may need to be adapted to the local context

Q 8

All caretakers should be asked whether they have their child's vaccination card. If they have the card, surveyors should ask to see it. All vaccinations that have been given should be circled Y. All vaccinations that were not given should be circled N. If the caretaker does not have the vaccination card, surveyors should go to question 9.

Supervisor Coding

D Child is up to date? Complete the box according to the child's age and the national immunization schedule

Q 9

All caretakers should be asked whether they have their own vaccination cards for tetanus. If they do not have one or have never received one, these responses should be checked and surveyors should go to question 10. If the caretaker can produce a vaccination card, surveyors should write down all tetanus vaccinations that have been received. This question is not asked if the caretaker with the child is not a woman (e.g., the father), in this case, the surveyor will check N/A.

Supervisor Coding

E Caretaker has received at least TT-2? The response is Y if at least TT-2 has been received

Q 10

This question refers to tetanus vaccination the day of the child's visit. Tetanus vaccinations given in the past are not counted by this question. Surveyors may prompt the answers. This question is not asked if the caretaker with the child is not a woman (e.g., the father), in this case, the surveyor will check N/A. If No at question 10 a, ask question 10 b. The up to date category can be checked by referring to the mother's vaccination card.

Q 11

This question asks about medications given at the last visit. If caretakers were given prescriptions for oral medications at the last visit, then they are asked where they went to get the medications, whether they were able to get them, and if they were unable to get them, why. This requires that caretakers have been to the facility at least once in the past, and that they can accurately recall this information.

Conclusion of Interview

At the end of the exit interview with the caretakers, surveyors should thank them for their time and ask them if they have any questions. If a caretaker does not know how to prepare ORS, the surveyor should explain how to prepare it. If the caretaker does not know the dosage of medication to give, then this should also be explained. Surveyors should ensure that the child ID No. from the observation checklist is copied onto the exit interview questionnaire.

Health Worker Interview

One health worker will be interviewed at each health facility. The interview will be conducted with the health worker who was observed by the surveyor during the clinic session. The surveyor should find a comfortable place for the interview and explain that there are some general questions about the clinic and the management of sick children. It is important to reassure health workers that they should relax and answer as freely as possible because the questionnaires are anonymous. Surveyors should encourage the health workers to tell them if any questions are not clear so that they can explain them more clearly.

Q 1–3

These questions ask how supplies are received and the most frequent cause of a delay in the delivery of supplies. Surveyors should check the appropriate response or fill in the "Other" space. Only one response should be checked for each of these three questions.

Possible adaptation: Proposed answers to questions 1 to 3 may need to be modified according to local circumstances.

Q 4–8

These questions ask about the provision of supervision to the health facility. Question 4 asks if the health facility has a regular supervisor, if not or if the supervisor never visits, then the answer is **N** and surveyors should skip to question 9. If there is a regular supervisor, then they should proceed to question 5.

Q 9–10

These questions ask about the problems faced by the health worker and whether these problems have been raised with the supervisor. Health workers should be encouraged to give honest opinions. More than one of the responses may be checked.

Q 11–13

These questions ask about child health training received in the last 12 months and whether the training involved any clinical practice. Training involving clinical practice would include visits to health centers or hospitals in order to apply techniques or skills in the clinical setting, under close supervision. During the surveyors' training, a clear definition of "training session" has to be made, usually three days are considered the minimum requirement for a training session. In addition, the types of topics considered to be related to child health will need to be clearly defined.

Q 14–17

These questions ask about knowledge of the routine vaccination schedule and about the timing of vaccination clinics. To complete the table in question 14, health workers should be asked to describe the routine vaccination schedule in their clinic for DPT, polio, BCG, and measles. Answers should be given in weeks for DPT and polio and in months for measles. Doses given at birth (BCG, Polio 0) should be coded **0**. To complete questions 15 and 16, health workers should be asked to describe when they would normally give tetanus toxoid. For question 17, the clinic days should be circled and the total number of immunization days per week should be specified.

Supervisor Coding

A **EPI vaccination schedule all correct?** Responses for all antigens must be correct according to the vaccination schedule in order to circle **Y**.

Q 18

If the health facility provides antenatal clinics, then the clinic days should be circled and the number of clinic days per week should be specified. If the clinic does not provide antenatal services, the surveyor should ask why clinics are not held and check the responses provided.

Q 19–20

Question 19 asks the health worker to describe the signs that would make him/her refer a child to a hospital. Surveyors should check all of the responses given; they may need to encourage health workers to give more than one response. Question 20 asks health workers if they have ever had difficulty referring a child to hospital. If the answer is **Y**, surveyors should check all reasons given for being unable to refer children in question 20 b.

Supervisor Coding

B Health worker knows at least three signs for referral? At least three of the ten proposed answers must be checked in order to circle **Y** in the coding box. If the “Other” category is checked, it should not be counted.

Q 21–22

These two questions ask about the communication aspects of the health worker’s role. Surveyors should check all responses mentioned without prompting the answers, but they may need to encourage health workers to give more than one response.

Conclusion of Interview

At the end of the health worker interview, the surveyor should thank the health worker for his/her cooperation and answer any questions. If time allows, this may be an opportunity to give the health worker feedback on the findings of the clinic visit.

Equipment and Supplies Checklist

This questionnaire will be completed by the team supervisor while the observation and interview sections are being conducted. On occasion, parts of this questionnaire will need to be left until the end of the clinic session so that the supervisor can ask questions such as categories of health staff assigned to the facility. The supervisor should inspect the equipment, supplies, and facility supports; it is not acceptable to get this information by asking health workers.

Category of Health Staff

This section can be completed during—or at the end of—the clinic session by directly questioning health workers. It is important that **only** the personnel who have child case-management responsibilities be included. If there is no one with child case-management responsibilities assigned to a category, **0** should be entered, rather than leaving it blank.

Possible adaptation

The proposed health staff categories should be modified according to local health staffing patterns

Patient and Worker Accommodation**Q 1–7**

All of these questions require direct observation while the clinic is in session. Supervisors should go out to the latrine to observe accessibility and cleanliness. A definition of a functional latrine should be agreed on during the surveyor training session. If an ORT corner is present but not being used the day of the survey, it can still be considered “in use” if it is equipped and available for use.

Equipment and Supplies**Q 8–19**

All the equipment and supplies listed should be inspected directly and an attempt made to determine whether they are functioning properly. All questions should be marked Y or N.

Q 20–21

If there is no refrigerator, questions 20 b and c should be skipped. The type of refrigerator and its condition can be determined by observation. When the refrigerator is opened to look for a thermometer and freeze-watch indicator, vaccine stocks as well as expired and frozen vaccines can be checked (questions 41–47). It is important to look for a temperature chart on the outside of the refrigerator. If there is a chart present, the number of days that the temperature has been recorded during the 30 days prior to the day of the survey and the number of days that it was above 8°C and below 0°C should be recorded. If there is no temperature chart, go directly to question 21. While the refrigerator is open, the supervisor should also check for frozen cold packs.

Q 22

If cold boxes are present, their condition should be assessed. It is important to determine whether the lid of the box closes properly, whether the box is intact, and whether there is insulating material in the top of the box.

Medicines and Vaccines in Stock**Q 23–40**

During the clinic session, the supervisor should ask a health worker familiar with the drug stock to show him or her where drugs are kept and to work through the list on the questionnaire. Supervisors should circle Y or N for all questions, regardless of the quantity available. If drugs are present, it is important to determine whether any are expired. If any drugs are expired, they should not be

counted as available but instead listed in question 40. Needles and syringes (questions 38 and 39) are for curative use only, the EPI needles and syringes should not be included.

Possible adaptation

The proposed list of drugs (Q 23–25) should be reviewed and modified according to the local essential drug list. It is important to consult the national essential drug policy and essential drug guidelines.

Q 41–47

The type of vaccines present in the clinic, as well as the presence of expired or frozen vaccines, should be recorded. It may be most convenient to check vaccines when the refrigerator is being inspected (question 20). If there is no refrigerator in the health facility, N/A should be circled for questions 41 through 47.

Q 48

This question asks about the number of times in the previous 30 days that the clinic has been without any stock in vaccines, syringes/needles, ORS, drugs, or cards/forms. If there has been an absence of stock in any of the categories mentioned at any time during the previous 30 days, this is classified as a stock-out. The total number of days that the facility has been without each item should be recorded in the table. If an item has been absent for all of the preceding 30 days, this should be recorded as 30. It is not necessary to specify the types of drugs or materials that were unavailable. The types of **essential medications** required at each level of health facility may differ, if so, this should be clarified during training. Stock-outs should be calculated only for those medications that are considered *essential* for the specific category of health facility.

Q 49

This question refers to the management of drugs. Appropriateness of drug and supply organization and storage can be determined by observation and judgment. To be appropriately stored, medications should be located in a cool, dry, and reasonably secure place. Adequate organization of medications requires that they be stored in a “logical” manner that facilitates management and use. Definitions should be established during the training for “adequately organized” and “stored appropriately” to ensure reliability between supervisors.

Documentation and Record Keeping

Q 50–60

While the clinic session is in progress, the supervisor should check for the presence of immunization and patient registers and a stock of both children’s and women’s vaccination cards and essential drugs cards. When the session is over, the supervisor should ask the person(s) in charge of records to show the vaccine

tally sheets and the notifiable disease and monthly report forms for the past six months. The supervisor should also review the patient registers to determine if they are up to date. A register or report is considered up to date if all entries have been made for the previous session, and if the report for the previous month has been completed. The supervisor should count the total number of patients seen in the previous month and count separately the number of children under age 5. To calculate the average number of patients seen per day, the number of patients counted in the previous month should be divided by 30.

Chapter 4.

Preparing to Conduct the Assessment

Integrated Health Facility Assessment Timetable

Tasks	Time Required
Preparing to conduct the assessment 1 Select survey coordinator 2. Arrange schedule and timing 3 Select a sampling unit 4 Identify local counterparts 5. Sample health facilities 6. Identify surveyors and supervisors 7- Develop logistics and budgetary arrangements 8. Adapt and translate questionnaires 9. Pretest questionnaires 10. Set up for training 11 Prepare analysis plan	15–30 days
Training surveyors and supervisors	5 days
Conducting and supervising the assessment	8 days
Performing data entry and analysis	Entry 6 days (during field work) Analysis 3 days
Using the information collected	2 days

1. Select Survey Coordinator

A coordinator is essential for planning and overseeing all survey activities. The coordinator is responsible for sampling, selecting surveyors, developing and managing the budget, making logistics arrangements, adapting and translating the questionnaires, and ensuring that all follow-up activities are conducted. No survey planning activities should be begun before a competent survey coordinator has been selected. Desirable characteristics for the survey coordinator are—

- Resident in the country and working in the health system
- Currently working in the geographic area where the survey will be conducted
- Familiarity with the local public health system, local and national staff, organization of public health divisions, and with a good working relationship with program managers
- Experience administrating, managing, and budgeting public health projects
- Reasonable technical knowledge in the areas of infant and child health and population-based surveys
- Previous survey experience

The types of persons who could be considered as survey coordinators may include regional medical directors, program managers, and experienced health workers

2. Arrange Schedule and Timing

Considerations for deciding when to conduct the assessment include—

Seasonal patterns of the major causes of infant and child morbidity and mortality

Because this assessment samples all sick children with fever, cough or difficulty breathing, and diarrhea, seasonal variations in the incidence rates of childhood infectious diseases are not critical for obtaining an adequate sample size. Fever and cough, for example, are frequent complaints in this age group. If possible, it is ideal to maximize the number of cases of ARI or diarrhea by attempting to schedule the assessment during periods when these conditions are more frequent.

Road conditions, availability of surveyors and of transportation

All survey activities must take place when facilities are accessible by road, and this should be a primary consideration when deciding on survey timing.

Surveys are often difficult during rainy periods. It is important to ensure that local staff are available and able to spend three weeks on survey activities. Transportation to health facilities must be available during the proposed survey dates.

Local holidays and festivals

It is important to ensure that the facility visits are not scheduled during local holidays and festivals when health workers are not working and when caretakers and children are less likely to come to facilities.

Once survey dates have been established, the survey coordinator can plan all preparatory activities, select and notify surveyors, and plan dates for surveyor training.

3. Select a Sampling Unit

This health facility assessment is designed to be a tool for local health planning. It is important, therefore, that a sampling unit be selected that represents an area where programmatic activities will be implemented in the future. Health staff responsible for the sampling unit need to be involved in the planning, conduct, interpretation, and follow-up of the survey. Possible sampling units could include—

An administrative region

Results from the assessment would be used to develop, plan, and monitor regional programmatic interventions.

An administrative district

Results from the assessment would be used to develop, plan, and monitor district programmatic interventions.

The catchment area for specific projects or health organizations

Results from the assessment would be used to develop, plan, and monitor programmatic interventions in the area served by a specific program, group, or organization.

4. Identify Local Counterparts

It is important that health staff at the administrative level selected as the primary sampling unit be involved in the process of survey planning and that local staff be involved with the conduct of the assessment itself. This involvement is essential for building local capacity to use this assessment technique for program planning and management in the longer term. Local counterparts may include program

managers, medical officers, and experienced health workers of a number of different categories. Local counterparts should be involved in the following tasks—

- Agreement on the objectives of the health facility assessment
- Final decisions on the timing of the assessment and logistics planning
- Selection of surveyors
- Selection of a sample of health facilities
- Plan for follow-up activities

5. Sample Health Facilities

A sample size of 25–30 facilities is recommended for this assessment. This sample size is logistically manageable and will allow indicators to be calculated with a reasonable level of precision. Increasing the sample size further will require more time in the field or a larger number of surveyors, both of which will make it more difficult to control the quality of data collected.

Selecting a sample of health facilities involves four steps.

- Step 1** **Assume that the total number of facilities to be visited in the sampling unit is between 25 and 30 facilities ($N = 25-30$)**
All data collection for this rapid assessment must occur during one working week (five or six days). This assessment is organized so that 25–30 facilities can be visited by four or five teams of surveyors. If 25–30 health facilities are visited and if an average of seven to ten sick children are seen at each facility, then the precision for estimating indicators for the management of all sick children will lie between 10 and 12 percent.
- Step 2** **List all health facilities in the sampling unit by type**
A complete list of all facilities in the sampling unit that provide sick child services should be compiled. This information may be available from the national health planning division. More reliable and up-to-date information is often available from local health planners or program managers. It is important to work with local counterparts to generate a complete and accurate list. Form 1 (see Appendix B) may

be useful for listing health facilities by type. Facilities should be excluded from this list if they—

- Do not provide child health services
- Are not functional
- Are too small or isolated to see a sufficient number of sick children each day

Step 3 **Decide on the number of health facilities of each type to include in the sample**

This assessment samples each of the major categories of health facility in the sampling unit. In many countries, these will comprise—

- Lowest-level health facilities (health stations or health posts)—the majority of all health facilities in most sampling units
- Intermediate-level health facilities (health centers)—a minority of all health facilities in most sampling units (two to four of the total)
- Highest-level health facilities (hospitals)—in most sampling units, only one hospital, or maybe no hospital at all

In order to decide on the total number of each category of health facility to select, three steps should be followed:

1. Take the total number of health facilities listed in step 2.

Example Assume that a total of 50 health facilities have been listed in the sampling unit.

2. Identify the proportion of all health facilities that are represented by each category of health facility (health posts, health centers, and hospitals).

Example Assume that there are 1 hospital, 4 health centers, and 45 health posts. The proportion represented by each is as follows: hospital $1/50 = 2$ percent, health centers $4/50 = 8$ percent, health posts $45/50 = 90$ percent.

- 3 Apply the proportion of each category of health facility in the total sample to the sample size required for the assessment

Example Assume that the required sample size is 30. The number of hospitals in this sample will be 1 (i.e., 0.02×30), the number of health centers 2 (i.e., 0.08×30), and the number of health posts 27 (i.e., 0.9×30).

It is desirable to obtain information on all categories of health facility. Therefore, if there is only one health center or hospital in the sampling unit, then it should automatically be included in the sample, regardless of its proportional representation.

Step 4 Select a final sample of health facilities using simple random sampling

If the total number of facilities in the sampling unit is less than or equal to the desired sample size (25 or 30 health facilities), sampling is not required. All facilities in the sampling unit will be included in the assessment.

If sampling is required, then it should be conducted for each category of health facility for which there is more than one facility available in the sampling unit. The steps to select a final sample of health facilities in each category are—

- 1 List and number all health facilities. If there is only one hospital or health center, it is automatically selected. Write the number of health facilities to be selected in the space provided on Form 1 (Appendix B).
- 2 Use a random number table (Form 2, Appendix B) to select the facilities to include. To use the random number table—
 - Select any starting number at random, for example by touching the random number table with the tip of a pencil with your eyes closed. Use the first two digits of the numbers when there are fewer than 100 facilities in the sampling frame. If the starting number is larger than the number of facilities in the sampling frame, go down the column to the next number.
 - Identify the corresponding facility number on the list of all facilities and mark this facility as a selected facility.

- In the random number table, go down the column to the next number. Use this number to select the next facility on the list and mark this facility as the next selected facility. Continue this process until the number of health facilities required for the sample has been chosen.
- If a random number is too large or has been drawn previously, then use the next number in the column. When one column has been completed, work down from the top of the next column.
- Repeat this process to select the required number of each category of health facility.

The selected health facilities represent the final sample. Each of these facilities will be visited for the health facility assessment.

Occasionally, sampled facilities may have closed or may not be operating on the day of the survey visit. In this situation, it is important to plan a strategy for replacing the selected facility with another facility nearby. The selection of a replacement will depend on the number of facilities of a similar category that are accessible. All accessible facilities should be listed by supervisors and then one facility chosen by simple random sampling as described above. Supervisors can be trained to select replacement facilities at the end of the survey training period.

6. Identify Surveyors and Supervisors

Well-trained, competent, and motivated supervisors and surveyors are the key to the completion of a valid and reliable health facility assessment. For this reason, survey teams should be selected with care and in close collaboration with local counterparts.

Number of Surveyors

This assessment requires five teams, each of which is composed of three people (one supervisor and two surveyors). Each team will visit one health facility per day for five days (Monday–Friday) or six days (Monday–Saturday) if health facilities are open on Saturday. The total number of facilities visited will be 25 or 30. The total number of participants required is 15. Five of these will be supervisors and ten will be surveyors.

It is useful to identify two or three additional team candidates. Sometimes participants drop out during the training, and in some cases participants may prove to be technically inadequate and need to be replaced.

Characteristics of Supervisors

Supervisors should ideally have the following skills:

- Experience working in health facilities in maternal and child health and a good understanding of how health facilities operate
- Experience managing projects and/or training health workers
- Current supervisory responsibilities and projected responsibility for following up survey activities
- Previous survey experience

Supervisors may include program managers, regional or district public health program staff, or experienced health care workers. It is useful to select supervisors in advance to ensure that an adequate number of individuals with appropriate supervisory skills is selected. It is also important that supervisors be available for a total of three weeks.

Characteristics of Surveyors

Surveyors should ideally have the following skills:

- Experience working in health facilities, preferably with some health training
- Ability to speak and read the national language
- Ability to speak the local language at sites to be visited

Surveyors may include physicians, nurses, health assistants, traditional birth attendants, or community health workers. Surveyors should be available for a total of three weeks.

Selection of Teams

As soon as supervisors and surveyors are selected, they should be notified and given the dates for the assessment by local health authorities. Teams are often best assigned during the survey training when the individual strengths and weaknesses of surveyors are known and to take into account personal preferences. Because this assessment is designed as an approach for developing local public health

programs, teams should involve, as much as possible, local health staff who will be responsible for developing and implementing programs in their areas

7. Develop Logistics and Budgetary Arrangements

Once the final sample size has been decided and the supervisors and surveyors have been selected, a logistics plan and budget for all survey activities can be developed. Resources from local or national health programs will need to be identified. The survey coordinator will then be responsible for organizing and coordinating all logistics requirements with local counterparts, including—

- Contacting staff and arranging per diems (supervisors and surveyors, drivers, administrative assistant, data entry staff)
- Copying questionnaires
- Planning surveyor training
- Arranging vehicles
- Performing data analysis

Proposed logistics and budgetary requirements are summarized in Table 2

**Table 2
Logistics Plan and Budget for Survey**

Survey Task	Responsibility/Requirements	Budget
Adaptation of questionnaires	Survey coordinator	3 days
Translation of questionnaires	Survey coordinator and medical translator	7 days
Pretest of questionnaires	Survey coordinator and two local health staff	2 days
Copying of questionnaires	Copying service/regional health office	Observation and exit 400 copies (including training copies) interview and facility review 80 copies (including training copies)
Training of surveyors and supervisors	Training venue (morning and afternoon tea) paper copying	5 days 15 participants
Per diem for survey coordinator	Planning and oversight of all stages	30 days
Per diem for administrative assistant	Administration secretarial work (planning and training period)	10 days
Per diem for supervisors and surveyors	Training survey and follow-up including travel	21 days
Per diem for facilitator(s)	Conduct training oversee field work supervise data entry and analysis	21 days
Per diem for data entry and analysis coordinator	Supervision of data entry and analysis	10 days
Per diem for drivers	Field activities (including 2 days of practice visits)	10 days
Per diem for local interpreters	As required at each health facility	3 days for each team (total of 15 days)
Per diem for data entry personnel	Two persons with data entry experience	6 days
Vehicles	Field work and training practice visits (one per team)	10 days
Fuel	For field work	Estimate based on the liters/kilometer expected
Miscellaneous	First aid kits notebooks clipboards other supplies	5 teams 15 persons
Incidentals	Miscellaneous extras	Reasonable estimate

8. Adapt and Translate Questionnaires

Adaptation

A number of the questions in the survey questionnaires need to be adapted for local use according to local policies, guidelines, and practices. Adaptation needs to be conducted in close collaboration with local program managers and health staff. Questions that should be considered for local adaptation are summarized in Table 3.

