

## Cluster sampling exercise

The 30-cluster, 7-persons/cluster sample has been developed by the WHO for measuring immunization coverage. This is a simple, standardized approach which can be carried out by medical auxiliaries. Using this method, data are collected about 7 persons in each of 30 cluster sites. The results can be analyzed quickly and easily by field staff. The cluster survey is appropriate for baseline data collection about immunization coverage and for measuring the effectiveness of your program as it develops. It is important that program managers know how this simple method is used, be able to implement it when required. The various steps in carrying out this type of a survey are set out below. Some data are provided to give you a feel for how the survey is done. From these data, do the bits yourself which are marked .

### 1. planning for the survey

- select area for survey (population > 30,000)  
information about the population of each village is required
- select age group to be surveyed  
12-23 months for six target diseases  
0-11 months for tetanus toxoid for their mothers
- decide on data source  
by history, by card, or both
- plan for adequate resources  
a survey team should have two persons  
one team can do one cluster per day  
a supervisor must check results promptly and complete his part of the record  
the number of teams used depends on the reliable personnel you have  
available and the time which can be spent in carrying out the coverage  
survey
- remember to set aside enough time for training and a practice sessions
- remember to budget for the baseline and follow-up surveys

### 2. Prepare a cluster identification form (the prepared example is on the next page)

- list villages by population and note cumulative population
- determine sampling intervals  
total population/30 (**done:  $800,000 \div 30 = 26,667$** )
- select random number  $\leq$  sampling interval (**done: 12,762 chosen**)
-  ■ choose starting cluster which is the village for which the cumulative population equals or exceeds the random number
-  ■ the second cluster is found by  
adding the sampling interval to the random number used to start with  
- the village on the same line with the cumulative population which contains  
this number is the second cluster
-  ■ continue this process of adding the sampling interval to the previous number and  
identifying the village in which this number falls until all 30 clusters have  
been designated
-  ■ check this out on the example on the next 3 pages identifying the 30 cluster  
villages

Figure 1. CLUSTER IDENTIFICATION FORM  
(Sample format)

CITIES, TOWNS AND VILLAGES OF COASTAL REGION

| No | Name       | Population | Cumulative Population | Clu. St. |
|----|------------|------------|-----------------------|----------|
| 1  | Utaral     | 12,888     | 12,888                |          |
| 2  | Bolama     | 3,489      | 16,377                |          |
| 3  | Talum      | 6,826      | 23,203                |          |
| 4  | Wara-Yali  | 4,339      | 27,542                |          |
| 5  | Galey      | 2,203      | 29,745                |          |
| 6  | Tarum      | 4,431      | 34,176                |          |
| 7  | Hamtato    | 1,544      | 35,720                |          |
| 8  | Nayjaff    | 885        | 36,605                |          |
| 9  | Nuviya     | 2,962      | 39,567                |          |
| 10 | Cattical   | 4,234      | 43,801                |          |
| 11 | Paralai    | 1,520      | 45,321                |          |
| 12 | Egala-Kuru | 3,767      | 49,088                |          |
| 13 | Uwanarpol  | 3,053      | 52,141                |          |
| 14 | Hilandia   | 60,000     | 112,141               |          |
| 15 | Puratna    | 2,207      | 114,348               |          |
| 16 | Kegalni    | 1,355      | 115,703               |          |
| 17 | Hamali-Ura | 833        | 116,536               |          |
| 18 | Kameni     | 4,118      | 120,654               |          |
| 19 | Kiroya     | 2,782      | 123,436               |          |
| 20 | Yanwela    | 3,285      | 126,721               |          |
| 21 | Bagvi      | 4,416      | 131,137               |          |
| 22 | Atota      | 3,188      | 134,325               |          |
| 23 | Kogouva    | 1,179      | 135,504               |          |
| 24 | Ahekpa     | 612        | 136,116               |          |
| 25 | Yandot     | 3,193      | 139,309               |          |

Sampling interval: 26,667  
(a)

calculation of sampling interval:  $800,000/30 = 26,667$

random 5-digit number taken randomly for this example: **12,762**  
(if no random number table, number can be taken from currency note)

| No | Name       | Population | Cumulative Population | Clu. St. |
|----|------------|------------|-----------------------|----------|
| 26 | Nozop      | 17,808     | 157,117               |          |
| 27 | Mapasko    | 3,914      | 161,031               |          |
| 28 | Lothoah    | 15,006     | 176,037               |          |
| 29 | Voattigan  | 9,584      | 185,621               |          |
| 30 | Pitok      | 4,225      | 189,846               |          |
| 31 | Dopoltan   | 2,652      | 192,498               |          |
| 32 | Cococopa   | 35,000     | 227,498               |          |
| 33 | Famezgi    | 3,945      | 231,443               |          |
| 34 | Jigpelay   | 2,115      | 233,558               |          |
| 35 | Mewoah     | 507        | 234,065               |          |
| 36 | Odigala    | 3,516      | 237,581               |          |
| 37 | Sanbati    | 14,402     | 251,983               |          |
| 38 | Andidwa    | 2,575      | 254,558               |          |
| 39 | Ore-Mikam  | 3,105      | 257,663               |          |
| 40 | Duno-Mikam | 4,176      | 261,839               |          |
| 41 | Kedi-Sina  | 1,919      | 263,758               |          |
| 42 | Panabalok  | 3,261      | 267,019               |          |
| 43 | rokini     | 4,270      | 271,289               |          |
| 44 | Talosso    | 3,301      | 274,590               |          |
| 45 | Djaragna   | 3,250      | 277,840               |          |
| 46 | Bibachi    | 4,670      | 282,510               |          |
| 47 | Bilam      | 757        | 283,267               |          |
| 48 | Sisse      | 12,037     | 295,304               |          |
| 49 | Anda-Dali  | 2,155      | 297,459               |          |
| 50 | Varok      | 3,702      | 301,161               |          |

