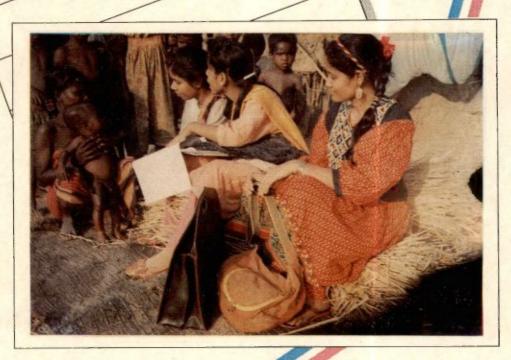
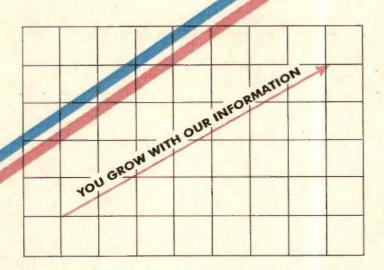
V.	GOVERNMENT OF INDIA FUNDED PROJECTS	Value (million Rs.
1.	"Census of Handicrafts Artisans" – in the states of Mizoram, Sikkim, Tripura and West Bengal	2.2
2.	"Credit Requirement and Supply for the Handicrafts Artisans" – an All India Study	0.6
3.	"Development of entrepreneurship among SC, ST, Women and minority community sponsored by Ministry of Textiles, Govt. of India"	0.6
4 .	"Evaluation of Special Jute Development Programme" in the states of Orissa, Assam, Andhra Pradesh, Uttar Pradesh, Meghalaya, Bihar and West Bengal.	0.6
VI. G	OVT. OF INDIA UNDERTAKING PROJECTS	
1.	"Feasibility Study on Single Superphosphate and Granulated Mixture Fertilizers – Sponsored by Rashtriya Chemicals & Fertilizers.	0.3
2.	"Marketing Feasibility study of Single Superphosphate In West Bengal – sponsored by MMTC.	0.1
VII. C	ORNELL UNIVERSITY, USA FUNDED PROJECT	
1.	"Cultural Theories of Reproductive change"	0.3
	SPONSORED BY NATIONAL ORGANISATION OF REPUTE	
1.	"India's Informal Trade with Bangladesh and Nepal - A Qualitative Assessment." – sponsored by Indian Council for International Economic Relations (ICRIER), New Delhi.	0.5
2.	- A Quantitative Assessment." - sponsored by Indian	0.5
	Council for International Economic Relations (ICRIER), New Delhi.	0.4
3.	"Rural Economic & Demographic Survey" in West Bengal & Assam – sponsored by National Council of Applied Economic Research (NCAER),	0.3
4.	"Market Information Survey of Households" in the states of Assam, Meghalaya and West Bengal during the years 1993, 1994, 1995, 1996,1997, 1998, 1999, 2000 - Sponsored by NCAER, New Delhi.	2.5

Value(million Rs.)

0.	"Development of Frame Work for Monitoring & Evaluation for CASHE PROJECT states of Arunachal Pradesh, Orissa & West Bengal" – sponsored by CARE INDIA, New Delhi	0.1
6.	"Qualitative Assessment of Integrated Nutrient Health Programme (INHP) in Orissa & West Bengal" – sponsored by CARE INDIA, New Delhi	0.3

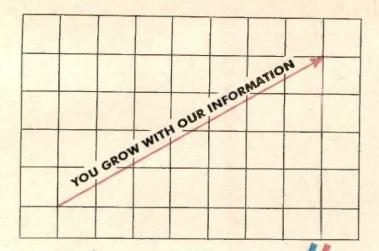
ECONOMIC INFORMATION TECHNOLOGY





ECONOMIC INFORMATION TECHNOLOGY

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- Market Research Study for consumer products and consumer durables.
- 4) Media studies.
- Performance Evaluation of State, Central Government and World Bank- Aided Projects.
- 6) Development of MIS.
- Computer based System Development.
- Development of marketing networks mainly in the rural sectors.



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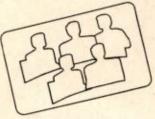


Research staff collecting information



Our field staff





The group consists of a core sector of highly experienced and result oriented specialists in different fields. The group invites Consultants in different fields of specialisation for being associated with specific studies.

Over a period of time, the group has trained a set of qualified young boys and girls for micro-level studies in rural and urban sectors. This highly dedicated team is ready for action with the word 'GO'.



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Sussex, England

GHOSH RESEARCH ASSOCIATES
California, U. S. A.

Mr. DERMOT SHIELDS Reading, England

PROJECTS UNDERTAKEN

the Organisation conducted/ was involved in the following studies:-

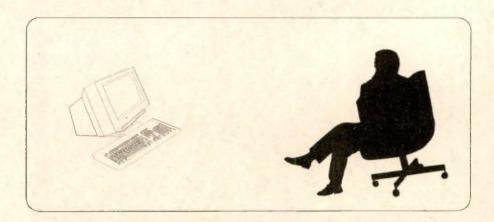
- Evaluation and Perspective Plan for development of Women and Children in rural areas in Mizoram.
- (2) Marketing Information Survey of Households in the states of Assam, Meghalaya and West Bengal.
- (3) Economic Impact of Jute retting on price and quality in the states of Bihar, Assam and West Bengal.
- (4) Performance Evaluation of an Irrigation -cum- Drainage Project in West Bengal.
- (5) Human Development Profile of India in the states of Bihar, Assam, Tripura, Nagaland and West Bengal.
- (6) Techno-Economic feasibility of Horticulture in Manipur.
- (7) Price Spread in Handicrafts Industry.

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The Chief Executive of the Organisation is Dr. Arun Kumar Roy, M.A (Econ), M.Sc (Stat.) Ph.D (Socio)





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Chapter 2 : SAMPLING

This technical chapter is intended for the survey coordinator as well as other technical resource persons involved in MICS. Section 2.1 deals with the sample size requirement and Section 2.2 explains the sampling methodology to be adopted in the survey.

2.1 Sample Size

The most important parameter of the sample design is the size of the sample. The survey includes different indicators emerging from different forms. These indicators vary in coverage and Design Effects for some of them are either high or unknown. Using the formula given in Box 2 it is estimated that around 4800 HHs would be required to be surveyed to estimate most of these characteristics (except very low coverage indicators on disability) within ± 5 per cent margin of error while 1200 HHs would be required to be surveyed to estimate with a margin of error of $\pm 10\%$.

Considering the resources required, for surveys carried out at sub-state level (eg., Dstrict/City/Urban Poor populations etc.), it is recommended that 1200 HHs be surveyed to get estimates on various indicators included in the survey. Such a sample provides estimates with $\pm 10\%$ margin of error. The number of clusters would be 30 and in each cluster 40 HHs be surveyed.

The number of subjects that will be enumerated and the questionnaires administered will be approximately as follows for the sub-state/state level surveys. These have been calculated based on average family size of 5.5 and demographic patterns at national level.

Category	% of total population	Sub-state
Number of HHs surveyed		1200
Total population covered	@ 5.5/HH	6600
Children 12-23 months age	1.7%-2.0%	112-132
Children < 2 Yrs.	3.9%-4.2%	257-277
Children 2-<5 Yrs.	8.0%-8.3%	528-548
Children < 5 Yrs.	11.4%-12.0%	752-792
Children 5-14 Yrs.	23.0%-25.0%	1518-1650
Women 15-49 Yrs.	23.7%-25.0%	1564-1650
Women delivered during last 1 Yr.	2.0%-2.2%	132-145

Since the estimates will be based on the sample selected, it is very important that adequate precautions are taken. The sample of respondents should be chosen in an unbiased way. It is therefore important that you as the interviewer/supervisor follow the sampling procedures strictly. For example, you should not choose/restrict the sample to only families living in easy accessible areas. Furthermore, you should not omit households where there is no one at home at the time of first visit. In such cases you should inquire whether the household is likely to be available within the days allotted to you for the survey and revisit the household. Lastly, you should not substitute the selected sample household with any other arbitrarily chosen household. It is possible that some establishments which are strictly not households, have



individuals staying on the premises on a long term basis eg., restaurants and shops. As the survey includes questions related to children below 15 years and women 15-49 years, it is very essential that some of these individuals who may be living in shops, restaurants do not get left out from the purview of the survey. In canvassing the questionnaire, it is very important that you ask the questions exactly as they are worded, without adding your own interpretations. The latter may add to the errors in estimates and misinterpretations.

Sample size formula

The sample size calculating formula is:

$$n = \frac{4 p (1-p)}{d^2} \times \frac{f (1.1)}{r n_h}$$

where

n = Required sample size

= Factor to achieve the 95% level of confidence

p = Prevalence of the indicator d = Margin of error to be tolerated

f = Design effect

1.1 = Factor necessary to raise the sample size by 10% for non-response

= Proportion of the target population in the total population

nh = Average household size

Example:

Assume that in an area, polio coverage is expected to be about 80% and we want to have an estimate

- a) with a margin of error of \pm 5 % points (i.e., the confidence interval for the coverage estimate is 75 85 percent).
- b) with a margin of error of \pm 10 % points (i.e., the confidence interval for the coverage estimate is 70 90 percent).

Let the target population of 12-23 months children constitutes 2% of the total population, average household size in the area is 5.5 persons and the design effect is 1.75. What are the sample sizes required?

d	Margin of Error		5% = 0.05	10% = 0.10
p	prevalence rate	80% = 0.80		
f	design effect	1.75		
Г	proportion of target population	2% = 0.02		-
n_h	average household size	5.5		
n	number of HHs to be surveyed	7.378.391	4480	1120
	population to be surveyed	160 Hours	24,640	6.610

2.2 Sampling Methodology

In the context of Multiple Indicator Cluster Survey, sampling is the process of selecting respondents from the population under survey. The respondents will usually be mother, or caretakers of children in each household (HH) visited, who will answer questions. For the AIDS module it would be the women in age group 15 to 49 years.

1) Rural

The sample design recommended is a two stage sampling. In the first stage, primary sampling units (PSUs) ie., villages will be selected with probability proportional to estimated size (PPES). The second stage involves selection of secondary sampling units (SSUs) ie., households within each PSU.

Table 1: District level information

PSU (Village)	PSU (Village) No. of HHs as per 1991 Census			
\mathbf{V}_1	C ₁	M_1		
V_2	C ₂	M_2		
\mathbf{V}_3	\mathbf{C}_3	M_3		
•				
Yi	Ci	Mi		
V _N	C _N	M _N		
		Total = M		

^{*:} Using the statewise multiplying factors from RGI's Population Projections 1996-2016 (Annexure 1).

Step 1: Select required number of villages from the above table using PPES selection method (Box 1).

Step 2: Selection of HHs from the identified villages

Let us assume that village V_i is selected into our sample. The estimated number of HHs as per the above table in that village is M_i

i) In case of smaller villages (ie., if M_i is approximately 225 HHs):

The sampling interval =
$$\frac{k}{m}$$
 M_i

Where k = No, of clusters and n = No, of HHs. k/n = 30/1200 = 1/40

The sampling interval =
$$\frac{M_i}{40}$$
 (A)

In other words, since in each village we have to select 40 HHs, the sampling interval for selection of HHs in the smaller villages will be

Estimated number of HHs in that village

ii) In case of larger villages (ie., if M; is more than 225 HHs)

For larger villages, segmentation procedure has to be followed. Divide the village into segments of approximately 200 households and select one of them.

Suppose in the ith PSU segmentation has to be resorted to. Select one of the segments with probability proportional to estimated size (PPES) of households.

Therefore the sampling interval for selecting households in the selected segment would be

$$= \frac{k}{n} M_i \quad (X_i/\sum X_i)$$

$$= \frac{M_i}{40} \quad (X_i/\sum X_i) \quad ... \quad (B)$$

where X_i is the number of HHs in the selected segment and $\sum X_i$ is the total number of HHs in all the segments. M_i is the estimated number of HHs in village V_i

Note:

 The segments to be created should cover the entire village without omission or duplication. All the hamlets or habitations within the boundary of the village (identified through a map) must be considered. Roads, streets, school buildings, temple/mosque/church and other prominent buildings may be used to identify corners of the natural boundaries.

The natural segments wherever they exist may be unequal in size of number of HHs. Estimate their size in terms of number of HHs. Even rough estimate say near multiple of 10, 20 or 50 would serve the purpose. Usually Sarpanch or Village Pradhan may be contacted who will have good idea on number of HHs. If you cannot get any idea, make a rough estimate of the number of dwellings by walking through the entire village.

If no natural segment exist, segments are to be created. When you create, create segments of approximately equal size. In many villages Anganwadi Workers have jurisdiction of approximately 1000 population or 200 HHs. If such a situation exists, you may identify Anganwadi area boundaries on the map and treat them as segments. In many urban areas one or two apartment buildings containing large number of households may serve as segments.

2. The PSUs will be identified centrally by the Survey Agency for all surveys using census villages information. For sampling within the PSUs it is a must to obtain the boundary maps of the PSUs. Ideally a boundary map is to be obtained from one of the options below. For the selected PSUs the field level functionaries should obtain the maps by making efforts in the following sequence - Option 1 is contacting the local census office. If they cannot provide the map contact the Revenue Department as the Option 2. Option 3 would be contacting village panchayat officials. Next options would be

- contacting ANM or any other functionaries (or any state specific approaches could be tried). If none of the options work, a boundary map should be drawn with clear landmarks in the selected PSU to ensure that subsequent processes of the survey are objective and no element of bias creeps in.
- 3. Always restrain yourself of doing re-sampling. Don't overestimate the sample sizes assuming some non-responses. This was taken care off in the sampling formula itself. Similarly to avoid high number of casualty in the coverage, if you encounter any locked HHs at the time of household listing, enquire from the neighbours about the availability of members of locked HHs. If you are told that they will be available during your survey period of that PSU include them in the list. Otherwise don't include those HHs in your listing before selecting HHs. Even after doing all this, due to sudden events if any HHs are not available during your survey period, leave them but don't substitute any other HHs for them.

EXAMPLE (for rural areas sampling)

In the following table suppose columns 1 and 2 (shaded area) are given.

The problem in hand is - select 160 HHs from the total 9877 HHs of the twenty villages, using a two stage sampling methodology of selecting 4 PSUs (Villages) and 40 SSUs (ie., HHs) from each PSU.

Village Code	No. of HHs as of 1991 Census	Estimated No.of HHs (M _i)	Cumulative No. of HHs	Selected Units
1	2	3	4	5
V1	553	653	653	
V2	172	$M_1 = 203$	856	V2 selected
V3	155	183	1039	
V4	407	345	1384	-
V5	617	728	2112	
V6	320	378	2490	
V7	383	452	2942	
V8	191	$M_2 = 225$	3167	V8 selected
V9	797	940	4107	
V10	447	528	4635	
V11	808	953	5588	
V12	313	$M_3 = 369$	5957	V12 selected
V13	212	248	6205	
V14	114	135	6340	
V15	397	468	6808	
V16	491	579	7387	
V17	544	642	8029	
V18	672	$M_4 = 793$	8822	V18 selected
V19	732	864	9686	
V20	162	191	M = 9877	

Construct Column 3 & 4 as follows:

Column 3: Using a multiplying factor, project the number of HHs from 1991 to the current period. As an example we have multiplied by a factor 1.18.

Column 4: Take the cumulative of the estimated HHs given in Column 3 i.e., sum of the HHs of any village plus the HHs of all the villages above it.

i) First stage sampling ie., selecting PSUs (Villages)

We were asked to select k = 4 PSUs from the list of 20 villages. The total number of HHs in the 20 villages M = 9877. Divide the total number of HHs by the number of PSUs to get the sampling interval. In other words in this example the sampling interval I is M/k = 9877/4 = 2469.

Let the random number R between 1 and the sampling interval 2469 be 698.