Changes made in the survey forms may require that corresponding changes be made in the instructions for each question and in the training guidelines for surveyors and supervisors. (Participant Guidelines appear in Appendix C and are also in a WordPerfect 5.1 file on diskette in back jacket.) In addition, changes in the questions will require that corresponding changes be made in the Epi Info data entry and analysis files (see Appendix D and the Epi Info files on diskette.)

Translation

Survey questionnaires are often developed in the national language. All survey questionnaires should, however, be administered in the principal local language, and for that reason should be translated into this language. Translators should work closely with the survey coordinator and local health staff to ensure that the appropriate local terms are used. The use of correct local terms is particularly important when administering the exit interview, which is conducted directly with caretakers as they leave the health facilities with their children. In many countries, it has proved useful to produce survey forms with all questions written in both the national language and the local language. Surveyors can thus convey the correct meaning for each question in the local language.

The initial translation of questionnaires into the local language should always be followed by a back-translation into the national language to check the adequacy of the translation; local counterparts may be able to assist with back-translation. Even good local translations often need to be further modified during surveyor training to ensure that questions are asked clearly and consistently. In areas with many local languages or dialects, caretakers may not understand the principal local language and a single translation may not be adequate for all areas. In these circumstances, translation of the exit interview questionnaires into many different local dialects can be an expensive and time-consuming activity and is not recommended. A more practical solution is to use local interpreters to ask exit interview questions in these areas. It is important for the survey coordinator to allow sufficient time for the translation, review, and modification of the questionnaires.

Table 3
Suggested Adaptation of Survey Questions

All Questionnaires	Decision Needed	Action Required
Summary data box at beginning of questionnaire	What are the administrative divisions in the sampling unit (e.g. zone region district)?	Modify province/districts
Observation Checklist		
Assessment coding boxes C D and E	Are the number of assessment coding steps consistent with national case management guidelines?	Modify the number of assessment steps as necessary
Questions 50–62	Are drugs consistent with national treatment guidelines for common diseases?	Modify drug list as needed
Treatment coding boxes H I and J	Are the medications for appropriate treatment consistent with national treatment guidelines?	Modify medications for appropriate treatment as necessary
Exit Interview		
Question 1	What are the national treatment guidelines for these medications?	Modify definition of correct dosage as needed
Question 2	Are options for home case management consistent with national policies?	Add delete or modify options as needed
Questions 4 and 6	Are options for diseases prevented by immunization (Q 4) and number of vaccination visits (Q 6) consistent with national policies?	Add delete or modify options as needed
Health Worker Interview		
Questions 1–3	Are the options for the source and supply of medications and possible delays consistent with the local situation?	Add delete or modify options as needed
Equipment and Supplies Checklist		
Categories of staff	Are the listed staff categories consistent with local staffing patterns?	Add delete or modify options as needed
Questions 23–40	What are the national treatment guidelines for pneumonia dysentery and malaria? Are there any other essential drugs?	Add delete or modify options as needed

9. Pretest Questionnaires

The adapted and translated questionnaires should be pretested in local health facilities that are not included in the survey sample. Pretesting does not require a large number of facilities and can be done at one or two sites. Each questionnaire should be administered a few times at these sites. The survey coordinator can conduct a pretest in collaboration with one or two local health staff. The purpose of the pretest is to—

- Check the clarity of the questions and modify the wording of questions if necessary
- Check the comprehension of the translated questions and modify if necessary
- Check that the adaptation accurately reflects local conditions and make corrections if required

Once corrections have been made, the questionnaires are ready for copying and can be used to train surveyors.

10. Set Up for Training

Training of supervisors and surveyors is outlined in detail in Chapter 5. The survey coordinator will need to accomplish a number of tasks to make the training successful.

Identify Facilitators

A facilitator to participant ratio of 1:6 is recommended. A total of two or three facilitators will be required. Before training begins, facilitators should become familiar with the survey instruments, the conduct of the survey, and the training schedule. Roles and responsibilities for each facilitator should be decided in advance.

Select an Administrative Assistant/Secretary

The administrative assistant can assume responsibility for coordinating all administrative arrangements, including accommodations, distribution of per diems, management of vehicles, and procurement of materials and supplies. In addition, this individual will be responsible for ordering and typing questionnaire rules and guidelines established by the training group at the end of each day. These guidelines need to be updated daily and circulated to all participants at the end of the training session.

Select a Venue

The venue for training activities will need to be large enough to support all participants and to allow work in small groups. Lighting and ventilation should be adequate and the venue should be accessible for participants. Coffee and tea breaks are often provided in the morning and afternoon.

Procure Materials

Participants will need to be provided with paper, pens, pencils, erasers, pencil sharpeners, and clipboards. Flip-charts or blackboards will be required for presenting information to the group. Adapted, translated, and pretested questionnaires will be required for training activities. The survey coordinator will need to estimate the total number of questionnaires required for training and survey activities.

Arrange Training Visits

In collaboration with local counterparts, the survey coordinator will need to select two or three local health facilities with outpatient child health clinics for field practice sessions. None of these facilities should be included in the final sample for the survey. The chief of each facility should be contacted and survey activities explained. The proposed days of visits by trainees and the expected number of trainees should be outlined.

Draft Itineraries

Using the final sample of health facilities, the survey coordinator, in collaboration with local counterparts, should develop an itinerary of facility visits for each survey team in advance, including overnight stops. The itinerary will be further discussed with the survey teams at the end of training activities and modified if necessary.

11. Prepare Analysis Plan

A primary objective of the assessment is to use survey data to plan and develop local public health programs. It is useful to plan strategies for analyzing and using this information in advance. An approach to data analysis is summarized in Chapter 7. During the preparatory phase, the survey coordinator should—

- Prepare for data analysis and discussion of indicators by survey teams following the field work
- Ensure that a data entry and analysis coordinator has been identified

- Schedule dates for the analysis (the Monday, Tuesday, and Wednesday immediately following the return from the field are suggested)
- Identify at least three portable computers to use for data analysis (one computer per team is ideal)
- Identify a venue for data analysis activities

Possible approaches to feedback could include—

- Production and distribution of a summary report of the survey, highlighting the major findings
- Feedback and planning meetings with local health facility staff in order to prioritize problems and develop possible strategies for addressing problems (It is proposed that feedback meetings follow data analysis. Feedback could be conducted in small or large groups.)
- Feedback and planning meetings with regional- and district-level health staff and supervisors to prioritize problems and develop strategies for addressing problems through existing public health programs
- Feedback and planning meeting with national health staff

Follow-up meetings should be arranged in advance to ensure that all relevant staff are available. These meetings should occur as soon as possible after the completion of survey activities. A distribution plan for the summary report should be developed and should include distribution to lower-level health workers.

Chapter 5. Training Surveyors and Supervisors

Integrated Health Facility Assessment Timetable

Tasks	Time Required
Preparing to conduct the assessment	15–30 days
Training surveyors and supervisors	
Introduction Summary of training activities (days 1 through 5) Checklist for training	5 days
Conducting and supervising the assessment	8 days
Performing data entry and analysis	Entry 6 days (during field work) Analysis 3 days
Using the information collected	2 days

Introduction

Surveyor training should be scheduled the week before field activities. A five-day training workshop, including practice sessions, is usually sufficient to meet the training objectives. A team of trainers and facilitators should be selected in advance. The number of trainers/facilitators is flexible and depends greatly on experience and availability of local human resources. An ideal trainer-trainee ratio is 1:6. The training team should hold a preliminary meeting in order to reach agreement on how to conduct the training and to decide on roles and responsibilities of each member of the team. At the end of each day, a brief meeting should be held to evaluate the performance of the day and to clarify the final preparations for the next day.

The training objectives are to prepare surveyors/supervisors to (1) perform all survey tasks, including using the four survey instruments, managing survey activities at a health facility, and identifying solutions to problems, (2) reach agreement and establish rules on how to interpret questions or words, and (3) achieve intra- and inter-surveyor reliability for the completion of all questions.

Table 4 summarizes the suggested five-day schedule for surveyor training. This schedule, along with activities and training materials, can be adapted to meet local needs. Trainers/facilitators should have read and familiarized themselves with this manual and with the Participant Guidelines (Appendix C and also available in WordPerfect 5.1 on diskette in back jacket) prior to training.

Table 4
Schedule for Training

Day	Activities
1	Opening <ul style="list-style-type: none"> • Introduction of the participants • Administrative information General information <ul style="list-style-type: none"> • Purpose of the survey • Training objectives • Survey protocol and techniques • Introduction of Participant Guidelines • Clarification of participant expectations or concerns Questionnaire 1 Observation Checklist—Sick Child <ul style="list-style-type: none"> • Review • Role play Questionnaire 1 Questionnaire 2 Exit Interview—Sick Child <ul style="list-style-type: none"> • Review • Role play Questionnaire 2 Introduction to practice at health facility
2	Health facility visit practice questionnaires 1 and 2 Debriefing on health facility visit (questionnaires 1 and 2) Role play questionnaires 1 and 2 Questionnaire 3 Health Worker Interview <ul style="list-style-type: none"> • Review • Role play Questionnaire 3
3	Health facility visit practice questionnaires 1, 2, and 3 Debriefing on health facility visit (questionnaires 1 2 and 3) Questionnaire 4 Equipment and Supplies Checklist <ul style="list-style-type: none"> • Review Team identification for field survey Role play in small groups
4	Health facility visit practice questionnaires 1 2 3 and 4 Debriefing on health facility visit (questionnaires 3 and 4) Role play in small groups—reliability checking
5	General review <ul style="list-style-type: none"> • Rules • Open questions Role play in small groups—reliability checking Survey team meetings Team supervisors meeting Trainer debriefing

Summary of Training Activities: Day 1

Opening Remarks

- Welcome participants and facilitate participant introductions
- Explain administrative arrangements for the survey (e.g., transportation, accommodations, per diems, etc.)

Introduction

General Information

- Briefly describe the purpose of the survey (see Chapter 1)
- Outline the training objectives
- Review the training organization beginning of sessions, breaks, and end of the day
- Review the survey schedule field activities, data entry and analysis, and interpretation of results
- Respond to questions or concerns from participants

Review Survey Protocol and Techniques

- Distribute and introduce the Participant Guidelines (Appendix C)
- Introduce the four survey instruments
- Review the conduct of the survey (see Chapter 6) arrival at the health facility, repartition of roles between surveyors and supervisors, selection of children, flow of patients, check of completed questionnaires, and feedback to health workers
- Explain survey techniques (see Chapter 6) administration and completion of the survey questionnaires, supplementary information, skipping questions, and courtesy

Questionnaire 1 Observation Checklist—Sick Child

Review of the Questionnaire

NOTE During review of the questionnaires, it is useful for each participant to keep a ‘master copy’ of each questionnaire to include any changes in wording or explanations on how to ask specific questions. These master copies can then be taken to the field and used for reference if needed.

- Distribute Questionnaire 1 and refer to the Participant Guidelines during the review
- Introduce the identification box on the top of the form and explain how to complete it
- Go through the questionnaire with the participants, explaining procedures and specific instructions for each question
- Clarify any unclear questions/answers and reach agreement among participants on how to interpret each of them. Develop rules for any questions/answers that may lead to different interpretations and write them on a flip-chart. Add rules as new ones are made, regardless of the order. At the end of every day, have the rules organized, summarized, and typed. Rules for each questionnaire will be distributed to each participant at the end of the training session.

Points to Emphasize

- The health worker who routinely sees sick children should be selected for observation at each health facility. If more than one health worker has this responsibility, the health worker who sees sick children most often or who is the most senior/most experienced should be selected.
- The surveyor should conduct each observation in the same manner to avoid potential bias.
- During the observation, the surveyor should not interfere with the health worker. At the *end* of the consultation, the surveyor may need to ask the health worker about the diagnosis and treatment given during the consultation, but only if these two components were not stated by the health worker.

Role Play

- Explain that the purpose of the first role play is to practice the observation of a child assessment and to complete Questionnaire 1. Ask three participants to play the following roles: the health worker, the caretaker, and the surveyor. Distribute a blank Observation Checklist—Sick Child questionnaire to the

surveyor in the role play and to all training participants who will be observing the role play

Situation A mother has a 3-year-old child with cough and fever. The health worker is very supportive and has a collaborative attitude but does not follow the order of questions on the form and does not always explain what he or she is looking for or his/her conclusions.

- Allow approximately 10 minutes for the role play and a few minutes for the participant observers to complete the questionnaire (all N responses should be completed)
- Solicit reactions on how the surveyor conducted the observation. *What was done well? What procedures were followed? What could be done to improve the observation?*
- Compare the participants' ratings, question by question, with a gold standard (i.e., ratings by the coordinator or any designated expert). Identify differences or discrepancies between participants and try to reach agreement. Clarify misunderstandings and introduce the concept of intra- and inter-surveyor reliability.
- Explain the importance of rules and reliability. Emphasize that there are often no right or wrong answers. Emphasize that the surveyors should learn to observe and rate the same events in the same way by discussion and consensus.

Questionnaire 2 Exit Interview—Sick Child

Review of the Questionnaire

- Distribute Questionnaire 2 and refer to the Participant Guidelines during the review.
- Proceed in the same way described for Questionnaire 1.
- Answer any questions concerning procedures and ratings.
- Add to the procedural rules development sheet any new rules decided on during the discussion.

Points to Emphasize

- Every caretaker whose child has been observed should be interviewed at the end of the consultation. Every completed Questionnaire 1 should have a completed Questionnaire 2 *except* when a caretaker comes with two sick children, both of whom are included in the sample, then only one Questionnaire 2 only should be completed.
- The child ID number in the identification box of Questionnaire 2 should match the child ID number of Questionnaire 1.
- The exit interview usually takes longer than the observation. If many children are observed in a short period of time, caretakers may have to wait for the exit interview. The flow of patients is an important component for survey organization at the facility level. The supervisor, in collaboration with health workers, may have to insert nonsampled patients between sampled children to allow surveyors to complete all questionnaires thoroughly.

Role Play

- Ask two volunteers to play the role of the mother and the surveyor. Distribute a blank Questionnaire 2 to the surveyor doing the role play and to all training participants.

Situation A mother with a 2-year-old child with diarrhea has heard about ORS. She arrives at the consultation with the child's vaccination card but not her own.

- Allow approximately 10 minutes for the role play. Solicit reactions on how the surveyor conducted the interview and ask participants to compare their answers. Identify areas of disagreement and try to reach agreement. Clarify misunderstandings and add more rules if necessary.

Introduction to Practice at Health Facility

The health facility selected for the training practice should not be included in the final sample of health facilities. Describe what will be done during the first health facility visit. Surveyors should be asked to bring their Participant Guidelines and other supplies. Distribute several blank questionnaires 1 and 2 to each participant and describe arrangements for going to the facility early next morning. Set up a meeting time if participants are going to separate facilities.

Summary of Training Activities: Day 2

Practice at Health Facility

Introduce the surveyors to the facility and staff. Organize groups so that all participants have a chance to practice and complete as many questionnaires 1 and 2 as possible. If the group is large, two or three surveyors can observe the same child at the same time and then compare their answers. Afterwards, one surveyor can interview the caretaker and complete Questionnaire 2 while two or three other surveyors listen and complete their copies. Training facilitators should be available to assist surveyors during their observations and interviews with caretakers. Facilitators can answer questions, serve as a gold standard (i.e., complete forms themselves, which are then used for comparing surveyors' ratings), and facilitate agreement. Facilitators should also sensitize supervisors to the management of survey activities at the health facilities and discuss strategies for managing survey tasks.

Debriefing

Ask surveyors about their experiences in the health facility. *What difficulties did you encounter completing the survey tasks? What questions do you have? What tasks do you need more practice on?* Review with the group the difficulties encountered, answer questions, and clarify areas of confusion. Add new rules as necessary.

Role Play

If time allows, more role plays are always useful. For the Observation Checklist, a role play that emphasizes “the instructions and advice given to a caretaker by the health worker” may be useful.

Questionnaire 3 Health Worker Interview

Review of the Questionnaire

- Distribute Questionnaire 3 and refer to the Participant Guidelines during the review.
- Proceed in the same manner described for questionnaires 1 and 2.
- Answer any questions concerning procedures and ratings.
- Add to the procedural rules development sheet any new rules agreed upon during the discussion.

Points to Emphasize

- The health worker interview must be conducted at the end of the consultation. Only the health worker who has been observed during the consultation is interviewed.
- Surveyors should ask questions as they are written and in the order that they appear on the questionnaire.
- Surveyors should not prompt questions, especially those with multiple answers, and should not correct the health worker's answers.
- Surveyors should not show any reaction to or judgment of the responses of the health worker, either verbally (for example, by saying "good" or "okay") or nonverbally (for example, by nodding the head).

Role Play

- Ask two volunteers to play the roles of the health worker and the surveyor. Distribute a blank Questionnaire 3 to the surveyor in the role play and to all training participants, with instructions to complete their copies while listening to the health worker's responses.
- Because actual health workers are often trainee participants, they should be encouraged to describe real-life situations.
- Solicit feedback on procedures, compare ratings, and develop rules as with the previous role plays. Repeat the role play with different categories of health worker and with health workers assuming different attitudes (e.g., more or less collaborative, indifferent, interested, etc.).

Preparation for Practice at Health Facility

Distribute blank questionnaires 1, 2, and 3 and ask surveyors to carry them in their file folders. Describe arrangements for meeting and going to the health facility early the next morning. Set up a meeting time if participants are going to separate facilities.

Summary of Training Activities: Day 3**Practice at Health Facility**

Repeat the procedure of the previous day. Surveyors should practice with the questionnaires that they did not use the previous day. Facilitators may choose to remain with the same group of surveyors or change groups. Surveyors should practice questionnaires 1, 2, and 3 at the end of the practice session. One surveyor

should interview the health worker while the others listen and complete their copies. It may be necessary, given time constraints, for the trainer/facilitator to ask permission of the health worker to interrupt the consultation in order to conduct the health worker interview.

Debriefing

Conduct this session in the same way as described for Day 2. Review with the group the difficulties encountered, answer questions, and clarify areas of confusion. Add new rules as necessary.

Questionnaire 4 Equipment and Supplies Checklist

Pass out Questionnaire 4 and refer to the Participant Guidelines during the review. Guide participants through the procedures and specific instructions. Discuss how supervisors might locate reports and how they can get information on supplies (e.g. where to find drug stock cards). Answer questions, if any, about how to complete the questionnaire. The supervisors will practice completing Questionnaire 4 when they visit the health facility the next day.

Select Teams for Field Survey

After working with participants and observing their experience and skills during the two first days of the training, the facilitators should be prepared to divide the group into survey teams (two surveyors and one supervisor per team) and determine where each team will conduct the field survey. Before the training session, the survey coordinator and local counterparts should already have developed possible itineraries for each survey team; these can be used to guide the selection and allocation of teams. Criteria to consider when selecting survey teams may include—

- Surveyors should not conduct the survey in their home district or area.
- Teams should be balanced according to the strengths and weaknesses of participants.

Participants should be informed of the composition of the teams at this time. Surveyors should be encouraged to decide which questionnaires they will administer during the survey; ideally, each surveyor will administer the same questionnaire for the duration of the survey.

Role Play

If time allows, more role plays can be performed. Once the individual responsibilities of each participant have been defined, role plays should be done in

small groups Each group should focus on those survey questionnaires for which they will be responsible

REMINDER In each team, one surveyor conducts both the observation *and* the health worker interview (questionnaires 1 and 3), the other interviews the caretaker (Questionnaire 2), and the supervisor completes the equipment checklist (Questionnaire 4)

Preparation for Practice at Health Facility

Distribute blank questionnaires 1, 2, 3, and 4 and ask participants to carry them in their file folders Describe arrangements for meeting and going to the health facility early the next morning Set up a meeting time if participants are going to separate facilities

REMINDER Facilitators should prepare the reliability checking forms (Form 3, Appendix B) for the questionnaires that they will be checking the next day

Summary of Training Activities: Day 4

Practice at Health Facility

Surveyors should practice the questionnaires for which they are responsible during the field survey Supervisors should practice Questionnaire 4 Supervisors should be encouraged to practice the tasks for which they are responsible as team leaders for survey activities

Debriefing

The conduct of this session is the same as that of Day 3 Emphasis should be placed on questionnaires 3 and 4 The rule development sheets for each questionnaire should be finalized so that they can be distributed to participants the next day

Role Play

Organize the whole group into three subgroups, according to the specific responsibilities of the surveyors so that they can practice the questionnaires for which they are responsible Facilitators should allocate themselves among these groups and should themselves play roles Conduct three role plays simultaneously for questionnaires 1, 2, and 3

Introduce the reliability checking form Explain to participants that the goal is to reach 90 percent reliability for three role plays in a row At the end of each role play, the responses of participants are compared to those of a “gold standard” observer (usually the facilitator) The responses of each participant are recorded on the reliability checking form Responses that are not in agreement with the

gold standard can be noted and a percentage agreement can be calculated for each question and for each surveyor. This method allows participants to identify questions that still pose problems and issues that need to be discussed or clarified. It also enables facilitators to assess the overall performance of the group and to identify participants who may need more assistance. A blank reliability checking form that can be copied and used for checking other questionnaires appears in Appendix B.