Random number: 12,762  
(b)

CLUSTER IDENTIFICATION, cont.

| No | Name        | Population | Cumulative Population | Clu. St. |
|----|-------------|------------|-----------------------|----------|
| 51 | Boul        | 2,262      | 303,423               |          |
| 52 | Boul-Malal  | 791        | 304,214               |          |
| 53 | Dapnan      | 3,468      | 307,682               |          |
| 54 | Umpybo      | 4,338      | 312,020               |          |
| 55 | Goumam      | 3,930      | 315,950               |          |
| 56 | Nzeji       | 2,112      | 318,062               |          |
| 57 | Wagasa      | 3,953      | 322,015               |          |
| 58 | Onam        | 2,198      | 324,213               |          |
| 59 | Koundo      | 9,891      | 334,104               |          |
| 60 | Paona       | 3,154      | 337,258               |          |
| 61 | Nagbi       | 2,548      | 339,806               |          |
| 62 | Ponakpo     | 1,034      | 340,840               |          |
| 63 | Auguromi    | 2,415      | 343,255               |          |
| 64 | Pali        | 4,325      | 347,580               |          |
| 65 | Ngol        | 13,233     | 360,813               |          |
| 66 | Majagdi     | 511        | 361,324               |          |
| 67 | Yardi       | 2,313      | 363,637               |          |
| 68 | Chankam     | 3,108      | 366,745               |          |
| 69 | Livaspa     | 4,163      | 370,908               |          |
| 70 | Rhomastiput | 4,250      | 375,158               |          |
| 71 | Anghor      | 784        | 375,942               |          |
| 72 | Ransiha     | 3,423      | 379,365               |          |
| 73 | Phajip      | 4,098      | 383,463               |          |
| 74 | Dumakpa     | 4,540      | 388,003               |          |
| 75 | Baktari     | 2,322      | 390,325               |          |

Sampling interval: 26,667  
(a)

| No  | Name        | Population | Cumulative Population | Clu. St. |
|-----|-------------|------------|-----------------------|----------|
| 76  | Wako        | 3,987      | 394,312               |          |
| 77  | Ganda       | 4,211      | 398,523               |          |
| 78  | Sapa-Barchi | 2,541      | 401,064               |          |
| 79  | Nuwa        | 848        | 401,912               |          |
| 80  | Nangja      | 1,281      | 403,193               |          |
| 81  | Kuwassak    | 3,310      | 406,503               |          |
| 82  | Waniti      | 4,313      | 410,816               |          |
| 83  | Lukkumsa    | 4,762      | 415,578               |          |
| 84  | Jopu        | 3,647      | 419,225               |          |
| 85  | Thynupa     | 2,530      | 421,755               |          |
| 86  | Yanlasul    | 16,983     | 438,738               |          |
| 87  | Mali-Ilo    | 2,730      | 441,468               |          |
| 88  | Papalo      | 4,869      | 446,337               |          |
| 89  | Agrakhan    | 3,300      | 449,637               |          |
| 90  | Tido        | 4,150      | 453,787               |          |
| 91  | Jubara      | 3,760      | 457,547               |          |
| 92  | Pilasta     | 1,587      | 459,134               |          |
| 93  | Lejaple     | 16,699     | 475,833               |          |
| 94  | Lahisa      | 2,703      | 478,536               |          |
| 95  | Chapmar     | 747        | 479,283               |          |
| 96  | Dhulisk     | 4,451      | 483,734               |          |
| 97  | Briko       | 4,425      | 488,159               |          |
| 98  | Hummu       | 3,860      | 492,019               |          |
| 99  | Baryidda    | 2,835      | 494,854               |          |
| 100 | Lekdai      | 1,725      | 496,579               |          |

Random number: 12,762  
(b)

CLUSTER IDENTIFICATION FORM, cont.

| No  | Name       | Population | Cumulative Population | Clu. St. |
|-----|------------|------------|-----------------------|----------|
| 101 | Izigba     | 3,988      | 500,567               |          |
| 102 | Loaz       | 4,124      | 504,691               |          |
| 103 | Jikoud     | 4,389      | 509,080               |          |
| 104 | Gopouda    | 1,126      | 510,206               |          |
| 105 | Akafa      | 2,166      | 512,372               |          |
| 106 | Endera     | 3,393      | 515,765               |          |
| 107 | Seyou      | 4,787      | 520,552               |          |
| 108 | Lallos     | 3,447      | 523,999               |          |
| 109 | Dobaba     | 3,689      | 527,688               |          |
| 110 | Somdi      | 4,696      | 532,384               |          |
| 111 | Granoli    | 60,000     | 592,384               |          |
| 112 | Nehoa      | 3,990      | 596,374               |          |
| 113 | Melo       | 4,754      | 601,128               |          |
| 114 | Tabli      | 4,121      | 605,249               |          |
| 115 | Evot       | 3,214      | 608,463               |          |
| 116 | Pamtakapro | 16,008     | 624,471               |          |
| 117 | Otoyang    | 4,732      | 629,203               |          |
| 118 | Tosi       | 2,769      | 631,972               |          |
| 119 | Sarsabba   | 532        | 632,504               |          |
| 120 | Okude-Bua  | 3,394      | 635,898               |          |
| 121 | Tpubussi   | 1,143      | 637,041               |          |
| 122 | Domni      | 8,147      | 645,188               |          |
| 123 | Sarip      | 4,555      | 649,743               |          |
| 124 | Rakachi    | 695        | 650,438               |          |
| 125 | Chelle     | 3,634      | 654,072               |          |