Select the village whose cumulated number of HHs exceed this random number. In column 4 the cumulated number of HHs of village V2 (ie., 856) is exceeding the random number $\dot{6}98$. Therefore V2 is our first PSU. Adding the sampling interval to this random number gives R + I = 698 + 2469 = 3167 which corresponds to V8. This is our second PSU. The third PSU will be that village (V12) whose cumulated HHs exceeds 3167 + 2469 = 5636. Similarly V18 will be the fourth PSU whose cumulated number of HHs exceeds 5636 + 2469 = 8105.

Column 5: We have thus selected 4 PSUs viz., V2, V8, V12, V18 from the above list.

ii) Second stage sampling ie., selecting SSUs (Households)

Once the PSUs are identified, 40 HHs are to be selected from each PSU.

a) If the size of the PSU is around 225 HHs: In our example, V2 and V8 are having estimated number of HHs of 203 and 225 respectively.

The sampling interval for selecting 40 HHs from V2 and V8 be calculated using Equation (A) as follows:

 M_1 = The estimated number of HHs in V2 = 203

Sampling interval for V2 =
$$\frac{M_1}{40} = \frac{203}{40} = 5.0$$

Similarly,

 M_2 = The estimated number of HHs in V8 = 225

Sampling interval for V8 =
$$\frac{M_2}{40} = \frac{225}{40} = 5.6$$

b) If the size of the PSU is more than 225 HHs: In our example, the third and fourth PSUs viz., V12 and V18 are larger villages having estimated number of HHs of 369 and 793 respectively. Here the villages are to be segmented with an average size of approximately 200 HHs per segment or using natural segmentation procedure. From these segments one segment will be selected using PPS method.

To illustrate, let us take the third PSU ie., V12.

The estimated number (M_3) of HHs in V12 = 369. But suppose in the field when we enquire about the size of the village from Village Pradhan or Mukhya we are told that there are 423 HHs and we decided to divided V12 into two segments of approximate sizes, say, 228 and 195. Using PPS method suppose we have selected the segment of size 195 HHs.

In this segment we have $X_i = 195$ and $\sum X_i = 423$. From Equation (B)

Sampling interval for V12 =
$$\frac{M_3}{40}$$
 $(X_i/\sum X_i) = \frac{369}{40}$ 195 = 4.3

After calculating the sampling interval, list the selected segment. After listing operation, the number of HHs may not be 195 but vary. Whatever be the size of that segment, use the sampling interval 4.3 to find out the number of HHs to be interviewed. If it is exactly 195 then you will select 195/4.3 = 45 HHs. But in general the number of HHs after listing be different from what you assumed in that segment. Thus the number of HHs to be interviewed after listing will be either less or more than 45. However, by covering less in some PSUs and more in other PSUs, the overall required number of HHs will be achieved. But at the same time we don't want take too few HHs from some PSUs and too many from others. The average number of HHs from each PSU should be around 40 HHs. Thus at the time of segmentation it is very important to get accurate information from Village Pradhan or Mukhya on the size of the village/segment and segments have be made with accuracy.

Similarly for PSU V18, suppose we found that the actual number of HHs is 687 in place of the estimated number of HHs (M₄)of 793. Let V18 is divided into four segments and using PPS method selected one of the segments with size 210HHs is selected.

Sampling interval for V18 =
$$\frac{M_4}{40}$$
 $(X_i/\sum X_i)$ = $\frac{793}{40}$ $\frac{210}{687}$ = 6.1

2. Urban

For the urban sampling a three stage sampling is suggested. Firstly identifying the town where the PSUs will fall. In the second stage, select the PSUs - either NSSO Blocks or Municipal Wards. In the third stage select the households (SSUs) in the identified PSUs.

In the first stage, list the towns in the district alongwith the number of HHs in each town. This is available from 1991 census data. Using PPS method on HHs identify the towns where the 30 PSUs fall. Bigger towns may have more PSUs, smaller towns with fewer PSUs and some town may not be selected at all. Thus within the district, the towns (where the PSUs will be later selected) will be determined in the first stage.

In the second stage, the PSUs within the selected towns will be selected. To identify the PSUs within each town, two options are available depending on the local situations and availability of information within each district. In any district, one of these two options can be preferred but not a combination of both the options.

Option 1 Under this option, 'Blocks' will be selected from National Sample Survey Organisation's (NSSO) Urban Frame. The local NSSO offices in the state would be able to select randomly (since NSSO blocks are generally of equal size) the required PSUs from each town. Procure the maps of these selected Blocks (Usually at a price of Rs. 100/- per map) with identification details from the NSSO office for use in survey.

Option 2 If, in the towns of any district, NSSO blocks are not available, contact the Municipal Corporation (MC) of the towns and obtain the list of 'Wards' with number of HHs in each ward. From this list, select the number of wards for the survey using **PPS method** (Since urban wards of unequal sizes). Obtain the boundary maps of these identified Wards or draw sketch map using the boundary information from the Municipal Corporation.

Thus the PSUs would be either NSSO Blocks or the Wards from the Municipal Corporation depending on the situation in the district. The Wards of 1991 Census should be not used as PSUs as majority of them have undergone vast changes both in size and shape and impossible to identify them after a gap of 10 years.

In the third stage 40 households (SSUs) within each PSU will be identified using the same methodology described for Rural survey. If the size of the Block or Ward is too big, do a segmentation.

3. Urban Slums

In the two stage urban slum sampling, obtain the list of urban slums (alongwith number of HHs) from the Urban Slum Boards of all the towns/cities of the district. This list of all urban slums of the district will be used as a frame in selecting the PSUs.

From this list of urban slums, select 30 slums using the PPS method of sampling. From each slum (PSU), identify 40 HHs (SSUs) using the methodology explained in for Rural sampling. If the urban slum is too big, do a segmentation before selecting the sample.

NSSO Blocks or Municipal Corporation Wards will not be able to provide us the sampling frame. If Urban Slum Boards do not exist or are unable to provide the list of slums, other sources may be tried.

Note:

1. Calculate the sampling intervals for each survey using the formulae (A) & (B) and provide to the supervisor before hand to enable him in selecting and allocating the 40 HHs to the investigators for the survey.

2. The sequence of villages, towns (when preparing a district frame by appending the units) should always be as per the census codes (not haphazardly).

ORM 6 Anaemia Estimation			П.,	
strict: Block: Cluster:				hold: U U U
Background & Consent Anaemia is a serious problem affecting children and we solved. A person found to be anaemic can be given iro				
We would like to test you (and other women in the age of drop of blood from the person(s). We are using a she blood will be analysed with the new equipment to sept confidential and will not be shown to other familie	provide results for all thes.	ose tested right after the	e blood is taken. The les	Sulta of this test will b
apt confidential and will not be shown to have this to lecision. However, I will be very happy if you do achildren.	9.00			
After explaining the above, I have found that (Name ner children) named as below: 2	of the respondent) 3.	ag	4.	Journal Meriden (e.i.e.)
Signature of the Investigator			Date :	
Signature of the Investigator				
Vomen		2	3	4
Woman Line Number (as in Form 4)				
6.01 Name of the woman (as in Form 4)				
Result code 1. Measured / 2. Woman refused / 3. Woman sick / 4. Woman not present / 5. Other)	1 2 3	1 2 3	1 2 3	1 2 3
	4 5	4 5	4 3	
6.02 [Name]'s Haemoglobin level (G/dl)	0.0	0.0		
6.03 If the value is less than 7 G / di Were you given IFA tablets? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
6.04 If the value is between 7 and 11 g/dl Were you given advise on iron rich foods? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
Children			3	1 4
Child Line Number (as in Form 2)	1	2	nn	
是其他是 是 的,是一位 是				
6.05 Name of the child (as in Form 2) 6.06 Sex of the child (as in Form 2) (1. Male / 2. Female)	1 2	1 2	1 2	1 2
Result code (1. Measured / 2. Mother refused / 3. Child sick / 4. Child not present / 5. Child did not allow / 6. Other)	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
6.07 [Name]'s haemoglobin level (G/dl)		00.0	00.0	
6.08 If the value is less than 7 G / dl Was [name] given IFA tablets? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
6.09 If the value is between 7 and 11 g/dl Where you given advise on iron rich foods?	1 2 9	1 2 9	1 2 9	1 2 9

FORM 5 Anthropometric Measurement

District: Block: Cluster:	Segment:	Туре	of Survey: Hou	sehold:
	1	2	3	4
Child Line Number (as in Form 2)				
5.01 Name of the child (as in Form 2)				
5.02 Sex of the child (as in Form 2) (1. Male / 2. Female)	1 2	1 2 .	1 2	1 2
5.03 Age of the child (as in Form 2) (Record in months)				
Result code (1. Completed / 2. Completed after revisit / 3. Partially completed / 4.Child absent / 5. Refused)	1 2 3	1 2 3	1 2 3	1 2 3
5.04 Check [name]'s present weight KILO GRAMS				
5.05 Check Q. 2.07 and mark: (1. Age less than 24 months 2 Age 24 months and more)	1 2	1 2	1 2	1 2
5.06 Check [name]'s length (Record in cms)	000.0			000.0
5.07 Check [name]'s height (Record in cms)		000.0	0.00.0	0.00.0

		1	2	3	4
4.40	Now I will read some questions related to a particular disease. Some of these questions may include issues related to sexuality that some people might find it difficult to answer. However, your answers are very important to us. I assure you that this information is				
	completely private and confidential. Have you ever heard of the virus HIV or an illness called AIDS? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9 + + End End	1 2 9 U U U U U U U U U U
4.41	How is AIDS transmitted? (Record all spontaneous answers. Multiple coding possible) a. Sexual intercourse b. Needles/blades c. Mother to child d. Transfusion of infected blood	a b c d	a b c d	a b c d	a b c d
	e. Others f. Don't know	e f	e f	e f	elf
4.42	Is there anything a person can do to avoid getting HIV, the virus that causes AIDS? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.43	Can people protect themselves from sexual transmission of AIDS by having sex only with someone who is not infected with AIDS virus and does not have sex with anybody else? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.44	Can people protect themselves from sexual transmission of AIDS by using a condom correctly every time they have sex? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.45	Can a person get AIDS virus from mosquito bites? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.46	is it possible for a healthy-looking person to have the AIDS virus? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.47	Can the AIDS virus be transmitted from a mother to a child? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.48	Can the AIDS virus be transmitted from a mother to a child during pregnancy? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.49	Can the AIDS virus be transmitted from a mother to a child at delivery? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
	Can AIDS virus be transmitted from a mother to a child through breast milk? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.51	If a person, say a teacher or a shopkeeper has the AIDS virus but is not sick, should she or he be allowed to continue to work? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.52	In your opinion, can a woman in our society ask a man to use condom? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9

		1		1	100			2		1	-	3		1		4	
4.32	Did any doctor or a health worker check-up your health within 42 days of your last delivery? (1. Yes / 2. No)		1		2 34		1		2 ¥		1	2			1	1	2 ¥ 34
4.33	How many postnatal health checkups did you have?																
4.34	Did you have a delivery before your last delivery? (1. Yes / 2. No)		1	١ ـ ,	2 1 36		1		2		1	2			1	1 _	2
	How long ago was that delivery before the last delivery? (Record in months)]								
4.36	Check Q.3 and mark: (1. Currently married / 2. Other)		1	' -	2 19		1		2 39		1	2	_			J	2 1 39
4.37	Now I am going to change the topic. I would like to talk to you about another subject - family planning. I know this is a difficult subject to talk about, but it is important that we obtain this information. Of course, the information you give will remain strictly confidential and will not be shared.																
	Some couples use various ways or methods to delay or avoid a pregnancy. Are you or your husband currently doing something or using any method to delay or avoid getting pregnant? (1. Yes / 2. No / 3. Currently pregnant)		1	2 \$\psi\$ 39	3 ↓ 39		1	2 39	3 • 39		1	2 \$\psi\$ 39	3 \$\psi\$ 39		1	2	3 ↓ 39
	Which method are you or your husband currently using? (multiple coding possible) Do not prompt. If more than one method is mentioned, record each one a. Female sterilization b. Male sterilization c. Pill d. IUD e. Injections f. Implants g. Condom h. Female condom i. Diaphragm j. Foam/Jelly k. Lactational amenorrhoea method (LAM) l. Periodic abstinence m. Withdrawl n. Others		a c e g i k m	f f			a c e g i k m	-	b d f h j n		a c e g i k	b d f h j n			a c e g i k m	-	
	Now I like to ask you about the hand washing practices in your household. To keep our body clean we take bath daily, what are the occasions when you wash your	A B	1	2	3	A B	1	2	3	A B	1	2	3	A B	1	2	3
	hands? (1.Before / 2.After / 3.Both before & after) Do not prompt for the following occasions	C	1	2.	3	C	1	2	3	C	1	2	3	C	1	2	3
	A) Eating B) Serving food	E	1	2	3	E	1	2	3	E	1	2	3	E	1	2	3
	C) Feeding child D) Cooking E) Defecation	F	1	2	3	F	1	2	3	F	1	2	3	F	1	2	3
	E) Defectation F) Cleaning child's stools G) Disposing child's stool	G	1	2	3	G	1	2	3	G	1	2	3	G	1	2	3

	1	2	3	1
4.14 What was the sex of the baby?	1 2	1 2	1 2	1 2
(1. Male / 2. Female)				
4.15 Is the child alive? (1. Alive / 2. Dead)				
(1. Alive / 2. Dead)	1 2	1 2	1 2	1 2
	17	17	17	17
4.16 How old was the child at the time of death?	Ön	ÖD	i in	
(Record in months)				
4.17 Did you undergo any antenatal check-up during your last pregnancy?	1 2	1 2	1 2	1 2
(1. Yes / 2. No)		1 1 2	1 2	1 2
	21	21	21	21
4.18 How many antenatal check-ups did you have? (1. One / 2. Two / 3. Three / 4. Four or more /	1 2 3	1 2 3	1 2 3	1 2 3
9. Don't remember)				
	4 9	4 9	4 9	4 9
4.19 Who conducted the antenatal check up?				
Probe for type of person(s) seen Multi-coding possible	a b	a b	a b	a b
(a. Doctor / b. Nurse/midwife / c. ANM /	c d	c d	c d	c d
d. Untrained person)				
4.20 Was your blood pressure checked during your last pregnancy?	1 2 9	1 2 9	1 2 9	1 2 9
(1. Yes / 2. No / 9. Don't know)				
4.21 During your last pregnancy, were you given an injection in the arm to prevent you and your	1 2 9	1 2 9	1 2 9	1 2 9
child from getting tetanus?				
(1. Yes / 2. No / 9. Don't know)	24 24	24 24	24 24	24 24
4.22 How many times were you given these				
Injections? (1. Once / 2. Twice)	1 2	1 2	1 2	1 2
	24	24	4	+
4.23 Did you receive two doses of tetanus injections			24	24
in any pregnancy before the last one? (1. Yes / 2. No / 9.Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.24 During your last pregnancy, did you have				
difficulty with your vision during day time? (1. Yes / 2. No / 9.Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
4.25 During your last pregnancy, did you suffer from				
night blindness? Use local term	1 2 9	1 2 9	1 2 9	1 2 9
(1. Yes / 2. No / 9.Don't know)				
4.26 During your last pregnancy, were you given iron supplements?	1 2 9	1 2 9	1 2 9	1 2 9
(1. Yes / 2. No / 9.Don't know)	4 4	44	¥ ¥	¥ ¥
4.27 U	29 29	29 29	29 29	29 29
4.27 How many iron tablets were given?				
4.28 How many iron tablets did you consume?	000			
4.29 Where did you have your last delivery?				
Government hospital Private hospital/ nursing home	1 2 3	1 2 3	1 2 3	1 2 3
3. PHC/Sub-centre	4 5	4 5		
4. Home 5. Others			4 5	4 5
4.30 Who assisted you during your last delivery?				
(Circle all answers) Multi-coding possible a. Doctor	a b c	a b c	a b c	a b c
b. ANM/Nurse c. Traditional Dai	d e	d e	d e	
d. Relatives/Friends			d e	d e
e. No one 4.31 Was the delivery normal?				
1. Yes	1 2	1 2	1 2	1 2
No, caesarian section No, blood transfusion was given				
4. No, other interventions	3 4	3 4	3 4	3 4
	,			