Using the Reliability Checking Form

Figure 2 shows how the reliability checking form can be used. Each question on the questionnaire is listed in the left column. The correct response for each question is written in the “gold standard” column. The responses for each surveyor for each question are listed. The percentage agreement between the gold standard and the surveyors is summarized in the column at the far right. An overall percentage agreement is calculated at the bottom of the table.

Figure 2 Sample Reliability Checking Form
 Survey Form No _____

Question Number	Gold Standard	Surveyor Name or Number										Percentage Agreement
		1	2	3	4	5	6	7	8	9	10	
1	Y	Y	N	Y								2/3
2	Y	Y	N	N								1/3
3	N	N	Y	Y								1/3
4	N	Y	Y	N								1/3
Reliability (average percentage agreement for the group)											[5/12 (42%)]	

Summary of Training Activities: Day 5

General Review

This session is very open. The training team is free to discuss important issues that they consider the most appropriate to meet the training objectives. Participants may guide the agenda of this session according to their needs. A copy of the rules for completion of each questionnaire should be distributed. It may be useful to review the rules/guidelines for each questionnaire. It may also be useful to review the conduct of the survey.

Role Play and Reliability Checking

This is the last opportunity to improve inter-surveyor reliability. The process used on Day 4 can be repeated with participants working in small groups. Role plays for each small group can be conducted simultaneously. At the end of each role play, facilitators should check reliability using the reliability form. Disagreements should be discussed in small groups.

Team Meetings

Each team should meet to discuss activities for the field work. The following issues should be discussed—

- Roles and responsibilities of each team member
- Conduct of the survey at each health facility
- Survey itinerary (Each team should discuss the schedule of facility visits, overnight stops, and logistical arrangements. A final itinerary should be completed by each team and submitted to the survey coordinator.)

Each team should receive a package containing—

- Administrative letter from the Ministry of Health explaining the purpose of the survey team's visit
- Per diem and travel arrangements (car, driver, itinerary, accommodations, if any)
- Adequate number of blank questionnaires 1 to 5
- Enrollment forms for selected children
- Clipboards, pencils, sharpeners, erasers
- File folders for blank and completed questionnaires
- Set of rules and the Participant Guidelines

Meeting with Team Supervisors

The survey coordinator and training facilitators should meet with the team supervisors to—

- Resolve any administrative problems or questions

- Check that each team has an adequate number of questionnaires
- Finalize the itinerary for each team
- Make arrangements for the return of questionnaires by survey teams (see Chapter 6)
- Discuss techniques for replacement sampling if the sampled health facilities are not operational

Trainer Debriefing

At the end of the training session, facilitators should meet to—

- Review the conduct and organization of the training
- Identify problems that may be encountered during implementation of the survey and possible solutions
- Discuss follow-up actions
- Document identified problems or concerns and follow-up actions

Checklist for Surveyor Training

- Venue identified, coffee and tea arranged
- Administrative assistant identified
- Facilitators identified
- Draft itineraries for survey teams prepared
- Computer and printer for administrative assistant arranged
- Adequate number of copies of questionnaires printed
- Adequate number of copies of Participant Guidelines printed
- Accommodation and per diems for surveyors and supervisors arranged
- Supplies ordered
 - Doll and sample of used vaccination cards (children and mothers) for role plays, growth chart and child health card if any, samples of common drugs
 - Blank paper for additional printing and copying
 - Pens, pencils, pencil sharpeners, erasers, clipboard, and notebook for each participant
 - Case/pack for each participant for supplies
 - Two or three staplers, supply of staples, and staple removers
 - Two or three flip-charts and flip-chart paper
 - Marker pens for use on flip-charts

Chapter 6.

Conducting and Supervising the Assessment

Integrated Health Facility Assessment Timetable

Tasks	Time Required
Preparing to conduct the assessment	15–30 days
Training surveyors and supervisors	5 days
Conducting the assessment 1. Select survey team 2. Schedule facility visits 3. Begin work at health facility 4. Select children 5. Complete questionnaires 6. Check and review questionnaires 7. Give feedback to facility staff Supervising the assessment Completed questionnaires Role of the supervisor Checklist of survey tasks	8 days
Performing data entry and analysis	Entry 6 days (during field work) Analysis 3 days
Using the information collected	2 days

Conducting the Assessment

1 Select Survey Teams

Each survey team is composed of three individuals—a supervisor and two surveyors. Survey teams should be selected during the training week by the training facilitators in collaboration with the supervisors. An attempt should be made to balance teams according to the skills of the participants, some surveyors will have stronger skills in the observation of case management and others will be better able to conduct exit interviews with caretakers. Supervisors and surveyors must be able to work together.

2 Schedule Facility Visits

Data collection should be conducted during the week following surveyor training. Training usually ends on Friday. Survey teams should depart for the field on Sunday to be ready to begin field activities on the following Monday. Sampled health facilities will need to be divided among the five survey teams (or fewer teams if the sample size is less than 25–30).

Each team will visit one health facility per day over a period of five or six days. It is important, therefore, to assign each team to facilities that are relatively accessible to each other. Once each survey team has been assigned to a group of health facilities, logistics for the survey week can be planned using the draft itinerary prepared by the survey coordinator in advance of the training week. Teams should plan to attend child health clinics in the morning and to travel to the next location in the afternoon. It is important that each survey team arrive at the health facility before the child health clinic opens, the overnight stop should be close enough to allow this to occur.

Logistical arrangements for reaching one health facility each day will depend on the condition of roads and on the availability of lodging. In more remote areas, lodging may be scarce and arrangements may need to be made for survey teams to stay with local health staff. **Health facility staff should not be told in advance that a survey team will be visiting so the team can get a better picture of routine facility practice.** Survey teams should complete a logistics plan (Figure 3) for the survey week.

Figure 3 Logistics Plan for Survey Week

Day	Facility Name	Overnight Location	Distance to Travel
0	(Point of origin)		
1			
2			
3			
4			
5			
6			

3 Begin Work at Health Facility

Survey teams should arrive at the health facilities before the morning consultation session begins. The supervisor is responsible for introducing the survey team to the health worker in charge and explaining the purpose of the visit. It is important to ensure that health workers understand that they should not change their routine practice. Once the local health staff are clear on the purpose of the visit, the following tasks need to be completed in preparation for the clinic session.

Identify the health worker who is normally responsible for seeing sick children

If more than one health worker is responsible for the sick child clinic, select the health worker who conducts sick child clinics most often or the most senior/experienced health worker. For this assessment, observations of only one health worker are conducted at each facility.

Decide how and where sick children for the survey can be identified for inclusion in the sample

Possible areas to screen children for the presenting complaint are the point of registration or at a common waiting area.

Select a suitable place where caretakers can be interviewed after the sick child consultation

Two chairs will be required. It is important that this interview be conducted away from other caretakers so that they do not hear the questions or responses in advance.

- ❑ **Decide which health worker will assist the supervisor in assessing the equipment, materials, and supplies of the clinic and when this will be done**

Most sections of the facility equipment and supplies checklist can be completed by the supervisor during the clinic session with very little assistance. Specific areas may require more assistance.

4 Select Children

The supervisor is responsible for selecting children to include in the survey as they present to the health facility. **All children under age 5 presenting to the health facility during the survey period whose caretakers describe them as having fever/malaria, cough/difficulty breathing/pneumonia, or diarrhea/vomiting are included in the sample.** The caretakers of all children meeting this definition are given an enrollment card (Form 4, Appendix B) which allows them to be followed through the facility and ensures that the surveyors include them in the survey. It is important that *all* children and caretakers coming to the clinic are identified and that caretakers are asked the reason for the visit. Only sick children meeting these criteria will be included in the survey; children described as having any other condition will not be included. If the number of sick children meeting the case definition is so large that the consultation session continues into the afternoon, it may be necessary to leave the facility before the consultation session has ended. If this is the case, a minimum of ten sick children should have been observed before leaving the facility.

5 Complete Survey Questionnaires

Each member of the survey team will administer the same questionnaire(s) at each health facility to improve the reliability of the results.

Surveyor number 1 Observation of the consultation between the health worker and the caretaker and child and interview with the health worker

The surveyor should be located in the examination room close enough to the health worker to be able to hear and observe the consultation clearly and accurately. It is important that surveyors be as unobtrusive as possible and that they do not disrupt the consultation session. A new observation questionnaire should be completed for each infant or child seen. If a caretaker has more than one sick child, then an observation questionnaire must be completed for each child. Surveyors should verify that an observation questionnaire is completed for each child with an enrollment form. At the end of each observation, the surveyor must ensure that the observation form is completed (all Y and N responses circled) before the next observation. In addition, at the end of each consultation, the surveyor must ensure that the caretaker wants to have an exit interview completed. At the end of the consultation session, this surveyor

should complete a single health worker interview questionnaire for the observed health worker

Surveyor number 2 Exit interview with the caretakers of sick children

Following the consultation, caretakers of sick children should be interviewed as quickly as possible. It is often easier to interview the caretaker outside the health facility, a short distance away from other caretakers and children. It is important to avoid caretakers who are waiting to be seen, participation by a group may bias the responses. In addition, caretakers who are waiting for an exit interview should not hear the questions and responses in advance. Because exit interviews often take longer than the clinical consultation, there should be a place for caretakers to wait for the interview with their children. In some areas, it may be necessary to use an interpreter to ask questions in the local language. A local interpreter should be identified by the supervisor, as required, at each health facility.

Supervisor Equipment and supplies checklist

The supervisor is responsible for conducting the facility equipment and supplies checklist. The majority of this assessment requires direct observation and can be done during the consultation session. For some sections it may be necessary to ask clinic staff some direct questions (e.g., the location of the drugs, patient registers, and stock cards).

6 Check and Review Questionnaires

Surveyors should check and complete each questionnaire after it has been administered. This is particularly important after each observation and exit interview. Immediate review of questionnaires will allow surveyors to ask questions of the health worker or caretaker in order to complete skipped or missed questions. In addition to the self-reviews of each questionnaire, supervisors should periodically review questionnaires for completeness. At the end of each clinic session, supervisors should sit down with surveyors to review all questionnaires for that day. At the end of each day, a whole set of completed and checked questionnaires should be available.

7 Provide Feedback to Facility Staff

Surveyors should give some immediate feedback to health workers on the day of the survey visit. The focus of any feedback should be to improve the quality of case-management practices. All positive findings should be emphasized. Supervisors and surveyors can provide feedback in the following areas—

- Strengths and problems in case management, particularly in the assessment and treatment of sick children

- Quality of home-care advice and communication between health workers and caretakers
- Gaps in knowledge identified in the health worker interview
- Inappropriate use of medications
- Problems in record keeping
- Ways to improve clinic organization
- Major barriers to effective practice

Supervising the Assessment

Completed Questionnaires

If possible, completed and checked survey questionnaires should be returned to the central coordination point for checking and data entry each day. Completeness, consistency, and coding of returned questionnaires should be conducted by the survey coordinator in collaboration with data entry staff. Ideally this should be conducted with the survey teams present so that questions can be asked if required. The frequency of questionnaire return will depend on the logistics and itinerary for each survey team. Arrangements should be made in advance with team supervisors for the return of completed questionnaires. Possible arrangements could include—

- Return of questionnaires by survey teams at the end of each day if the itinerary allows
- Return of questionnaires by survey teams every two or three days when the itinerary allows
- Collection of questionnaires every two or three days by the survey coordinator when visiting survey teams in the field

Arrangements for collecting completed questionnaires will probably vary by team because the logistics for each team will be different. Some teams will visit facilities that are accessible to the central coordination point and some will visit remote facilities.

Role of the Supervisor

Adequate supervision of survey activities at each health facility is critical to the collection of high-quality data. The survey coordinator can oversee and supervise survey activities by visiting teams in the field during the survey week. All supervisors have the following responsibilities:

- 1 Introduce survey teams and explain survey activities at each health facility, ensure that preparations are made to allow efficient conduct of survey activities at each facility
- 2 Identify sick children to include in the survey and follow-up of these children and their caretakers to ensure that they are included in the sample
- 3 Oversee and manage survey activities at each facility, including monitoring of patient flow, answering questions from local health staff, and providing feedback at the end of the visit. In order to give surveyors enough time to

complete questionnaires for all sampled children, supervisors may decide to include nonsampled children between sampled children

- 4 Observe the performance of each surveyor periodically during the survey, especially during the first few days. The supervisor should independently complete each questionnaire while it is being completed by the surveyor and then compare the two. If the surveyor makes frequent errors, the observations should be more frequent.
- 5 Review questionnaires completed by each surveyor both during the clinic session and at the end of each health facility visit. It is important to ensure that they are complete and internally consistent. Immediate feedback should be given to surveyors if errors are identified. Supervisors should complete the coding boxes for each questionnaire during the clinic session or at the end of the clinic session. All coding should be completed the same day. Supervisors should refer to the coding guidelines presented in the question-by-question summary.
- 6 Provide support to surveyors. Supervisors should answer questions and discuss and attempt to solve any problems encountered. In addition, supervisors should provide support during facility visits, if necessary, they can assist with interviews if the caseload is heavy.

Checklist of Survey Tasks

Introduction

- Meet the officer in charge to introduce the survey team and explain the purpose of the visit
- Identify the type and the number of health workers managing children and who should be observed and interviewed
- Determine the method for identifying children to be selected (registration, waiting room) Give an enrollment card to the caretaker of each selected child
- Locate a room or a quiet corner for interviewing the caretaker

Observe Case Management

- Ensure that all selected caretakers and children are included
- Observe as the health worker manages the child and completes the questionnaire
- Make sure that the caretaker goes to the exit interview

Interview the Caretaker

- Administer the questionnaire away from other caretakers
- If necessary, correct any misinformation the caretaker has on how to treat the child at home
- Thank the caretaker for his/her cooperation Answer the caretaker's questions, if any

Assess Equipment and Supplies

- Assess the facility and complete Questionnaire 4
- Ask for assistance from health workers if needed

Interview Health Worker

- Conduct the interview of the health worker being observed at the end of the clinic session

Feedback to Staff

- Give feedback to the health staff about their knowledge and practices. Present *major* findings (strengths and weaknesses) and give examples.
- Thank the staff for their cooperation and the opportunity to visit their health facility.

Meet to Review Survey Questionnaires

- Meet to review quietly all the completed questionnaires. Check for missing information or inconsistencies.
- Collect and organize all completed and reviewed questionnaires.

Chapter 7.

Performing Data Entry and Analysis

Integrated Health Facility Assessment Timetable

Tasks	Time Required
Preparing to conduct the assessment	15–30 days
Training surveyors and supervisors	5 days
Conducting and supervising the assessment	8 days
Performing data entry and analysis Identify data coordinator Prepare for data entry Review and number questionnaires Conduct data entry Clean survey data Coordinate analysis and discussion Analyze and discuss data Analysis plan	Entry: 6 days (during field work) Analysis. 3 days
Using the information collected	2 days

Data Entry

All questionnaire survey data will be compiled and analyzed using Epi Info software (See Appendix D and diskette with Introduction to the Epi Info Software [WordPerfect® 5.1] plus the Epi Info data entry files [Epi Info files]) The use of a software program to manage survey data is favored because it will increase the speed and accuracy of data analysis and will allow data to be stored more easily In order to conduct the survey, therefore, at least three portable computers will need to be available to local program staff In addition, at least one person has to have been trained in the use of Epi Info software The principal steps in preparing and conducting data entry follow

Step 1 **Identify an individual with training in the use of Epi Info software to coordinate data entry and management**

Candidates for this role of data manager or data coordinator include any staff who have received Epi Info training and who have experience using the program to analyze and manage survey data Possible candidates include—

- The survey coordinator
- The local program manager or other local program staff
- National-level program staff
- An outside consultant

If possible, consideration should be given to training the survey coordinator or local program staff in the use of Epi Info software in advance so that they can be responsible for managing the data from surveys in their own areas

Step 2 **Prepare for data entry**

A number of preparatory steps can be conducted by the survey coordinator and/or the data manager

Create data entry programs for the four survey questionnaires

In Epi Info, questionnaire (QES), checking (CHK), and record (REC) files should be created for each of the four survey questionnaires Data entry files should be created using questionnaires that have been adapted for local use Sometimes data entry files will need to be modified following surveyor training if further changes are made The checking file should specify the valid variables for each question as well as question skip patterns, when required Information at the top of

each questionnaire, such as the province/district, facility name, and facility type and status, can be coded in advance using the checking file. This will reduce errors during data entry. Epi Info files for the generic integrated health facility assessment are available, it is not anticipated that much additional work will be required to make these data entry files match local adaptations.

Test programs

The data entry programs for each questionnaire should be tested by entering fictitious data into each data entry file. Each file should be tested several times to ensure that a number of different possibilities have been reviewed and to ensure that the check (CHK) program is working.

Identify and train personnel

Two people are required to enter questionnaire data into the Epi Info files for each computer. If two computers are used, then a total of four people will be required for data entry. If the data manager can enter data, then three additional staff will be required. Ideally, data entry staff should have data entry and computer experience, although they need not have had experience with Epi Info. Training data entry staff to enter questionnaire data can usually be completed in a few hours and should be conducted by the data manager or survey coordinator. Data entry personnel will be responsible for entering data every day during the week of data collection. It is suggested that one team enter questionnaires 1 and 4 (observation of the sick child and facility checklists) and that the other team enter questionnaires 2 and 3 (exit interview with the caretaker and the health worker interview).

Step 3 Review and number questionnaires

Survey teams will deliver completed questionnaires to the coordinating center as often as possible during the data collection week. Entry of completed questionnaire data should be conducted as soon as questionnaires are received. All completed questionnaires should be reviewed by the survey coordinator with each survey team to verify completeness, consistency, and coding, and corrections should be entered, if necessary. For data entry, each of the four questionnaires should be numbered according to the order in which it was received. The first ten questionnaires in each category should be numbered 1–10, for example, the next ten should be numbered 11–20, and so on. If a total of 150 observation questionnaires is received, then these should each have a number between 1 and 150 according to the order in which they were received. These numbers should correspond exactly to the record number in the Epi Info record (REC) file.

The survey coordinator should pay particular attention to the coding of questions that may be more difficult to interpret

- Questionnaire 1, coding boxes A–J
- Questionnaire 2, coding box A

Step 4 Conduct data entry

It is important to observe the following principles during data entry

- Data entry personnel should work in teams of two, with one person responsible for entering data into Epi Info and the other responsible for reading questionnaire data from completed questionnaires. Data entry personnel will keep the same roles for the duration of the survey to maximize reliability and reduce errors
- Data entry personnel need to find an appropriate pace for the accurate entry of data. If data entry is attempted too quickly, then simple errors will be made. Ideally, the person reading information from the completed questionnaire will specify the number of each question before giving the specified answer. If there is any doubt about the quality of data entry for a questionnaire, the data entry personnel should go back and begin that questionnaire again in order to check for errors
- It is most efficient to enter information from all questionnaires of one type sequentially. The data entry program can then be changed and all questionnaires of another type can be entered together
- Data entry personnel should enter all questionnaires as they are received and after they have been checked by the survey coordinator. It is important that they stay up to date because all data should be entered by Sunday at the end of the data collection week. If questionnaires are not being received frequently enough to allow this to occur, the survey coordinator may need to consider additional site visits to collect completed questionnaires
- All data files should be backed up regularly to a diskette, both during data entry and at the end of each day
- Following entry of questionnaire information, each questionnaire should be marked with a check or a cross to indicate that data entry has been completed. Questionnaires should be filed by type of questionnaire and in the order in which they were entered

- The survey coordinator or data manager should closely supervise data entry, especially at the beginning of the survey, to ensure that simple mistakes are not being made. The supervisors should periodically check the quality of data entry for randomly selected questionnaires. In addition, the supervisors may choose to periodically run frequencies of selected variables to look for internal consistency, inconsistencies reflect data entry mistakes and data entry personnel should be made aware of these

Analysis

Steps in Analyzing Data

The principal steps in analyzing survey data follow

Step 1 **Clean entered data for each questionnaire**

The data manager should review the final REC files for each of the survey questionnaires by calculating frequencies for all variables. A simple descriptive analysis of this type will allow most inconsistencies to be identified and corrected. If necessary, the original questionnaires will need to be identified in order to check data directly. Data cleaning should take place on Sunday so that data analysis can begin on the following Monday.

