



PROTOCOL FOR THE ASSESSMENT OF  
 MISSED OPPORTUNITIES FOR IMMUNIZATION<sup>1</sup>

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INTRODUCTION

Many children visiting health facilities are partially immunized, but for one reason or another the opportunity to immunize is missed<sup>2</sup>. Children, and women of childbearing age, may not be screened at health facilities to determine their immunization status and eligibility for further immunization, or the health facility may not offer immunization services. Even if immunized, they may not be given all the vaccine doses for which they are eligible. If the children are sick, they may not be immunized because it is believed that their sickness is a contraindication to immunization, although this is rarely the case<sup>3</sup>. In areas where access to health services is limited, and the burden of diseases targeted by E.P.I. is high, these missed opportunities for immunization may result in avoidable deaths and disability in children.

For similar reasons, opportunities to immunize eligible women with tetanus toxoid at antenatal clinics and at children's clinics should also not be missed.

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This protocol represents a framework for national immunization programmes and health facilities to assess the magnitude of the missed opportunities problem locally. Since little information is available on a global basis on this aspect of health care, all programmes are encouraged to conduct surveys of this type.

#### PRINCIPAL QUESTIONS TO BE ANSWERED

1. What percentage of children visiting health facilities which routinely offer immunization are partially immunized and eligible for immunization, but are not immunized during that visit?
2. What percentage of children who are immunized that visit, did not receive all the vaccine doses for which they were eligible?
3. What percentage of children visiting health facilities where immunization is not routinely offered are partially immunized and eligible for immunization, and could have been immunized during that visit?
4. What percentage of the women accompanying children to children's health facilities, or attending an antenatal clinic, are partially immunized with tetanus toxoid, eligible for immunization, and could have been immunized during that visit?

#### METHODS

##### Study population

All women and children who come to the health facility (generally included under the term "clinic" in this document) that day during the hours that the survey is carried out should be included, irrespective of their place of residence.

A discussion of the recommended sampling strategies is given in Annex One.

##### Study sites

These may usefully be thought of as falling into two general categories:

- 1) Clinics which routinely offer immunization to some, or all, women or children who attend it. These would include immunization clinics, "under-fives" clinics, and MCH clinics. Missed opportunities would occur in these clinics if, for example, children are refused immunization by clinic workers for incorrect contraindications, or for being "too busy". Even if immunized, that visit may end as a missed opportunity for immunization if the child is not given all the vaccine doses for which they are eligible on that visit.

For women eligible to receive tetanus toxoid, examples in this category include MCH clinics, antenatal clinics using incorrect contraindications, and family planning clinics.

2) Health facilities where immunization is not at present offered on a routine basis. Examples may include pediatric inpatient wards, children's sick-care clinics, and hospital emergency departments.

For women examples would include most children's clinics, and hospital emergency departments.

This protocol is structured mainly for use in children's clinics; it is readily adaptable for use in other settings. Modifications of the protocol for use in other settings include:

1) For use on pediatric inpatient wards, the term "clinic" is replaced by "hospital" throughout the protocol.

2) For use in women's health facilities, section 1.4 is deleted. The term "accompanying child" replaces "child", and "woman" replaces "accompanying woman". Children accompanying any women to health facilities may be assumed to be well, i.e. have no contraindication to immunization. The questionnaire for children is applied to any child who accompanies a woman to that facility.

This protocol should be considered a framework, to which programme-specific modifications may be made. For example, the protocol can identify a proportion of those children who have "dropped out" from immunization services. Additional questions may be asked in order to discover the reasons why they have done so.

#### Data collection form

A General Information Sheet (Annex Two), Policy on Contraindications Sheet (Annex Three) and Questionnaire (Annexes Four, Five) are attached. For each facility visited, a General Information Sheet should be completed; for each child and woman, a separate questionnaire should be completed. If more than one woman accompanies a child, a separate questionnaire for each woman should be completed. The Policy on Contraindications Sheet should be completed as many times as necessary.

#### Procedure

Two interviewers should be trained for each health facility to be surveyed. In general, such training has taken not more than 3-4 hours to complete. Where possible, newly trained interviewers should "try out" the questionnaire in a small pilot study. Medical and nursing students, as well as physicians and nurses are the preferred choice for interviewers. Supervision by the primary investigators is vital.