FORM 4 Women: Age 15 to 49 years

District: Block: Cluster:	Segment:	Type of		
A CONTRACTOR OF THE PARTY OF TH	1	2	3	4
Woman Line Number (as in Form 1A)				
4.01 Name of the woman (as in Form 1A)				
Result code	1 2 3	1 2 3	1 2 3	1 2 3
(1. Completed / 2. Completed after revisit / 3. Partially completed / 4. Respondent absent / 5. Refused)	4 5	4 5	4 5	4 5
4.02 How old were you at the time of your last birthday? (Record in years)				
4.03 What is your current marital status?	1 2 3	1 2 3	1 2 3	1 2 3
(1. Currently married / 2. Widowed / 3. Divorced / 4. Separated / 5. Married but gauna not performed / 6. Never married)	4 5 6	4 5 6	4 5 6	4 5 6
	4	39	↓ 39	39
4.04 What was your age at the time of your (first) marriage? (Record in years)				
4.05 Did you ever become pregnant? (1. Yes / 2. No)	1 2	1 2	1 2	1 2
	↓ 36	36	36	36
4.06 What was your age at the time of your first pregnancy? (Record in years)				
4.07 What was your age at the time of your first delivery? (Record in years)				
4.08 How many pregnancies, in total, did you have?				
4.09 How many children, in total, did you give birth to?				
1. Male				
2. Female				
3. Total				
4.10 How many children, in total, are currently surviving?				
1. Male				
2. Female				
3. Total				
4.11 Did you deliver in the last one year? (1.Yes / 2. No)	1 2	1 2	1 2	1 2
4.12 In which day, month and year did you deliver	36	36	36	36
last? DAY/MONTH				
YEAR				
4 13 What was the outcome of your last delivery?		1 2	1 2	
(1. Live birth / 2. Still birth)	1 2	1 2 1 17	1 2 4 17	# 17

3.14 Does [name] regularly help with household	1	2	3	4
chores/house keeping at home, such as cooking, shopping, cleaning, washing clothes,	1 2 9	1 2 9	1 2 9	1 2 9
fetching water, or caring for children? (1. Yes / 2. No / 9. Don't know)	4 4 16 16	₩ ₩ 16 16	↓ ↓ 16 16	Ψ Ψ 16 16
3.15 Since last (day of the week), about how many HOURS did [name] spend doing these chores?				
3.16 Does [name] regularly do any other family work? (1. Yes / 2. No / 9. Don't know)	1 2 .9	1 2 9	1 2 9	1 2 9
3.17 Since last (day of the week), about how many	18 18	18 18	18 18	18 18
HOURS did [name] do this work?				
3.18 Has [name] ever attended school? (1. Yes / 2. No / 9. Don't know)	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9 • • • • • • • • • • • • • • • • • • •
3.19 Is [name] currently attending school? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
3.20 Which grade is [name] currently attending? (Record grade) If Preschool record '44'. If Vedic, Quranic or other				
traditional studies record '55' 3.21 What is the type of school that [name] is attending? 1. Local bodies – rural 2. Local bodies – urban 3. Other government school 4. Private school 5. Non formal education 6. Others	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 4 5 6
3.22 In the last 3 school working days, how many days did [name] attend the school? (1. 0 days / 2. 1 day / 3. 2 days / 4. 3 days)	3 4	3 4	3 4	3 4
3.23 Check Q.19 and mark (1. If Yes / 2. Other)	l 2	1 2	1 2 End	l 2
3.24 Which grade did [name] attend last? (Record grade) If Preschool record '44'. If Vedic, Quranic or other traditional studies record '55'				
3.25 What is the type of school that [name] attended last? (1. Local bodies – rural / 2. Local bodies – urban 3. Other government school / 4. Private school 5. Non formal education / 6. Others)	1 2 3	1 2 3	1 2 3	1 2 3 4 5 6
3.26 Why did [name] drop out or never attended school? (Multiple coding possible) (Record all reasons mentioned) a. School far away (inaccessible) b. Time of school inconvenient c. Child busy with household work d. Child busy with wage labour e. Child unwell/sick f. Child is disabled g. Did not consider schooling important h. School not necessary for girls i. Child not interested j. Birth certificate not available k. Child scared of corporal punishment l. Quality of schooling very poor m. Teacher comes rarely or does n't come at all n. Caste factor o. Teacher is male p. Lack of toilet facilities g. Others	a b d e f g h i j k l m n	a b c d e f g h i j k l m n	a b c d e f g h j k t m n	a b c d e f g h i j k l m n

FORM 3 Children: Age 5 to 14 years

Distri	ct: Block: Cluster:	Segment:	Type of	Survey: House	ehold:
		1	2	3	4
Child	Line Number (as in Form 1)				
3.01	Name of the child (as in Form 1)				
	Sex of the child (as in Form 1) 1. Male / 2. Female	1 2	1 2	1 2	1 2
Resp	ondent's Line Number (as in Form 1)				
1. Co	t code npleted / 2. Completed after revisit / tially completed / 4. Respondent absent / used	1 2 3	1 2 3	1 2 3	1 2 3
3.03	What is the date of birth of [name]? DAY/MONTH	00/00	00/00	00/00	00/00
	YEAR				
1000	How old is [name]? (Record in years)				
	Compared to other children, does [name] have difficulty in seeing, either in the daytime or at night? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say)	1 2 9	1 2 9	1 2 9	1 2 9
3.07	Does [name] have speech that is in any way different from normal? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
3.08	Does [name] have difficulty in hearing? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
	Does [name] have difficulty in walking or moving his/her arms or weakness and/or stiffness in the arms or legs? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
3.10	Does [name] sometimes have fits, become rigid, or lose consciousness? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
3.11	Did [name] do any kind of work for someone who is not a member of the household, during the past week? (1. Yes, for pay / 2. Yes, unpaid / 3. No / 9. Don't know)	1 2 9 4·14 14	1 2 3 9 4 14 14	1 2 3 9 4 4 14 14	1 2 3 9 4 4 14 14
3.12	Since last (day of the week), about how many HOURS did [name] do this work for someone outside this household?				
3.13	Sector of work in which [name] is involved for someone outside the household? 1. Agriculture & Livestock 2. Manufacturing 3. Cottage industry 4. Services 5. Domestic labour 6. Others 9. Don't know	1 2 3 4 5 6 9	1 2 3 4 5 6	1 2 3 4 5 6 9	1 2 4 5 6 9

		1	2	3	
2.56	Where did you seek advice or treatment			3	4
	from? Record all providers mentioned.	a b	a b	a b	a b
	a. Hospital	c d			
	b. Primary Health Center/MCH clinic	c a	c d	c d	c d
	c. Dispensary d. Mobile/outreach clinic	e f	e f	e f	e f
	e. Private physician				
	f. Sub-centre/ANM/Male Health Worker	g h	gh	g h	g h
	g. VHG/CHG/AWW h. Chemist/Drug seller				
	I. Fair Price Shop	i j	i j	ij	i j
	j. Traditional healer k. Relative or friend	k 1	k 1	k 1	k
	I. Others				
2.57	Were you advised to give a packet of ORS? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.58	Was [name] given ORS?				
	(1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.59	Sometimes children have severe illnesses and should be taken immediately to a health				
	facility. What types of symptoms would		- Contraction	de la companya della companya della companya de la companya della	
	cause you to take your child to a health care			and the second second	
	facility right away? Do not prompt - keep asking for more				
	signs/symptoms until the caretaker cannot	a b	a b	a b	a b
	recall any additional ones." a. Child not able to drink or breastfeed	c d	c d		
	b. Child becomes very ill	c a	c d	c d	c d
	c. Child develops a fever	e f	e f	e f	e f
	d. Child has fast breathing e. Child has difficult breathing				
	f. Child has blood in stool	g h	g h	g h	g h
	g. Child is drinking poorly h. Others				
2.60	Check Q.7 and mark:				
	Age less than 24 months Age 24 months and more.	1 2	1 2	1 2	1 2
		68	4 68	68	→ 68
2.61	Does [name] attend any organized learning	00	00	00	00
	by way of anganwadi centre, nursery, pre school, or any other early childhood	1 2 9	1 2 9	1 2 9	1 2 9
	education programme?				
	(1. Yes / 2. No / 9. Don't know)	63 63	₩ ₩ 63 63	↓ ↓ ↓ 63 63	↓ ↓ 63 63
2.62	Which kind of learning center does [name]				
	go to? 1. Anganwadi centre	1 2	1 2	1 2	1 2
	2. Balwadi/ECD centre	3 4	3 4	3 4	3 4
	Other government pre-school Private nursery pre-school				
2.63	Compared with other children, did [name]				
	have any serious delay in sitting, standing or walking?	1 2 9	1 2 9	1 2 9	1 2 9
	(1. Yes / 2. No / 9. Don't know)				
2.64	Does [name] have difficulty in walking or moving her/his arms or weakness and/or				
	stiffness in the arms or legs?	1 2 9	1 2 9	1 2 9	1 2 9
	(1. Yes / 2. No / 9. Don't know)				
					1 1 2 0
2.65	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say)	1 2 9	1 2 9	1 2 9	1 2 9
	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say)	1 2 9	1 2 9	1 2 9	
	Does [name] speak at all?	1 2 9	1 2 9	1 2 9	1 2 9
2.66	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say) Does [name] have difficulty in hearing? (1. Yes / 2. No / 9. Don't know)	1 2 9			
2.66	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say) Does [name] have difficulty in hearing?				
2.66 2.67	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say) Does [name] have difficulty in hearing? (1. Yes / 2. No / 9. Don't know) Does [name] sometimes have fits, become rigid, or lose consciousness? (1. Yes / 2. No / 9. Don't know) OBSERVATION:	1 2 9	1 2 9	1 2 9	1 2 9
2.66	Does [name] speak at all? (1. Yes / 2. No / 9. Can't say) Does [name] have difficulty in hearing? (1. Yes / 2. No / 9. Don't know) Does [name] sometimes have fits, become rigid, or lose consciousness? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9

		1	2	3	4
2.46 Check Q.37, Q 1. Yes in either 2. Other	.40 and Q.43 and mark: Q.37 or Q.40 or Q.43	1 2	1 2 \$\psi\$ 53	1 2 V 53	1 2 4 53
that (name) so weeks, did sh same or more	ess (<75%) / 3. About the same /	3 4 9	3 4	3 4	1 2 3 4
that [name] so weeks, did sh or more food less or some	fluch less (<75%) / 3. Somewhat) / 4. About the same / 5. More /	1 2 3 4 5 9	1 2 3 4 5 9	1 2 3 4 5 9	1 2 3 4 5 9
that [name] s weeks, did yo outside the h	ulsode of fever/cough/diarrhoea uffered during the last 2 ou seek advice or treatment ome? o/ 9. Don't know)	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9 • • • 53 53	1 2 9 • • • • 53 53
from? Record all pr a. Hospital b. Primary He c. Dispensary d. Mobile/outr e. Private phy	each clinic sician ANM/Male Health Worker AWW ug seller hop nealer	a b c d e f g h j k l	a b d e f p h j k l	a b d e f p j k l	a b c d e f g h j k l
2.51 Were you ad	vised to give a packet of ORS? o / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.52 Was [name] (1. Yes / 2. N	given ORS? o / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
	and Q.49 and mark: n Q.43 and Q.49	1 2	1 2	1 2	1 2 V 59
weeks, did [ast 1 year and before last two name] suffer from diarrhoea? o / 9. Don't know)	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9	1 2 9	1 2 9
you seek ad	nen (name) had diarrhoea, did vice or treatment from someone home? lo / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9

			1		2	3	
2.32	Does [name] have any problem in seeing during day time?	1	2	9	1 2 9		4
	(1. Yes / 2. No / 9. Don't know)				1 2 9	1 2 9	1 2 9
2.33	Does [name] have any problem in seeing during night time? (1. Yes / 2. No / 9. Don't know)	1	2	9	1 2 9	1 2 9	1 2 9
2.34	Check Q.32 and Q.33 and mark;		1	1			
	1. Yes in either Q.32 or Q.33 2. Other	1	2		1 2	1 2	1 2
2.35	Is this problem different from other children		37		37	37	37
	in your community? (1. Yes / 2. No / 9. Don't know)	1	2 9		1 2 9	1 2 9	1 2 9
	Does [name] suffer from night blindness? (Use local term) (1. Yes / 2. No / 9. Don't know)	1	2 9		1 2 9	1 2 9	1 2 9
2.37	In the last two weeks, that is, since(day) of the week before last, has [name]			7			
	been ill with fever? (1. Yes / 2. No / 9. Don't know)	1	¥ ,		1 2 9	1 2 9	1 2 9
2.38	Did [name] take any anti-malaria drugs for		40 4	0	40 40	40 40	40 40
	the fever? (1. Yes / 2. No / 9. Don't know)	1	2 9		1 2 9	1 2 9	1 2 9
2.39	Was blood smear recommended or taken?	1	2		1 2	1 2	1 2
	Recommended and taken Recommended but not taken	3	4		3 4		
	3. Taken, but was not recommended					3 4	3 4
	Neither recommended nor taken Don't know	L	9		9	9	9
	Has [name] had an illness with cough at any time in the last two weeks, that is,		2 9	7	1 2 9	1 2 9	1 2 9
	since(day) of the week before last? (1. Yes / 2. No / 9. Don't know)		¥ 4	_	+ +		
			43 4		43 43	43 43	43 43
	When [name] had an illness with cough, did she/he breathe faster than usual with short, quick breaths?	1	2 9		1 2 9	1 2 9	1 2 9
2 42	(1. Yes / 2. No / 9. Don't know) When [name] had illness with cough, did	2-1-1-1					
	you observe any chest indrawing? (Use local term) (1. Yes / 2. No / 9. Don't know)	1	2 9		1 2 9	1 2 9	1 2 9
2.43	Has [name] had diarrhoea in the last 2			_			
	weeks, that is, since (day) of the week before last?	1	2 9		1 2 9	1 2 9	1 2 9
	(1. Yes / 2. No / 9. Don't know)		4 4		+ +	+ +	+ +
	During this episode of diarrhoea,		46 46	1	46 46	46 46	46 46
	did [name] drink any of the following?	1 :	2 9		1 2 9	1 2 9	1 2 9
	Read out every item and record B (1. Yes / 2. No / 9. Don't know)	1 3	2 9		1 2 9	1 2 9	1 2 9
	A) Breastmilk C	1	2 9		1 2 9	1 2 9	1 2 9
	B) Other milk or infant formula C) Cereal-based gruel or gruel D						2 9
	made from roots or soup	1 2	2 9		1 2 9	1 2 9	1 2 9
	D) Other locally-defined E acceptable home fluids	1 2	9		1 2 9	1 2 9	1 2 9
	(e.g. SSS, yogurt drink) ORS packet solution	1 2	9		1 2 9	1 2 9	1 2 9
	Water with feeding during some part of the day G						
	G) Water alone	1 2	9		1 2 9	1 2 9	1 2 9
	H) Defined "unacceptable" fluids (e.g. cola etc.)	1 2	9		1 2 9	1 2 9	1 2 9
2.45	Ouring this episode of diarrhoea, was name] offered anything to drink everyday?						
1	F YES : Was she/he offered the same		2		1 2	1 2	1 2
1	mount of liquids to drink as usual before he diarrhoea, or more, or less than before?	3	4		3 4	3 4	3 4
(1. None / 2. Less (<75%) / 3. About the same /	9	7		9	9	9
-	. More / 9. Don't know)		_				