Step 2 **Coordinate analysis and discussion of results by survey teams**

The survey coordinator and the data coordinator should oversee the process of data analysis. It is proposed that data analysis and discussion of the results be conducted by survey teams. Not all participants will need to understand or use Epi Info during the data analysis, instead, key members of the groups will be led through the analysis steps so that they can be involved in understanding and calculating the indicators themselves. Analysis and discussion will need to be conducted in a central location, the training venue may be the most appropriate. The team will require at least three portable computers with Epi Info installed. Local staff will work in groups of two or three for each computer, with coordinators providing assistance as required. As each indicator is calculated, it is proposed that the group discuss the result and possible solutions to problems. It is hoped that the practical experience of surveyors and supervisors will contribute to the development of practical and realistic solutions. An outline for conducting the discussion of results is presented in Chapter 8, Using the Information Collected.

Step 3 Analyze and discuss data

The proposed analysis plan collects information on key programmatic indicators because these are most useful for program planning and monitoring. A smaller number of key indicators, tailored to the local circumstances, can be selected for the analysis if necessary. During the analysis, it is likely that other questions will be raised, a further analysis can be conducted to investigate specific questions. It is hoped that local survey staff will work through the analysis plan for the first two days and then discuss possible approaches and strategies for improving performance on the third day. The numerators and denominators required to calculate each key indicator, as well as “supporting information” for each key indicator, are described in the next section. It is useful for participants to have a printout of the QES file copy of each questionnaire, which specifies the variable names for each question. The time proposed for the analysis and discussion of results is three days. The proposed steps for the conduct of the analysis are—

Introduce the survey teams to Epi Info (first half of Day 1)

At the beginning of the analysis session the participants should be given an introduction to the basic functions and commands of Epi Info. They need not have an extensive knowledge of the program in order to calculate and discuss the key indicators.

Calculate and discuss indicators (second half of Day 1 and all of Day 2)

The importance of each measurement and barriers to improving them should be briefly discussed. Key indicators should be calculated for all sampled health facilities. Indicators can also be calculated for specific subpopulations if necessary. For example, it may be of interest to look at indicators by geographic area (region or district) or by the type of health facility (hospital, health center, and health post). For planning purposes, however, global results should be used.

Prioritize and select the most important indicators for program development (Day 3)

Possible solutions and strategies for improving key indicators will be discussed. Strategies for discussing survey data are summarized in Chapter 8, Using the Information Collected.

Analysis Plan: Key Indicators and Supporting Information

Description of the Sample

- Number of health facilities visited breakdown by facility type and status
- Number of children observed mean and median age range, breakdown by geographical area
- Number of caretakers interviewed
- Number of health workers observed and interviewed breakdown by health worker category
- Distribution of children's reasons for visit
- Other information that may be of interest, such as the average time per consultation

Key Indicators and Supporting Information

Health Worker Practice

Screening

No	Indicator	Numerator/Denominator	Data Source
1	Proportion of children who were assessed for all danger signs	$\frac{\text{Cases with all danger signs assessed}}{\text{Total number of cases observed}}$	$\frac{\text{Questionnaire 1 \# Y in Box A}}{\text{Total \# cases}}$
2	Proportion of children who were assessed for all main symptoms	$\frac{\text{Cases assessed for all main symptoms}}{\text{Total number of cases observed}}$	$\frac{\text{Questionnaire 1 \# Y in Box B}}{\text{Total \# cases}}$

Clinical Examination

No	Indicator	Numerator/Denominator	Data Source
3	Proportion of assessment tasks completed for sick children with a history of diarrhea	$\frac{\text{Number of assessment tasks completed for cases with a history of diarrhea}}{\text{Total number of assessment tasks required for sick children with a history of diarrhea}}$	Questionnaire 1 Total # Box C for all cases $\frac{\text{Total Q 9 a}}{\text{Y x 5}}$
4	Proportion of assessment tasks completed for sick children with a history of ARI	$\frac{\text{Number of assessment tasks completed for cases with a history of ARI}}{\text{Total number of assessment tasks required for sick children with a history of ARI}}$	Questionnaire 1 Total # Box D $\frac{\text{Total # Q 10 a}}{\text{Y x 4}}$
5	Proportion of assessment tasks completed for sick children with a history of fever	$\frac{\text{Number of assessment tasks completed for cases with a history of fever}}{\text{Total number of assessment tasks required for sick children with a history of fever}}$	Questionnaire 1 Total # Box E $\frac{\text{Total # Q 11 a}}{\text{Y x 4}}$
6	Proportion of children who had nutritional status assessed	$\frac{\text{Cases assessed correctly for nutrition}}{\text{Total number of cases observed}}$	Questionnaire 1 # Y in Box F $\frac{\text{Total # cases}}{\text{Total # cases}}$
7	Proportion of children whose weight was plotted on a growth chart	$\frac{\text{Cases whose weight was plotted on a chart}}{\text{Total number of cases observed}}$	Questionnaire 1 # Y Q 4 $\frac{\text{Total # cases}}{\text{Total # cases}}$
Supporting Information			
	Proportion of children who were weighed the day of the survey	$\frac{\text{Cases whose weights were determined}}{\text{Total number of cases observed}}$	Questionnaire 1 # Y Q 3 $\frac{\text{Total # cases}}{\text{Total # cases}}$

Immunization

No	Indicator	Numerator/Denominator	Data Source
8	Proportion of children who had vaccination card checked at sick child visit	$\frac{\text{Cases whose health worker asked for child's vaccination card}}{\text{Total number of cases observed}}$	Questionnaire 1 # Y Q 28 a Total # cases
9	Proportion of children who needed an immunization who received it on the day of the visit or were referred for vaccination	$\frac{\text{Cases with a vaccination card needing a vaccination who received an immunization the day of the visit or were referred}}{\text{Cases not up to date}}$	Questionnaire 2 # vaccinated today or referred Q 7 # N in Box D

Supporting Information

Proportion of mothers who had their vaccination card checked at the time of the sick child's visit	$\frac{\text{Number of mothers of sick children who were asked for their vaccination card at the time of the sick child visit}}{\text{Total number of caretakers who are mothers}}$	Questionnaire 1 # Y Q 29 a Total # caretakers who are mothers
Proportion of mothers needing a vaccination who received it the day of the visit or were referred to the next vaccination clinic	$\frac{\text{Number of mothers of sick children needing a vaccination who received it the day of the facility visit or were referred for the next vaccination clinic}}{\text{Caretakers who are mothers}}$	Questionnaire 2 # vaccinated today or referred Q 10 # N in Box E

Treatment

No	Indicator	Numerator/Denominator	Data Source
10	Proportion of children who received an appropriate medication for the diagnosis made by the health worker	$\frac{\text{Cases with treatment appropriate for diagnosis}}{\text{Total number of cases requiring treatment}}$	Questionnaire 1 # Y in Box H Total # cases (excluding "NA" in box H)
11	Proportion of children with simple diarrhea who received ORS/RHF	$\frac{\text{Number of cases with simple diarrhea who received ORS/RHF}}{\text{Number of cases with simple diarrhea}}$	Questionnaire 1 # Y in Box I a Total # Y Q 30
12	Proportion of pneumonia cases who received an appropriate antibiotic	$\frac{\text{Pneumonia cases who received an appropriate antibiotic}}{\text{Total number of pneumonia cases}}$	Questionnaire 1 # Y in Box I b Total # Y Q 34, 35
13	Proportion of malaria cases who received an appropriate antimalarial	$\frac{\text{Malaria cases who received an appropriate antimalarial}}{\text{Total number of malaria cases}}$	Questionnaire 1 # Y in Box I c Total # Y Q 39, 40
Supporting Information			
	Proportion of children with simple diarrhea who received an antibiotic or an antidiarrheal	$\frac{\text{Simple diarrhea cases who received an antibiotic or an antidiarrheal medication}}{\text{Total number of simple diarrhea cases}}$	Questionnaire 1 Select Q 30 = Y # Y Q 54, 55, 58, and 59 Total # Y Q 30
	Proportion of children with simple URTI who received an antibiotic	$\frac{\text{Cold/allergy/simple cough cases who received an antibiotic}}{\text{Total number of cold/allergy/simple cough cases}}$	Questionnaire 1 Select Q 36 = Y # Y Q 54 and 55 Total # Y Q 36
If Validation Is Performed			
14	Proportion of severely ill children classified correctly	$\frac{\text{Number of children classified with severe illness by health workers}}{\text{Total number of children with severe illness according to "gold standard" examination}}$	Questionnaire 1 # Y in Box G b Total # Y and N in Box G b
15	Proportion of severe cases correctly referred	$\frac{\text{Number of severe cases referred by health worker}}{\text{Total number of severe cases by "gold standard"}}$	Questionnaire 1 # Y in J b Total # Y and N in J b
16	Proportion of children correctly classified by the health worker	$\frac{\text{Number of children whose health worker's classification agrees with validator's classification}}{\text{Total number of cases}}$	Questionnaire 1 # Y in Box G a Total # cases

No	Indicator	Numerator/Denominator	Data Source
17	Proportion of children correctly classified who were treated correctly by the health worker	Number of children classified correctly whose health worker's treatment agrees with validator's treatment <hr/> Total number of cases	Questionnaire 1 Select G a=Y $\frac{\# Y \text{ in Box J a}}{\# Y \text{ cases in Box G a}}$
Supporting Information			
	Proportion of pneumonia cases correctly treated	Number of pneumonia cases correctly treated by health worker <hr/> Total number of pneumonia cases by "gold standard"	Questionnaire 1 $\frac{\# Y \text{ in J c}}{\text{Total } \# Y \text{ and N in J c}}$
	Proportion of diarrhea cases correctly treated	Number of diarrhea cases correctly treated by health worker <hr/> Total number of diarrhea cases by "gold standard"	Questionnaire 1 $\frac{\# Y \text{ in J d}}{\text{Total } \# Y \text{ and N in J d}}$
	Proportion of malaria cases correctly treated	Number of malaria cases correctly treated by health worker <hr/> Total number of malaria cases by "gold standard"	Questionnaire 1 $\frac{\# Y \text{ in J e}}{\text{Total } \# Y \text{ and N in J e}}$

Interpersonal Communication

No	Indicator	Numerator/Denominator	Data Source
18	Proportion of treatment counseling tasks completed for sick children	Number of treatment counseling tasks completed for sick children <hr/> Total number of treatment counseling tasks required for sick children	Questionnaire 1 $\frac{\text{Total } \# \text{ Box K for all cases}}{\text{Total cases receiving oral meds } \times 3}$
19	Proportion of children whose caretakers were counseled on the importance of giving fluids at home	Cases whose caretakers were told by HW the need to give the same quantity or more liquid at home <hr/> Total number of cases observed	Questionnaire 1 $\frac{\# Y \text{ Q } 66}{\text{Total } \# \text{ cases}}$
20	Proportion of children whose caretakers were counseled on the importance of giving food or breastfeeding at home	Cases whose caretakers were counseled by HW on the need to continue feeding or breastfeeding at home <hr/> Total number of cases observed	Questionnaire 1 $\frac{\# Y \text{ Q } 67}{\text{Total } \# \text{ cases}}$
21	Proportion of children whose caretakers were given advice on when to return	Cases whose caretakers were told at least three messages on when to bring the child back <hr/> Total number of cases observed	Questionnaire 1 $\frac{\# Y \text{ Box L}}{\text{Total } \# \text{ cases}}$
Supporting Information			
	Proportion of children whose caretakers were told how to administer oral medications	Cases whose caretakers were told how to administer all oral medications <hr/> Total number of cases given or prescribed oral medications	Questionnaire 1 $\frac{\# Y \text{ Q } 64 \text{ a}}{\text{Total cases receiving oral medications}}$

Health Worker Knowledge

Training

No	Indicator	Numerator/Denominator	Data Source
22	Proportion of health workers who saw sick children and who had received training in the management of child illness in the last 12 months	$\frac{\text{Number of health workers who had received at least one training in the last 12 months}}{\text{Total number of HWs interviewed}}$	$\frac{\text{Questionnaire 3 \# Q 11 } \geq 1}{\text{Total \# HWs}}$
23	Proportion of health workers with correct knowledge of when to refer a sick child	$\frac{\text{Number of health workers who knew at least three signs for referral}}{\text{Total number of HWs interviewed}}$	$\frac{\text{Questionnaire 3 \# Y in Box B}}{\text{Total \# HWs}}$
Supporting Information			
	Proportional distribution of training received in the last 12 months, by type of training	$\frac{\text{Number of each type of training received}}{\text{Total number of HWs interviewed}}$	$\frac{\text{Questionnaire 3 Q 12}}{\text{Total \# HWs}}$
	Proportion of last training sessions that involved clinical practice	$\frac{\text{Number of last training sessions with clinical practice}}{\text{Total number of last training sessions}}$	$\frac{\text{Questionnaire 3 \# Y Q 13}}{\text{Total \# Y+N Q 13}}$
	Proportion of health workers with correct knowledge of the EPI calendar	$\frac{\text{Number of health workers with correct knowledge of the EPI calendar}}{\text{Total number of HWs interviewed}}$	$\frac{\text{Questionnaire 3 \# Y in Box A}}{\text{Total \# HWs}}$
	Proportion of health workers who were unable to refer sick children in the past	$\frac{\text{Number of health workers who were unable to refer a child to hospital}}{\text{Total number of HWs interviewed}}$	$\frac{\text{Questionnaire 3 \# Y Q 20 a}}{\text{Total \# HWs}}$
	Proportional distribution of reasons for being unable to refer sick children	$\frac{\text{Number of each reason why HW could not refer a child}}{\text{Total number of reasons}}$	$\frac{\text{Questionnaire 3 Q 20 b}}{\text{Total Q 20 b}}$

Supervision

No	Indicator	Numerator/Denominator	Data Source
24	Proportion of health workers who had received at least one supervisory visit in the last 6 or 12 months	$\frac{\text{Number of HWs who received at least one supervisory visit in the last 6 or 12 months}}{\text{Total number of HWs interviewed}}$	$\frac{\text{Questionnaire 3 \# Q 6} \geq 1}{\text{Total \# HWs}}$
Supporting Information			
	Average number of supervisory visits per year per health facility	$\frac{\text{Total number of supervisory visits in all health facilities in the last 12 months}}{\text{Total number of health facilities visited}}$	$\frac{\text{Questionnaire 3 Q 6}}{\text{Total \# HF's}}$
	Proportion of health workers who had received feedback from supervisor	$\frac{\text{Number of HWs who received feedback from supervisor}}{\text{Number of HWs who received at least one supervisory visit}}$	$\frac{\text{Questionnaire 3 \# Y Q 8 a}}{\text{\# Y+N Q 8 a}}$

Caretaker Knowledge and Practice**Management of the Sick Child at Home**

No	Indicator	Numerator/Denominator	Data Source
25	Proportion of children receiving oral medications whose caretakers knew correctly how to administer the treatment at home	$\frac{\text{Caretakers who knew how to give ALL essential medications correctly}}{\text{Total number of caretakers interviewed whose child was given or prescribed oral medication}}$	$\frac{\text{Questionnaire 2 \# Y Box A}}{\text{Total \# Y Q 1}}$
26	Proportion of caretakers who knew how to correctly manage the child at home	$\frac{\text{Number of caretakers who knew at least two aspects of home case management}}{\text{Total number of caretakers interviewed}}$	$\frac{\text{Questionnaire 2 \# Y Box B}}{\text{Total \# caretakers}}$
27	Proportion of caretakers who knew at least two signs of when to return if the child became worse at home	$\frac{\text{Number of caretakers who knew at least two signs of child getting worse at home}}{\text{Total number of caretakers interviewed}}$	$\frac{\text{Questionnaire 2 \# Y Box C}}{\text{Total \# caretakers}}$

Facility Equipment

Availability of Drugs and Supplies

No	Indicator	Numerator/Denominator	Data Source
28 a	Proportion of health facilities that had experienced at least one stock-out of ORS in the previous month	$\frac{\text{Number of health facilities that had experienced at least one stock-out of ORS in the previous month}}{\text{Total number of health facilities visited}}$	$\frac{\text{Questionnaire 4 \# Y Q 48}}{\text{Total \# HFs}}$
28 b	Proportion of health facilities that had experienced at least one stock-out of essential drugs in the previous month	$\frac{\text{Number of health facilities that had experienced at least one stock-out of essential drugs in the previous month}}{\text{Total number of health facilities visited}}$	$\frac{\text{Questionnaire 4 Table Q 48}}{\text{Total \# HFs}}$

Record Keeping

No	Indicator	Numerator/Denominator	Data Source
29	Proportion of health facilities with up to date immunization and patient registers	$\frac{\text{Number of health facilities with up-to-date immunization and patient registers}}{\text{Total number of health facilities visited}}$	$\frac{\text{Questionnaire 4 Select Q 50 b = Y \# Y Q 57 b}}{\text{Total \# HFs}}$

Graphs

Other descriptive information can be summarized as histograms. Examples of the types of information that can be presented as frequencies or percentages are summarized below.

Patient and health worker accommodation (*Questionnaire 4, questions 1–7*)

Percentage of facilities with—

- Adequate seating
- Covered waiting area
- Potable water
- Functional latrine
- Functional waste disposal area/pit
- Health education posters displayed
- Functional ORT corner

Availability of transportation and social mobilization equipment

(*Questionnaire 4, questions 8–9*)

Percentage of facilities with functional—

- Vehicle
- Motorcycle
- Bicycle
- Megaphone
- Flip-chart
- Counseling cards

Availability of equipment (*Questionnaire 4, questions 10–20 a*)

Percentage of facilities with—

- Working scale
- Thermometer
- Timing device
- Working sterilizer
- Measuring utensils
- Working refrigerator

Condition of cold-chain equipment (*Questionnaire 4, questions 20 b–22*)

Percentage of facilities with—

- Working thermometer in the refrigerator
- Temperature chart present
- Temperature chart up to date
- Frozen cold packs
- Cold boxes in good condition

Availability of documentation and records (*Questionnaire 4 questions 50–56*)

Percentage of facilities with—

- Up-to-date immunization register
- Stock of child's vaccination cards
- Stock of TT cards
- Up-to-date monthly report forms
- Schedule for supervisory visits (*Questionnaire 3, question 5*)

Health worker's knowledge of signs to refer a sick child to hospital

(*Questionnaire 3 question 19*)

Percentages of health workers who give each sign—

- Child lethargic
- Convulsions
- Not eating/drinking
- No response to treatment
- Looks very unwell
- High fever
- Vomits everything
- Severe dehydration
- Severe pneumonia
- Severe malnutrition/anemia

Problems expressed by health workers in doing their jobs

(*Questionnaire 3, question 9*)

Percentage of health workers who give each response—

- Lack of training
- Caretakers don't bring children to clinic
- Staff shortage
- Lack of time
- Lack of supplies/stock
- Lack of supervision
- Lack of feedback on performance
- Inadequate transport
- Lack of motivation
- Poor working environment

Other possible variables that may be of interest could include—

- History questions asked of caretakers of sick children
(*Questionnaire 1, questions 9–12*)
- Number of children examined, by area
(*Questionnaire 1, questions 13–27*)

- Health workers' views of their roles in communicating to caretakers — (*Questionnaire 3, questions 21, 22*)
- Actions taken by supervisor during last visit (*Questionnaire 3 question 7*)
- Most common causes of a delay in delivery of supplies (*Questionnaire 3, question 3*)
- Average number of days of health facility stock-outs (*Questionnaire 4 question 48*)

Chapter 8.

Using the Information Collected

Integrated Health Facility Assessment Timetable

Tasks	Time Required
Preparing to conduct the assessment	15–30 days
Training surveyors and supervisors	5 days
Conducting and supervising the assessment	8 days
Performing data entry and analysis	Entry 6 days (during field work) Analysis 3 days (calculation of key indicators)
Using the information collected Select key indicators Discuss key indicators Produce summary report Present summary	2 days
Conduct feedback and planning meetings with local staff Develop program action plan and supervision strategy Complete final report of survey	(Usually completed within 1–3 months)

It is important that the data collected by this integrated facility assessment be used as quickly as possible for local program planning. Possible approaches to using data effectively are outlined in this section.

Select Key Indicators

Select five to ten key indicators for developing primary health care programs to improve the quality of care at health facilities.

Timing

Third day of the final survey week (Wednesday)

Criteria for Ranking Indicators

The analysis plan (outlined in the previous chapter) calculates a total of 29 indicators. It is not feasible to use all of these measures for program planning and monitoring. It is important, therefore, that program managers and health staff prioritize these indicators. It is suggested that each indicator be given a ranking based on the following criteria:

Public health or clinical importance

(10 = very important, 1 = not very important)

Feasibility of making a change in the indicator

(10 = high feasibility of change, 1 = low feasibility of change)

Resources required to make a change in the indicator

(10 = few resources required, 1 = many resources required)

Time required to make a change in the indicator

(10 = relatively little time required, 1 = a lot of time required)

Each indicator should be given a score out of 10 for each of the criteria above and then these should be added together to give an overall figure for each indicator. Indicators can then be ranked according to their overall score. The higher the score, the more important and programmatically useful the indicator. A form to assist with ranking is included in Appendix B (Form 5).

Indicators Prioritized in Small Groups

It is suggested that the indicators be prioritized by each district-level team separately. The small group should discuss each indicator and then score the indicator based on the suggested criteria according to the situation in their own area. Within this small group, a consensus should be reached for the score of each indicator. Once each indicator has been scored, the top five to ten indicators can

be listed. If several indicators have the same score, then the group may need to further discuss these indicators and attempt to re-score them according to suggested criteria. A final list of five to ten prioritized indicators should be produced by each group.