Sampling interval: 26,667  
(a)

| No  | Name      | Population | Cumulative Population | Clu. St. |
|-----|-----------|------------|-----------------------|----------|
| 126 | Waitu     | 2,115      | 656,187               |          |
| 127 | Mabbay    | 4,507      | 660,694               |          |
| 128 | Baidu     | 3,516      | 664,210               |          |
| 129 | herattan  | 2,402      | 666,612               |          |
| 130 | Thenu     | 3,575      | 670,187               |          |
| 131 | Comasdi   | 14,005     | 684,192               |          |
| 132 | Churiz    | 676        | 684,868               |          |
| 133 | Calecopa  | 45,000     | 729,868               |          |
| 134 | Angko     | 4,261      | 734,129               |          |
| 135 | Luru-Ala  | 4,919      | 739,048               |          |
| 136 | Kartaj    | 17,270     | 756,318               |          |
| 137 | Lemno     | 3,837      | 760,155               |          |
| 138 | Deysibba  | 2,149      | 762,304               |          |
| 139 | Ongo-On   | 3,702      | 766,006               |          |
| 140 | Ullah     | 1,927      | 767,933               |          |
| 141 | Ukkaru    | 4,971      | 772,904               |          |
| 142 | Akla      | 2,468      | 775,372               |          |
| 143 | Tagalo    | 3,383      | 778,755               |          |
| 144 | Patto-In  | 3,930      | 782,685               |          |
| 145 | Pridasu   | 2,211      | 784,896               |          |
| 146 | Ollimi    | 3,585      | 788,481               |          |
| 147 | Hakuda    | 1,355      | 789,836               |          |
| 148 | Limaki    | 4,285      | 794,121               |          |
| 149 | Rutadupi  | 3,177      | 797,298               |          |
| 150 | Alam-Neki | 2,702      | 800,000               |          |

Random number: 12,762  
(b)

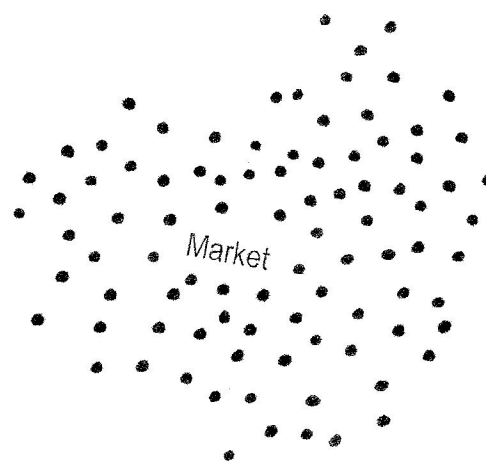
### 3. Conducting the Survey

#### ▪ **Using the Census Enumeration Areas**

- First choice would be to randomly select an Enumeration Area (EA) which has already been established by the census department or central statistical office (CSO)
- This will have all the houses mapped, but it might be necessary to update the EA as some time may have passed since the houses in that EA were mapped and listed
- You can then randomly select the number of households needed for your survey.
- Remember that some households will not have the characteristics that you will measure, such as young children. Others will not be present or will decline to participate. Adjust your sample accordingly

#### ▪ **Using the segmentation method**

- Where you do not have access to EAs, you can create your own mapping and listing, using the following method.
- First, divide the village or town into sections with clearly demarcated borders, and select one at random to survey. These sections should be small enough so it is not difficult to number all the houses in that area.
- From this household listing then randomly select the number to be interviewed.
- Remember—some households will not be suitable, such as not having young children. Others will not be present or will decline to participate. Adjust your number accordingly.
- Try this segmenting and household listing process out using the village map, randomly selecting 7 houses from the houses in the segment you create in this village.



### 4. The next is for interviewers to complete the forms (samples are on pages 12-13)

- Immunization and tetanus toxoid surveys
  - A decision will have already have been made to whether you are just taking data from the immunization cards or also including the history of immunization.
  - Interviewers will also check the birthdates to see if these are the eligible.
  - **EPI immunization**-child born in the preceding 24 months.
  - **Tetanus toxoid**- the mother of a child born in the preceding 11 months.
  - **Immunization failure form**-completed for all children who have missed some of all of the immunizations for which they are eligible.

### 5. checking the forms

- Correct cluster numbers
- Correct number of children
- Be sure data are filled in completely and correctly. This will then be checked by the supervisor

6. tabulate data on summary forms (sample forms are on pages 8, 9 & 10)

immunization  
immunization failure form  
tetanus toxoid

7. Evaluate results (from the sample summary forms)



■ **immunization coverage**

calculate percentages for the following -

BCG coverage by scar \_\_\_\_\_

DTP3 by (card + history) \_\_\_\_\_

sources for polio immunization (card + history)

hospital \_\_\_\_\_

health centre \_\_\_\_\_

outpatients \_\_\_\_\_

private clinics \_\_\_\_\_

percentage fully immunized \_\_\_\_\_



■ **reasons for immunization failure**

calculate percentages for the following -

failures due to fear of adverse reactions \_\_\_\_\_

failures from lack of trust in immunizations \_\_\_\_\_



■ **tetanus toxoid**

calculate percentages for the following-

coverage for antenatal care \_\_\_\_\_

percentage of children protected against tetanus \_\_\_\_\_



if you want more information the reference is:

Henderson, RH & Sundaresan T. Cluster sampling to assess immunization coverage: a review of experience with a simplified sampling method. *Bulletin of the World Health Organization* 1982, **40**:253-60

# Swadesh survey summary forms

## EPI coverage survey

Date of first interview 2/3/2017  
 Date of last interview 2/22/2017  
 Location COSIAL PROVINCE  
 Age group included 12-23 yrs

| Cluster Number        | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | TOTAL |
|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| (6) Number in cluster | 7  | 7  | 7  | 7  | 7  | 7  | 8  | 7  | 7  | 7  | 7  | 8  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 8  | 7  | 7  | 7  | 8  | 7  | 7  | 7  | 8  | 7  | 215   |
| (7) Card - Yes        | 6  | 6  | 7  | 6  | 6  | 7  | 6  | 6  | 5  | 6  | 6  | 5  | 7  | 6  | 7  | 7  | 4  | 6  | 5  | 4  | 6  | 6  | 7  | 4  | 5  | 7  | 7  | 5  | 7  | 6  | 178   |
| (8) BCG card          | 4  | 6  | 5  | 6  | 6  | 7  | 6  | 6  | 5  | 6  | 6  | 5  | 7  | 6  | 5  | 7  | 4  | 6  | 5  | 4  | 6  | 6  | 7  | 5  | 5  | 5  | 7  | 6  | 7  | 6  | 172   |
| Card plus history     | 6  | 6  | 5  | 7  | 7  | 7  | 8  | 7  | 7  | 6  | 7  | 6  | 7  | 6  | 5  | 7  | 7  | 6  | 7  | 6  | 8  | 7  | 7  | 5  | 5  | 5  | 7  | 6  | 7  | 6  | 193   |
| BCG scar              | 5  | 5  | 5  | 7  | 7  | 7  | 8  | 6  | 5  | 6  | 7  | 6  | 7  | 5  | 5  | 7  | 6  | 5  | 5  | 6  | 8  | 7  | 5  | 5  | 5  | 5  | 6  | 6  | 7  | 5  | 179   |
| Source: HOS           | 2  | 5  | 2  | 5  | 5  | 4  | 1  | 3  | 5  | 5  | 5  | 2  | 3  | 1  | 3  | 3  | 2  | 6  | 5  | 3  | 5  | 5  | 4  | 5  | 2  | 3  | 2  | 3  | 3  | 2  | 104   |
| HC                    | 3  | 0  | 3  | 2  | 2  | 2  | 4  | 4  | 2  | 1  | 2  | 3  | 2  | 5  | 2  | 4  | 5  | 0  | 2  | 3  | 0  | 2  | 3  | 0  | 3  | 2  | 5  | 4  | 2  | 5  | 77    |
| OUT                   | 1  | 1  | 0  | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 11    |
| PRIV                  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1     |
| (9) DPT 1 card        | 5  | 6  | 6  | 6  | 6  | 7  | 6  | 5  | 5  | 4  | 6  | 5  | 6  | 5  | 6  | 7  | 5  | 6  | 5  | 4  | 6  | 6  | 4  | 4  | 3  | 6  | 6  | 5  | 6  | 5  | 162   |
| Card plus history     | 6  | 6  | 6  | 7  | 7  | 7  | 7  | 5  | 7  | 4  | 7  | 7  | 7  | 5  | 6  | 7  | 6  | 6  | 7  | 6  | 7  | 7  | 5  | 5  | 5  | 6  | 6  | 7  | 6  | 5  | 185   |
| DPT 2 card            | 3  | 6  | 6  | 6  | 6  | 7  | 6  | 3  | 5  | 4  | 6  | 5  | 6  | 3  | 6  | 7  | 5  | 6  | 5  | 4  | 6  | 6  | 4  | 4  | 3  | 6  | 5  | 5  | 6  | 3  | 153   |
| Card plus history     | 4  | 6  | 6  | 7  | 7  | 7  | 7  | 3  | 7  | 4  | 7  | 7  | 7  | 3  | 6  | 7  | 6  | 6  | 7  | 6  | 7  | 7  | 4  | 4  | 5  | 6  | 6  | 6  | 7  | 3  | 175   |
| DPT 3 card            | 1  | 4  | 5  | 5  | 6  | 7  | 6  | 3  | 5  | 4  | 5  | 5  | 6  | 3  | 5  | 6  | 3  | 4  | 5  | 4  | 6  | 5  | 4  | 4  | 5  | 5  | 3  | 5  | 6  | 3  | 138   |
| Card plus history     | 3  | 4  | 5  | 5  | 7  | 7  | 6  | 3  | 7  | 4  | 5  | 6  | 6  | 3  | 5  | 6  | 3  | 4  | 7  | 4  | 6  | 5  | 4  | 4  | 4  | 5  | 5  | 6  | 6  | 3  | 148   |
| Source: HOS           | 0  | 0  | 0  | 4  | 0  | 4  | 0  | 0  | 0  | 0  | 4  | 6  | 0  | 0  | 0  | 6  | 0  | 0  | 5  | 4  | 0  | 4  | 2  | 3  | 0  | 0  | 2  | 3  | 0  | 2  | 49    |
| HC                    | 10 | 14 | 16 | 14 | 15 | 13 | 6  | 10 | 21 | 12 | 14 | 11 | 15 | 10 | 16 | 8  | 12 | 14 | 10 | 12 | 6  | 14 | 11 | 10 | 14 | 16 | 12 | 17 | 15 | 8  | 376   |
| OUT                   | 3  | 3  | 1  | 1  | 6  | 0  | 14 | 1  | 0  | 0  | 1  | 0  | 5  | 1  | 1  | 0  | 3  | 2  | 5  | 0  | 14 | 1  | 0  | 0  | 0  | 1  | 3  | 0  | 3  | 1  | 69    |
| PRIV                  | 0  | 0  | 0  | 0  | 0  | 4  | 0  | 0  | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 6  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 14    |