		1	2	3	4
188	5. DPT 1 (If not given, ask Q 2.26 DAY/MONTH & Q 2.27)	00/00	00/00	00/00	00/00
Q 2.29	YEAR				
ip to C	6. DPT 2 DAY/MONTH	00/00			00/00
ble sk	YEAR	0000			
availa	7. DPT 3 DAY/MONTH	00/00	00/00	00/00	00/00
es are	YEAR	0000		0000	
all dates are available skip to	8. MEASLES (If not given, ask Q 2.28)	00/00	00/00	00/00	00/00
If	YEAR			0000	
2.22	Has [name] ever received any vaccinations				
	to prevent him/her from getting diseases? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.23	Has [name] ever been given a BCG vaccination against tuberculosis – That is, an injection in the left shoulder that caused a scar? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
	Has [name] ever been given any "vaccination drops in the mouth" to protect him/her from getting diseases – That is, Polio? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9 + + 26 26	1 2 9 • • • • • • • • • • • • • • • • • • •	1 2 9
	How many times has she/he been given these drops? (Record number of times)				
2.26	Has [name] ever been given "vaccination injections" – That is, an injection in the thigh or buttocks to prevent him/her from getting tetanus, whopping cough, diphtheria? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9 • • • • 28 28	1 2 9 • • • • • • • • • • • • • • • • • • •
2.27	How many times has she/he been given these injections? (record number of times)				
	Has [name] ever been given "vaccination injections" – That is, an injection in the arm at the age of 9 months or older to prevent him/her from getting measles? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.29	Was [name] given Vitamin A supplement when she/he was between 9 and 12 months? 1. Child under 9 months 2. Yes, along with measles vaccination 3. Yes, but separately 4. No 9. Don't know	3 4	1 2 3 4	1 2 4 9 9	1 2 3 4
	In the last three days, did [name] consume any of the Vitamin A rich foods such as yellow fruits, green leafy vegetables etc.? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.31	Did the mother of [name] get any orientation from anyone other than family members on the following?	1 2 9	1 2 9	1 2 9	1 2 9
	Read out every item and record B (1.Yes / 2.No / 9.Don't know)	1 2 9	1 2 9	1 2 9	1, 2, 9
	A. Immunization B. Breastfeeding C. Feeding a child at 6 months D Caring for child during illness	1 2 9	1 2 9	1 2 9	1 2 9

2.4		1	2	3	4
2.1	2 Is [name] still given breast milk? (1. Yes / 2. No)	1 2	1 2	1 2	1 2
	Till what age was [name] breastfed? Record "00" if discontinued in the first month itself (Record in months.)	14	14	14	14
	Till what age did [name] receive only breastmilk and nothing else (not even water)? (Record in months)				
	Till what age did [name] receive only breastmilk and water, and nothing else? (Record in months)				
2.16	When was breastfeeding initiated after birth for [name]? Record "00" if immediately after birth. (Record in hours)				
2.17	Was colostrum given to [name] soon after birth? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.18	At what age did [name] start receiving solid, semi-solid or mushy foods on a regular basis, i.e., given daily? (Record in months. If not yet started record "98")				
2.19	Since this time yesterday, did [name] receive any of the following?	1 2 9	1 2 9	1 2 9	1 2 9
	Read out every item and record. B (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
	A) Vitamin or mineral supplement or medicine B) Plain water	1 2 9	1 2 9	1 2 9	1 2 9
	C) Sweetened, flavoured water or fruit juice or tea or infusion D) Oral rehydration solution (ORS)	1 2 9	1 2 9	1 2 9	1 2 9
	E) Tinned, powdered or fresh milk or Infant formula	1 2 9	1 2 9	1 2 9	1 2 9
	F) Gripe water or janam gutti etc. G) Any other liquids G H) Solid or semi-solid (mushy) food	1 2 9	1 2 9	1 2 9	1 2 9
2.20	Is there an immunization card for [name]? IF YES: May I see it, please? (1. Yes, card seen / 2. Yes, card not seen 3. No / 9. Don't know)	1 2 →22 3 →22 9 →22			
2.21	Copy Dates of all vaccines from the card. If Card s				
g	1. BCG (If not given, ask Q 2.23) DAY/MONTH				
Q 2.29	YEAR				
all dates are available skip to Q	(If not given, ask Q 2.24 DAY/MONTH & 2.25)		00/00		
ailable	YEAR				
are av	3. OPV 2 DAY/MONTH				
dates	YEAR				
If all	4. OPV 3 DAY/MONTH				
	YEAR				

FORM 2 Children: Under age 5 years

District: Block: Cluster:	Segment:	Type o		sehold:
Child Line Number (as in Form 1)			3	4
2.01 Name of the child (as in Form 1)				
2.02 Sex of the child (as in Form 1)				
(1. Male / 2 Female)	1 2	1 2	1 2	1 2
Respondent's Line Number (as in Form 1)				
Result code 1. Completed / 2. Completed after revisit / 3. Partially completed / 4. Respondent absent / 5. Refused	1 2 3	1 2 3	1 2 3	1 2 3
2.03 Has [name]'s birth been registered? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9 • • •	1 2 9	1 2 9
2.04 Does [name] have a birth certificate? IF YES: May I see it, please? 1. Yes, certificate seen (Record date of birth in Q.6) 2. Yes, certificate not seen 3. No 9. Don't know	1 →6 2 →6 3 →6 9 →6	5 6 1 →6 2 →6 3 →6 9 →6	5 6 1 →6 2 →6 3 →6 9 →6	5 6 1 →6 2 →6 3 →6 9 →6
2.05 What is the main reason for not registering the birth of [name]? 1. Did not know it should be registered 2. Did not know where to register 3. Place of registration too far 4. Did not have time 5. Not felt important 6. Others 9. Don't know	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6
2.06 What is the date of birth of [name]?				April 100 miles
DAY/MONTH				
YEAR				
2.07 How old is [name]? (Record in months)				
2.08 Was [name] weighed at birth? (1. Yes / 2. No / 9. Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
2.09 How much did [name] weigh at birth? (1.From card / 2.From recall / 9.Don't know)	1 2 9	1 2 9	1 2 9	1 2 9
(Record weight in grams)				
2.10 Check Q.7 and mark: 1. Age less than 24 months 2. Age 24 months and more	1 2 4 32	1 2 4	1 2	1 2
2.11 Has [name] ever been breastfed? (1. Yes / 2. No / 9. Don't know)	1 2 9 • • • 18	1 2 9 • • • • 18 18	1 2 9	1 2 9 + + 18 18

FORM 1B Household Information

13	What is the religion of the head of the HH? 1. Hinduism	1	2	1.19	How far is the water source from your HH? Record in meters
	2. Islam 3. Christianity 4. Sikhism 5. Buddhism 6. Jainism 7. Others	5 7	6	1.20	How much time does it take to go to the water source, get water and come back home in one trip? Record in minutes
14	Does the head of HH belong to scheduled caste or scheduled tribe? 1. Scheduled caste 2. Scheduled tribe 3. None of the above	1 2	3	1.21	Does any member of your HH use a toilet? 1. Yes 2. No
15	1. Pucca 2. Semi Pucca 3. Kachha	1 2	2 3	1.22	Is this toilet within your HH, yard or compound? 1. Yes 2. No
16	Material of the roof of the house 1. Grass, leaves, reeds, thatch, wood, mud/unburned bricks or bamboo	1	2	1.23	Is this toilet used exclusively by the HH? 1. Yes 2. No
	 Tiles, slate or shingle Corrugated iron, zinc or other metal sheets Asbestos cements sheets Bricks, stone and lime Stone Concrete (R.B.C/R.C.C). Others 	5 7	6 8	1.24	Who paid for the construction of the toilet? 1. Entirely by the HH 2. Partly by HH and partly by government or an agency 3. Material supplied by government or an agency and labour by the HH
.17	What is the main source of drinking water for members of your HH?	01	02		Entirely by government or an agency Don't know
	01. Tap exclusively to HH 02. Public tap 03. Sanitary well 04. Tubewell with motor	03	04	1.25	In your HH, how does one dispose the stools of young children under 3 years?
	05. Handpump 06. Unprotected dug well 07. River/canal/stream 08. Rainwater collection	07	08 ·		Children always use toilet/latrine Thrown in the toilet/latrine Thrown outside the
	09. Spring 10. Tanker/truck 11. Others 99. Don't know	11	99		compound 4. Thrown in the yard 5. Children defecate in the drain
1.18	Is the source of drinking water Within or outside the premises of the HH? 1. Within the premises of the HH 2. Outside the premises of the HH	· 1 • 21	2		Others No young children under 3 years in the HH

1.26 We would like to check whether the salt used in your HH is iodized.

May I see a sample of the salt used to cook the main meal eaten by members of your HH last night?

Record test outcome as per code
(1. lodized / 2. Not iodized / 3. No salt at home / 4. Salt not tested / 5. Refused)

1.27 IF Q 1.21 is coded 1,
Type of toilet facility used by the HH (Investigator to observe and fill)

1. Flush to sewage system on septic tank
2. Pour flush (water seal) type
3. Improved pit (e.g. VIP)
4. Simple pit
5. Service/bucket type
6. No toilet

Please tell me the name of each person who usually lives here and any guest of the household who stayed or mail	or female? male) (name] on rthday? pleted years	or female? male) (name] on rthday? pleted years	or female? male) status of [name]? status of [name]? 1. Currently married 2. Widowed 3. Divorced	what is the current marital can planned? status of [name]? write with or female or f	what is the current marital Can [name] highest grade both read and finame] highest grade write with completed? I Currently married understanding, completed? 2.Widowed a short simple sentence?
	How old was [name] on her/his last birthday? Record in completed years 5. 4. 3. Div.	her/his last birthday? Record in completed years	write with 1.Currently married 2.Widowed 3.Divorced 4.Separated 5.Never married 2.No 4 5 1.	what is the current marital what is the current marital status of [name]? write with 1. Currently married 2. Widowed 3. Divorced 4. Separated 5. Never married 5. Never married 1. Yes 9. Don't know	What is the current marital both read and status of [name]? Status of [name]? Status of [name]? 1. Currently married 2. Widowed 3. Divorced 4. Separated 4. Separated 5. Never married 5. Never married 1. Tes. 9. Don't know (if NoDK→column 8) 1. The second of the
both read and write with understanding, a short simple sentence? 1.Yes. 2.No 9.Don't know (If No/DK → column 8) 1.1 2 9 7 8	write with understanding, a short simple sentence? 1.Yes 2.No 9.Don't know (If No/DK → column 8) 5	iname] has mother? completed? (Record mother's Line Number's Skip to Column 10. Column 10. Column 10. Column 10. Column 10. Skip to Column 10. Column 10. Skip to Col	mother alive and living elsewhere? 1. Alive and living elsewhere 2. Not alive 9. Don't know 9. 1 2		
both read and write with understanding, a short simple sentence? 1.Yes. 2.No 9.Don't know (If NoDK+column 8) 1 2 9	both read and write with [name] has understanding, a short simple sentence? 1.Yes. 2.No 9.Don't know (if No/DK+column 8) 1.1. 2. 9	highest grade [name] s industry and grade [name] has mother? and living eisewhere? Completed? (Record mother's Line to Column 10. Otherwise record '00' and ask column 9) (Alive and living eisewhere 9.Don't know 9.Don'	mother alive and living elsewhere? 1. Alive and living elsewhere 2. Not alive 9. Don't know	\(\sigma\)	[name]'s father? [Record tather's Line Number & Skip to Column 12. Otherwise record '00' and ask column 11)

Box 1: Probability Proportional to Estimated Size (PPES) Method

Step 1: List the villages along with number of households (HHs) as per 1991 census. Estimate the number of HHs in each village to 1st March 2000 using state/UT wise multiplying factors (Obtain from Population Projections by Registrar General of India).

Step 2: Take the cumulative of the estimated HHs i.e., sum of the HHs of any village plus the HHs of all the villages above it.

Step 3: Obtain sampling interval 'I' by dividing the cumulated total estimated HHs by the number of PSUs desired.

Step 4: Select any random number 'R' between 1 and the sampling interval 'I'. The village whose cumulative population exceeds this random number R will be our first PSU. Add the sampling interval to the random number R+I and find the next village whose cumulative population exceeds this sum and select that village as second PSU. Compute the sequence of sampling number R+2I, R+3I so on and select the villages. Continue this procedure till you get the number of PSUs required.

Example:

Suppose there are S_i units in an area. You are asked to select 4 units out of S_i using PPS method. The procedure is as follows.

If S₁ is whole number:

For example S_i is divisible by 4, say $S_i = 20$. Calculate the sampling interval $I = S_i / 4 = 20/4 = 5$.

Take any random number R between 1 and the sampling interval I ie.,5. Suppose R = 3 and this is our first unit for selection. Add to this random number the sampling interval I which gives R + I = 3 + 5 = 8. Therefore the unit number 8 will be our second unit (S_2) . Adding I to 8 gives us the third unit (S_3) which is 13^{th} unit in the listing. The fourth unit (S_4) would be $13 + 5 = 18^{th}$ unit.

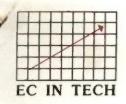
Therefore in this situation, the selected units are: $S_1 = 3$, $S_2 = 8$, $S_3 = 13$, $S_4 = 18$

If Si is non-whole number:

For example S_i is not divisible by 4 say 22. Calculate the sampling interval $I = S_i / 4 = 22/4 = 5.5$.

Draw any random number between 1 and 55 (ie., 10×1). Suppose it is 14. Place a decimal point before the last digit of 14 which gives us the random number as 1.4. The whole number of 1.4 ie., 1 will be the first unit. The second unit would be the whole number of (1.4 + 5.5) = 6.9 ie., 6. Similarly, (6.9 + 5.5) = 12.4 gives us 12 as the third unit and the fourth unit would be 17 from 12.4 + 5.5 = 17.9.

Therefore in this situation, the selected units are: $S_1 = 1$, $S_2 = 6$, $S_3 = 12$, $S_4 = 17$



ECONOMIC INFORMATION TECHNOLOGY

CALCUTTA OFFICE: \$ - 4, METROPOLITAN CO - OPERATIVE HOUSING SOCIETY LTD.

SECTOR - A, LANE NO. 8, CALCUTTA - 700 039

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EIT/Prop./01-02/117

07.09.2001

To
The Advisor (Health)
State Urban Development Agency (SUDA)
ILGUS Bhawan
HC Block
Salt Lake
Sector-III
Kolkata-700 091.



Dear Sir,

Sub.: Coverage Evaluation Survey on Immunisation under IPP VIII Extn.

This has reference to the meeting the under signed had with your Dr. R.N.Kar and Dr. Shibani Goswami on Thursday the 6th September 2001. We are grateful to them for the courtsey shown to the undersigned.

As desired, I am enclosing herewith a Project proposal for conducting the Coverage Evaluation Survey on Immunization in towns of West Bengal under IPP-VIII Extn.

We shall be happy to clarify further points if necessary.

Thanking you,

Yours sincerely,

DR. A. K. ROY Chief Executive. COVER EVALUATION SURVEY
ON

IMMUNIXATION

UNDER

IPP-VIII EXTN.

- A PROJECT PROPOSAL.

OBJECTIVE: The primary objective of the study is to have a Coverage Evaluation Survey (CES) on Immunization of under - 1 year children and pregnant mothers under IPP- VIII Extn.

The study results will address the question of Impact Assessment of the Programme in terms of coverage of the target groups and its efficacy.

In addition, the study will also look into the following objectives :-

- a) for mothers having the last child under 1 year.

 AnteNatal Care (i.e. pregnancy check-ups for 3 or more)
 received.
- and b) Places of delivery (whether home or institutions) for mothers having the last child under 1 year.

CLIENTELE :

The study will address itself to the following clienteles:-

- a) Children aged 12 to 23 months.
- and b) mothers having last child under 1 year.

..P/2



COVERAGE: It is proposed to cover all the 10 cities / towns where the Project is operating:

- i) Alipurduar
- ii) Balurghat
- iii) Bardhaman
 - iv) Darjeeling
 - v) Durgapur
 - vi) English Bazar
- vii) Jalpaiguri
- viii) Kharagpur
 - ix) Raiganj
- anddx) Siliguri

done.

Population for the purposes of this survey will mean BPL (below poverty line) population under IPP-VIII Extn.

METHODOLOGY: WHO/UNICEF Protocol will be followed.