Group Discussion and Consensus

The top-ranked five to ten indicators from each small group should be presented in plenary session. Those indicators that are common among groups can be identified immediately. Where there is not a consensus among all groups, reasons for including an indicator can be discussed so that a group consensus on whether to include it can be reached. A final list of five to ten group indicators should be developed. This list summarizes the most important program indicators in the areas selected. These indicators will be used to develop and monitor local primary health care programs.

Discuss Key Indicators

Discuss key indicators with survey teams to develop practical strategies for improving child health programs.

Timing

Third and fourth days of the final survey week (Wednesday–Thursday)

Outline for Discussion

Discuss the importance of the indicator—why it has been chosen

Example: The proportion of sick children who had their immunization cards checked at the sick child visit. Every sick child visit is an opportunity to vaccinate children. If all sick children needing immunizations were vaccinated at each visit, vaccination coverage would be significantly increased.

Discuss the barriers to improving the selected indicator

Example: Immunization cards may not be checked because of lack of awareness by health workers, because health workers believe that any illness is a contraindication to vaccination, because caretakers never bring vaccination cards with them, or because immunization clinics are not conducted every day.

Discuss solutions to improving the selected indicator

It is useful to consider solutions according to the resources and inputs required to implement them. Proposed solutions should be **realistic, practical, and specific**. Recommendations that are too general (“organize training,” “get more health staff”) are often not useful for the purposes of program planning.

- Solutions that require minimal additional resources and can be implemented with existing staff

Example Short-term options Health workers can be taught to ask for and look at the vaccination cards of children and made aware that most sick children do not have any contraindications to vaccination. Children can be referred to the next vaccination session if vaccinations are not given every day.

- Solutions that require some additional resources and need more input from existing staff to implement (These options are likely to be medium-term options)

Example Medium-term options Caretakers can be encouraged to bring vaccination cards with them at every visit. Supervisors can reinforce health worker practice.

- Solutions that require considerable additional resources and more staff to implement (These options are likely to be long-term options and to require high-level decisions, such as increasing staff at health facilities or improving the storage and management of drugs at the national level)

Example Longer-term options Health facilities can conduct vaccination clinics every day. Preservice training programs can teach the importance of vaccination screening.

The survey coordinator and local supervisors should note the outcome of all discussions during the discussion sessions. Results should be incorporated into implementation plans.

Produce Summary Report

Timing

Fourth day of the final survey week (Thursday)

Outline for Summary Report

The summary report should be brief and present a background to the survey (objectives, sampling, and methods used) as well as descriptive information, key indicators, and a few graphs that summarize information that is thought to be useful or important. The summary report is designed to provide immediate feedback to health staff at all levels (national, regional, and district) and for facility health staff. Surveyors may be able to take copies of the report back to their areas with them. The summary report is most efficiently completed by a

small group The survey coordinator and one or two supervisors may be appropriate Enough copies of the summary report should be made to allow distribution to all categories of health worker in the focus area

Present Summary

Present a summary of survey findings to key national, regional, and district health staff

Timing

Fifth day of the final survey week (Friday)

Outline for Summary Presentation

The summary presentation is designed to update higher-level health staff on the outcome of the survey The presentation does not need to review more than some descriptive information, key indicators, and summary graphs Ideally the presentation would be made by the local supervisor who will be responsible for developing program implementation plans Presenters can highlight problem areas and discuss plans for further follow-up action

Conduct Feedback and Planning Meetings with Local Health Staff

Timing

One to three months following the end of the survey

Outline of Feedback and Planning Meetings

In order to plan follow-up actions in local areas, supervisors should present survey findings to the health staff working at health facilities in these areas It is particularly important to involve first-level health personnel in discussion and decision-making A similar process to that outlined for selecting key indicators can be followed Local health staff need to understand key indicators and can be encouraged to discuss the barriers and possible solutions to improving their own practice Local health staff should be encouraged to develop solutions that are feasible with existing resources Supervisors should note suggestions for incorporation into the program implementation plan

Develop Program Action Plan and Supervision Strategy

Timing

One month following the end of the survey, following local feedback meetings

Outline of Action Plans

Supervisors should develop program implementation plans for their areas based on inputs from survey teams and local health staff. The data presented in the summary report should be sufficient to allow the development of a focused action plan. It is important that strategies be manageable with available resources and that local health staff understand that they are addressing priority concerns. Strategies could be presented as short-, medium-, and long-term options. Action plans should include an approach for monitoring and evaluating key programmatic indicators. Supervisors can monitor the quality of facility and health worker performance during routine visits by using a standard assessment tool. Consideration could be given to adapting the survey questionnaire instruments as tools for conducting regular supervision, providing direct feedback to health workers, and solving local problems.

Complete Final Report of Survey

Timing

One to two months following the end of the survey, following development of action plans

Outline of Final Report

The final survey report should present survey objectives, methods, conduct, and final results in more detail. Key indicators should be presented as well as recommendations for follow-up that have been incorporated into local action plans. This report should be completed by the survey coordinator in consultation with local supervisors.

Chapter 9.

Validation of the Health Worker Performance

The basic version of this assessment approach does not compare the diagnosis made by the health worker with a “gold-standard” diagnosis to determine whether health workers have classified and treated sick children correctly. Validation or checking of the health worker diagnosis against a gold standard is not routinely performed for two reasons:

- 1 The development of integrated programs is just beginning in many places, so there may be no staff trained in use of the IMCI clinical algorithm. Validation of the health worker diagnosis requires that trained supervisors assess and classify every sick child using the IMCI clinical algorithm and then compare this diagnosis with that made by the health worker.
- 2 Knowledge of “correct” classification of sick children by health workers may not be programmatically useful for countries beginning the development of integrated maternal and child health programs. In these places, it is often more useful to focus on the “core” elements required for integrated health worker performance. These core elements, which need to be the initial focus of program activities, may include the availability of essential equipment and medications, clinic organization, and the performance of basic screening and assessment tasks (weighing, screening for severity, screening for vaccination status, asking essential history questions, counseling, etc.) (see Chapter 7). When a number of these core elements are in place and a clear decision to begin IMCI training has been made, then it becomes more important to compare health worker performance to a gold standard.

When to Consider Validation

Comparing the health worker’s diagnosis or classification and treatment of sick children with the correct or gold standard classification made by a health worker trained in the use of the IMCI clinical case-management algorithm may be useful when—

- 1 Adapted IMCI training materials are available and a group of health staff has been trained in the use of the IMCI approach. These trained staff can be used to reexamine each sick child during the health facility assessment.
- 2 The districts selected for the health facility assessment will be targeted for future IMCI training. In this situation, a measure of how well health workers

classify sick children using the IMCI clinical algorithm can be compared before and after training

- 3 Health workers in the selected district have already received IMCI training. If training has taken place, then it is more useful to look at whether trained health workers are classifying sick children correctly

Information Provided by Validation

In the outpatient setting where diagnostic facilities are not available, the IMCI clinical classification of a sick child is considered to be the best measure of the actual diagnosis. The IMCI classification is considered to be the gold standard classification in this setting. This classification will allow the treatment to be determined. Comparing the health worker with this gold standard allows the following indicators to be calculated:

- 1 Proportion of sick children classified correctly
- 2 Proportion of sick children classified correctly who were treated correctly

These indicators are included in coding boxes G and J in Questionnaire 1 Observation Checklist—Sick Child

Conducting Validation at the Health Facility

The conduct of the assessment at health facilities remains very similar to the standard method described in this manual. If validation is required, then every sick child, once he or she has been seen by the health worker, should be reexamined by a person trained to use the IMCI clinical case-management algorithm (validator) in another room. The validator assesses and classifies the child using the IMCI clinical algorithm. The assessment, classification, and treatment steps decided by the validator are recorded on the Validation Checklist. The classification of the child and treatment given are then compared with those of the health worker by the supervisor; this information is entered into the coding boxes (G and J) in Questionnaire 1. Following the reexamination, the exit interview should be conducted with the caretaker.

The following should be considered when planning to validate the health worker diagnosis:

- 1 Ensure that the facility assessment is not disrupted by adding the validation step. Reexamining every sick child means that each caretaker and child have to be at the facility longer, and that an additional team member must be available to conduct this step during the clinic session. It is important to

decide who will be responsible for conducting the reexamination. If health workers trained in IMCI are used to conduct the validation examination, they will need to be positioned in a room near the consultation room so that they can reexamine every sick child seen. It is important that this does not disrupt the other tasks that are the responsibility of supervisors. An additional team member (for a total of four people on each team), who is responsible for conducting the validation step, should be included. One supervisor is then free to supervise all other activities at the facility.

2. Decide on a strategy for managing sick children who are misclassified and incorrectly treated. If, on reexamination, it is found that sick children need referral or urgent treatment, then a strategy for managing these children needs to be developed. Health workers should be informed that severely ill children need to be managed differently, and arrangements made for this to occur. Health workers should not be instructed in the assessment, classification, or treatment steps during the consultation session since this may bias the observation. Information can be given to the health worker at the end of the clinic session.

Preparing to Conduct Validation

During the preparation phase for the assessment, the following tasks need to be considered:

1. Select one validator for each team. Validators should have been trained in the IMCI approach and be familiar with screening sick children using the IMCI clinical algorithm.
2. Include the validator in the training. It is important that the person conducting the validation step be familiar with the conduct of the assessment, patient flow in facilities, the responsibilities of each team member, and questionnaire coding. It is also important that the validator has had practice conducting the validation step at outpatient facilities during the surveyor training session.
3. Ensure that there are enough Validation Checklists available (see following page). One checklist should be completed for every sick child seen.
4. Ensure that supervisors are trained to check the validation coding boxes (G and J) in Questionnaire 1 at the end of every clinic session.

5. VALIDATION CHECKLIST (HEALTH WORKER PERFORMANCE)

Province/District _____	HW Category _____	Date ____/____/____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____	Child's Age (months) _____	Child ID No _____

Does the caretaker report—	Are these signs present?
Danger signs Not able to drink or breastfeed? Y N Vomits everything? Y N Convulsions Y N	Lethargic or unconscious? Y N Restless or irritable? Y N
Diarrhea? Y N What is the duration of the diarrhea? _____ Is there blood in the stool? Y N	Child drinking or breastfeeding? Eagerly Poorly Skin pinch on abdomen goes back? Normally Slowly Very slowly Sunken eyes? Y N
Cough or difficult breathing? Y N What is the duration of the ARI? _____	Number of breaths/minute? _____ Chest indrawing? Y N
Fever? Y N What is the duration of the fever? _____	Stiff neck? Y N Generalized rash? Y N Cough, runny nose or red eyes? Y N
Ear problem? Y N Ear pain? Y N Ear discharge? Y N If YES, duration? _____	Pus from ear? Y N Swelling behind ear? Y N
	Malnutrition Visible wasting? Y N Palmar or conjunctival pallor? Y N Edema of both feet? Y N Low weight for age? Y N
Immunizations up to date? Y N	

Validator classification					
Simple diarrhea	Y	N	Very severe febrile disease	Y	N
Severe dehydration	Y	N	Malaria	Y	N
Some dehydration	Y	N	Severe complicated measles	Y	N
No dehydration	Y	N	Complicated measles	Y	N
Dysentery	Y	N	Measles	Y	N
Severe persistent diarrhea	Y	N	Fever, other cause (specify)	Y	N
Persistent diarrhea	Y	N	_____		
Severe pneumonia	Y	N	Mastoiditis	Y	N
Pneumonia	Y	N	Acute ear infection	Y	N
No pneumonia cough or cold	Y	N	Chronic ear infection	Y	N
Severe malnutrition or anemia	Y	N			
Moderate malnutrition/anemia	Y	N			

Validator treatment					
Immediate referral?	Y	N			
Antimalarial injection	Y	N	Vitamin A or vitamins	Y	N
Antimalarial tablets/syrup	Y	N	ORS/RHF	Y	N
Paracetamol/aspirin	Y	N	Antidiarrheal/antimotility	Y	N
Tepid bath	Y	N	Metronidazole tablet/syrup	Y	N
Antibiotic injection	Y	N	Other (specify) _____	Y	N
Antibiotic tablets/syrup	Y	N	None	Y	N

Appendix A. Questionnaires

1. OBSERVATION CHECKLIST—SICK CHILD

Province/District _____	HW Category _____	Date ____ / ____ / ____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____	Child's Age (months) _____	Child ID No _____

Begin Timing the Observation Now Time _____
--

- 1 What reason does the caretaker give for bringing the child to the health facility?
(Check all that apply)
 ___ Diarrhea/vomiting ___ Fever/malaria ___ Difficulty breathing/cough/pneumonia
- 2 Does the health worker ask the age of the child or have the age available? Y N
- 3 a Is the child weighed? Y N
 b Is the child's weight plotted on a growth chart? Y N
- 4 Is the child's temperature checked? Y N

Does the health worker ASK about (or does the caretaker REPORT)—	Does the health worker perform these EXAMINATION tasks—
Danger signs 5 Not able to drink or breastfeed? Y N 6 Vomits everything? Y N 7 Convulsions? Y N 8 Change in consciousness/lethargic/sleepy? Y N	13 Look for lethargy or unconsciousness? Y N
9 a Diarrhea? Y N b For how long? Y N c Is there blood in the stool? Y N	14 Observe drinking or breastfeeding? Y N 15 Pinch the skin on abdomen? Y N 16 Look for sunken eyes? Y N
10 a Cough or difficult breathing? Y N b For how long? Y N	17 Raise the shirt? Y N 18 Count breaths/minute? Y N 19 Look for chest indrawing? Y N
11 a Fever? Y N b For how long? Y N	20 Look or feel for stiff neck? Y N 21 Look for generalized rash? Y N 22 Look for runny nose or red eyes? Y N
12 a Ear problem? Y N b Ear pain? Y N c Ear discharge? Y N d If YES, for how long? Y N	23 Look for pus from ear? Y N 24 Feel for swelling behind ear? Y N
	Malnutrition 25 Undress and look for wasting? Y N 26 Look for palmar or conjunctival pallor? Y N 27 Look for edema of both feet? Y N

A All danger signs (Q 5 to Q 8 [or Q 13]) assessed? Y N

B All main symptoms (Q 9 to Q 12) assessed? Y N

C Number of diarrhea assessment tasks completed? (Circle one)
(History and Examination) 0 1 2 3 4 5

D Number of ARI assessment tasks completed? (Circle one)
(History and Examination) 0 1 2 3 4

E Number of fever assessment tasks completed? (Circle one)
(History and Examination) 0 1 2 3 4

F Nutritional status correctly assessed? (Q 3, Q 25 to Q 27) Y N

Immunization and Screening

28 a Does the health worker ask for the *child's* immunization card? Y N

If NO, go to question 29

b If YES does the child have the card? Y N

c Is the *child* referred for vaccination?

___ Today ___ Another day ___ Not referred ___ Up to date

29 a Does the health worker ask for the *caretaker's* vaccination card? N/A Y N

If NO or N/A, go to question 30

b If YES does the caretaker have the card? Y N

c Is the *mother* referred for vaccination?

___ Today ___ Another day ___ Not referred ___ Up to date

Diagnosis

How does the health worker classify the child?					
30	Simple diarrhea	Y N	39	Very severe febrile disease	Y N
a	Severe dehydration	Y N	40	Malaria	Y N
b	Some dehydration	Y N	41	Severe complicated measles	Y N
c	No dehydration	Y N	42	Complicated measles	Y N
31	Dysentery	Y N	43	Measles	Y N
32	Severe persistent diarrhea	Y N	44	Fever, other cause	Y N
33	Persistent diarrhea	Y N		(specify)	
34	Severe pneumonia	Y N	45	Mastoiditis	Y N
35	Pneumonia	Y N	46	Acute ear infection	Y N
36	Upper respiratory infection (cough or cold)	Y N	47	Chronic ear infection	Y N
37	Severe malnutrition/anemia	Y N	48	No diagnosis	Y N
38	Moderate malnutrition/anemia	Y N			

- 68 Does the health worker tell the caretaker to bring the child back for the following signs?
- | | | |
|---|---|---|
| Child is not able to drink or drinking poorly | Y | N |
| Child is not able to breastfeed/eat | Y | N |
| Child becomes sicker | Y | N |
| Child develops a fever | Y | N |
| Child develops fast or difficult breathing | Y | N |
| Child develops blood in the stool | Y | N |
| Change in consciousness/lethargic | Y | N |

L Are at least three of the Q 68 messages circled?	Y	N
---	---	---

- 69 Does the health worker give the caretaker any advice on nutrition? Y N

<p>Check the time of the observation as the caretaker leaves Time _____</p> <p>Duration of observation _____ minutes</p>
--

END OF HEALTH WORKER OBSERVATION

- | |
|---|
| <ul style="list-style-type: none"> • The surveyor may need to ask the health worker about the diagnosis made and the treatment given during the consultation, but only if these two components were not stated during the consultation • The surveyor <i>must complete</i> this form <i>before</i> the next child observation |
|---|

2. EXIT INTERVIEW—SICK CHILD

Province/District _____	Date ____/____/____
Facility Name _____	Facility Type _____ Facility Status _____
Interviewer No _____	Child's Age (months) ____ Child ID No _____

Greet the caretaker and say that you would like to ask some questions about his/her visit to the health facility today

1 Did the health worker give you or prescribe any oral medicines at the health facility today? Y N

If NO, go to question 2

If YES, compare the caretaker's medications with the samples for identification of the oral medicines

Complete the table below for the listed oral medications Fill in the information in the table below by asking—

HOW MUCH medicine will you give the child **EACH TIME?**
HOW MANY TIMES will you give it to the child **EACH DAY?**
HOW MANY DAYS will you give the medicine to the child?

If the caretaker's answer is—

"As required," write **AR** in the appropriate cell
 "Until completed," write **UC** in the appropriate cell
 "I don't know," write **DK** in the appropriate cell

Medicine	How Much Each Time?	How Many Times/Day?	How Many Days?	All Correct? (Y or N)
Chloroquine tablets/syrup				
Antibiotic tablets/syrup Name _____ Dose/tablets _____				
Aspirin tablets/syrup OR Paracetamol tablets/syrup Dose/tablets _____				
ORS/RHF				
Other _____				

A Caretaker knows how to give ALL essential medications correctly? N/A Y N

2 What will you do for your child when you return home? (Check all that apply)

- Doesn't know
- Continue feeding or breastfeeding the child
- Give the same quantity or more fluids to the child
- Complete course of medications/ORS/RHF
- Bring the child back if he/she doesn't get better or gets worse
- Other (specify) _____

B Caretaker knows at least two aspects of home case management? Y N

3 How will you know if the child becomes worse at home? (Check all that apply)

- Doesn't know
- Fever begins or doesn't go away
- Child unable to eat
- Diarrhea continues
- Child has chest indrawing
- Vomiting begins or continues
- Child unable to drink
- Child has convulsions
- Child has difficulty breathing
- Blood in stool
- Other (specify) _____

C Caretaker knows at least two signs of child getting worse at home? Y N

4 Which diseases will be prevented by the immunizations you or your child has received? (Check all that apply)

- Doesn't know
- Diphtheria
- Tetanus
- Whooping cough
- Measles
- Tuberculosis
- Polio
- Other (specify) _____

5 a Do you know what might happen as a side effect after the immunization? Y N

b If YES, what do you know? (Check all that apply)

- Fever
- Irritability/crying
- Pain at injection site
- Swelling
- Other (specify) _____

6 How many vaccination visits does a child need in the first year of life to complete the series of vaccinations? _____

- Correct
- Incorrect
- Doesn't know

7 a Did your child receive an immunization today? Y N

b If NO, was your child referred for vaccination another day? (Prompted question Check a single response)

- Referred for vaccination another day
- Not referred for vaccination
- Up to date

8 Do you have your child's vaccination card?

- Yes
- Lost
- Never received
- Left at home

If the caretaker has the card, record the dates of ALL VACCINES GIVEN, both today and in the past, and the child's birth date and age
 Birth date ___/___/___
 Age ___ Months

Immunization	Received	
Polio-0 (birth)	Y	N
BCG	Y	N
DPT-1	Y	N
Polio-1	Y	N
DPT-2	Y	N
Polio-2	Y	N
DPT-3	Y	N
Polio-3	Y	N
Measles	Y	N

D Child is up to date? Y N

9 Do you have your own vaccination card?
 ___ Yes ___ Lost ___ Never received ___ Left at home ___ N/A

If YES, copy the caretaker's tetanus toxoid vaccinations in the table at right. If the caretaker's TT doses are recorded on the child's vaccination card, copy them here also

Immunization	Received	
TT-1	Y	N
TT-2	Y	N
TT-3	Y	N
TT-4	Y	N
TT-5	Y	N

E Caretaker has received at least TT-2? Y N

10 a Did you receive a tetanus vaccination today? N/A Y N
 b If NO, were you referred for vaccination another day? (Prompted question **Check a single response**)
 ___ Referred for vaccination another day ___ Not referred for vaccination ___ Up to date