Permission should be sought from the persons in charge of the health facility to be studied. Explanation of the principal questions to be answered, and the procedures to be followed by the interviewers are given. This prior briefing of health staff has not in general biased the results of the survey in any meaningful way. The primary source of information should be the man or woman accompanying the child, and the immunization cards in their possession. Participants are interviewed after seeing the clinic health worker ("exit interview").

If the person accompanying the child to the clinic is male, then only information on the child is obtained. All women who accompany a child to the clinic should have the women's questionnaire applied to them if they consent. The information should be obtained for all consenting women and children, not just for selected children and women accompanying them.

After data collection is completed, analysis and data compilation should preferably be carried out while still at the health facility that was studied. By following such a procedure, results may be presented immediately to the persons in charge of the health facility; it also allows on-the-spot discussion and investigation to identify possible reasons for any problems found.

#### ANALYSIS OF COLLECTED DATA

Worksheets for basic analysis of collected data are given in Annex Six. The suggested format for the presentation and reporting of results is given in Annex Seven.

A common difficulty arises in considering the data from children not up-to-date on their immunizations. They have missed an opportunity for immunization if they have not received all the vaccine doses for which they are eligible. For example, a 7 week old child previously immunized with BCG only, should have received OPV 1 and DPT 1 (but not OPV 0) in order not to be a missed opportunity; on the other hand a 10 month old child previously immunized with BCG only, should receive DPT 1, OPV 1, and Measles (but not OPV 0, DPT 2 and 3, or OPV 2 and 3) in order for the visit not to be considered a missed opportunity for immunization.

#### DEFINITIONS

Accompanying Woman/Women: all women of all ages, who are responsible for the child during the visit to the health-care facility. The child and woman need not be related.

Child/Children: children of both sexes, brought to the health facility for well-child or sick-care.

Partially Immunized: a child or woman who is not yet fully immunized. This includes both the children and women who are up-to-date (see below) but partially immunized, and those who are partially immunized and not up-to-date.

Fully Immunized: a child or woman who has completed the recommended E.P.I. immunization schedule for all vaccine doses. The term "up-to-date" is used for partially immunized children only. Because of the different circumstances under which OPV 0 is included in the immunization schedule, a child may still be considered fully immunized without receiving this vaccine dose. OPV 0 is recommended under the rationale that it affords some protection via intestinal immunity until six weeks (42 days) of life, the recommended age for initiating the 3 dose series of OPV for conferring full immunity against poliomyelitis.

Missed Opportunity for Immunization: any visit to a health facility by child or eligible woman, who is partially immunized, not up-to-date, and free of contraindications to immunization, which does not result in the child or woman receiving all the vaccine doses for which he or she is eligible.

Severe Reaction to Vaccine: an adverse effect (also called "side effect") of immunization resulting in a life threatening event, or permanent neurological damage.

"Up-to-Date": all the immunizations recommended by E.P.I. for which the child is eligible by age criteria have already been given. For multiple-dose vaccines, the child or woman can only receive one dose at a time, however. Doses must also be spaced a minimum of 4 weeks apart. Note that for OPV 0, after 6 weeks (42 days) of life a child may still be considered up-to-date on immunizations despite having never received this vaccine dose (see "Fully Immunized", above).

NOTES:

( 1 ) This protocol is also available on 5.25 inch double-density diskette users of microcomputers with PC-DOS/MS-DOS 2.0 or higher, on request from EPI/HQ Geneva. This will facilitate country-specific changes in the protocol. The following software formats (English only) are offered: ASCII, and DCA/RFT. Please specify the required formats when requesting.

( 2 ) A review of the "Missed Opportunities" literature is available on request from EPI/HQ, Geneva.

( 3 ) Refer to the following document for further information:  
"Indications and Contraindications for Vaccines Used in the Expanded Programme on Immunization."  
EPI/GEN/83/6 Revision 1 (1983).