SURVEY INSTRUMENT: FORMAT (s) developed under WHO

Protocol will be used. However, some additional
relevant questions from UNICEF/NFHS-II Formats
will be added in consultation with SUDA.

Pre-testing of the questionmare will be

...P/3

For effective convassing in the field, a Bengali translation of the Format(s) will be done. The Bengali version of the Format(s) will be discussed and finalised with SUDA.

SAMPLING DESIGN :

The sampling design proposed is a two stage sampling. In the first stages, PRIMARY SAMPLING UNITS (PSUs) i.e. project blocks will be selected with probability proportional to estimated size (PPES). The second stage involves selection of SECONDARY SAMPLING UNITS (SSUs) i.e. BPL households under IPP-VIII Extn.

UNICEF methodology for selection of PSUs and SSUs will be followed.

UNICEF recommends for surveys carried out at sub-state level (e.g. Urban poor population etc.),

1200 households be surveyed to get estimates on various indicators in the survey. Such, a sample provides estimates with ± 10% margin of error.

The number of clusters/blocks would, therefore be 30 in each city/town and in each cluster/ block 40 households will be surveyed.

A total of 12000 households (10 towns x 30 clusters in each town x 40 households in each cluster) will be covered in this study.

MANPOWER: It is proposed to deploy ONE TEAM in each district.

A TEAM will consist of the followings :-

- i) Supervisor 1
- ii) Editor 1
- iii) Field Interviewers- 5

In addition, there will be a Team of House listing staff who will visit the selected sites prior to the visit of the survey team.

TRAINING: It is proposed to conduct a 4-days training programme for the entire survey team on methodology, formats etc.

The training will consist of both class-room lecturers and field training.

DATA ANALYSIS: Data will be entered, tabulated and analysed in the Computer.

TIME FRAME: A total of 3(three) months will be necessary to submit the Draft Report.

The Draft Report will be finalised in



light of discussions with SUDA. The Final Report (10 copies) will be given.

COST: The total cost of the study will be Rs. 8,06,150/(Rupees eight lacs six thousand one hundred fifty
only).

The break-up is given below :-

A. Training - Rs. 20,000/-

B. Printing of Formats - R. 36,000/- etc.

C. Field Work including - R.5,75,000/- listing.

D. Computer - Rs. 50,000/-

E. Reports - Rs. 20,000/-

Rs.7,01,000/-

15% Service charges 8.1,05,000/-150

Total: Rs.8,06,150/-

(Rupees Eight lakhs six thousand one hundred & fifty only)

This works out to &. 67/- per household.



TERMS OF PAYMENT :

The following terms of payment is suggested.

- i) First Advance of 30% alongwith the Appointment Letter or MOU.
- ii) Second Advance of 40% on completion of 50% of the field work.
- iii) Third Advance of 20% on submission of Draft Report.
 - iv) Final Payment of 10% on submission of Final Report.

PPI, Routine Immunization and Maternal Care – Coverage Evaluation Survey

Draft Report for West Bengal

For UNICEF

Ву

Social and Rural Research Institute

A Specialist unit of IMRB June 2001/JNo. 90219

Executive Summary

BACKGROUND

The Government of India launched the Pulse Polin Installiant Program, in an effort to eradicate Polio from the country and to free children from the danger of this dreaded disease. To achieve this objective, children below the ages of 5 years are administered the Polio drops during camps organized on National Immunization Days (NIDs). Besides these, some High-risk states have been identified, depending on the epidemiological situation, where additional doses are administered under SNIDs. The program is now in its sixth year of implementation. The Government of India has entrusted UNICEF to assess the reach, coverage and peoples response to this program each year.

For the second consecutive year, Social and Rural Research Institute (SRI), the specialist wing of IMRB has been entrusted by UNICEF on behalf of Government of India to conduct the Coverage Evaluation Survey in India.

Approach

The CES was conducted in all the States and Union territories. A two pronged research approach of a quantitative and qualitative phase was adopted. The two phases of research were conducted simultaneously. The evaluation covers three broad areas of IPPI, Routine Immunization and Maternal Care. This is the document of the findings in the state of **West Bengal**.

Sample Size

For the **quantitative phase** a total of **37** clusters were covered in West Bengal. Of these, 22 were rural clusters and 8 were urban clusters. The remaining 7 (in 3 urban & 4 rural) were High Risk Clusters. In these clusters a total of

- 1480 mothers/ primary care takers of children up to the age of 5 years, and
- □ 296 women who had had a pregnancy of at least 28 weeks that was completed/terminated between 27/1/2000 and 26/1/2001were interviewed.

Since the number of clusters for Urban and HighRisk areas is not sufficient for state level analysis the same has not been reported.

A total of 8 clusters were covered in the state for conducting Focus Group Discussions and Depth Interviews for the qualitative phase of this study. The respondents for this phase were

- Beneficiaries (Fathers and Mothers of 0-5 year old children),
- Mothers (women who have had a pregnancy of at least 28 weeks in the last 1 year).
- Grand Parents (who have had a grand child in the last 2 years),
- Service Providers and Influencers (influential members within the community).

Additionally, 3 Polio Afflicted families were covered, where recent cases of Polio had been traced.

THE FINDINGS

IPPI

An Overview

In 2000-01, 97% of the children under 5 were reached in West Bengal leaving 3% (approx. 2 lakh children) out of net despite four rounds. Only 82% of the eligible children received all four doses. Across rounds however there are differences in the coverage levels. In the initial round of September the coverage was quite low at 88.5% which improved to peak at 93.4% in December. While, the coverage on NIDs of December and January was high, it was quite low (92.5% in Nov and 88.5% in Sept) in other SNID rounds. A point to note is that coverage amongst the younger age group of 0-11 months was low, particularly for age group of 0-3 months (73.4% in Nov and 71.8%in Sept).

The quantitative coverage for IPPI does not show much difference across gender, religions or caste. The qualitative exercise showed there was a clear differentiation across religious lines in reasons proffered for non-compliance. One of the major reasons for some Muslims not getting covered was related to myths of **infertility** and 'grand design to wipe out Muslims'. These political overtones being associated with IPPI campaign need to be stemmed consciously and urgently.

Further identifying target groups/issues/areas that are less likely to be covered during IPPI campaigns, the study has indicated some specific areas:

- 1) Coverage amongst the new born: The coverage amongst the new born was significantly lower in the initial rounds and was comparatively quite low when compared to middle age cohorts of 12-23 months. The remarkable increase in coverage in later rounds was because of covering the new born babies.
- 2) Communication agencies/personnel need to step up their effort to communicate as 'No child is too young' 'younger needs greater protection' and the like. Alongside, communication need to dispel myths about not giving doses when the 'child is sick'. It is noteworthy that, these confusions are there not only in minds of beneficiaries but, as qualitative research indicates, even the service providers are not very clear on these issues. Their confusion gets communicated to beneficiaries as well, who in turn decides to play safe. There is a need to focus on this aspect of 'playing safe' as well. A more effective approach would be to equip influencer/ the Service providers through proper training so that they can answer FAQ (Frequently Asked Questions).

- 3) The High Risk Clusters seem¹ to be characterised by poorer Health Infrastructural facilities especially in rural areas. It was found that in these clusters the routine immunisation sessions were held less frequently and so were the visits of ANMs. An indicator of this was the lower presence of immunisation card and lower coverage under routine immunisation.
- 4) Booth to Booth or home strategy: it is clear that house to house approach can have increased focus on area/people that are more likely to be left out. These could be areas far away/ needs travel long distances to booth/ houses with very young children/ Muslim locality/ working parents.
- 5) Preferred Service providers: In the qualitative exercise, it was also observed that there were certain reservations related to the credibility of the service providers. Both beneficiaries as well as service providers felt that the presence of a Doctor during NID would increase both credibility and coverage.

Specific Areas

REACH OF IPPI:

Reach is defined as the proportion of the eligible children who had received at least one dose of OPV through the IPPI campaign. In West Bengal a maximum of four rounds was conducted and 97% of the children were reached. Across the rounds the reach was maximum in December 2000, (93%). The maximum reach (93%) was observed during the December 2000 round. Across the various background characteristics (gender/religion/caste) there was no significant difference. At a cluster level, 62% clusters failed the lot quality assurance at 95% coverage level (i.e. had atleast 1 child out of the 40 covered who had not received a single dose of OPV during the campaign).

Qualitative study revealed that the levels of awareness about the IPPI campaign and its relevance were found to be quite high among the beneficiaries and majority of the people claimed to have complied with the program. Even amongst people, who were not aware of the necessity or benefits of administering repeat dosages, their trust in the motives of the government made them comply with these.

COVERAGE OF IPPI:

The coverage figures show that while in round 1 (September) the proportion covered was 88.5% it increased to 93.4% in round 3 (December) and then dropped to 92% in round 4 (January).

In the initial rounds there seems to be lesser emphasis on covering the 0-3 months old (72% in September round, 73% in November round, 79% in December round and 87% in January round). This is indicative of the barriers amongst the primary caretakers regarding immunizing the newborn baby. Qualitative study too revealed that taking small children to the booths emerged as a major barrier among the Beneficiaries. The commonly prevalent reservation that too young (0-3 months) children be not given

¹ The sample size in High Risk areas was sufficient only for early trends. A more in-depth study with higher sample size may be required to conclusively \establish these indications.

anything, discourages people from getting them.vaccinated even when team reached home.

A little more than four fifths (83%, n=1349) of eligible children had received all four doses. 3% of children had not received any dose during the four rounds of campaign. About 1.6% of the children were found to be zero dose for lifetime i.e. had not received even a single OPV dose during this campaign or before.

PLACE WHERE DOSAGE WERE ADMINISTERED:

In the state of West Bengal, both home and booth strategy were followed in the 2000-2001 IPPI campaign. Majority of the children (83%) received the Polio drops at the booth only. In rural areas 7% received at home. Long distance of booth may be a probable reason for this. Over the four rounds, home coverage had increased significantly from 8.6% in Sept to 11% in Jan indicating towards certain barriers that emerged against booths:

> Visiting the booths was not a felt need for the poorer segments and the Muslim community as knowledge and awareness about the need and urgency was inadequate among them.

The Home to home strategy was associated with:

- Lack of trust on the credibility of the Service Providers
- > Fear of vaccine losing potency when carried in the sun

Across the groups it was suggested to have doctors present during NID. This would aid in making the campaign more successful as doctors are respected and they are credible communicators who can dispel the doubts surrounding the campaign.

REASONS FOR NOT RECEIVING ONE OR MORE IPPI DOSES:

The reasons mentioned by the respondents for not receiving one or more doses of IPPI are "not aware of the time/place (this also includes teams visiting home without prior intimation) (39%)", "child was sick (21%)", "child was young (14%)", "were out of station (13%).

The qualitative study also showed that there were certain myths and misconceptions prevalent in society (like Polio drops cause infertility in child, drops in turn lead to the child getting Polio) that acted as barriers against compliance with the program. Ignorance and lack of knowledge regarding the relevance of the campaign, as well as certain social restrictions among some communities (Women not allowed to go outside or take decisions to get the child vaccinated, if the team visited in the absence of man, which normally happened) proved to be hindrances for the successful and complete coverage in the campaign. The health functionaries also identified some problems in the program such as lack of timely arrival of vaccine.

Among the **Polio Afflicted** families in the state, two out of the three children were not immunized under the IPPI program. The reasons cited for non-compliance included:

- > Lack of awareness about the necessity of the dosage
- > Rumors that polio vaccine creates infertility in children
- > Fear that polio drops would hamper the health (due to side effects) of the child who was already weak from birth
- > Advise by local doctors not to give the drops to prevent side effects

Qualitative findings point that the family members in these Polio Afflicted homes were largely illiterate and had very low health consciousness. Even after the diagnosis the parents displayed vague knowledge about polio drops.

SOURCE OF INFORMATION:

When asked about the sources of information about IPPI, information given by Government functionaries (49% Health worker and 31% AWW) and relatives and friends (16%) received high mentions. Religious/ community leaders were mentioned by only 3% of the rural respondents.

According to the qualitative findings, there were no issues regarding the awareness of the program, as it had received high publicity both by the mass media as well as through locally developed programs. A number of sources of information, such as TV advertisements, publicity by prominent citizens / police department, mikes, posters, etc. were mentioned. Moreover, the program enjoyed high levels of participation across all segments.

Across the groups it was suggested that doctors should be present during NIDs. This would aid in making the campaign more successful as doctors are respected and they are credible communicators who can dispel the doubts surrounding the campaign.

ROUTINE IMMUNIZATION

Overview

83% of the respondents reported that RI session were held in their cluster. The maximum reach was for BCG, (87.8%) and least being for measles (60.8%). While 56.4% of children were fully vaccinated around 19% of them were covered in the second year of their life.

Contrary to IPPI coverage, the Routine Immunisation Coverage showed significant differences across the background characteristics of gender and religion.

For Routine Immunisation, there were some reasons for non-compliance that were common for IPPI campaign as well. These included reasons such as 'child was sick' 'not aware of place/time', 'were out of station'. Reasons such as 'not aware of the need of *all* vaccines/doses' and 'have no faith in the vaccine' were mentioned more in context with Routine Immunisation. As qualitative research brings out, this could be related to the missing link between vaccine and the specific diseases. There seemed to be a sense of complacency especially for diseases that are not commonly seen today. This was prevalent among beneficiaries as well as the service providers. It seems that *fear of the*

disease does have an important communication cue that would increase Routine Immunisation coverage.

The Qualitative study also reveals that fears (child getting fever, local pain etc.) abound for RI and some of these rumours become a baggage for IPPI campaign. So for increased coverage of both IPPI as well as RI, it is important that myths be tackled on a continuous basis not only as a part of IPPI but also as a part of the Routine Immunisation sessions.

Specific Areas

AVAILABILITY OF IMMUNIZATION SERVICES:

Overall 83% of respondents reported that RI sessions were held in their clusters/area. In More than three fourths claimed that RI sessions were held atleast once a month in their areas.

AVAILABILITY OF IMMUNIZATION CARDS:

More than four fifth of the children had an immunisation card.

BCG VACCINATION:

BCG, the vaccine against childhood TB had reportedly been received by a majority of the children (88%). Of the total children, only about 59% had received BCG in the first month.

DPT VACCINATION:

The coverage of DPT in the normal clusters showed that majority of the children received DPT1 (86%). But there was a steep decline in the proportion that received DPT2 (78%) and DPT 3 (70%).

OPV VACCINATION:

Even in OPV coverage there were significant dropouts from OPV1 (85%) to OPV3 (69%). OPV coverage was higher among educated households (where both parents were educated) and amongst the Hindus.

MEASLES VACCINATION:

Compared with BCG, DPT and OPV the coverage of Measles is much lower (61%). A significantly higher proportion of respondents belonging to the Muslim community (57%) and uneducated households (48%) had not received Measles Vaccination.

These findings are reiterated in the Qualitative phase which also point out that there was greater compliance among people who were more educated and possessed greater knowledge about Routine Immunisation. Also, it was found that there were certain misconceptions (vaccines causing infertility, etc.) among the Muslims in the state, which in turn led to lower compliance among them.

The qualitative study also indicates that the link between specific vaccines and specific diseases was missing and the knowledge about the specific vaccines and the purpose for which they were to be given was also not clear.

SOURCE OF IMMUNISATION:

Overall majority of the respondents (63%) received immunization services at the PHC/ Subcentre, followed by Govt hospitals / Municipality hospitals (29%).

The qualitative study confirmed that most of the immunization services were availed at the local health centres or government hospitals across both urban and rural centres.

SOURCES OF INFORMATION

According to the qualitative research, Interpersonal Communication, especially by health workers were the primary sources of information in rural areas while cards issued at the time of birth were the main sources of information about Routine Immunization in urban areas. Despite the **gaps in knowledge**, the beneficiaries did immunize their children. Advice by doctors and the belief that the child would remain healthy were the primary **motivatiors** that prompted the beneficiaries to avail the Routine Immunization services.