| Cluster Number                              | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | TOTAL |
|---------------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| (10) OPV 1 card                             | 5  | 6  | 6  | 6  | 6  | 7  | 6  | 5  | 5  | 4  | 6  | 5  | 6  | 5  | 6  | 7  | 5  | 6  | 5  | 4  | 6  | 6  | 4  | 4  | 3  | 6  | 6  | 5  | 6  | 5  | 162   |
| Card plus history                           | 6  | 6  | 6  | 7  | 7  | 7  | 7  | 5  | 7  | 4  | 7  | 7  | 7  | 5  | 6  | 7  | 6  | 6  | 7  | 6  | 7  | 7  | 5  | 5  | 5  | 6  | 6  | 7  | 6  | 5  | 185   |
| OPV 2 card                                  | 3  | 6  | 6  | 6  | 6  | 7  | 6  | 3  | 5  | 4  | 6  | 5  | 6  | 3  | 6  | 7  | 5  | 6  | 5  | 4  | 6  | 6  | 4  | 4  | 3  | 6  | 5  | 5  | 6  | 3  | 153   |
| Card plus history                           | 4  | 6  | 6  | 7  | 7  | 7  | 7  | 3  | 7  | 4  | 7  | 7  | 7  | 3  | 6  | 7  | 6  | 6  | 7  | 6  | 7  | 7  | 4  | 4  | 5  | 6  | 5  | 7  | 7  | 3  | 175   |
| OPV 3 card                                  | 1  | 4  | 5  | 5  | 6  | 7  | 6  | 3  | 5  | 4  | 5  | 5  | 6  | 3  | 5  | 6  | 4  | 4  | 5  | 4  | 6  | 5  | 4  | 4  | 3  | 5  | 4  | 5  | 6  | 3  | 138   |
| Card plus history                           | 3  | 4  | 5  | 5  | 7  | 7  | 6  | 3  | 7  | 4  | 5  | 6  | 6  | 3  | 5  | 6  | 4  | 4  | 7  | 4  | 6  | 5  | 4  | 4  | 4  | 5  | 5  | 6  | 6  | 3  | 149   |
| Source: HOS                                 | 0  | 0  | 0  | 4  | 0  | 4  | 0  | 0  | 0  | 0  | 4  | 6  | 0  | 0  | 0  | 6  | 0  | 0  | 5  | 4  | 0  | 4  | 2  | 3  | 0  | 0  | 2  | 3  | 0  | 2  | 49    |
| HC                                          | 10 | 14 | 16 | 14 | 15 | 13 | 6  | 10 | 21 | 12 | 14 | 11 | 15 | 10 | 16 | 8  | 13 | 14 | 10 | 12 | 17 | 14 | 11 | 10 | 14 | 15 | 12 | 17 | 15 | 8  | 377   |
| OUT                                         | 3  | 3  | 1  | 1  | 6  | 0  | 14 | 1  | 0  | 0  | 1  | 0  | 5  | 1  | 1  | 0  | 3  | 2  | 5  | 0  | 13 | 1  | 0  | 0  | 0  | 1  | 3  | 0  | 3  | 1  | 69    |
| PRIV                                        | 0  | 0  | 0  | 0  | 0  | 5  | 0  | 0  | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 5  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 14    |
| (11) Measles card                           | 2  | 3  | 4  | 5  | 6  | 6  | 6  | 4  | 5  | 3  | 5  | 5  | 5  | 3  | 5  | 6  | 3  | 3  | 5  | 4  | 6  | 5  | 3  | 3  | 3  | 5  | 3  | 5  | 5  | 3  | 129   |
| Card plus history                           | 4  | 3  | 4  | 5  | 6  | 6  | 7  | 4  | 6  | 4  | 5  | 6  | 6  | 3  | 5  | 6  | 3  | 3  | 6  | 4  | 6  | 5  | 3  | 3  | 4  | 5  | 4  | 5  | 6  | 3  | 140   |
| Source: HOS                                 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 0  | 2  | 0  | 2  | 0  | 0  | 0  | 9     |
| HC                                          | 3  | 3  | 6  | 5  | 3  | 3  | 2  | 4  | 3  | 2  | 4  | 3  | 3  | 2  | 5  | 4  | 1  | 3  | 2  | 4  | 2  | 5  | 2  | 3  | 2  | 6  | 2  | 5  | 3  | 2  | 94    |
| OUT                                         | 1  | 1  | 0  | 0  | 3  | 0  | 5  | 0  | 3  | 2  | 0  | 0  | 3  | 1  | 0  | 0  | 2  | 0  | 3  | 0  | 5  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 1  | 32    |
| PRIV                                        | 0  | 0  | 0  | 0  | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 5     |
| (12) Not immunized                          | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 1  | 1  | 1  | 0  | 0  | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 2  | 3  | 0  | 0  | 1  | 1  | 1  | 16    |
| Partially immunized                         | 5  | 3  | 4  | 2  | 1  | 1  | 2  | 3  | 3  | 3  | 2  | 1  | 2  | 3  | 2  | 1  | 4  | 3  | 2  | 2  | 2  | 2  | 4  | 3  | 2  | 2  | 4  | 1  | 2  | 3  | 72    |
| Fully immunized                             | 1  | 3  | 3  | 5  | 6  | 6  | 6  | 4  | 5  | 3  | 5  | 6  | 5  | 3  | 5  | 6  | 3  | 3  | 5  | 4  | 6  | 5  | 3  | 2  | 3  | 5  | 3  | 5  | 5  | 3  | 127   |
| (13) Fully immunized before one year of age | 1  | 5  | 1  | 4  | 5  | 4  | 1  | 2  | 4  | 5  | 5  | 4  | 4  | 5  | 4  | 5  | 2  | 4  | 5  | 3  | 4  | 4  | 3  | 5  | 3  | 3  | 3  | 2  | 4  | 6  | 110   |
| (14) Households visited                     | 28 | 32 | 27 | 33 | 40 | 42 | 38 | 29 | 40 | 45 | 31 | 33 | 41 | 28 | 37 | 30 | 29 | 32 | 35 | 28 | 31 | 35 | 43 | 46 | 40 | 30 | 31 | 29 | 30 | 25 | 1028  |