11 a Were you prescribed any oral medication at your last visit? Y N
 b If YES, were you able to get your medication? Y N
 c If YES, where did you get your medication?
 ___ This health facility ___ Drug vendor
 ___ Private pharmacy ___ Other (specify) _____
 ___ Another health facility/hospital

d If NO, why could you not get the medication?
 ___ No drugs available ___ Other (specify) _____
 ___ No money/could not afford

END OF EXIT INTERVIEW

Thank the caretaker for answering your questions and ask if he/she has any questions. Be sure that the caretaker knows how to prepare ORS for a child with diarrhea, when to return for vaccination, how to give the prescribed medications, and when to return if the child becomes worse at home

15

3 HEALTH WORKER INTERVIEW

Province/District _____	HW Category _____	Date ____ / ____ / ____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____		

Introduce yourself to the health worker Tell him/her that you would like to ask some general questions about the health facility, followed by some questions about his/her job

- 1 Where does the health facility *usually* get medications and supplies?
(Check a single response)
 Government supplier NGO/Mission
 Community pharmacy Other (specify) _____
 Private pharmacy supplier
- 2 How are supplies *usually* received? (Check a single response)
 Delivered to facility Both
 Picked up from the supplier Other (specify) _____
- 3 What is the *most common* cause of a delay in delivery of supplies?
(Check a single response)
 Inadequate transport Insufficient staff
 Administrative difficulties Rupture of stock at the central store
 Financial problems Other (specify) _____
 Insufficient fuel
- 4 Do you have a regular supervisor? Y N
If NO, go to question 9
- 5 Do you have a schedule for supervisory visits? Y N
- 6 How many times have you had a visit from a supervisor—
- In the last 6 months _____ (number of times)
- In the last 12 months _____ (number of times)
- Supervisor works here and sees worker daily _____
- 7 What did your supervisor do the last time he/she supervised you? (Check all that apply)
 Delivered supplies (fuel, medicines, etc)
 Observed immunization technique
 Observed management of sick children
 Reviewed reports prepared by health worker
 Updated health worker on current information
 Discussed problems with supplies and equipment
 Other (specify) _____
- 8 a Did you receive feedback from that supervisory session? Y N
b If YES, in what form?
 Supervisory register Written report
 Oral report Other (specify) _____

9 What are the most difficult problems that you face in doing your job?

(Check all that apply)

- Lack of training
- Caretakers don't bring children to clinic
- Lack of time
- Staff shortages
- Lack of supplies and/or stock
- Lack of supervision
- Lack of feedback on performance
- Inadequate transport
- Lack of motivation
- Poor working environment (health facility, housing)
- Other (specify) _____

10 Have you discussed these problems with your supervisor? N/A Y N

11 How many child-health-related training sessions have you received in the last 12 months? _____

If no training received, go to question 14

12 What type of training was it? _____

13 Did your last training involve clinical practice? Y N

14 In this health facility, at what ages do you give—
(Age in WEEKS but in MONTHS for measles only)

	First	Second	Third	Fourth
DPT				
Polio				
BCG				
Measles				

A EPI vaccination schedule all correct? Y N

15 To whom do you give tetanus toxoid? (Check all that apply)

- Doesn't know
- Pregnant women
- Women of childbearing age (15-49)

16 On what occasion would you give tetanus toxoid? (Check all that apply)

- Antenatal clinic visit
- Visit for curative services of mother
- Visit with child for immunization or treatment

17 On what days are immunizations given? (Circle days)
M T W Th F Sa Number of immunization days/week _____

18 a Does the health facility have an antenatal clinic? Y N

b If YES, on what days is the clinic held? (Circle days)

M T W Th F Sa Number of clinic days/week _____

c If NO why are antenatal clinics not held? (Check all that apply)

- Doesn't know
- No staff
- No supplies
- No training
- No space available
- Other (specify) _____

19 What are the signs that would make you refer a child to the next level of health facility?
(Check all that apply)

- Child is lethargic/abnormally sleepy/unconscious
- Child has not responded to usual treatment
- Child is not eating or drinking
- Child has severe dehydration
- Child has severe malnutrition/anemia
- Child has had convulsions
- Child looks very unwell
- Child has a very high fever
- Child vomits everything
- Child has severe pneumonia
- Other (specify) _____

B Health worker knows at least three signs for referral? Y N

20 a Have you ever wanted to refer a child to the next level of health facility but have not been able to do so? Y N

If NO, go to question 21

b If YES, why could you not refer the child? (Check all that apply)

- Next level of health facility too far
- No transport available
- Parents didn't have enough money
- Caretaker/parents refused to go
- No fuel available
- Other (specify) _____

21 What do you see as your role in communicating with caretakers when they bring their child to the health facility? (Check all that apply)

- Giving information on danger signs to watch for
- Giving information on what to do at home
- Giving information on how to give medicine at home
- Finding out what caretakers have done at home and what are the symptoms of the child's illness
- Giving information on how to prevent illness
- Telling caretakers when to come back to the health facility
- Ensuring that caretakers understand what to do at home
- Giving group talks
- Other (specify) _____

22 What prevents you from communicating with caretakers when they bring their children to the health facility? (Check all that apply)

- I don't know how
- Someone else does it
- They don't listen
- Language barriers prevent effective communication
- I don't have any education materials
- It isn't important
- It isn't really my role
- No time
- They don't understand/comprehend what we say
- Other (specify) _____

END OF HEALTH WORKER INTERVIEW

Thank the health worker for his/her cooperation and answer any questions that he/she may have about the correct recommendations for immunizations or management of sick children

4. EQUIPMENT AND SUPPLIES CHECKLIST

Province/District _____	Date ____/____/____
Facility Name _____	Facility Type _____ Facility Status _____
Interviewer No _____	

Category of health staff with **child case management responsibilities** (curative and preventive)

Category	Number Assigned to the Facility	Number Present the Day of the Survey
Physician		
Nurse		
Midwife		
Health assistant		
Community health worker		

Patient and Worker Accommodation

- | | | | |
|-----|---|---|---|
| 1 | Is there adequate seating for patients? | Y | N |
| 2 | Is there a covered waiting area? | Y | N |
| 3 | Is there potable water? | Y | N |
| 4 | Is there a <i>functional</i> toilet or latrine? | Y | N |
| 5 | Is there a <i>functional</i> waste disposal area/pit? | Y | N |
| 6 a | Are health information posters displayed? | Y | N |
| | b If YES, are they written in the local language? | Y | N |
| 7 | Is an ORT corner present and being used? | Y | N |

Equipment and Supplies

Are the following equipment and supplies present in the health facility?

- | | | | | | |
|----|-------------------------------|---|---|---------------------------|-----|
| 8 | Transportation | | | | |
| | Vehicle | Y | N | If YES, in working order? | Y N |
| | Motorcycle | Y | N | If YES, in working order? | Y N |
| | Bicycle | Y | N | If YES, in working order? | Y N |
| 9 | Social mobilization equipment | | | | |
| | Megaphone | Y | N | If YES, in working order? | Y N |
| | Flip-chart | Y | N | If YES, in working order? | Y N |
| | Counseling cards/pamphlets | Y | N | If YES, in working order? | Y N |
| 10 | Weighing equipment | | | | |
| | Adult weight scale | Y | N | If YES, in working order? | Y N |
| | Baby weight scale | Y | N | If YES, in working order? | Y N |
| | Salter | Y | N | If YES, in working order? | Y N |

Medical Supplies

- | | | | | | |
|----|---------------|---|---|---------------------------|-----|
| 11 | Thermometer | Y | N | If YES, in working order? | Y N |
| 12 | Stethoscope | | | | |
| | - Regular | Y | N | If YES, in working order? | Y N |
| | - Obstetrical | Y | N | If YES, in working order? | Y N |
| 13 | Otoscope | Y | N | If YES, in working order? | Y N |

- | | | | | | | |
|------|---|-----------------------------------|-----------------------------------|-------------------------------|--|--------------------------------|
| 14 | Tongue depressor | Y | N | If YES, in working order? | Y | N |
| 15 | Watch with a second hand or other timing device | Y | N | If YES in working order? | Y | N |
| 16 | Steam sterilizer | Y | N | If YES, in working order? | Y | N |
| 17 | Cooker or stove | Y | N | If YES in working order? | Y | N |
| 18 | Measuring and mixing utensils | | | | Y | N |
| 19 | Cups and spoons | | | | Y | N |
| 20 a | Refrigerator | | | | Y | N |
| | If NO, go to question 21 | | | | | |
| | b If YES— | | | | | |
| | - Type | <input type="checkbox"/> Electric | <input type="checkbox"/> Kerosene | <input type="checkbox"/> Gas | <input type="checkbox"/> Solar | <input type="checkbox"/> Mixed |
| | - Condition | <input type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | <input type="checkbox"/> Nonfunctional | |
| | - Freeze-watch indicator? | | | | | Y N |
| | - Working thermometer inside? | | | Y N | Temp | _____ °C |
| | - Temperature chart? | | | | | Y N |
| | If NO, go to question 21 | | | | | |
| | c In the last 30 days, temperature record up to date ? | | | | | Y N |
| | - Temperature above 8°C | | | | _____ (number of days) | |
| | - Temperature below 0°C | | | | _____ (number of days) | |
| 21 | Cold packs | | | | | Y N |
| 22 | Cold boxes | | | | | Y N |
| | Condition | <input type="checkbox"/> Good | <input type="checkbox"/> Fair | <input type="checkbox"/> Poor | <input type="checkbox"/> Nonfunctional | |

Availability of Drugs and Other Supplies the Day of the Survey

(Circle Y or N for each item)

- | Supplies— | | | | Available | |
|-----------|---|---|---|--|-----|
| | Drugs for pneumonia | | | | |
| 23 | <i>Penicillin tablets/syrup</i> | Y | N | <i>Ampi/amoxicillin tablets/syr up</i> | Y N |
| | Drugs for Shigella | | | | |
| 24 | <i>Cotrimoxazole tablets/syrup</i> | Y | N | <i>Nalidixic acid</i> | Y N |
| | Drugs for malaria | | | | |
| 25 a | <i>Chloroquine tablets/syrup</i> | Y | N | <i>Fansidar</i> | Y N |
| | b <i>Injectable quinine</i> | | | | Y N |
| 26 | Injectable penicillin | | | | Y N |
| 27 | Injectable chloramphenicol | | | | Y N |
| 28 | Paracetamol | | | | Y N |
| 29 | Aspirin | | | | Y N |
| 30 | Tetracycline eye ointment | | | | Y N |
| 31 | Gentian violet | | | | Y N |
| 32 | Iron | | | | Y N |
| 33 | Vitamin A | | | | Y N |
| 34 | Mebendazole | | | | Y N |
| 35 | Sterile water for injection | | | | Y N |
| 36 | ORS | | | | Y N |
| 37 | IV solution for severe dehydration | | | | Y N |
| 38 | Needles | | | | Y N |
| 39 | Syringes | | | | Y N |
| 40 a | Are expired drugs in the health facility? | | | | Y N |
| | b If YES, which ones? _____ | | | | |

Vaccines—	Available
41 BCG	N/A Y N
42 OPV	N/A Y N
43 DPT	N/A Y N
44 Measles	N/A Y N
45 Tetanus toxoid	N/A Y N
46 a Are expired vaccines in the refrigerator?	N/A Y N
b If YES , which ones? _____	
47 Are frozen vials of DPT or TT in the refrigerator?	N/A Y N
48 Rupture of stock in the last 30 days?	Y N
If YES—	

Item	Number of Days of Stock Outs/Last 30 Days
Vaccines	
Syringes/needles	
ORS	
Essential drugs	
Cards/forms	

49 Are drugs and other supplies adequately organized and appropriately stored? Y N

Documentation and Record Keeping

Are the following items present in the health facility?

50 a Immunization register	Y N
b If YES , is it up to date?	Y N
51 Immunization tally sheets	Y N
52 Stock of vaccination/child health cards	Y N
53 Stock of TT/maternal health cards	Y N
54 Stock of essential drugs cards	Y N
55 Notifiable disease report forms	Y N
56 a All essential monthly reporting forms	Y N
b If YES , are they up to date?	Y N
57 a Is a patient register kept?	Y N
b If YES , is it up to date?	Y N
58 Number of patients seen in last month _____	
59 Number of patients 0–4 years of age seen in last month _____	
60 Average number of patients seen per day _____	

END OF EQUIPMENT AND SUPPLIES CHECKLIST

5. VALIDATION CHECKLIST (HEALTH WORKER PERFORMANCE)

Province/District _____	HW Category _____	Date ____/____/____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____	Child's Age (months) _____	Child ID No _____

Does the caretaker report—	Are these signs present?
Danger signs Not able to drink or breastfeed? Y N Vomits everything? Y N Convulsions Y N	Lethargic or unconscious? Y N Restless or irritable? Y N
Diarrhea? Y N What is the duration of the diarrhea? _____ Is there blood in the stool? Y N	Child drinking or breastfeeding? Eagerly Poorly Skin pinch on abdomen goes back? Normally Slowly Very slowly Sunken eyes? Y N
Cough or difficult breathing? Y N What is the duration of the ARI? _____	Number of breaths/minute? _____ Chest indrawing? Y N
Fever? Y N What is the duration of the fever? _____	Stiff neck? Y N Generalized rash? Y N Cough, runny nose, or red eyes? Y N
Ear problem? Y N Ear pain? Y N Ear discharge? Y N If YES, duration? _____	Pus from ear? Y N Swelling behind ear? Y N
	Malnutrition Visible wasting? Y N Palmar or conjunctival pallor? Y N Edema of both feet? Y N Low weight for age? Y N
Immunizations up to date? Y N	

Validator classification					
Simple diarrhea	Y	N	Very severe febrile disease	Y	N
Severe dehydration	Y	N	Malaria	Y	N
Some dehydration	Y	N	Severe complicated measles	Y	N
No dehydration	Y	N	Complicated measles	Y	N
Dysentery	Y	N	Measles	Y	N
Severe persistent diarrhea	Y	N	Fever, other cause (specify)	Y	N
Persistent diarrhea	Y	N	_____		
Severe pneumonia	Y	N	Mastoiditis	Y	N
Pneumonia	Y	N	Acute ear infection	Y	N
No pneumonia cough or cold	Y	N	Chronic ear infection	Y	N
Severe malnutrition or anemia	Y	N			
Moderate malnutrition/anemia	Y	N			

Validator treatment					
Immediate referral?	Y	N			
Antimalarial injection	Y	N	Vitamin A or vitamins	Y	N
Antimalarial tablets/syrup	Y	N	ORS/RHF	Y	N
Paracetamol/aspirin	Y	N	Antidiarrheal/antimotility	Y	N
Tepid bath	Y	N	Metronidazole tablet/syrup	Y	N
Antibiotic injection	Y	N	Other (specify) _____	Y	N
Antibiotic tablets/syrup	Y	N	None	Y	N

Appendix B. Forms

USAID/BASICS
Integrated Health Facility Assessment

**Form 2
Random Number Table**

02946	96520	81881	56247	17623	47441
27821	91845	85697	62000	97957	07258
45054	58410	92081	97624	26734	68426
52067	23123	73700	58730	06111	64486
47829	32353	95941	72169	58374	03905
06865	95353	76603	99339	40571	41186
04981	17531	97372	39558	47526	26522
11045	83565	45639	02485	43905	01823
70100	85732	19741	92951	98832	38188
24090	24519	86819	50200	50889	06493
66638	03619	90906	95370	41616	30074
23403	03656	77580	87772	86877	57085
17930	26194	53836	53692	67125	98175
00912	11246	24649	31845	25736	75231
83808	98997	71829	99430	79899	34061
54308	59358	56462	58166	97302	86828
76801	49594	81002	30397	52728	15101
72070	33706	62567	08590	61873	63162
44873	35302	04511	38088	49723	15275
09399	12111	67352	41526	23497	75440
42658	70183	89417	57676	35370	14915
15669	54945	65080	35569	79392	14937
06081	74957	87787	68849	02906	38119
72407	71427	58478	99297	43519	62410
75153	86376	63852	60557	21211	77299
74967	99038	14192	49535	78844	13664
98964	64425	33536	15079	32059	11548
86364	74406	81496	23996	56872	71401
81716	80301	96704	57204	71361	41989
92589	69788	43315	50483	02950	09611
36341	20326	37489	34626	27510	10769
19975	48346	91029	78902	75689	70722
88553	83300	98356	76855	18769	52843
64204	95212	31320	03783	28798	17814
31446	68610	16574	42305	56300	84227
88014	27583	78167	25057	93552	74363
30951	41367	94491	19238	17639	10959
48907	79840	34607	62668	56957	05072
53948	07850	42569	82391	20435	79306
50915	31924	80621	17495	81618	15125

SOURCE Adapted from World Health Organization *Monitoring Immunization Service Using the Lot Quality Technique* p 96 (WHO/VRD/TRAM/96 01) Geneva WHO

USAID/BASICS
Integrated Health Facility Assessment

Form 4
Infant and Child Enrollment Form (Make photocopies and cut between cards)

Enrollment Card Integrated Health Facility Assessment	
Date ____/____/____	Child's Identification No _____
Child's Name _____	Child's Age _____
Reason for Visit [<input type="checkbox"/>]Diarrhea/vomiting [<input type="checkbox"/>]Fever/malaria [<input type="checkbox"/>]Cough/ARI	

Enrollment Card Integrated Health Facility Assessment	
Date ____/____/____	Child's Identification No _____
Child's Name _____	Child's Age _____
Reason for Visit [<input type="checkbox"/>]Diarrhea/vomiting [<input type="checkbox"/>]Fever/malaria [<input type="checkbox"/>]Cough/ARI	

Enrollment Card Integrated Health Facility Assessment	
Date ____/____/____	Child's Identification No _____
Child's Name _____	Child's Age _____
Reason for Visit [<input type="checkbox"/>]Diarrhea/vomiting [<input type="checkbox"/>]Fever/malaria [<input type="checkbox"/>]Cough/ARI	

Enrollment Card Integrated Health Facility Assessment	
Date ____/____/____	Child's Identification No _____
Child's Name _____	Child's Age _____
Reason for Visit [<input type="checkbox"/>]Diarrhea/vomiting [<input type="checkbox"/>]Fever/malaria [<input type="checkbox"/>]Cough/ARI	

Appendix C. Participant Guidelines

Participant Guidelines: Integrated Health Facility Assessment

Introduction

Schedule for Surveyor Training

The following table summarizes the suggested five-day schedule for participant training

Schedule for Training

Day	Activities
1	Opening <ul style="list-style-type: none"> • Introduction of the participants • Administrative information General information <ul style="list-style-type: none"> • Purpose of the survey • Training objectives • Survey protocol and techniques • Introduction of Participant Guidelines • Clarification of participant expectations or concerns Questionnaire 1 Observation Checklist—Sick Child <ul style="list-style-type: none"> • Review • Role play Questionnaire 1 Questionnaire 2 Exit Interview—Sick Child <ul style="list-style-type: none"> • Review • Role play Questionnaire 2 Introduction to practice at health facility
2	Health facility visit practice questionnaires 1 and 2 Debriefing on health facility visit (questionnaires 1 and 2) Role play questionnaires 1 and 2 Questionnaire 3 Health Worker Interview <ul style="list-style-type: none"> • Review • Role play Questionnaire 3
3	Health facility visit practice questionnaires 1 2 and 3 Debriefing on health facility visit (questionnaires 1 2 and 3) Questionnaire 4 Equipment and Supplies Checklist <ul style="list-style-type: none"> • Review Team identification for field survey Role play in small groups
4	Health facility visit practice questionnaires 1 2 3 and 4 Debriefing on health facility visit (questionnaires 3 and 4) Role play in small groups—reliability checking
5	General review <ul style="list-style-type: none"> • Rules • Open questions Role play in small groups—reliability checking Survey team meetings Team supervisors meeting Trainer debriefing

Health Facility Assessment

Thank you for agreeing to participate in this Health Facility Assessment. This assessment is being conducted by the Ministry of Health in collaboration with the United States Agency for International Development/BASICS (Basic Support for Institutionalizing Child Survival) project. The information collected by this assessment will be used by health workers, regional medical officers, and Ministry of Health staff to better understand how well caretakers and children are managed at health facilities and to plan strategies for improving the delivery of primary health care.

This facility assessment evaluates—

- The assessment, diagnosis, and treatment of children with diarrhea, fever and malaria, and acute respiratory tract infections (ARI)
- The screening and vaccination of women and children against common vaccine-preventable diseases
- How well caretakers are able to provide home treatment for their children
- How well health workers educate caretakers about preventive and curative care
- The quality of training and supervision received by health workers
- Equipment, supplies, and record keeping in health facilities

The four survey instruments are—

- 1 Observation Checklist—Sick Child
- 2 Exit Interview—Sick Child
- 3 Health Care Worker Interview
- 4 Equipment and Supplies Checklist

Some general guidelines for conducting the survey are described below, followed by a description of how to complete each section of the survey. In general, the survey will be conducted in the most common local language. During the next four days, all surveyors will need to practice administering the survey in English and in the local language.

General Instructions

Survey Areas

The survey will be conducted in these areas [Insert areas] _____
In these areas, X health facilities will be visited, X hospital(s), X health center(s), and X health stations. One health facility will be visited each day. The assessment at each facility will be conducted during the working hours of the clinic, usually 8:00 AM–12:00 NOON. Within each sample area, the health facilities have already been randomly selected. The survey areas and selected health facilities in each area are summarized below.