REASONS FOR NON COMPLIANCE:

The major reasons mentioned by the respondents were "child was sick (38%)", "not aware of the time/place/venue (this includes also teams visiting homes without prior information) (23%)", "were out of station (12%)", "not aware of the need of all vaccines (12%)".

The findings of the qualitative study further strengthens the above facts as it reveals that the main factors that acted as barriers against the Routine Immunization campaign were:

- > Lack of realization of the need of immunization
- > Lack of availability of the vaccines in the local areas (especially in the rural areas, where the vaccines are sometimes not available on the due date)
- > Non-awareness of immunization dates and other details like the health functionaries involved in it and the dates on which they visited
- Fear of side effects, as well as certain myths and misconceptions prevalent regarding Routine Immunization, like vaccines causing infertility etc.
- > Lack of facilities for vaccination, like adequate transportation facilities to carry vaccines and hold sessions.

Some other problems that dogged the program included lack of timely arrival of vaccines and lack of sufficient materials (like syringes, needles, etc.). The service providers lacked confidence (as they felt that they had not received sufficient training and did not have knowledge) to deal with the issues related to vaccination e.g. whether or not to give the vaccine during fever etc.

MATERNAL CARE

Overview

Maternal Care, contact with medical personnel during antenatal period was universal, the extent of Antenatal services availed, varied. Almost half of the women had become pregnant at a young age of 19 years. Amongst Muslims close to one third of the respondents were pregnant before 17 years of age.

Overall the proportion of women receiving three ANC Check-ups, a physical examination of abdomen and a blood pressure check averaged around two thirds. TT injections were received by 95% of the pregnant women, while more than three fourths had IFA.

However there were significant variations in the care depending on where they were stationed during their last four months of pregnancy. A larger proportion of women (75%) who stayed at their mother's place received three or more Antenatal contact. However the qualitative study points out that not all the women preferred to be at their mother's place during their pregnancy. While the motivating reason to be at mother's place was better ANC care, for many women it was equally important to be with their husbands during this period for overall support.

The overall role of husbands' in the antenatal care does come out as a very significant one. They are the first ones who are told about the pregnancy and the woman turns to him for support all through the ANC period; be it in terms of money, time, effort or motivation regarding the availing of various ANC services.

Specific Areas

ANTENATAL CARE:

The quantitative findings showed that all the respondents (100%) had met medical personnel during their last pregnancy (63% met government health functionaries and 37% private practitioners). More than three fifths had met a medical person at least thrice. 75% of the respondents staying with their parents had met the medical personnel thrice as compared to only 58%, staying with there in laws or themselves during their last pregnancy. However among the respondents staying on their own, 64% of them had visited a medical person at least thrice.

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Govt health system (including ANM/AHV) catered to 63% of the ANC service for the respondents.

According to qualitative data, the urban mothers receive greater physiological and psychological support during pregnancy and after delivery. Also, the care extended to them was much higher. The rural mothers were unable to receive similar care due to inadequate resources and lack of services. There was also the feeling that there was inadequate appreciation/taking for granted of the delicate situation that the women face during pregnancy. Women preferred to stay with their husbands during the tenure of their pregnancy as they felt that husbands would take care of them, and it was a great psychological support. Nevertheless, they accepted that much better ante-natal care would be taken at their maternal place. Certain myths and misconceptions, especially in the rural areas influenced these practices like, it was believed that if women rest more during pregnancy, they might not have a normal delivery, etc.

ANC SERVICES:

During antenatal care, physical examination of abdomen was done for more than two thirds of the respondents. This was higher amongst Hindus (75%) than Muslims (53%). Blood pressure was checked atleast once for 67% of the respondents. About 40% (n=197) of the respondents got their blood pressure checked atleast twice during their pregnancy. Weight was taken for 55% of the respondents and there was no significance difference across different background characteristics. The women in the urban areas received greater care and more check ups during the ante natal period.

Qualitative research indicated that the service providers, especially the ANMs and the Local Dais, themselves felt ill equipped to deal with maternal care issues as they felt that they did not have adequate training and facilities for Maternal Care. The health functionaries like LHVs, ANMs desired more training on basic maternal care issues like checking Blood pressure, etc. They felt that beneficiaries would really benefit if they could provide basic Maternal Care facilities as it was sometimes difficult for the villagers to access medical help.

TT IMMUNISATION:

Most of the respondents were aware that TT vaccinations were to be taken during pregnancies and mentioned to have received these. Almost 95% of the respondents had received TT immunisation during their last pregnancy. Amongst them 91% received at least two tetanus injections during the last pregnancy itself. There was no significant difference observed across the different background characteristics. The Govt health system caters 64% of the TT immunisation services.

IFA TABLETS:

Awareness regarding IFA tablets was also high among women. Almost four fifth of women received IFA tablets which is the most effective measure against Anaemia. The most common source for receiving IFA tablets were Govt sources (69%) and Chemists (21%). While about one fourth (26%) received more than 90 tablets, only 19% of respondents consumed more than 90 tablets.

PLACE OF DELIVERY AND ASSISTANCE AT DELIVERY:

Close to half of the deliveries are institutional deliveries. More than three fourths of the Muslim respondents have had home deliveries.

The local dais conducted about 44% of the deliveries (mostly in rural areas). Govt doctors (33%) and Pvt.physicians (19%) that were mentioned more commonly.

DETAILS OF THE DELIVERY:

Among all women who delivered at home, half of the respondents have delivered on a clean surface. A new blade was used in 72% of the deliveries and boiled blade was used in case of 18%. For tying the cord, boiled thread was used in almost the same proportion as the non boiled thread (46% each). Close to three fifth (56%) did not apply anything on the cord. In home delivery, only 9.4% satisfied four key cleans for which data was collected. The qualitative research revealed that the awareness of Cleans was low among women who delivered at home, both in urban and rural areas.

POST NATAL CHECKUPS AND COMPLICATIONS:

Majority of the respondents (69%) didn't receive any postnatal check up. This was higher among the Muslim women amongst who nearly three fourths did not receive any post natal check ups. Over all 38% had some or the other problem. The major complications mentioned were excessive bleeding (22%), fever (18%) and fever with foul smelling discharge (5%).

The qualitative research suggests that the awareness of giving Colustrum to the newborn was extremely low among the mothers in both the rural and urban areas. On the contrary it was believed that Colustrum was not to be given as it could have an adverse effect on the health of the child.

INJECTION SAFETY PRACTICES

Overall a little over half of the injections were safe. Most of people were aware of the need for maintaining safety of injections to avoid the spread of diseases and infections. However they had very little knowledge regarding the Injection Safety practices followed by the Service Providers. They were only aware of the injection safety practices, like:

- Sterilizing the needles and syringes by boiling them
- Disposable injections.

SUMMING UP

In summary this qualitative and quantitative research revealed that the state of West Bengal comes across as a state that shows a positive inclination towards programs implemented in the state, be it IPPI, Routine Immunization or Maternal Care. However, it appears to be falling short of full (100%) compliance across the state.

The positive inclinations depicted are:

- > High level community participation in spreading the message and help in implementation as evidenced by involvement of Rotary/Lions Clubs and influential members of the community.
- > An upsurge in the use of Locally developed materials for better reach and communication.
- Increased involvement of different departments, like the Police Department, CMC, etc.
- > Positive information and persuasion given by the health workers.
- Compliance for the first dose (DPT) of immunization and maternal care contact high.
- Doctors/Medical practitioners are well respected and could be used as voice of authority.

Some concerns:

- > There has been differential compliance with the IPPI program (a la September round Vs the December round).
- > The reach of Routine Immunization (BCG and DPT) is high but plagued with high drop out rates.
- More visits to Health centres by medical practitioners is required so as to reinforce / remind the Beneficiaries of the Routine Immunisation doses.
- Only posters at the Health Centers/Subcenter do not create urgency for RI. The Health Workers, especially the doctors need to talk about it constantly
- There could be an effort to combine efforts with NGOs like Ramakrishna mission, Sulabh international, CINI and organisations like WHO etc to organize Immunization Programs regularly.

Barriers to be tackled:

- > 0-3 months old children can be given vaccines
- > minor ailments like fever, stomach ailments should not refrain from giving vaccines
- > all dosages are necessary
- > There are no known side effects, but non-compliance leads to major problems

"Koshto na korle, keshto mele na" (If you do not make efforts, you will not find the fruit).

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INTRODUCTION

1 INTRODUCTION

In an endeavor to eradicate Polio from India, Government of India initiated the Pulse Polio Immunization Program in 1995. To achieve this, the government launched the National Immunization Days (NIDs), in an effort to augment the Routine Immunization program to eradicate Polio from India.

The NIDs aim to vaccinate all children below the age of five years with additional dose of OPV, other than those given under Routine Immunization. As part of this strategy, every child in the high-risk age group of less than 5 years is administered the polio vaccine irrespective of his/her previous immunization status.

The IPPI campaign seeks to interrupt the spread of the Polio Virus, by administering adequate doses of the vaccine, to the vulnerable age group, on a single day at least twice in the low transmission season. Thus, on fixed days, in the low transmission season, an All India campaign is carried out to immunize children in the 0-5 year bracket, with the polio vaccine.

The IPPI endeavour is now in the sixth year of implementation (2000-2001). This year, based on the epidemiological situation, the government divided all States/ UTs into three different categories:

- High burden states viz. Uttar Pradesh, Bihar, Delhi and West Bengal
- Moderately burdened states viz. Assam, Rajasthan, Punjab, Haryana, Orissa, Gujrat and Madhya Pradesh
- > Low burden states which include rest of the country

This was done to focus efforts in accordance with the intensity of affliction. As such two SNIDs in high burden states and one SNID each in moderate burden states was planned along with the two NIDs.

Since 1995, UNICEF has been entrusted with the task of conducting the Process Evaluation and Coverage Evaluation Surveys (CES) to validate the process followed, reach and coverage reported for the campaign each year, by Ministry of Health & Family Welfare, Deptt. of Family Welfare, Government of India. Apart from the Intensified Pulse Polio Program, Routine Immunization has also been one of the corner stones of the polio eradication strategy in the country. Keeping this in mind, it was also thought feasible to integrate the Routine Immunization Coverage evaluation along with the IPPI program. Maternal Health Care was also included as a component of the study.

Towards this purpose, for the second time, Social and Rural Research Institute (SRI), a specialist unit of Indian Market Research Bureau (IMRB) was commissioned by UNICEF on behalf of the Government of India to conduct the Coverage Evaluation Survey for the current year. It must be added that apart from the quantitative study, qualitative research has been an important component of this study. This document reports the findings of the survey conducted in the state of West Bengal.

1.1 RESEARCH OBJECTIVES

The research objectives for the study were:

- To assess the reach and coverage of children below 5 years with the Oral Polio Vaccine (OPV) in the PPI campaign from September 2000 to January 2001 across all States and Union Territories.
- To assess Routine Immunisation Coverage amongst 12-23 months old.
- To assess the maternal care of women¹ during their last pregnancy.

The qualitative module was to assess the gap between the expectations, service and it's utilization by the community. This was undertaken with an aim to understand the factors that influenced compliance and non-compliance with the above issues. The study also aimed to assess the effect of these campaigns in motivating the community for compliance.

- Assess people's perception on the aforementioned interventions
- Assess perceived need for services and its quality
- Identify community expectations from IEC with special reference to perceived loopholes and improvements required

1.2 RESEARCH DESIGN

A combination of both qualitative and quantitative research methodologies was adopted to meet the research objectives. The quantitative module has provided an assessment of important variables related to the coverage with OPV, Routine Immunization and Maternal Care. The two modules were conducted simultaneously.

THE QUANTITATIVE PHASE

The research methodology used in the quantitative phase comprised individual one to one interviews. The questionnaire forms were largely structured with scope for a few open-ended questions. The survey was divided in to three major modules each catering to one of the three major objectives of assessing PPI, Routine Immunization and Maternal Care Coverage.

¹ All women whose pregnancy of more than 28 weeks completed/terminated in between 27/1/2000 to 26/1/2001

Respondents

The respondents' definition for each of the modules was different.

<u>PPI Coverage:</u> The information was obtained from households, which have at least one child born during 27th Jan '96 to 26th Jan 2001, and interviews were conducted with the principal caretakers of the eligible children.

Routine Immunisation Coverage: - The interviews were conducted with the primary care takers of 12-23 months old children born during 27th Jan '99 to 26th Jan 2001.

Maternal Care Coverage: - Women whose pregnancy of at least 28 weeks ended in between 27/1/2000 to 26/1/2001 were eligible to be interviewed under Maternal Care Module.

1.3 Sampling Design

1.3.1 Sampling Design for Quantitative

Basis the previous survey experiences, a minimum number of clusters to be covered in each state and across Rural/Urban areas were worked out by UNICEF. A separate sample was kept for High Risk clusters² in 12 states. Random cluster sampling methodology was used in both Rural and Urban areas.

The villages comprised the primary sampling unit in Rural areas whereas a ward/ NSSO block formed the primary sampling unit in Urban areas. From each cluster or the primary sampling unit four lots were selected randomly after listing all localities (lanes, mohallas etc). In each lot a total of 10 interviews were conducted with primary care takers of children up to age of five years for the **PPI coverage Module**. These 10 interviews were divided across the five age cohorts of (0-11 months, 12-23 months, 24-35 months, 36-47 months and 48-59 months). In each age cohort the sample was divided equally across males and females (if more than one child was present in a household, information for youngest was gathered).

The primary care takers for the children in the age group of 12-23 covered for PPI module were also the respondents for the Routine Immunization module. A total of 2 interviews per lot i.e. 8 per cluster were conducted for the Routine Immunization module.

For the **Maternal Care Coverage module**, women whose pregnancy had completed/terminated in between 27th Jan 2000 to 26th Jan 2001 were interviewed. Two interviews per lot i.e **8 per cluster** were conducted.

1.4 SAMPLING

1.4.1 Rural Sampling

In the rural areas, three-stage sampling was adopted. At the first stage, villages were selected according to PPS from the list of villages taken from Census 1991.

At the second stage, each village was divided in to smaller segments/lots. In larger villages, the segments of relative socio-economic homogeneity were identified in consultation with the village key informants. Each of these segments qualified to be a lot. Four such lots were then randomly selected. In smaller villages (of <=200 households) village was divided into four segments taking socio-economic variations in consideration. Each of these segments was considered a lot.

² High Risk Clusters were defined as clusters/areas where a

At the third stage, within the selected lot, first household to be contacted was randomly selected with the help of random number tables. Using the first selected house as the starting point, random contacts according to the Right Hand Rule³ was conducted. If the contacted household had any of the target respondents further forms were filled, else next household was contacted.

1.4.2 Urban Sampling

In Urban areas, all wards of the state were listed and ward selection was done according to PPS. Once the wards were selected, all NSSO blocks within the ward were listed. From the list one NSSO block was randomly selected. The NSSO block thus selected became the starting point. The block was then divided in to four lots and the required number of interviews was conducted in each lot. In case the total number of households in the block were not enough, the field-work was extended in the neighbouring blocks of the selected one to achieve the required sample size. In places where NSSO block maps were not available / not available in time, the wards itself were taken as the primary sampling unit. The wards were then divided into lots. Four lots were thereafter selected and the required number of interviews was then conducted in each lot.

1.4.3 Sampling in High Risk Clusters

A High Risk cluster is defined as a cluster where a polio case has been reported in last one year. UNICEF provided the list of the cases. Within the High Risk cluster the polio afflicted family was taken as a starting point of one lot and interviews were conducted around the starting address. The remaining three lots were selected randomly in the manner described above.

1.4.4 Sample sizes

A total of 1480 interviews were conducted with mothers/ primary caretakers of children up to five years of age. In addition 296 interviews were conducted with women whose pregnancy of more than 28 weeks was completed/terminated between 27/1/2000 and 26/1/2001. These sample interviews were done in a total of 37 clusters with a distribution as shown below.

or manners seek sinch	Urban	Rural	Grand Total
State General cluster	8	22	30
State HR cluster	3	4	7
Total	11	26	37

The numbers of clusters that have been covered in the Urban areas are only eleven. The sample for Urban areas is not adequate enough for a representative picture and therefore an independent analysis for Urban areas has not been attempted in the report. However, to give readers indicative estimates, the figures have been shown in the table, though not commented upon in the narrative.