# Swadesh survey summary forms

## Reasons for immunization failure

Date of first interview 2/3/2017  
 Date of last interview 2/22/2017  
 Location COSTA RICA  
 Age group included 12-23 yrs

| Cluster Number      |                                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | TOTAL |
|---------------------|--------------------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| Lack of information | a. Unaware of need for immunization              | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2  | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 1  | 1  | 0  | 2  | 0  | 2  | 0  | 0  | 1  | 0  | 0  |    | 14    |
|                     | b. Unaware of need to return for 2nd or 3rd dose | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0  | 0  | 0  | 0  | 2  | 0  | 0  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 0  | 1  | 2  | 16    |
|                     | c. Place and/or time of immunization unknown     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |       |
|                     | d. Fear of side reactions                        | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 1  | 1  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 7     |
|                     | e. Wrong ideas about contraindications           | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 1  | 2  | 0  | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 8     |
|                     | f. Other                                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 3     |
|                     | SUBTOTAL                                         | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 2 | 3  | 1  | 1  | 0  | 4  | 2  | 0  | 3  | 2  | 1  | 3  | 1  | 1  | 3  | 1  | 3  | 1  | 3  | 1  | 3  | 2  | 49    |
| Lack of motivation  | g. Postponed until another time                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |       |
|                     | h. No faith in immunizations                     | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 1  | 8     |
|                     | i. Rumors                                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 0  | 0  | 1  | 0  | 1  | 0  | 4  |       |
|                     | j. Other                                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 1  |       |
|                     | SUBTOTAL                                         | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 3  | 0  | 1  | 1  | 0  | 1  | 1  | 14    |

| Cluster number |                                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | TOTAL |
|----------------|------------------------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| Obstacles      | k. Place of immunization too far to go         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
|                | l. Time of immunization inconvenient           | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 4     |
|                | m. Vaccinator absent                           | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1     |
|                | n. Vaccine not available                       | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 3     |
|                | o. Mother too busy                             | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 2     |
|                | p. Family problem, including illness of mother | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2     |
|                | q. Child ill - not brought                     | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2     |
|                | r. Child ill - brought but not given           | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 5     |
|                | s. Long waiting time                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2     |
|                | t. Other                                       | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 5     |
| SUBTOTAL       |                                                | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0  | 1  | 1  | 2  | 0  | 0  | 1  | 2  | 1  | 0  | 1  | 1  | 0  | 1  | 2  | 0  | 0  | 2  | 0  | 0  | 26 |       |
| TOTAL          |                                                | 5 | 4 | 4 | 2 | 1 | 1 | 0 | 3 | 4 | 4  | 2  | 2  | 3  | 4  | 2  | 1  | 4  | 4  | 2  | 3  | 2  | 2  | 4  | 5  | 5  | 2  | 4  | 3  | 3  | 4  | 89    |

# Swadesh survey summary forms Tetanus toxoid immunizations for women

Date of first interview 2/3/2017  
Date of last interview 2/22/2017  
Location COSTA RICA  
Age group of children whose mothers  
Were evaluated 0-11 MONTHS