The above document is also available as:

- a) Galazka, AL et al:  
Bull World Hlth Org 62:3, 357-366 (1984).
- b) Wkly Epidem Rec 59:3, 13-15 (1984) [abstract].

## ANNEX ONE:

MISSED OPPORTUNITIES FOR IMMUNIZATION SURVEYS  
Recommendations for Sampling Methodology

The major aim of this protocol is to increase awareness worldwide of the likely extent and magnitude of the missed opportunities problem in each and every programme. And, by demonstrating this, mobilize active intervention by programmes to counteract the problem. A single study at the pediatric clinic of a large hospital (preferably a teaching hospital for medical and nursing students) may be all that is needed. If such a study is insufficient to initiate programme-wide interventions against the missed opportunities problem, a more comprehensive approach may be needed, with health facilities from several different geographic areas studied. The pediatric clinics (or "under-fives" clinics) of regional hospitals may be useful sites; alternatively, other health facilities where a high volume of patients are seen, such as MCH centers, may be more suitable. The choice of health facility type to be studied should be based mainly on the likelihood of missed opportunity surveys in such sites resulting in corrective action being taken to counter any problems identified. Other types of health facility that may benefit from surveys of this type include pediatric inpatient wards, family planning clinics, antenatal clinics, and immunization clinics. Missed opportunities have been demonstrated to occur in the latter two types of health facility as a result of a) incorrect contraindications; b) failure to give children all the vaccine doses for which they were eligible; c) immunization clinics not offering TT immunization to women of childbearing age.

A rate of drop-out from immunization of 20% between DPT 1 and DPT 3 is not uncommon. If a figure of 80% DPT 1 coverage is taken, then the minimum sample size required for an Alpha-error of 0.05 (one sided), and a Beta-error of 0.20 may be calculated to be 25. In practice this figure is of minimal value, since the occurrence of missed opportunities is strongly influenced by factors which often differ from clinic to clinic, as well as from day to day. In addition, although a random cluster sampling scheme can be constructed, this is not currently recommended since the information yield from such an undertaking relative to its drawbacks is insufficient. Approximately the same information can be obtained by looking at data from a recent cluster sample coverage survey, and missed opportunity exit interview surveys at carefully chosen sites (on the basis of patient volume, geographic representativeness, and health facility type, for example) from the same area.

In general, it is also recommended that all the health facilities to be studied are visited on a weekday (if possible on the same weekday at all sites), and that the number interviewed be determined by the number of women and children who come to that health facility over a set period of time (4-5 hours is sufficient). The former improves comparability of data between health facilities; the latter helps to assess the patient volume of the health facility studied.

ANNEX TWO:

MISSED OPPORTUNITIES FOR IMMUNIZATION SURVEY  
General Information Sheet  
(Please Print or Type)

NAME OF PRINCIPAL INVESTIGATOR(S): \_\_\_\_\_

COUNTRY: \_\_\_\_\_

DATE OF STUDY: ____/____/19____ (day) (month) (year)
---

NAME OF HEALTH FACILITY STUDIED: [INDICATE ALSO IF URBAN/PERIURBAN/RURAL SITE]

TYPE OF FACILITY:	YES	NO
PAEDIATRIC CLINIC.....	<input type="checkbox"/>	<input type="checkbox"/>
M.C.H. CLINIC.....	<input type="checkbox"/>	<input type="checkbox"/>
IMMUNIZATION CLINIC.....	<input type="checkbox"/>	<input type="checkbox"/>
ANTENATAL CLINIC.....	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (Specify) _____		

ARE VACCINE SUPPLIES AVAILABLE?	YES	NO
BCG VACCINE.....	<input type="checkbox"/>	<input type="checkbox"/>
DPT/OPV.....	<input type="checkbox"/>	<input type="checkbox"/>
MEASLES VACCINE .....	<input type="checkbox"/>	<input type="checkbox"/>
TT VACCINE FOR WOMEN.....	<input type="checkbox"/>	<input type="checkbox"/>

ARE STAFF TRAINED IN IMMUNIZATION AND COLD CHAIN AVAILABLE?....  YES  NO

DO THE CLINIC HEALTH WORKERS ROUTINELY RECORD THE IMMUNIZATION STATUS OF PATIENTS? .....  YES  NO

ANNEX THREE:

Policy on Contraindications to Immunization

IS THE POLICY ON CONTRAINDICATIONS:	YES	NO
A NATIONAL POLICY ON CONTRAINDICATIONS?.....	<input type="checkbox"/>	<input type="checkbox"/>
SPECIFIC TO THE HEALTH FACILITY STUDIED?.....	<input type="checkbox"/>	<input type="checkbox"/>

THE CONTRAINDICATIONS: [TYPE OR PRINT]

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

[IF MORE SPACE IS NEEDED, PLEASE CONTINUE ON A SEPARATE SHEET OF PAPER]

NOTE: In general, EPI recognizes three principal contraindications to immunization;

a) Severe illness requiring admission to hospital: the decision to immunize should be deferred to the admitting hospital staff.

b) Previous severe reaction (see definition on page 4) to DPT vaccine: the pertussis component should be omitted, and DT vaccine given instead.

c) For symptomatic HIV-infected individuals, BCG vaccine should be withheld.

ANNEX FOUR:

Questionnaire for the Children  
(see Instructions on next page).

INTERVIEW NUMBER
---------------------

1.1 QUESTION: What is the child's Age or Date of Birth?

AGE: _____	OR	DATE OF BIRTH: _____
years    months    weeks		day    month    year

DATE OF BIRTH: _____
day    month    year

1.1.1 MARK THE "ELIGIBLE" BOX IF THE CHILD IS 0-23 MONTHS OLD.....

	ELIGIBLE	NOT ELIGIBLE
	<input type="checkbox"/>	<input type="checkbox"/>

IF "NOT ELIGIBLE" GO DIRECTLY TO THE WOMEN'S QUESTIONNAIRE.
--

1.2 QUESTION: Does the child have an immunization card? .....

	YES	NO
	<input type="checkbox"/>	<input type="checkbox"/>

1.2.1 If "YES", have you brought the immunization card with you to the clinic today? .....

	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------

1.3 IMMUNIZATION STATUS:

VACCINE	DOSE GIVEN FROM IMMUNIZATION CARD day·month·year	GIVEN BY HISTORY	VACCINE DOSES MISSED (see instructions)
BCG		<input type="checkbox"/>	<input type="checkbox"/>
OPV 0		<input type="checkbox"/>	<input type="checkbox"/>
OPV 1		<input type="checkbox"/>	<input type="checkbox"/>
DPT 1		<input type="checkbox"/>	<input type="checkbox"/>
OPV 2		<input type="checkbox"/>	<input type="checkbox"/>
DPT 2		<input type="checkbox"/>	<input type="checkbox"/>
OPV 3		<input type="checkbox"/>	<input type="checkbox"/>
DPT 3		<input type="checkbox"/>	<input type="checkbox"/>
MEASLES		<input type="checkbox"/>	<input type="checkbox"/>

1.4 QUESTION: Why did you bring the child to the clinic today?

CONTRAINDICATION  
TO IMMUNIZATION?

YES NO

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

1.4.1 Is the child being admitted to hospital?.....

YES NO

1.5 QUESTION: If immunization were offered to the child today during this visit, would you have permitted it? ..

---

Instructions for the Questionnaires (see also example on pages 12-13).

INTERVIEW NUMBER:

After the surveys interviews are all finished, number each individual questionnaire completed, to help in the compiling of data.

IMMUNIZATION STATUS (Sections 1.3 and 2.3):

Fill in the dates each vaccine dose was given from the **IMMUNIZATION CARD**, if this is available. If not, complete according the **HISTORY** given by the accompanying person.

After the survey interviews are all finished, mark the "VACCINE DOSE MISSED" boxes according to whether by age and previous immunization status, what vaccine doses this child or woman could have received at the health facility today. For DPT and OPV in children, and TT for women, not more than one dose of the same vaccine can be given at the same time, or with less than 4 weeks between doses.

PRESENTING PROBLEM (Section 1.4):

Using the information from Annex Three (Policy on Contraindications), mark beside each presenting problem "YES" or "NO" according to whether the problem is a contraindication to immunization or not. EPI recognizes a severe sickness requiring admission to hospital as a relative contraindication to immunization; the decision to immunize should be deferred to the admitting hospital staff.