³ According to this rule, the household falling right to the starting point is the next household to be contacted.

THE QUALITATIVE PHASE

In the qualitative study, eight clusters were covered, where information was gathered with the help of 8 *Focus Group Discussions* and 16 *Depth Interviews*, spread across the different target segments, as detailed below. Apart from these interviews, depth interviews were conducted with three Polio afflicted families. The target segments covered in the course of this study were:

Beneficiaries

Focus groups were conducted with the parents having at least one child below 5 years. The mothers and the fathers were met separately to remove any inhibitions that could have arisen in the group if they were made to sit together for them. This helped to adjudge the benefits that were received by the target group and to understand their attitude, expectations from and the beliefs towards IPPI and Routine Immunization programs.

> Maternal Care

Focus group discussions were conducted with mothers who had delivered a child OR had pregnancy of at least 28 weeks, terminated within the last one year (26th January 2000 to 27th January 2001). Routine Immunization was also discussed with them.

Influencers in the family (Grand Parents)

Group discussions with influencers within the family, primarily men and women who had grandchildren born in the last two years was the focus. These people were expected to play an important role in the decision making process for maternal care.

> Service Providers

Depth interviews were conducted with service providers to understand the efforts that were made to reach out to the beneficiaries and the constraints they face. They comprised of the government functionaries (Medical Officers, Supervisors, ANMs, Anganwadi workers, Local Dais and in some states teachers) who have been involved in the IPPI campaigns.

> Community Influencers

Depth interviews were held with community members who generally wielded great respect of the community and played an important role in changing the attitude of the people at large. This also helped to get an objective view of the practical problems that the health care program faced during course of implementation.

Polio-Afflicted Families

Depth Interviews were conducted in the identified High Risk states with families where a case of polio has occurred in the year 2000. Their view was taken to assess the perceptions and understanding of the people about polio and the reasons that led to this disability in their child.

An overview of the qualitative sample spread achieved:

		Benefici aries	Maternal Care	Grand parents	Service Providers	Influencers	Polio Afflicted Families
FGDs	General	2	2	1	-	-	-
	High Risk	2		1	-		•
Dis	General	-	4 7	•	7	3	-
	High Risk			-	3	3	3

1.5 Structure of the report:

The findings of the study are given in two sections. Section 1 covers the findings of the quantitative phase and Section 2 covers the findings of the qualitative phase.

To give a comprehensive view of the different topics covered under the study, the qualitative report has been divided into different sections. The first section gives an overview of the different segments (Beneficiaries, Service Providers, Influencers) that have been covered under the study. The broader issues of IPPI, Routine Immunization and Maternal Care have been dealt with as separate sections. In order to enable the reader to take a snapshot of the findings on any particular topic, certain key findings and recommendations have been included at the end of each section.

DETAILED FINDINGS QUANTITATIVE

2 Respondent Profile

2.1 Primary Care taker

The responsibility of childcare generally lies with the mother, she being the primary care taker of the child. But in absence of the mother or when mother is not living there any other adult female (usual) resident of the household (grandmother, aunt, elder sister, etc.), is normally the principal caretaker of the child.

In West Bengal for almost 98% of the children, mother herself was the primary caretaker. Close to 2% of children were taken care by their grandparents. In the current survey, the primary care takers were the respondents for all further details regarding the child. There were no inter-variable differences in this characteristic.

Table 1 Primary Care Taker

Primary care taker of the	child according	to selected	background	characteristics		AST FOR
Base : All	Base	Mother	Father	Grandparents	Elder Sibling	Others
ALL	1480	97.8	0.4	1.6	0.2	0.1
LOCATION						
Rural	1040	98.2	0.4	1.2	0.2	0.1
Urban	440	96.8	0.5	2.5	0.2	0
NORMAL/HIGH RISK						
Normal	1200	97.8	0.5	1.6	0.1	0.1
High Risk	280	97.9	0	1.4	0.7	0
RELIGION ⁴			7			
Hindu	1016	98.1	0.4	1.3	0.2	0
Muslim	461	97	0.4	2.2	0.2	0.2
GENDER						
Male	740	97.3	0.3	2.2	0.1	0.1
Female	740	98.2	0.5	0.9	0.3	0
CASTE				The same of		
SC	302	97.7	0.3	1.7	0.3	0
ST	141	95.7	0.7	2.1	1.4	0
Others	1037	98.1	0.4	1.4	0	0.1
AGE OF THE CHILD ⁵						
0-3 Months	128	96.7	0.8	1.6	0.8	0
4-6 months	90	100	0	0	0	0
7-11 months	113	99.1	0	0.9	0	0
12-23 Months	296	95.9	1.4	2.7	0	0
24-35 Months	286	97.6	0.3	2.1	0	0
36-47Months	297	98.7	0	1	0	0.3
48-59 Months	270	98.1	0	1.1	0.7	0

⁵ Age as on 26th Jan, 2001

⁴ 2 cases of others and 1 case of Christians have not been reported separately.

2.2 Primary Caretaker's Education

Literacy and educational levels are important indices of human development. Many of the health and other behaviours (such as health care for themselves and their families) often depend on educational levels. To be literate it is not necessary that a person should have attended a school. Literacy here is defined as the ability to read and write with understanding a short simple sentence.

In IPPI 2001 information regarding the education level of the primary caretaker was collected. In West Bengal, 44% of the primary caretaker were illiterate. Close to two fifths have had education for more than 5 years. According to 2001 census, female literacy in West Bengal is 60% which compares well with 56% estimate from IPPI survey.

Across background characteristics, illiteracy was significantly higher amongst Muslims and in rural areas.

Table 2 Primary Care taker's Education

Primary care taker of t	the child acc	ording to se	lected back	ground chara	cteristics	
Characteristic % across	All	Illiterate	Literate/ Up to 4 years	5-8 years	9-12/ Some College	Graduate and above
ALL	1480	43.9	17.5	23.9	12.1	2.7
LOCATION						
Rural	1040	48.4	18.5	23.3	9	0.9
Urban	440	33.2	15.2	25.2	19.3	7
NORMAL/HIGH RISK						
Normal	1200	43	16.8	24.1	13	3.2
High Risk RELIGION ⁶	280	47.5	20.7	22.9	8.2	0.7
Hindu	1016	38.5	17.9	25.8	14.5	3.3
Muslim	461	55.7	16.7	19.5	6.7	1.3
GENDER						
Male	740	46.6	18.2	22.5	9.9	2.8
Female	740	41.1	16.8	25.2	14.3	2.6
CASTE						
SC	302	54.6	19.5	20.2	5.3	0.3
ST	141	61.7	15.6	18.4	3.5	0.7
Others	1037	38.3	17.2	25.7	15.2	3.7
AGE OF THE CHILD						
0-3 Months	128	44.7	14.6	23.6	13	4.1
4-6 months	90	45.3	17.9	25.3	8.4	3.2
7-11 months	113	41.4	17.2	25	14.7	1.7
12-23 Months	296	44	18.1	23.9	11.6	2.4
24-35 Months	286	41.6	17.5	25.9	11.9	3.1
36-47Months	297	43.8	18.2	23.6	12.5	2
48-59 Months	270	46.3	17.4	21.1	12.2	3

⁶ 2 cases of others and 1 case of Christians have not been reported separately.

2.3 Education of the father

Amongst fathers, the educational levels are better than the mother/primary caretakers (70% as compared to 56% amongst primary caretakers). According to census 2001, 69.2% is the male literacy rate in West Bengal, which compares well with the IPPI estimate. The differential in mother's education and father's education is quite in line with Census 2001 literacy estimates which also shows a differential of 18% between male and female literacy levels.

Table 3 Father's education

Characteristic % across	All	Illiterate	Literate/ Up to 4 years	5-8 years	9-12/ Some College	Graduate and above	Father not alive
ALL	1480	29.2	21.5	25.3	16.8	6.1	1.1
LOCATION							
Rural	1040	33.5	23.2	24.7	14.9	2.5	1.3
Urban	440	19.1	17.5	26.8	21.4	14.5	0.7
NORMAL/HIGH RISK							
Normal	1200	28.3	20.4	25.5	18.2	6.7	1
High Risk	280	33.2	26.1	24.6	11.1	3.6	1.4
RELIGION							
Hindu	1016	24.6	19.5	28.1	19.4	7.4	1
Muslim	461	39.5	25.8	19.3	10.8	3.3	1.3
GENDER OF CHILDREN							
Male	740	28.9	21.9	26.5	15.9	5.5	1.3
Female	740	29.5	21.1	24.2	17.7	6.6	0.8
CASTE							
SC	302	34.8	25.8	24.8	10.9	1.7	2
ST	141	42.6	11.3	27	15.6	0	3.5
OTHERS	1037	25.7	21.6	25.3	18.7	8.2	0.5
AGE OF THE CHILD							
0-3 Months	128	23.9	19.5	29.2	16.8	8.8	1.8
4-6 Months	90	31.1	20	23.3	20	4.4	1.1
7-11 Months	113	26.5	25.7	22.1	17.7	7.1	0.9
12-23 Months	296	28	23.2	24.6	18.4	5.5	0.3
24-35 Months	286	26.9	17.8	30.1	18.2	4.9	2.1
36-47Months	297	31.6	23.2	22.2	16.2	5.7	1
48-59 Months	270	32.2	21.1	24.8	13.3	7.8	0.7

2.4 Background Characteristics of the sample covered

The following table compares some of the key sample distribution characteristics with the proportion in state according to 1991 census. The proportions in the sample of IPPI 2001 was more or less similar to the overall proportion in the state.

High Risk denotes the sample covered in the clusters where there had been a confirmed case of polio in last one year. It is seen that majority of the High Risk areas have more of Muslim population as compared to other religions.

Table 4 Sample Coverage for West Bengal

	Sample	Proportion			
Characteristic % across	All	IPPI 2001	Sample in Normal area	Sample in High Risk area	Census '91
ALL	1480	1480	1200	280	Census
LOCATION	+				
Rural	1040	70.3	73.3	57.1	72.5
Urban	440	29.7	26.7	42.9	27.5
RELIGION					
Hindu	1016	68.6	75.8	38.2	74.7
Muslim	461	31.1	24	61.8	23.6
Christians/others	3*	-	-		-
CASTE					
SC	302	20.4	22.1	13.2	23.6
ST	141	9.5	10.8	4.3	5.6
Others	1037	70	67.2	82.5	70.8

^{*} Base too low not reported further

3 Pulse Polio Immunization

3.1 DISTANCE OF THE PPI BOOTH

Usually, Polio drops during the campaign are administered at the booths. Booths are organised within the village or area in such a way that it is accessible to the families of the target children. It was hypothesised that distance between the booth and home may be a barrier for administering the Polio drops to the target children.

To have an idea if actually the distance is posing to be a barrier, respondents were asked about their perception about the distance of the booth. Overall only 4% of the respondents thought that the PPI booth was too far. However, it is worth noting that over one tenth of the scheduled tribe respondents felt that the distance was too far, and a significantly lower proportion referring as booth being in walking distance.

Table 5 Distance of the PPI booth

Base :All Children					
Characteristic % across	All	Within Walking distance	Not very far	Too far	Don't know
ALL	1480	85.2	9.5	4.4	0.9
LOCATION					
Rural	1040	80.2	12.6	6.2	1.1
Urban	440	97.0	2	0.2	0.7
NORMAL/HIGH RISK					
Normal	1200	85.9	8	5.2	0.9
High Risk	280	82.1	15.7	1.1	1.1
RELIGION					
Hindu	1016	81.7↓	11	6.3	1
Muslim	461	92.8↑	6.1	0.2	0.9
GENDER					
Male	740	85.3	9.2	4.3	1.2
Female	740	85.1	9.7	4.5	0.7
CASTE					
SC	302	83.8	12.3	3.6	0.3
ST	141	62.4	25.5↑	10.6↑	1.4
Others	1037	88.7	6.5	3.8	1.1
EDUCATION OF PARENTS					
Both literate	726	85.7	9.2	4.4	0.7
Both illiterate	331	86.7	10.3	2.4	0.6
One of them literate	423	83.3	9.1	6	1.7

3.2 Reach

This year (2000-2001) the pulse polio campaign was conducted over four rounds in four high burden States; over three rounds in seven moderate burden States and over two rounds in the remaining 21 States which were categorised⁷ as low burden States.

West Bengal is one of the High Burden states. Data from IPPI 2000 shows West Bengal had highest number of Zero dose cases and a substantial proportion of the polio cases in India. Considering this, the efforts in West Bengal were intensive and a maximum of four rounds was conducted in the State.

As can be seen from the table, 97% of the children were reached in this PPI campaign in West Bengal. Reach here is defined as the proportion of the eligible children who had received at least one dose of OPV through the PPI campaign.

Table 6 Reach and coverage across various rounds

% across	All (Base)	Recd any dose	Recd Jan dose	All eligible for Dec	Recd Dec dose	All eligible for Nov	Recd Nov. dose	All eligible for Sept	Recd Sept. dose
ALL	1480	97	92	1448	93.4	1406	92.5	1349	88.5
LOCATION									
Rural	1040	96.9	91.3	1015	93.4	979	92.8	937	89.6
Urban	440	97	93.4	433	93.3	427	91.8	412	85.9
NORMAL/									
HIGH RISK									
Normal	1200	97.3	92.9	1177	94.2	1141	93.3	1092	88.6
High Risk	280	95.7	87.9	271	89.7	265	89.4	257	87.9
RELIGION ⁸					A STATE		Print.		
Hindu	1016	97.5	92.8	998	93.6	963	93	920	88.5
Muslim	461	95.7	90	447	92.8	440	91.4	426	88.5
CASTE									
SC	302	98	92.1	295	92.5	279	94.3	270	91.1
ST	141	95.7	87.9	137	94.9	134	90.3	124	90.3
Others	1037	96.8	92.5	1016	93.4	993	92.3	955	87.5
GENDER									
Male	740	96.5	91.4	729	93.4	707	91.7	683	87.4
Female	740	97.4	92.6	719	93.3	699	93.4	666	89.6
EDUCATION OF PARENTS									
Both literate	726	97.9	94.2	712	94.5	691	93.3	657	89.2
Both illiterate	331	95.5	88.8	323	92.3	313	91.1	302	88.1
One of them literate	423	96.5	90.5	413	92.3	402	92.3	390	87.7

The reach figures across all rounds ranged from 88.5% to 93% with the maximum in December. Overall the proportion reached in Round 1 (September round) was 88.5% which increased significantly to reach 93.4% in Round 3 (December) before dropping to 92%.

⁷ The categorization is prior to the formation of three new states, the total no. of states therefore adds to 32 here.

⁸ The base of Christians and other religions are insignificant (a total of 3 cases) and therefore not reported separately.

No significant differences were found across the background characteristics of religion, or caste.

3.2.1 Reach by rounds by age categories

In this section, the age of the child was calculated with retrospective effect. That is for each of the rounds, the age of the child at the time of that particular round was calculated. For the next round, the new additions to the cohorts were included and the age of the older children was recalculated to reflect the *current age* at the time of that particular round.

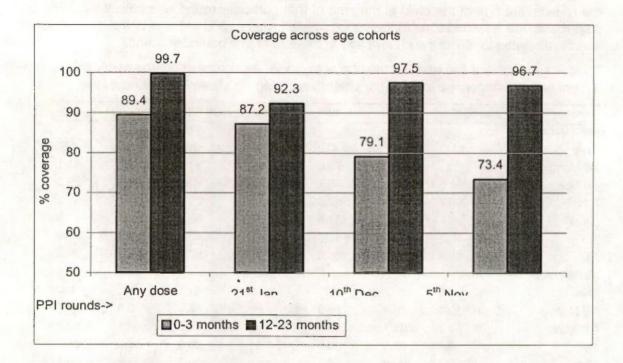
The following table is the result of the above exercise. As can be seen, the newly borns, in 0-3 months age category have been consistently showing significantly lower coverage.