| Cluster Number        | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | TOTAL |
|-----------------------|----|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| (6) Number in cluster | 7  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 7  | 210   |
| (7) Card/Yes          | 5  | 4 | 4 | 2 | 3 | 4 | 1 | 3 | 2 | 3  | 4  | 5  | 4  | 3  | 2  | 4  | 4  | 5  | 1  | 2  | 3  | 6  | 5  | 4  | 4  | 2  | 3  | 1  | 5  | 4  | 102   |
| (8) TT 1 card         | 5  | 4 | 4 | 2 | 3 | 4 | 1 | 3 | 2 | 3  | 4  | 5  | 4  | 3  | 2  | 4  | 4  | 5  | 1  | 2  | 3  | 6  | 5  | 4  | 4  | 2  | 3  | 1  | 5  | 4  | 102   |
| Card plus history     | 6  | 5 | 5 | 4 | 4 | 5 | 3 | 4 | 4 | 4  | 5  | 6  | 5  | 4  | 4  | 5  | 5  | 6  | 3  | 4  | 4  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 6  | 5  | 139   |
| TT 2 card             | 5  | 3 | 4 | 2 | 3 | 3 | 1 | 3 | 2 | 3  | 3  | 5  | 4  | 3  | 2  | 4  | 2  | 5  | 1  | 2  | 3  | 4  | 5  | 3  | 4  | 2  | 3  | 1  | 5  | 3  | 93    |
| Card plus history     | 5  | 3 | 4 | 2 | 3 | 3 | 1 | 3 | 2 | 3  | 3  | 5  | 4  | 3  | 2  | 4  | 2  | 5  | 1  | 2  | 3  | 4  | 5  | 3  | 4  | 2  | 3  | 1  | 5  | 3  | 93    |
| TT 3 card             | 3  | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 0 | 2  | 1  | 1  | 2  | 2  | 0  | 2  | 0  | 1  | 0  | 0  | 2  | 1  | 1  | 1  | 2  | 0  | 2  | 0  | 1  | 0  | 32    |
| Card plus history     | 3  | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 0 | 2  | 1  | 1  | 2  | 2  | 0  | 2  | 0  | 1  | 0  | 0  | 2  | 1  | 1  | 1  | 2  | 0  | 2  | 0  | 1  | 0  | 32    |
| TT 4 card             | 2  | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0  | 1  | 0  | 0  | 0  | 2  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 11    |
| Card plus history     | 2  | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0  | 1  | 0  | 0  | 0  | 2  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 11    |
| TT 5 card             | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 4     |
| Card plus history     | 1  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 4     |
| Source: HOS           | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     |
| HC                    | 15 | 9 | 8 | 6 | 9 | 6 | 7 | 9 | 6 | 9  | 9  | 9  | 8  | 10 | 6  | 8  | 8  | 10 | 6  | 7  | 9  | 9  | 9  | 10 | 8  | 7  | 8  | 5  | 10 | 9  | 249   |
| OUT                   | 2  | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0  | 0  | 3  | 3  | 0  | 0  | 3  | 0  | 2  | 0  | 1  | 0  | 2  | 3  | 0  | 3  | 0  | 0  | 0  | 2  | 0  | 30    |
| PRIV                  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     |

| Cluster Number                                               | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | TOTAL |
|--------------------------------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| (9) Antenatal care/Yes                                       | 3  | 5  | 5  | 4  | 4  | 5  | 3  | 4  | 4  | 4  | 5  | 3  | 5  | 4  | 4  | 5  | 5  | 3  | 3  | 4  | 4  | 6  | 3  | 5  | 5  | 4  | 4  | 3  | 3  | 5  | 124   |
| (10) Other visits to health facilities during last pregnancy | 4  | 3  | 5  | 3  |    | 3  | 5  | 3  | 3  | 3  | 3  | 4  | 5  | 3  | 3  | 5  | 3  | 4  | 5  | 3  | 3  | 3  | 4  | 3  | 5  | 3  | 3  | 5  | 4  | 3  | 109   |
| (11) Delivery of baby:                                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |
| Home                                                         | 3  | 4  | 3  | 4  | 4  | 3  | 5  | 4  | 4  | 4  | 4  | 3  | 3  | 4  | 4  | 3  | 4  | 3  | 5  | 4  | 4  | 3  | 3  | 4  | 3  | 4  | 4  | 5  | 3  | 4  | 112   |
| HC/HOS                                                       | 3  | 3  | 4  | 3  | 3  | 3  | 2  | 3  | 3  | 3  | 3  | 3  | 4  | 3  | 3  | 4  | 3  | 3  | 2  | 3  | 3  | 3  | 3  | 3  | 4  | 3  | 3  | 2  | 3  | 3  | 91    |
| Other                                                        | 1  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 7  |       |
| (12) Children protected against neonatal tetanus             | 4  | 3  | 4  | 2  | 3  | 3  | 1  | 3  | 2  | 3  | 3  | 2  | 3  | 3  | 2  | 4  | 3  | 2  | 1  | 2  | 3  | 3  | 2  | 3  | 4  | 2  | 3  | 1  | 2  | 3  | 79    |
| (13) Households visited                                      | 35 | 41 | 50 | 39 | 41 | 37 | 33 | 38 | 40 | 38 | 31 | 35 | 47 | 41 | 33 | 39 | 45 | 53 | 43 | 44 | 55 | 38 | 43 | 41 | 51 | 40 | 36 | 34 | 59 | 51 | 1251  |

# Sample forms

## Cluster Form Infant Immunization

## Cluster Form Reasons for Immunization Failure

(1) Cluster Number: \_\_\_\_\_ (5) \_\_\_\_\_  
 (2) Date: \_\_\_\_\_  
 (3) Area: \_\_\_\_\_  
 (4) Range of birth dates: \_\_\_\_\_  
 From: \_\_\_\_\_  
 Until: \_\_\_\_\_

| Child number in cluster                     | (5) |   |   |   |   |   |   |   | TOTAL |                   |
|---------------------------------------------|-----|---|---|---|---|---|---|---|-------|-------------------|
|                                             | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Card  | Card plus history |
| (6) Birth date                              |     |   |   |   |   |   |   |   |       |                   |
| (7) Immunization Card                       |     |   |   |   |   |   |   |   |       |                   |
| (8) BCG                                     |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| (9) DPT 1                                   |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| DPT 2                                       |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| DPT 3                                       |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| (10) OPV 1                                  |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| OPV 2                                       |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| OPV 3                                       |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| (11) Measles                                |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| (12) Immunization Status                    |     |   |   |   |   |   |   |   |       |                   |
|                                             |     |   |   |   |   |   |   |   |       |                   |
| (13) Fully immunized before one year of age |     |   |   |   |   |   |   |   |       |                   |