At the end of the interview please thank the accompanying person, and answer any question he or she may have about immunizations.

ANNEX FIVE:

Questionnaire for the Accompanying Woman  
(see also Instructions on previous page).

INTERVIEW NUMBER  _____
----------------------------------

2.1 QUESTION: What is your Age?

AGE: _____ (years)
-----------------------

	ELIGIBLE	NOT ELIGIBLE
2.1.1 MARK THE "ELIGIBLE" BOX IF THE WOMAN IS 15 - 45 YEARS OLD .....	<input type="checkbox"/>	<input type="checkbox"/>

IF "NOT ELIGIBLE" DO NOT COMPLETE THE REST OF THE QUESTIONNAIRE.

2.2 QUESTION: Do you possess an immunization card for <u>yourself</u> ?....	<input type="checkbox"/>	<input type="checkbox"/>
2.2.1 If "YES", have you brought the card here today?.....	<input type="checkbox"/>	<input type="checkbox"/>

2.3 IMMUNIZATION STATUS OF ACCOMPANYING WOMAN.

	DOSE GIVEN FROM IMMUNIZATION CARD		GIVEN BY HISTORY	VACCINE DOSES MISSED (see instructions)
	day	month	year	
Tetanus toxoid 1				<input type="checkbox"/>
Tetanus toxoid 2				<input type="checkbox"/>
Tetanus toxoid 3				<input type="checkbox"/>
TT booster				<input type="checkbox"/>

2.4 QUESTION: The last time you had tetanus immunization, did you have such a severe reaction that you needed to go to a clinic? .....	YES	NO
	<input type="checkbox"/>	<input type="checkbox"/>

2.5 QUESTION: Would you have accepted immunization today, if it had been offered?.....	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------

**EXAMPLE WITH FICTITIOUS DATA:**

Questionnaire for the Children

INTERVIEW NUMBER <u>12</u>
----------------------------------

1.1 QUESTION: What is the child's Age or Date of Birth?

AGE: <u>12</u>
years months weeks

OR

DATE OF BIRTH: _____
day month year

ELIGIBLE NOT  
ELIGIBLE

1.1.1 MARK THE "ELIGIBLE" BOX IF THE CHILD IS 0-23 MONTHS OLD.

IF "NOT ELIGIBLE" GO DIRECTLY TO THE WOMEN'S QUESTIONNAIRE.

YES NO

1.2 QUESTION: Does the child have an immunization card?

1.2.1 If "YES", have you brought the card here today?

1.3 IMMUNIZATION STATUS:

VACCINE	DOSE GIVEN FROM IMMUNIZATION CARD			GIVEN BY HISTORY	VACCINE DOSES MISSED (see instructions)
	day	month	year		
BCG	27	02	87	<input type="checkbox"/>	<input type="checkbox"/>
OPV 0				<input checked="" type="checkbox"/>	<input type="checkbox"/>
OPV 1				<input checked="" type="checkbox"/>	<input type="checkbox"/>
DPT 1				<input type="checkbox"/>	<input checked="" type="checkbox"/>
OPV 2				<input type="checkbox"/>	<input checked="" type="checkbox"/>
DPT 2				<input type="checkbox"/>	<input type="checkbox"/>
OPV 3				<input type="checkbox"/>	<input type="checkbox"/>
DPT 3				<input type="checkbox"/>	<input type="checkbox"/>
MEASLES				<input type="checkbox"/>	<input checked="" type="checkbox"/>

1.4 QUESTION: Why did you bring the child to the clinic today?

CONTRAINDICATION  
TO IMMUNIZATION?

- |                 | YES                      | NO                                  |
|-----------------|--------------------------|-------------------------------------|
| 1) <u>COUGH</u> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2) <u>FEVER</u> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3) _____        | <input type="checkbox"/> | <input type="checkbox"/>            |

1.4.1 Is the child being admitted to hospital?.....  YES  NO

1.5 QUESTION: If immunization were offered to the child today during this visit, would you have permitted it? ..  YES  NO

Instructions for the Questionnaires.