[Insert summary of each survey area
and the names of sampled health facilities in each area]

Survey Teams

Each survey team will comprise three individuals—one supervisor and two surveyors. Survey teams will be selected during the training week by the training facilitators in collaboration with the supervisors. An attempt will be made to balance teams according to the skills of the participants, some surveyors will have stronger skills in the observation of case management and others will be better able to conduct exit interviews with caretakers.

Planning and Scheduling Facility Visits

Data collection will be conducted during the week following training. Training usually ends on Friday. Survey teams will depart for the field on Sunday so as to be ready to begin field activities on Monday. Sampled health facilities will be divided among the five survey teams (or fewer teams if the sample size is less than 25–30). Each team will visit one health facility per day over a period of five or six days. It is important, therefore, to allocate to each team facilities that are relatively accessible to each other. Once survey teams have been selected, each team will need to plan its itinerary for the week (see Figure 1). Teams should plan to attend child health clinics in the morning and to travel to the next location in the afternoon. It is important that each survey team get to each health facility before the child health clinic begins, the overnight stop should be close enough to allow this to occur.

Logistical arrangements for reaching one health facility each day will depend on the condition of roads and on the availability of lodging. In more remote areas, lodging may be scarce and arrangements may need to be made for survey teams to stay with local health staff. **Health facility staff should not be told in advance that a survey team will be visiting so the team can get a better picture of routine facility practice.**

Figure 1 Logistics Plan for Survey Week
 Survey Team Number _____

Day	Facility Name	Overnight Location	Distance to Travel
0	(Point of origin)		
1			
2			
3			
4			
5			
6			

Arrival at Health Facility

Survey teams should arrive at the health facilities before the morning consultation session begins. The supervisor is responsible for introducing the survey team to the health worker in charge and explaining the purpose of the visit. It is important to ensure that health workers understand that they should not change their routine practice. Once the local health staff are clear on the purpose of the visit, the following tasks need to be completed in preparation for the clinic session.

- Identify the health worker who is normally responsible for seeing sick children**
 If more than one health worker is responsible for the sick child clinic, select the health worker who conducts sick child clinics most often or the most senior/experienced health worker. For this assessment, observations of only one health worker are conducted at each facility.
- Decide how and where sick children for the survey can be identified for inclusion in the sample**
 Possible areas to screen children for the presenting complaint are the point of registration or at a common waiting area.
- Select a suitable place where caretakers can be interviewed after the sick child consultation**
 Two chairs will be required. It is important that this interview be conducted away from other caretakers so that they do not hear the questions or responses in advance.
- Decide which health worker will assist the surveyor in assessing the equipment, materials, and supplies of the clinic and when this will be done**
 Most sections of the facility equipment and supplies checklist can be completed by the supervisor during the clinic session with very little assistance. Specific areas may require more assistance.

Selection of Children

The supervisor is responsible for selecting children to include in the survey as they present to the health facility. **All children under 5 years of age presenting to the health facility during the survey period whose caretakers describe them as having fever/malaria, cough/difficulty breathing/pneumonia, or diarrhea/vomiting are included in the sample.** The caretakers of all children meeting this definition are given an enrollment card, which allows them to be followed through the facility and ensures that the surveyors include them in the survey. It is important that *all* children and caretakers coming to the clinic are identified and that caretakers are asked the reason for the visit. Only sick children meeting these criteria will be included in the survey, children described as having any other condition will not be included. If the number of sick children meeting the case definition is so large that the consultation session continues into the afternoon, it may be necessary to leave the facility before the consultation session has ended. If this is the case, a minimum of ten sick children should have been observed before leaving the facility.

Completion of Survey Questionnaires

Each member of the survey team will administer the same questionnaire(s) at each health facility to improve the reliability of the results.

Surveyor number 1 Observation of the consultation between the health worker and the caretaker and child and interview with the health worker

The surveyor should be located in the examination room close enough to the health worker to be able to hear and observe the consultation clearly and accurately. It is important that surveyors be as unobtrusive as possible and that they not disrupt the consultation session. A new observation questionnaire should be completed for each infant or child seen. If a caretaker has more than one sick child, then an observation questionnaire must be completed for each child. Surveyors should verify that an observation questionnaire is completed for each child with an enrollment form. At the end of each observation, the surveyor must ensure that the observation form is completed (all Y and N responses circled) before the next observation. In addition, at the end of each consultation, the surveyor must ensure that the caretaker wants to have an exit interview completed. At the end of the consultation session, this surveyor should complete a single health worker interview questionnaire for the observed health worker.

Surveyor number 2 Exit interview with the caretakers of sick children

Following the consultation, caretakers of sick children should be interviewed as quickly as possible. It is often easier to interview the caretaker outside the health facility, a short distance away from other caretakers and children. It is

important to avoid caretakers who are waiting to be seen, participation by a group may bias the responses. In addition, it is important to ensure that caretakers who are waiting for an exit interview not hear the questions and responses in advance. Because exit interviews often take longer than the clinical consultation, there should be a place for caretakers to wait for the interview with their children. In some areas it may be necessary to use an interpreter to ask questions in the local language. A local interpreter should be identified by the supervisor, as required, at each health facility.

Supervisor Equipment and supplies checklist

The supervisor is responsible for conducting the facility equipment and supplies checklist. The majority of this assessment requires direct observation and can be done during the consultation session. For some sections it may be necessary to ask clinic staff some direct questions (e.g., the location of the drugs, patient registers, and stock cards).

Check and Review of Questionnaires

Surveyors should check and complete each questionnaire after it has been administered. This is particularly important after each observation and exit interview. Immediate review of questionnaires will allow surveyors to ask questions of the health worker or caretaker in order to complete skipped or missed questions. In addition to the self-reviews of each questionnaire, supervisors should periodically review questionnaires for completeness. At the end of each clinic session, supervisors should sit down with surveyors to review all questionnaires for that day. At the end of each day, a whole set of completed and checked questionnaires should be available.

Feedback to Facility Staff

Surveyors should give some immediate feedback to health workers on the day of the survey visit. The focus of any feedback should be to improve the quality of case-management practices. All positive findings should be emphasized. Supervisors and surveyors can provide feedback in the following areas—

- Strengths and problems in case management, particularly in the assessment and treatment of sick children
- Quality of home-care advice and communication between health workers and caretakers
- Gaps in knowledge identified in the health worker interview
- Inappropriate use of medications
- Problems in record keeping

- Ways to improve clinic organization
- Major barriers to effective practice

Supervision

Adequate supervision of survey activities at each health facility is critical to the collection of high-quality data. The survey coordinator can oversee and supervise survey activities by visiting teams in the field during the survey week. All supervisors have the following responsibilities:

1. Introduce survey teams and explain survey activities at each health facility, ensure that preparations are made to allow efficient conduct of survey activities at each facility.
2. Identify sick children to include in the survey and follow-up of these children and their caretakers to ensure that they are included in the sample.
3. Oversee and manage survey activities at each facility, including monitoring of patient flow, answering questions from local health staff, and providing feedback at the end of the visit. In order to give surveyors enough time to complete questionnaires for all sampled children, supervisors may decide to include nonsampled children between sampled children.
4. Observe the performance of each surveyor periodically during the survey, especially during the first few days. The supervisor should independently complete each questionnaire while it is being completed by the surveyor and then compare the two. If the surveyor makes frequent errors, the observations should be more frequent.
5. Review questionnaires completed by each surveyor both during the clinic session and at the end of each health facility visit. It is important to ensure that they are complete and internally consistent. Immediate feedback should be given to surveyors if errors are identified. Supervisors should complete the coding boxes for each questionnaire during the clinic session or at the end of the clinic session. All coding should be completed the same day. Supervisors should refer to the coding guidelines presented in the question-by-question summary.
6. Provide support to surveyors. Supervisors should answer questions and discuss and attempt to solve any problems encountered. In addition, supervisors should provide support during facility visits, if necessary, they can assist with interviews if the caseload is heavy.

Completed Questionnaires

If possible, completed and checked survey questionnaires should be returned to the central coordination point for checking and data entry each day. Completeness, consistency, and coding of returned questionnaires should be conducted by the survey coordinator in collaboration with data entry staff. Ideally this should be conducted with the survey teams present so that questions can be asked if required. The frequency of questionnaire return will depend on the logistics and itinerary for each survey team. Arrangements should be made in advance with team supervisors for the return of completed questionnaires. Possible arrangements could include—

- Return of questionnaires by survey teams at the end of each day if the itinerary allows
- Return of questionnaires by survey teams every two or three days when the itinerary allows
- Collection of questionnaires every two or three days by the survey coordinator when visiting survey teams in the field

Arrangements for collecting completed questionnaires will probably vary by team because the logistics for each team will be different. Some teams will visit facilities that are accessible to the central coordination point and some will visit remote facilities.

General Guidelines for Completing the Questionnaires

Administration of the Questionnaires

It is important that each questionnaire be administered **exactly** as agreed upon during training. **DO NOT GUESS**. If surveyors are uncertain about what to do or if they have any questions, then they should ask their supervisor. The validity of the results obtained will depend on each person administering the questionnaire in exactly the same way.

Completion of Questionnaires

It is important that the questionnaires be completed clearly and legibly. The following are important:

- Write legibly
- Always use pencil to complete questionnaires

- Make sure that check marks do not overlap more than one answer
- For questions where there is a *yes* or *no* response, circle **Y** for *yes* or **N** for *no*
- If there is more than one possible answer, place a check next to the one that most closely resembles the response given
- If the caretaker or health worker gives a response other than those suggested, check the space “*other*” and write in the response that is given

Supplementary Information

It is important that forms are filled out as simply as possible and that only the appropriate spaces are checked. However, if surveyors feel it is necessary to document any additional information that might be helpful, they should discuss it with their supervisor. This information can be written in the margins.

Skipping Questions

Depending on the response that the caretaker or health worker gives to some questions, it may be necessary to skip one or more questions. If so, it is important to skip to the number that is indicated. *If there are no instructions always go to the next question.*

Courtesy

Survey teams should always be polite and respectful. In addition, they should try to complete the exit interviews with caretakers as quickly as possible so that they do not have to wait at health facilities for long periods of time. It is important to always thank caretakers for their cooperation and to answer any questions that they may have. If interviewers do not know the answers to questions asked by the caretaker, then they should check with their supervisor.

Question-by-Question Explanation of Survey Questionnaires

This section explains the questions contained in the four different questionnaires and provides instructions on how to complete them. When studying this section, it is useful to refer to the particular questionnaires.

Some of the questions or suggested answers will need to be adapted to the local context or according to specific objectives established during the preparation for conducting the assessment.

Identifying Information

Every survey questionnaire has a box at the top for identifying information

Province/District _____	HW Category _____	Date ____/____/____
Facility Name _____	Facility Type _____	Facility Status _____
Interviewer No _____	Child's Age (months) _____	Child ID No _____

Province/District

Enter the name of the province or district where the surveyed health facility is located

Health Worker Category

This variable describes the type of health worker observed (Questionnaire 1) or interviewed (Questionnaire 3). Categories of health worker (e.g., physician, nurse, health assistant, etc.) need to be defined in advance with surveyors.

Facility Type and Status

The facility **type** refers to the different categories of health facility being assessed (e.g., hospital, health center, or health station). The facility **status** refers to whether the health facility is a public or private institution, although other categories may need to be considered (e.g., Mission or NGO). At the sampling stage, the facilities to be surveyed will have been identified, so their type and status is known in advance. Interview teams can, therefore, enter all facility information at the start of each workday in order to save time.

Interviewer Number

The training facilitator will assign each team member an individual interviewer number which should be entered whenever a questionnaire is completed. It is useful for interviewers to write their numbers in the space provided on all the forms at the start of a day's work in order to save time. The interviewer number remains the same for the duration of the survey, even though the province, facility name, and facility type will change. If interviewers forget their numbers, they should check with the supervisor, who will keep a list.

Child's Age

The age of the child is recorded in months. The range is 0 to 59. Less than one month is zero.

Identification Number

An identification number is given to each child included in the survey. For each child, the same number is used for the observation and exit interview questionnaires. At each facility, each child seen that day will be allocated a number, starting with number 1 for the first child seen, 2 for the second, and so forth. At each new facility, the numbering for each new child seen begins again with number 1. The facility assessment checklist and health worker knowledge questionnaire, which are conducted only once at each facility, do not require child ID numbers.

Observation Checklist—Sick Child

This questionnaire should be used for all children who meet the case definition for inclusion in the survey. Health workers should be observed as they conduct the consultation with the caretaker and child. Surveyors should position themselves in the consultation room so that they can both see and hear the interaction between the health worker and the caretaker. Surveyors should be as unobtrusive as possible, however, and not interrupt the consultation.

Each consultation should be **timed** from the moment the caretaker enters the room with the child. The surveyor should note on the checklist the time when the caretaker comes into the room, and calculate the duration of the consultation in minutes.

Reason for Bringing the Child

Q 1

A check should be placed next to the reason closest to that which the caretaker gives for bringing the child to the health facility on the day of the visit. There may be more than one reason checked. If, however, there is a reason other than those noted on the questionnaire, the surveyor should check with the supervisor because there is a chance that the child should not be included in the survey.

Screening

Q 2–12

The surveyor completes this section of the questionnaire by observing the interaction between the health worker and the caretaker and by listening carefully to questions asked by the health worker. It is important to circle **Y** or **N** for *all* questions. The information required for questions 2 to 4 is sometimes recorded on the child's record before the consultation. If this is the case, the health worker has this information and the response to these questions is considered to be **Y**. Question 9 a refers to any information asked about diarrhea (quality of the diarrhea, number of stools per day, consistency, etc.), if the health worker asks about the presence of blood in the stool or about the duration of the diarrhea, these should be circled separately. In like manner, questions 10 a, 11 a, and 12 a refer to

any general information asked about each of these symptoms, if the health worker asks the other questions listed, these should be circled separately

Often health workers will ask only one or two questions and not follow the order of the questionnaire. Sometimes they will ask more questions during the clinical examination. It is important that surveyors be very familiar with these questions so that they can return and circle appropriate responses if necessary.

Examination

Q 13–27

The surveyor completes this section by direct observation of the health worker. Y or N should be circled for every question to indicate whether health workers examined these different areas for each child.

Supervisor Coding

- A All danger sign questions assessed?** To circle Y, all questions from 5 to 8 should be circled Y. If Q 8 is not marked Y but Q 13 is marked Y, then the child has been assessed for lethargy or conscious state.
- B All main symptoms assessed?** To circle Y, all HISTORY questions (history of diarrhea, of cough/difficulty breathing, of fever, of ear problems) from 9 to 12 should be circled Y. It is not necessary that other supplementary questions be circled Y.
- C Number of diarrhea assessment tasks completed?** Add the number of Y responses for Q 9 b, 9 c, 14, 15, and 16.
- D Number of ARI assessment tasks completed?** Add the number of Y responses for Q 10 b, 17, 18, and 19.
- E Number of fever assessment tasks completed?** Add the number of Y responses for Q 11 b, 20, 21, and 22.
- F Nutritional status assessed correctly?** To circle Y, Q 3, 25, 26, and 27 should be circled Y.

Immunization and Screening

Q 28–29

It is important to circle Y or N for all questions concerning the assessment of vaccination status. If the health worker does not ask for the vaccination card at all, then several parts of these questions are skipped. Occasionally, the caretaker will not be the mother of the child (for example, the father may have brought the child to the facility). In this case, questions 29 a, b, and c will not be applicable.

Diagnosis and Treatment

Q 30–48

It is important to circle all of the conditions listed in the diagnosis section. Health workers may diagnose a child as having one or several conditions. Sometimes it will be difficult during the interview to determine what diagnosis the health worker has made. In this situation, surveyors should not interrupt the consultation. Instead, they should wait until the end of the consultation and then ask the health worker directly what condition(s) he or she had diagnosed in that child. If the health worker has not made a diagnosis, then this should be recorded in question 48. If the child is sent to the laboratory, the surveyor should put the questionnaire aside until the child is brought back with the laboratory result and then complete the diagnosis and treatment section and the end of the questionnaire. In this case, the surveyor will need to record the time when the child leaves for the laboratory examination and when he or she returns. To calculate the total time of the interview, surveyors will need to add the duration of the interview before the laboratory exam and the duration of the interview after the laboratory exam. If the child is admitted, questions 50–68 may be left blank because these are often not applicable when children are admitted directly to hospital.

Supervisor Coding (If Validation Is Performed)

G a Health worker classification agrees with that of the validator? If the diagnosis of the health worker is being checked by reexamining each child using the IMCI protocol, then this box can be completed. If there is agreement between the supervisor and the health worker classification, then Y can be circled, and the health worker classification is considered to be correct.

G b Severely ill child classified correctly? Circle Y if the child has a gold standard classification of severe illness AND the health worker also classifies as severely ill.

Q 49–63

All the treatment questions should be answered. The health worker may administer or prescribe medications. If the health worker writes a prescription, it may not be immediately possible to know what drugs are prescribed, in that case, the health worker should be asked the prescription at the end of the interview. If the health worker does not administer or prescribe any medicine, then question 63 must be circled Y.

Supervisor Coding

- H Is the medication appropriate for the diagnosis?** In order to circle **Y** in the box the responses in the treatment section should be appropriate for *all* the diagnoses made. Otherwise the supervisor should circle **N** in the box. General coding rules for appropriate treatment are summarized in Table 1.
- I Is the medication appropriate for a specific diagnosis?** The supervisor should circle **Y** or **N** according to the guidelines summarized in Table 1. **N/A** should be circled for children who have not been diagnosed with that condition.

Validator Coding (If Validation Is Performed)

- J Is the child treated correctly?** If the treatment recommended by the supervisor following a reexamination of the sick child is the same as that recommended by the health worker, then circle **Y**. This is completed for children with any severe classification and for pneumonia, diarrhea, or malaria according to the gold standard examination.

Table 1
Guidelines for Coding Appropriate Treatment

Diagnosis	Medication		
	Appropriate	Inappropriate	Possibly Appropriate
Diarrhea dehydration	IV fluids if severe ORS/RHF	Antimalarial antibiotic antidiarrheal metronidazole	Paracetamol aspirin
Dysentery	Antibiotic ORS/RHF	Antimalarial antidiarrheal metronidazole ¹	Paracetamol aspirin
Persistent diarrhea	Refer if severe Feeding counseling	(As above for dehydration)	Paracetamol aspirin
Pneumonia LRTI	Refer and give 1 st dose antibiotic if severe Antibiotic for other cases	Antimalarial	Paracetamol aspirin
Cold allergy simple cough	Paracetamol aspirin	Antimalarial antibiotic	—
Very severe febrile disease	Refer and give quinine IM antibiotic paracetamol glucose	—	—
Malaria	Antimalarial paracetamol aspirin	Antibiotic	—
Fever other cause	Paracetamol aspirin	Antimalarial	Antibiotic
Measles	Vitamin A antibiotic and refer if severe Vitamin A ± tetracy- cline eye ointment ± gentian violet for mouth ulcers	Antibiotic (if not severe) antimalarial	Paracetamol aspirin
Mastoiditis	Antibiotics paracet- amol and refer	Antimalarial	—
Ear infection	Antibiotic paracet- amol if acute Wicking if acute or chronic	Antimalarial antibiotic (if chronic)	Paracetamol aspirin
Severe malnutrition or severe anemia	Give vitamin A and refer	Antimalarial antibiotic	—
Anemia or very low weight	Give iron antimal- arial if high malaria risk mebendazole if ≥2 years Feeding history and counseling	Antibiotic antimalarial (if not high malaria risk)	—

¹ Metronidazole would be an appropriate treatment for bloody diarrhea if a stool exam has confirmed acute amebiasis or if the national protocol recommends metronidazole as the first line treatment for bloody diarrhea. In any case, an antibiotic and metronidazole should not be given for the treatment of bloody diarrhea.

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Interpersonal Communication

Q 64 a b c

If the health worker gives or prescribes medications for the child, it is important to listen and observe carefully whether the caretaker is instructed about how to give the medications. In addition, it is important to observe what instructions the health worker gives to the caretaker about how to treat the child at home. All questions should be answered **Y** or **N** (unless **N/A** is applicable for Q 64 b)

Supervisor Coding

K Number of treatment tasks performed? Health workers should explain, demonstrate, and then verify that caretakers understand how to give the oral medication. If all three are done, then **3** is circled. If two are done, then **2** is circled, and so on. If no medications are given or prescribed, then **N/A** should be circled.

Q 65-67

The surveyor should be alert as to whether the health worker ensures that the caretaker has understood when to return for follow-up, the need to continue feeding the child, and the need for liquids. Every question should have **Y** or **N** circled.

Q 68

This question refers to symptoms that could be signs of severity at home. The surveyor should circle **Y** the message(s) that are mentioned by the health worker. Every message should have a **Y** or **N** circled. The surveyor should listen carefully to whether the health worker gives the caretaker instructions on when to return with the child and record what signs the caretaker is told by the health worker.

Supervisor Coding

L Are at least three of the Q 68 messages circled? At least three of the seven messages must have been mentioned by the health worker in order to circle **Y**.