(14) Tally of households visited: \_\_\_\_\_

(15) Name of interviewer: \_\_\_\_\_

Signature: \_\_\_\_\_

KEY: Date = copy date of immunization from card, if available  
 \* = mother reports immunization was given  
 0 = immunization not given

Source:  
 Q = Quireach  
 HOS = Hospital  
 HC = Health Centre  
 PPIV = Private/non-government

(1) Cluster number: \_\_\_\_\_ (4) Range of birth dates: From: \_\_\_\_\_ Until: \_\_\_\_\_  
 (2) Area: \_\_\_\_\_  
 (3) Date: \_\_\_\_\_  
 NOTE: ASK ONLY ONE QUESTION: "Why was the child not fully immunized? Mark (X) the single most important reason according to your judgment."

| Child number in cluster | (4)                                               |   |   |   |   |   |   |   | TOTAL |
|-------------------------|---------------------------------------------------|---|---|---|---|---|---|---|-------|
|                         | 1                                                 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |       |
| (5) Immunization Status |                                                   |   |   |   |   |   |   |   |       |
|                         |                                                   |   |   |   |   |   |   |   |       |
| Lack of information     | a. Unaware of need for immunization               |   |   |   |   |   |   |   |       |
|                         | b. Unaware of need to return for 2nd or 3rd dose  |   |   |   |   |   |   |   |       |
|                         | c. Place and/or time of immunization unknown      |   |   |   |   |   |   |   |       |
|                         | d. Fear of side reactions                         |   |   |   |   |   |   |   |       |
|                         | e. Wrong ideas about contraindications            |   |   |   |   |   |   |   |       |
|                         | f. Other                                          |   |   |   |   |   |   |   |       |
| Lack of motivation      | g. Postponed until another time                   |   |   |   |   |   |   |   |       |
|                         | h. No faith in immunization                       |   |   |   |   |   |   |   |       |
|                         | i. Rumors                                         |   |   |   |   |   |   |   |       |
|                         | j. Other                                          |   |   |   |   |   |   |   |       |
| Obstacles               | k. Place of immunization too far                  |   |   |   |   |   |   |   |       |
|                         | l. Time of immunization inconvenient              |   |   |   |   |   |   |   |       |
|                         | m. Vaccinator absent                              |   |   |   |   |   |   |   |       |
|                         | n. Vaccine not available                          |   |   |   |   |   |   |   |       |
|                         | o. Mother too busy                                |   |   |   |   |   |   |   |       |
|                         | p. Family problem, including illness of mother    |   |   |   |   |   |   |   |       |
|                         | q. Child ill - not brought                        |   |   |   |   |   |   |   |       |
|                         | r. Child ill - brought but not given immunization |   |   |   |   |   |   |   |       |
|                         | s. Long waiting time                              |   |   |   |   |   |   |   |       |
|                         | t. Other                                          |   |   |   |   |   |   |   |       |

# Sample forms

## Cluster Form Tetanus Toxoid Immunization of Women

|                                                            |  |                         |  |          |   |   |   |   |   |   |   |       |                   |
|------------------------------------------------------------|--|-------------------------|--|----------|---|---|---|---|---|---|---|-------|-------------------|
| (1) Cluster number: _____                                  |  | (5) Mother's name _____ |  |          |   |   |   |   |   |   |   | TOTAL |                   |
| (2) Date: _____                                            |  |                         |  |          |   |   |   |   |   |   |   | Card  | Card plus History |
| (3) Area: _____                                            |  |                         |  |          |   |   |   |   |   |   |   |       |                   |
| (4) Range of birth dates:<br>From: _____<br>Until: _____   |  |                         |  |          |   |   |   |   |   |   |   |       |                   |
| Woman number in cluster                                    |  |                         |  | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 |       |                   |
| (6) Birth date of child                                    |  |                         |  |          |   |   |   |   |   |   |   |       |                   |
| (7) Immunization card                                      |  |                         |  | Yes/No   |   |   |   |   |   |   |   |       |                   |
| (8) TT 1                                                   |  |                         |  | Date/+/0 |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | Source   |   |   |   |   |   |   |   |       |                   |
| TT 2                                                       |  |                         |  | Date/+/0 |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | Source   |   |   |   |   |   |   |   |       |                   |
| TT 3                                                       |  |                         |  | Date/+/0 |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | Source   |   |   |   |   |   |   |   |       |                   |
| TT 4                                                       |  |                         |  | Date/+/0 |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | Source   |   |   |   |   |   |   |   |       |                   |
| TT 5                                                       |  |                         |  | Date/+/0 |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | Source   |   |   |   |   |   |   |   |       |                   |
| (9) Antenatal care                                         |  |                         |  | Yes/No   |   |   |   |   |   |   |   |       |                   |
| (10) Other visits to health facility during last pregnancy |  |                         |  | Yes/No   |   |   |   |   |   |   |   |       |                   |
| (11) Delivery of baby                                      |  |                         |  | Home     |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | HC/HOS   |   |   |   |   |   |   |   |       |                   |
|                                                            |  |                         |  | Other    |   |   |   |   |   |   |   |       |                   |
| (12) Child protected against neonatal tetanus              |  |                         |  | Yes/No   |   |   |   |   |   |   |   |       |                   |

(13) Tally of households visited: \_\_\_\_\_

(14) Name of interviewer: \_\_\_\_\_

Signature: \_\_\_\_\_

KEY: Date +/-/0  
Date = copy date of immunization from card, if available  
+ = mother reports immunization was given  
0 = immunization not given

SOURCE:  
HC = Health Centre  
HOS = Hospital  
OUT = Outreach  
PRIV = Private