INTERVIEW NUMBER:

After the surveys interviews are all finished, number each individual questionnaire completed, to help in the compiling of data.

IMMUNIZATION STATUS (Sections 1.3 and 2.3):

Fill in the dates each vaccine dose was given from the IMMUNIZATION CARD, if this is available. If not, complete according the HISTORY given by the accompanying person.

After the survey interviews are all finished, mark the "VACCINE DOSE MISSED" boxes according to whether by age and previous immunization status, what vaccine doses this child or woman could have received at the health facility today. For DPT and OPV in children, and TT for women, not more than one dose of the same vaccine can be given at the same time.

PRESENTING PROBLEM (Section 1.4):

Using the information from Annex Three (Policy on Contraindications), mark beside each presenting problem "YES" or "NO" according to whether the problem is a contraindication to immunization or not. EPI recognizes a severe sickness requiring admission to hospital as a relative contraindication to immunization; the decision to immunize should be deferred to the admitting hospital staff.

At the end of the interview please thank the accompanying person, and answer any question he or she may have about immunizations.

ANNEX SIX:

MISSED OPPORTUNITIES FOR IMMUNIZATION SURVEY  
Basic Analysis Worksheets.

INSTRUCTIONS: (see also example given on page 17).

I. CHILDREN:

1) First, SORT into two piles all the completed questionnaires by the following age groups;

0 - 23 months  
24+ months

2) Count the number of children in each age group and complete the Interview Census table below; check that the number corresponds to the total number of children interviewed.

3) Complete the worksheet with data from individual questionnaires; mark columns "Y"(Yes), "N"(No), or with an "X" as instructed.

4) The adding up of each column of data is simplified if "circles" are drawn around the "Y" (or alternatively the "N") marked boxes.

5) The worksheets are completed for as many women and children interviewed who were in the target age groups. The numbers should be totaled at the bottom of each page completed; the "Percentage" row at the bottom of each page need only be completed once at the end.

II. WOMEN OF CHILDBEARING AGE.

1) First, SORT into two separate piles those women who are:

In the childbearing age (15-45 years),  
Not in this age group.

2) Count the number of women in each group, complete the Interview Census table, and check that the number corresponds to the total number of women interviewed. The remaining specific instructions are the same as (3), (4), and (5) in Section I above.

INTERVIEW CENSUS

	IN TARGET AGE GROUP <sup>1</sup>	OTHER <sup>2</sup>	TOTAL INTERVIEWED
CHILDREN			
WOMEN			

Notes: 1 - for children, 0-23 months age;  
for women, 15-45 years (childbearing age).

2 - women and children not in the target age groups.

AGE GROUP 0 - 23 MONTHS:

INTERVIEW NUMBER	(Question 1.2)	(Question 1.2.1)	(Question 1.3)	NOT UP-TO-DATE: Mark "X" as appropriate (Questions 1.3, 1.4, and 1.4.1)		(Question 1.5)
	POSSESS IMMUNIZATION CARD (Yes/No)	BROUGHT CARD TO CLINIC (Yes/No)	IMMUNIZATIONS UP-TO-DATE, or FULLY IMMUNIZED (Yes/No)	CONTRAINDICATIONS PRESENT	MISSED OPPORTUNITY FOR IMMUNIZATION	IMMUNIZATION ACCEPTABLE? (Yes/No)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
TOTAL FOR PAGE						
2						

WOMEN AGED 15-45 YEARS (Childbearing Age):

INTERVIEW NUMBER	(Question 2.2)	(Question 2.2.1)	NOT UP-TO-DATE: Mark "X" as appropriate		(Question 2.5)
	POSSESS IMMUNIZATION CARD (Yes/No)	BROUGHT CARD TO CLINIC ((Yes/No)	(Question 2.3 and Question 2.4) CONTRAINDICATIONS PRESENT	MISSED OPPORTUNITY FOR IMMUNIZATION	ACCEPTABLE? (Yes/No)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
TOTAL FOR PAGE					
Z					