Q 69

Nutritional advice should contain information on at least one of the following: (1) the frequency of breastfeeding, (2) how to breastfeed, (3) types of complementary foods, (4) when to give complementary foods, (5) how often to give complementary foods, and (6) how to encourage child feeding.

Duration of Observation

As the caretaker leaves the room, it is important that the surveyor check the time and note this on the questionnaire. The surveyors should also ensure that the caretakers see the surveyor responsible for conducting exit interviews as they leave the clinic.

Exit Interview—Sick Child

It is important to be courteous to the caretaker during the interview. If the surveyor asks a question and the caretaker does not know the answer, the surveyor should go to the next question without criticizing the caretaker. If the caretaker has questions for the surveyor, it is best if he/she is asked to wait until the end of the interview.

For most questions, it is important that surveyors not prompt caretakers when asking these questions. Surveyors should wait for the caretakers to answer on their own. For some questions, it may be useful to encourage the caretaker to reply by saying, "Yes, is there anything else that you can think of?" or, "Is there anything else that you would like to say?" For a few questions (questions 7 and 10 b), surveyors are **required** to prompt caretakers. For these questions, the surveyor needs to read every option listed to the caretaker and then record his/her response. Surveyors should ensure that they become familiar with the prompted questions during the training week.

NOTE This questionnaire needs a careful review for adaptation of prompted answers.

Q 1

Caretakers should be asked what oral medications they were given or prescribed. If no oral medications were given or prescribed, surveyors should circle **N** and go directly to question 2. If any oral medication was given or prescribed, the answer is **Y** and surveyors should ask which medications. If the caretaker doesn't know, the surveyors should check the prescription or the medication in order to determine the type of drugs. If one of these is an antimalarial, an antibiotic, aspirin/paracetamol, or ORS/RHF, surveyors should ask caretakers the three questions—"How much each time?" "How many times per day?" and "How many days?" The surveyor should enter the response in the appropriate cell of the questionnaire. The caretakers must answer the questions themselves, but they can refer to the prescription if necessary. More than one drug may have been given or prescribed. If the caretaker does not know an answer, this should be marked **DK** (don't know) in the corresponding cell. If the caretaker answers "as required," this should be marked **AR** in the corresponding cell. If the answer is "until completed," this should be marked **UC** in the corresponding cell.

NOTE If the caretaker does not know or makes mistakes, it is important to instruct him/her about the correct dosage at the end of the interview.

Supervisor Coding

All correct? Drugs need to be consistent with the national treatment guidelines for malaria, ARI and diarrhea. If the answer in one of the three cells is **DK** or wrong (antibiotic given for less than five days, for example), the supervisor should enter **N** in the last column. The response "until completed" (**UC**) may be correct if the dose given is correct. The response "as required" (**AR**) may be correct to describe when an antipyretic agent will be given.

A Caretaker knows how to give ALL essential medications correctly? All cells in the "All Correct?" column (if more than one drug was given) must be **Y** in order to circle **Y** in this box.

Q 2

The caretaker should be asked what he/she will do to look after the child at home. Every response mentioned should be checked by surveyors. It is important to remember that the caretakers must not be prompted when asked this question, they must be allowed to answer on their own. If the caretaker does not know, check this response.

Supervisor Coding

B Caretaker knows at least two aspects of home case management? To circle a **Y** in the box, at least two of the possible responses should have been mentioned. Otherwise, the answer in the box is **N**.

Q 3

This question refers to caretakers' understanding of the symptoms and the signs of severity. Do not prompt the answers, check all responses mentioned by the caretaker.

Supervisor Coding

C Caretaker knows at least two signs of the child getting worse at home? If at least two of the signs listed in this question are mentioned, the response is **Y**.

Q 4-7

These questions all concern immunizations. For questions 4 and 5, surveyors should check all the responses mentioned by the caretaker. For question 6, surveyors should check "correct" or "incorrect" according to the national immunization schedule. Normally, the correct answer is 5. Question 7 is prompted, a single response should be checked.

Q 8

All caretakers should be asked whether they have their child's vaccination card. If they have the card, surveyors should ask to see it. All vaccinations that have been given should be circled Y. All vaccinations that were not given should be circled N. If the caretaker does not have the vaccination card, surveyors should go to question 9.

Supervisor Coding

D Child is up to date? Complete the box according to the child's age and the national immunization schedule

Q 9

All caretakers should be asked whether they have their own vaccination cards for tetanus. If they do not have one or have never received one, these responses should be checked and surveyors should go to question 10. If the caretaker can produce a vaccination card, surveyors should write down all tetanus vaccinations that have been received. This question is not asked if the caretaker with the child is not a woman (e.g., the father), in this case, the surveyor will check N/A.

Supervisor Coding

E Caretaker has received at least TT-2? The response is Y if at least TT-2 has been received

Q 10

This question refers to tetanus vaccination the day of the child's visit. Tetanus vaccinations given in the past are not counted by this question. Surveyors may prompt the answers. This question is not asked if the caretaker with the child is not a woman (e.g., the father), in this case, the surveyor will check N/A. If No at question 10 a ask 10 b. The up to date category can be checked by referring to the mother's vaccination card.

Q 11

This question asks about medications given at the last visit. If caretakers were given prescriptions for oral medications at the last visit, then they are asked where they went to get the medications, whether they were able to get them, and if they were unable to get them, why. This requires that caretakers have been to the facility at least once in the past, and that they can accurately recall this information.

Conclusion of Interview

At the end of the exit interview with the caretakers, surveyors should thank them for their time and ask them if they have any questions. If a caretaker does not know how to prepare ORS, the surveyor should explain how to prepare it. If the caretaker does not know the dosage of medication to give or when to bring the child back to the health facility, then this should also be explained. Surveyors

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should ensure that the child ID No from the observation checklist is copied onto the exit interview questionnaire

Health Worker Interview

One health worker will be interviewed at each health facility. The interview will be conducted with the health worker who was observed by the surveyor during the clinic session. The surveyor should find a comfortable place for the interview and explain that there are some general questions about the clinic and the management of sick children. It is important to reassure health workers that they should relax and answer as freely as possible because the questionnaires are anonymous. Surveyors should encourage the health workers to tell them if any questions are not clear so that they can explain them more clearly.

Q 1-3

These questions ask how supplies are received and the most frequent cause of a delay in the delivery of supplies. Surveyors should check the appropriate response or fill in the "Other" space. Only one response should be checked for these three questions.

Q 4-8

These questions ask about the provision of supervision to the health facility. Question 4 asks if the health facility has a regular supervisor, if not or if the supervisor never visits, then the answer is N and surveyors should skip to question 9. If there is a regular supervisor, then they should proceed to question 5.

Q 9-10

These questions ask about the problems faced by the health worker and whether these problems have been raised with the supervisor. It is important that health workers be encouraged to give honest opinions. More than one of the responses may be checked.

Q 11-13

These questions ask about child health training received in the last 12 months and whether the training involved any clinical practice. Training involving clinical practice would include visits to health centers or hospitals in order to apply techniques or skills in the clinical setting, under close supervision. During the surveyors' training, a clear definition of "training session" has to be made, usually three days are considered the minimum requirement for a training session. In addition, the types of topics considered to be child-health related will need to be clearly defined.

Q 14–17

These questions ask about knowledge of the routine vaccination schedule and about the timing of vaccination clinics. To complete the table in question 14, health workers should be asked to describe the routine vaccination schedule in their clinic for DPT, polio, BCG, and measles. Answers should be given in weeks for DPT and polio and in months for measles. Doses given at birth (BCG, Polio 0) should be coded 0. To complete questions 15 and 16, health workers should be asked to describe when they would normally give tetanus toxoid. For question 17, the clinic days should be circled and the total number of immunization days per week should be specified.

Supervisor Coding

A EPI vaccination schedule all correct? Responses for all antigens must be correct according to the vaccination schedule in order to circle Y

Q 18

If the health facility provides antenatal clinics, then the clinic days should be circled and the number of clinic days per week should be specified. If the clinic does not provide antenatal services, the surveyor should ask why clinics are not held and check the responses provided.

Q 19–20

Question 19 asks the health worker to describe the signs that would make him/her refer a child to a hospital. Surveyors should check all of the responses given, they may need to encourage health workers to give more than one response. Question 20 a asks health workers if they have ever had difficulty referring a child to hospital. If the answer is Y, surveyors should check all reasons given for being unable to refer children in question 20 b.

Supervisor Coding

B Health worker knows at least three signs for referral? At least three of the ten proposed answers must be checked in order to circle Y in the coding box. If the "Other" category is checked, it should not be counted.

Q 21–22

These two questions ask about the communication aspects of the health worker's role. Surveyors should check all responses mentioned without prompting the answers, but they may need to encourage health workers to give more than one response.

Conclusion of Interview

At the end of the health worker interview, the surveyor should thank the health worker for his/her cooperation and answer any questions. If time allows, this may be an opportunity to give the health worker feedback on the findings of the clinic visit.

Equipment and Supplies Checklist

This questionnaire will be completed by the team supervisor while the observation and interview sections are being conducted. On occasion, parts of this questionnaire will need to be left until the end of the clinic session so that the supervisor can ask questions, such as categories of health staff assigned to the facility. The supervisor should inspect the equipment, supplies, and facility supports, it is not acceptable to get this information by asking health workers.

Category of Health Staff

This section can be completed during—or at the end of—the clinic session by directly questioning health workers. It is important that **only** the personnel who have child case-management responsibilities be included. If there is no one with child case-management responsibilities assigned to a category, **0** should be entered, rather than leaving it blank.

Patient and Worker Accommodation

Q 1–7

All of these questions require direct observation while the clinic is in session. Supervisors should go out to the latrine to observe accessibility and cleanliness. A definition of a functional latrine should be agreed on during the surveyor training session. If an ORT corner is present but not being used the day of the survey, it can still be considered “in use” if it is equipped and available for use.

Equipment and Supplies

Q 8–19

All the equipment and supplies listed should be inspected directly and an attempt made to determine whether they are functioning properly. All questions should be marked Y or N.

Q 20–21

If there is no refrigerator, questions 20 b and c should be skipped. The type of refrigerator and its condition can be determined by observation. When the refrigerator is opened to look for a thermometer and freeze-watch indicator, vaccine stocks as well as expired and frozen vaccines can be checked (questions 41–47). It is important to look for a temperature chart on the outside of the refrigerator. If there is a chart present, the number of days that the temperature has been recorded during the 30 days prior to the day of the survey and the number of days that it was above 8°C and below 0°C should be recorded. If there is no temperature chart, go directly to question 21. While the refrigerator is open, the supervisor should also check for frozen cold packs.

Q 22

If cold boxes are present, their condition should be assessed. It is important to determine whether the lid of the box closes properly, whether the box is intact, and whether there is insulating material in the top of the box.

Medicines and Vaccines in Stock

Q 23–40

During the clinic session, the supervisor should ask a health worker familiar with the drug stock to show him or her where drugs are kept and to work through the list on the questionnaire. Supervisors should circle Y or N for all questions, regardless of the quantity available. If drugs are present, it is important to determine whether any are expired. If any drugs are expired, they should not be counted as available but instead listed in question 40. Needles and syringes (questions 38 and 39) are for curative use only, the EPI needles and syringes should not be included.

Q 41–47

The type of vaccines present in the clinic, as well as the presence of expired or frozen vaccines, should be recorded. It may be most convenient to check vaccines when the refrigerator is being inspected (question 20). If there is no refrigerator in the health facility, N/A should be circled for questions 41 through 47.

Q 48

This question asks about the number of times in the previous 30 days that the clinic has been without any stock in vaccines, syringes/needles, ORS, drugs, or cards/forms. If there has been an absence of stock in any of the categories mentioned at any time during the previous 30 days, this is classified as a stock-out. The total number of days that the facility has been without each item should be recorded in the table. If an item has been absent for all of the preceding 30 days, this should be recorded as 30. It is not necessary to specify the types of drugs or materials that were unavailable. The types of essential medications required at each level of health facility may differ, if so, this should be clarified during training. Stock-outs should be calculated only for those medications that are considered essential for the specific category of health facility.

Q 49

This question refers to the management of drugs. Appropriateness of drug and supply organization and storage can be determined by observation and judgment. To be appropriately stored, medications should be located in a cool, dry, and reasonably secure place. Adequate organization of medications requires that they be stored in a “logical” manner that facilitates management and use. Definitions should be established during the training for “adequately organized” and “stored appropriately” in order to ensure reliability between supervisors.

Documentation and Record Keeping

Q 50-60

While the clinic session is in progress, the supervisor should check for the presence of immunization and patient registers and a stock of both children's and women's vaccination cards and essential drugs cards. When the session is over, the supervisor should ask the person(s) in charge of records to show the vaccine tally sheets and the notifiable disease and monthly report forms for the past six months. The supervisor should also review the patient registers to determine if they are up to date. A register or report is considered up to date if all entries have been made for the previous session and if the report for the previous month has been completed. The supervisor should count the total number of patients seen in the previous month and count separately the number of children under age 5. To calculate the average number of patients seen per day, the number of patients counted in the previous month should be divided by 30.

Appendix D.
Introduction to the Epi Info
Software

Introduction to the Epi Info Software

The objective of this short training is to give you the basic knowledge for using Epi Info for a survey. The training is targeted for people with little or no computer experience. Participants will gain a basic understanding of how to create a questionnaire and how to conduct an analysis of data using the simple commands. The Epi Info training presented here can be conducted in three to four hours. A complete Epi Info training would take about three days.

The Epi Info software is installed on the hard drive of all the training computers from Epi Info diskettes, by using A >INSTALL and by following the instructions on the screen. A ratio of one computer per three participants is suggested.

If most of the participants have had no previous exposure to computers, some general concepts and terms, such as *hardware*, *software*, *A drive*, *C drive*, *filename*, *extension*, *cursor*, and the like, will be introduced. In addition, a quick review of the computer keyboard will introduce the keys that are different from a typewriter keyboard. These include the function keys F1 to F12, the arrows, PgUp and PgDn, BkSp (Backspace), Del (Delete), Ctrl (Control), Esc (Escape), Shift, and Enter. To type characters that appear on the top half of a key, use the shift key and press the other key at the same time (as with a typewriter).

General Information on Computers

The computer domain uses its own language with specific words. For example, the term *hardware* is used for the machine itself, which may be a *desktop* or *laptop* (transportable), the term *software* means computer programs. There is a large variety of programs with specific functions:

- Word processors (e.g., Word, WordPerfect)
- Spreadsheets (e.g., Excel, Lotus)
- Graphics (e.g., Harvard Graphics)
- Statistics (e.g., SAS, SPSS, Epi Info)
- Others: maps, accounting, games, etc.

A computer has many advantages over a word processor or typewriter. It has a huge memory, which means that documents can be saved and stored in the computer memory and retrieved anytime, corrections/modifications can be made easily without having to retype everything from the beginning. Computers can also quickly calculate and compute complicated operations.

Documents can be stored in the computer memory (C drive) or on a diskette (A drive) Other major terms are as follows

Directory	Similar to shelves with labels in a library
File	Document (any type)
Filename	Each file has a name, as books have titles Filenames have a maximum of eight characters (e g , HFA is for Health Facility Assessment)
Extension	Filenames have an extension (three characters maximum) (e g , HFA DOC)
Cursor	A blinking line on the computer screen that tells where the next character will be inserted
Variable	Any "item" that could have different attributes (e g , age, facility name, interviewer number, etc)

Do not touch the computer screen with your fingers or pen/pencil, you could damage it

Epi Info Software

General Information

Epi Info software is a package of computer programs The core elements of Epi Info are used for the following

- Creating **questionnaires**
- Conducting **data entry**
- Conducting **data analysis**

There are other more specific programs, like EPINUT (for nutritional survey) and EPITABLE (for advanced statistics) These specific programs will not be introduced in this training

Epi Info was created in 1983 by the U S Centers for Disease Control and Prevention (CDC) The first version was called Epi Info version 1 0 It was then revised and updated by the CDC in collaboration with WHO In 1998, the current version is Epi Info 6 04 Epi Info is a public domain software, which means that it has no copyright attached to it and therefore it can be copied and shared (as with musical cassettes) at almost no cost Epi Info software is presented in three or four diskettes containing all the Epi Info files An Epi Info manual has been edited by the CDC and can be purchased at low cost The manual is also included with the diskettes

Epi Info Programs

To access Epi Info, you should be on the C drive (DOS and not WINDOWS) and have on the screen C \ Then type **cd epi6** The screen should display the following **C >EPI6** Press the Enter key, again type **epi6**, and press the Enter key You are in Epi Info

We will go through the major steps that were used for the Health Facility Assessment (HFA) During the HFA data analysis, we will use only the ANALYSIS program, but during this introduction you will practice two other programs, EPED and ENTER

Epi Info has a core or four different programs (in the menu of the Program section at the top left of the screen)

- EPED Creates questionnaires, filename extension QES (mandatory)
- ENTER For data entry, filename extension REC (mandatory)
- ANALYSIS For data analysis
- CHECK For “accurate” data entry, extension CHK (mandatory) (range, legal values, jumps, etc)

Each of the four survey questionnaires should have three different Epi Info files—for example, the Observation of the Health Worker OBS QES, OBS REC, and OBS CHK

Creating a Questionnaire with EPED

To practice creating a questionnaire, proceed as follows

- Go to EPED from the Programs menu by using the down arrow, highlight EPED, and press the Enter key
- Look at the explanation of function keys F1 to F10 at the top of the screen
- Variables have a name (10 characters maximum)
- Variables should be—
 - In { }, for example {AGE}
 - Written on the left of the screen

Abbreviations can be used, if the meaning is clear

- Comments or instructions can be written to the right of the variable’s name

- The data entry field should be on the same line as the name of the variable
- There are six options for the data entry field (F4 or Ctrl QQ)

If the variable is—	Use this data entry field—
1 Text (maximum 80 characters)	_____
2 Numeric	# or ## or ### etc
Numeric with decimal	# # or ## # or ## ## or ### # etc
3 Upper case field, e g , Sex (F, M)	<A> or <A > (if more than one character is needed)
4 For YES or NO question	<Y> (fixed format)
5 Date	<dd/mm/yy> or <mm/dd/yy>
6 Serial numbering (or identification no)	<idnum> (automatic identification numbering)

The following is an example of a questionnaire

Variable Names/Questions Variable Name and Correct Field Data Entry Options

Serial number	{SERNUM}	Identification no	<idnum>
Date	{DATE}	Date	<dd/mm/yy>
Region	{REGION}	Region	_____
Head of Household Name	{HEADHH}	Head of household name	_____
Sex	{SEX}	Sex	{A}
How old are you?	{AGE}	Age	##
Are you ill?	{ILL}	Illness	{Y}
Temperature	{TEMP}	Temperature	## #

Save the questionnaire by pressing F9, name it TEST QES and then press the Enter key
Exit the EPED program by pressing the F10 key

Go to the ENTER program by using the down arrow and press the Enter key Type your filename TEST, then choose option 2 (create) Option 1 is used only if a REC file has already been created, option 3 is used if the questionnaire (QES file) was modified After entering about ten sets of fictitious data, answer Y when asked “Write data to disk? Y or N” at the end of each questionnaire Each time you complete one questionnaire, Epi Info goes automatically to the next screen and is ready to enter a new set of data Then quit the ENTER program by pressing the F10 key

Analyzing Data with ANALYSIS

The first step to perform before analyzing data is *data cleaning* The `FREQ *` or `LIST *` commands can be used to review all the variables The `SELECT (variable name)` command can be used to review each variable separately Reviewing the frequencies of each variable will often detect data inconsistencies and errors Corrections to specific variables can be made using the `UPDATE` command

To practice analyzing data, proceed as follows

- Go to ANALYSIS and press the Enter key
- Load a data set by typing `READ` and your filename `READ TEST`, then press the Enter key
- Press the F2 key to look at all Epi Info commands Then press the Esc key
- Press the F3 key to look at the variable names of your questionnaire and then press the Esc key
- Start analyzing your data set For example, if you want to describe your sample by region, age, sex, and illness, type `FREQ REGION AGE SEX ILL` and press the Enter key
- Look at your results and the statistics after each table The most useful common statistics are `min` (minimum), `max` (maximum), `mean`, and `median`, which give you, for example, the age range, the mean age, and the median age in your data set
- If a table is divided on the screen, press the `Ctrl` and `PgUp` or `PgDn` keys at the same time to move the table so that you can see it in its entirety
- If you want to analyze one part of your data set, use the `SELECT` command For example, if you want to analyze only the men, type `SELECT SEX = “M”` and

press the Enter key You will notice that it says on the top of your screen Criteria Sex = "M " If you then want to analyze the frequency of men by age, sex, and illness, type `FREQ AGE SEX ILL` and press the Enter key You will notice that the denominator is smaller than before (only men are included in the analysis)

If you want to "deselect" and go back to the entire data set, type the `SELECT` command again and press the Enter key

- If you want to look at your data in graph form, try `HISTOGRAM AGE` and press the Enter key To exit the graph, press the Esc key, for another example, type `PIE REGION` and press Enter
- You can print your results by pressing the F5 key, by pressing F5 again, you can route your results to the screen only
- You can save your results in a file by typing `ROUTE TEST TXT` (if your filename is called TEST) Then you can retrieve and edit this file with the EPED program