EXAMPLE WITH FICTITIOUS DATA

INTERVIEW NUMBER	(Question 1.2)	(Question 1.2.1)	(Question 1.3)	NOT UP-TO-DATE: Mark "X" as appropriate (Questions 1.3, 1.4, and 1.4.1)		(Question 1.5)
	POSSESS IMMUNIZATION CARD (Yes/No)	BROUGHT CARD TO CLINIC (Yes/No)	IMMUNIZATIONS UP-TO-DATE, or FULLY IMMUNIZED (Yes/No)	CONTRAINDICATIONS PRESENT	MISSED OPPORTUNITY FOR IMMUNIZATION	IMMUNIZATION ACCEPTABLE? (Yes/No)
1. 23	Y	N	N	X		Y
2. 52	Y	(Y)	(Y)			Y
3. 12	Y	N	N		X	Y
4. 16	(N)	N	N		X	Y
5. 29	Y	(Y)	(Y)			Y
6. 36	Y	N	N		X	(N)
7. 8	Y	(Y)	(Y)			Y
8. 11	Y	N	(Y)			Y
9. 22	Y	N	N		X	Y
10. 32	(N)	N	N		X	Y
11. 28	Y	N	N		X	Y
12. 15	Y	N	N		X	Y
13. 21	Y	(Y)	N		X	Y
14. 31	(N)	N	N		X	Y
15. 7	Y	N	N		X	Y
TOTAL FOR PAGE	15	12/15	4/15	1/15	10/15	14/15
Z						

## ANNEX SEVEN:

MISSED OPPORTUNITIES FOR IMMUNIZATION SURVEY  
Suggested Table for Summarizing Data from Each Health Facility.

## I. CHILDREN:

TOTAL NUMBER OF CHILDREN (ALL AGES) INTERVIEWED	
TYPE OF HEALTH FACILITY STUDIED	
% TOTAL AGED 0 - 23 MONTHS	
NUMBER WITH AN IMMUNIZATION CARD	
NUMBER BRINGING CARD TO THE CLINIC	
UP-TO-DATE, OR FULLY IMMUNIZED	
PARTIALLY IMMUNIZED, BUT WITH CONTRAINDICATION	
MISSED OPPORTUNITY FOR IMMUNIZATION	
ACCEPTANCE OF IMMUNIZATION IF IT HAD BEEN OFFERED	

MISSED OPPORTUNITIES FOR IMMUNIZATION SURVEY  
Suggested Table for Summarizing Data from Each Health Facility.

II. WOMEN OF CHILDBEARING AGE:

TOTAL NUMBER OF WOMEN (ALL AGES) INTERVIEWED	
TYPE OF HEALTH FACILITY STUDIED	
* TOTAL AGED 15 - 45 YEARS	
NUMBER WITH AN IMMUNIZATION CARD	
NUMBER BRINGING CARD TO THE CLINIC	
UP-TO-DATE, OR FULLY IMMUNIZED	
PARTIALLY IMMUNIZED, BUT WITH CONTRAINDICATION	
MISSED OPPORTUNITY FOR IMMUNIZATION	
ACCEPTANCE OF IMMUNIZATION IF IT HAD BEEN OFFERED	

MISSED OPPORTUNITIES FOR IMMUNIZATION SURVEY  
Example of Summary Table Completed with Fictitious Data.

TOTAL NUMBER OF CHILDREN (ALL AGES) INTERVIEWED	36 children over 4 hours
TYPE OF HEALTH FACILITY STUDIED	MCH Center, Periurban. EPI supplies available. EPI-trained staff available. IMMUNIZATION STATUS NOT ROUTINELY RECORDED
% TOTAL AGED 0 - 23 MONTHS	58% (21)
NUMBER WITH AN IMMUNIZATION CARD	76% (16/21)
NUMBER BRINGING CARD TO THE CLINIC	17% (5/21)
UP-TO-DATE, OR FULLY IMMUNIZED	17% (5/21)
PARTIALLY IMMUNIZED, BUT WITH CONTRAINDICATION	5% (1/21)
MISSED OPPORTUNITY FOR IMMUNIZATION	71% (15/21)
ACCEPTANCE OF IMMUNIZATION IF IT HAD BEEN OFFERED	90% (19/21)