% across	All (Base)	Rural	Urban	Normal	High Risk	Hindu	Muslim
SEPTEMBER DOS	E				H Later		
Base	1349	937	412	1092	257	920	426
0-3 Months	71.8↓	70.3	75.0	72.3	68.8	77	61.1
4-6 Months	87.5	88.1	86.7	88.5	85	86.4	89.3
7-11	90.3	93.0	82.5	89.4	95.5	88.2	94.2
12-23	89.7	90.5	87.8	90.6	86.4	88.4	92.5
24+	90.3	91.5	87.5	90.4	90.0	90.4	90
All	88.5	89.6	85.9	88.6	87.9	88.5	88.5
NOVEMBER DOS	RESIDENCE PRODUCTION OF STREET			4-28-3	The state of		
Base	1406	979	427	1141	265	963	440
0-3 Months	73.4↓	75.3	69.0	74.2	68.4	72.9	74.4
4-6 Months	93.5	91.7	96.6	94.8	89.5	94.1	92.3
7-11	95.8	93.8	100.0	96.9	90.9	95.9	95.6
12-23	96.7	96.9	96.3	98.6	89.3	97.9	94.1
24+	93.8	94.5	92.4	94.3	91.9	94.4	92.5
All	92.5	92.8	91.8	93.3	89.4	93	91.4
DECEMBER DOS	E			Toller was a Street	tod spec	TOTAL PROPERTY.	
Base	1448	1015	433	1177	271	998	447
0-3 Months	79.1↓`	80.5	74.3	80	73.9	78	82.1
4-6 Months	96.1	95.7	96.6	95.5	100	96.2	95.7
7-11	93.6	91.2	97.6	98.8	78.6	98.6	85
12-23	97.5	96.6	100	99.1	91.4	97.9	96.8
24+	94.2	94.9	92.7	94.5	92.8	94.3	94
All	93.4	93.4	93.3	94.2	89.7	93.6	92.8
JANUARY DOSE	NAME AND DESCRIPTION OF THE PERSON OF T						
Base	1480	1040	440	1200	280	1016	461
0-3 Months	87.2↓	87	88.1	86.5	90.6	88.2	84.9
4-6 Months	96.1	97.9	93.1	95.5	100	96.2	95.7
7-11	92.7	91.2	95.2	95.1	85.7	95.7	87.5
12-23	92.3	91.6	93.9	94.3	84.5	94.7	87.4
24+	92.4	91.8	93.9	93.4	88.2	92.5	92
All	92	91.3	93.4	92.9	87.9	92.8	90

It is interesting to note that by the time of the second round, many of these children in 0-3 months age band move to 4-6 months and their coverage also increases.

There has been an improvement from 72% in 1st round to 79% and 87% on the NIDs. Analysing the coverage in all rounds across the age cohorts, we find that the coverage was

lowest for the age cohort 0-11 months. This trend is again common across the rounds. The following figure shows the coverage amongst 0-3 months in comparison to coverage amongst 12-23 months. As can be seen, significantly lesser proportion of 0-3 months has been covered in December and November rounds except January, where the differentials are small.



This seems to indicate the following:

In the **initial rounds there seems to be less emphasis** on covering the 0-3 months old. Probably, by the time of NIDs of December and January, the emphasis on covering newborns came under sharper focus as shown by the increase in coverage in January round.

The fact that the coverage amongst 0-3 was lower than the coverage amongst other age cohorts even after its peak in (December-January rounds) seems to suggest **some inherent barrier** amongst the primary care takers regarding taking the new born baby to the booth.

3.3 Coverage by doses

One of the major indicators for evaluating the effectiveness of the coverage is proportion receiving as many doses as were given under the PPI campaign.

The following table provides details on the proportion who received all 4 doses, proportion that received only 3 doses and so on. The table is based on all children who were born before 24th September and hence were eligible for all four doses.

Table 7 Coverage by number of doses

Base: All childre	en born b		-		D	Deschool
Characteristic % across		All	Received all four doses	Received only three doses	Received only two doses	Received only one dose
ALL	5-162 S	1349	82.7	10.5	3.1	1.5
LOCATION						
Rural		937	83.5	9.3	3.5	1.5
Urban		412	80.8	13.1	2.2	1.5
NORMAL/HIGH R	RISK					
Normal	+	1092	83.5	10.5	2.8	1.1
High Risk		257	79	10.1	4.3	3.1
GENDER						
Male		683	81.8	10	3.8	1.9
Female		666	83.5	11	2.4	1.
RELIGION						
Hindu		920	82.7	11.4	2.7	1.3
Muslim		426	82.4	8.5	4	1.9
CASTE						
SC		270	84.1	10.7	3	1.1
ST		124	83.9	8.1	4	1.6
Others		955	82.1	10.7	3	1.6
EDUCATION PARENTS	OF					
Both literate		657	84.2	10.7	2.3	1.4
Both illiterate		302	81.5	10.6	2.3	
One of them lite	erate	390	81	10	5.1	1.3
AGE OF THE CHI	LD					
4-6 Months		87	63.2	19.5	10.3	3.4
7-11 Months		116	80.2	12.1	4.3	1.7
12-23 Months		292	84.2	12	2.4	
24-35 Months		284	84.9	8.8	1.8	1.8
36-47Months		292	86.3	8.2	2.7	0.
48-59 Months		278	82	9.4	2.9	1.8

Overall, only 83% of the eligible children had received all the four doses. Differences across castes, gender and religion were not significant.

Looking at coverage across the various age cohorts, it becomes evident that, it is the low coverage (63%) amongst 4-6 months age children that is largely responsible for overall low percent coverage. It suggests that the **new-borns should become the primary target for the subsequent PPI campaigns**.

3.4 Zero Dose

The proportion not receiving any dose during the entire campaign has been one of the prime coverage evaluation indicators. Identifying the characteristics associated with such Zero dose children is one of the challenges for ensuring 100% coverage. The table below shows the proportion of children who had not received a single dose before this campaign. This would mean not receiving any dose either in previous PPI campaign or even through the Routine Immunization.

About 1.6% of children has not received any OPV doses since birth. Zero dose cases amongst scheduled Tribes, Muslims and illiterate households were relatively higher.

Table 8 Zero doses

Base: All	All	Zero doses for current	Zero dose (life time)	
% across		campaign		
ALL	1480	3.0	1.6	
LOCATION				
Rural	1040	3.1	1.8	
Urban	440	3.0	1.1	
NORMAL/HIGH RISK				
Normal	1200	2.8	1.5	
High Risk	280	4.3	2.1	
RELIGION				
Hindu	1016	2.5	1.2	
Muslim	461	4.3	2.6	
CASTE				
SC	302	2.0	1.3	
ST	141	4.3	2.8	
Others	1037	3.2	1.5	
GENDER				
Male	740	3.5	1.8	
Female	740	2.6	1.5	
EDUCATION OF PARENTS				
Both literate	726	2.1	1	
Both illiterate	331	4.5	3	
One of them literate	423	3.6	1.7	

^{*}Here all children who were born before the start of the campaign and didn't receive any dose before the campaign are considered

3.4.1 Contribution of lifetime 'Zero doses' by age cohorts

The absolute numbers of lifetime unreached appears to be almost the same in < 1year and 3-5 year, much lower in 12 –23 months indicating intensive efforts since last year. Amongst 0-3 age cohorts about 11% of the children didn't receive any dose during the current campaign. Life time zero doses is also high amongst 48-59 months age cohort.

Table 9 Contribution of lifetime 'Zero doses' by age cohorts

Base: All	Base		after current	Zero dose (life time)	
		%	Numbers	%	Numbers
AGE OF THE CHILD					
0-3 Months	128	10.6↑	13	8.9	11
4-6 Months	90	4.2	4	3.2	3
7-11 Months	113	1.7	2	1.7	2
12-23 Months	296	0.3	1	0	C
24-35 Months	286	2.8	8	1.4	4
36-47Months	297	2.1	6	0.3	1
48-59 Months	270	4	11	1.1	3

^{*()} figures in bracket indicate absolute number

3.5 Cluster failing

It is observed that about 62% of the clusters have at least one child who had no OPV dose during the current campaign and thus did not pass lot quality at 95% coverage level.

Table 10 Cluster failing on lot quality

% down	All	Rural	Urban	Normal	High Risk
Total	37	26	11	30	7
Proportion. of clusters failing on lot quality at 95% coverage level	62.2	53.8	81.8	60	71.4

3.6 PLACE WHERE DOSAGE WERE ADMINISTERED

In West Bengal, both home and booth strategy was followed in the PPI campaign for year 2000-2001. Respondents were asked about the place where their children got the polio dose administered. About 83% of the respondents got their children all polio drops administered at the booth only. Close to seven percent children received PPI doses only at home, this is the proportion that could have been missed out had there been no house to house campaign.

It was observed that a significant proportion of young children amongst the age cohort of 0-3 and 4-6 months received doses only at home. Coverage at booth amongst scheduled castes was higher compared to rest. A significantly higher proportion of scheduled castes and literate households were getting the doses at the booth.

Table 11 Place where doses were administered

Base: All who received any do		0.1.0		
% across	All	Only Booth	Only home	Some doses at booth some at home/others
ALL	1435 ⁹	83.4	6.5	10.1
LOCATION				
Rural	1008	81.4↓	7.0	11.5
Urban	427	88.1↑	5.2	6.8
NORMAL/HIGH RISK				
Normal	1167	84.0	6.0	10.0
High Risk	268	81.0	8.6	10.4
RELIGION				
Hindu	991	84.2	6.6	9.3
Muslim	441	81.6	6.3	12.0
CASTE				
SC	296	90.91	2.7	6.4
ST	135	83.0	5.9	11.1
Others	1004	81.3	7.7	11.1
GENDER				
Male	715	82.8	5.9	11.3
Female	720	84	7.1	8.9
EDUCATION OF PARENTS				
Both literate	711	86.11	5.8	8.2
Both illiterate	316	81.0	7.0	12.0
One of them literate	404	80.4	7.4	12.1
AGE OF THE CHILD				
0- 3 Months	117	78.3	13.2	8.5
4-6 Months	87	75.9	12.6	11.5
7-11 Months	111	86.5	6.3	7.2
12-23	292	86	4.1	9.9
24-35	278	81.7	4	14.4
36-47	289	84.4	6.6	9
48-59	261	85.1	6.1	8.8

^{*} Base too small

⁹ Remaining 45 cases (1480-1435) were Zero dose cases.

3.6.1 Place of administration of dose across PPI rounds

In West Bengal, the PPI dates were 24th September, 5th November, 10th December and 21st January. Majority of the children received the IPPI dose at the booth in all the four rounds of the campaign.

Across rounds there is a slight increase in the proportion covered through home strategy starting from 24th September round to 21st January. Also the incidence of administering doses was lower for SCs.

Table 12 Place where the doses were administered in each round

% across:	21 st Ja	nuary		10 th De	cember	1-course	5 th Nov	ember		24th S	eptembe	er
Base : All who received the particular dose	All	Booth	Home	All	Booth	Home	All	Booth	Home	All	Booth	Home
ALL*	1361	88.8	11	1352	89.8	10.1	1301	90.5	9.3	1195	91.3	8.6
LOCATION												
Rural	950	88.1	11.7	948	88.6	11.2	909	89.3	10.5	841	90.5	9.4
Urban	411	90.5	9.5	404	92.6	7.4	392	93.1	6.6	354	93.2	6.8
NORMAL/HR												
Normal	1115	89.1	10.8	1109	90.4	9.5	1064	91	8.8	969	91.6	8.3
High Risk	246	87.8	12.2	243	86.8	12.8	237	88.2	11.4	226	89.8	10.2
RELIGION												
Hindu	943	89.7	10.1	934	90.8	9.1	896	90.7	9.0	815	91.8	8.1
Muslim	415	86.7	13.3	415	87.5	12.3	402	89.8	10.0	377	90.2	9.8
CASTE												
SC	278	95.7↑	4.3	273	95.6	4.4	263	95.8	4.2	246	95.9	4.1
ST	124	88.7↓	11.3	130	87.7	11.5	121	92.6	6.6	113	95.6	4.4
Others	959	86.9	12.9	949	88.4	11.5	917	88.7	11.1	836	89.4	10.5
EDUCATION OF PARENTS												
Both literate	684	90.1	9.8	673	92.3	7.6	645	92.2	7.4	586	93	6.8
Both illiterate	294	87.1	12.9	298	86.2	13.4	285	88.1	11.6	267	88.8	11.2
One of them literate	379	87.9	11.9	377	88.1	11.9	367	89.1	10.9	340	90.3	9.7
GENDER												
Male	677	88.9	10.9	681	89.9	9.8	648	90.9	8.6	597	91.3	8.5
Female	684	88.7	11.1	671	89.7	10.3	653	90	10	598	91.3	8.7
AGE OF CHILD												
0-11	303	85.1	14.5	262	85.5	14.1	215	87	12.1	160	88.8	11.3
12-23	269	92.2	7.8	287	91.6	8.4	286	90.6	9.4	267	93.3	6.7
24-35	269	88.5	11.2	269	89.6	10	269	91.8	7.8	256	92.2	7.4
36-47	278	89.6	10.4	282	90.1	9.9	281	90	10	269	88.5	11.5
48-59	242	89.3	10.7	252	92.1	7.9	250	92.4	7.6	243	93	7

^{*} Totals may not add up to 100% because doses may have been given at places other than booths or homes.

3.7 REASONS FOR NOT RECEIVING ONE OR MORE DOSES

This section details on the reasons for not getting one or more OPV doses in the various rounds. In West Bengal the major reasons for not receiving one or more doses is the lack of motivation (child sick, child was young, out of station). The major reason mentioned was similar across different areas and different religion background.

However the proportion of respondents mentioning side effects and fear of getting polio through vaccine was high among the Muslim segment.

Table 13 Reasons for not receiving one or more IPPI doses in the 2000-2001 round

	Lack of kno	Lack	Lack of knowledge	dge		Lac	Lack of motivation	lion			Obstacles		
% across	(Base)	Not aware of the place/ time	Not aware of the progra mme	Not aware of the need for additional dosages	Child was sick	was too young	We were out of station	Inconveni ent day/time/ venue	Vaccine was not there by the tome we reached	Fear of getting polio with vaccine	Have no faith in additional dosages	Fear/ rumour of side effect	Fear of too many dosages
ALL	284	39.1	3.5	2.1	20.8	14.4	13.0	3.5	1.1	1.8	1.8	8.5	
LOCATION													
Rural	191	30.9	3.7	-	26.2	13.6	14.7	4.2	1.6	2.6	2.1	11	1.6
Urban	93	55.9	3.2	4.3	9.7	16.1	9.7	2.2	0	0	1.1	3.2	0
NORMAL/HIGH RISK													
Normal	220	41.4	3.6	2.7	18.6	15	13.6	4.1	1.4	1.4	4.1	4.5	0
High Risk	64	31.3	3.1	0	28.1	12.5	10.9	1.6	0	3.1	3.1	21.9	4.7
GENDER													
Male	144	40.3	4.9	2.1	22.2	12.5	11.8	4.2	1.4	2.1	2.8	6	0.7
Female	140	37.9	2.1	2.1	19.3	16.4	14.3	2.9	0.7	1.4	0.7	7.9	1.4
RELIGION													
Hindu	194	44.8	4.1	2.6	22.7	12.4	11.9	2.6	1	0	1.5	6.7	-
Muslim	06	26.7	2.2	1.1	16.7	18.9	156	in the second	11	r.	22	122	11

^{*} This also includes teams visiting homes without prior intimation

3.7.1 Reasons for Zero dose

This section details on the reasons for getting no OPV dose. In West Bengal the major reasons for not receiving any of the OPV dose cited were "lack of knowledge" (33%) "child was too young (23%)", fear of side effect" (21%) and "child was sick (16%).

The major reason mentioned was similar across different areas and different religion background.

Table 14 Reasons for non-compliance amongst Zero dose children

	All reasons
BASE: ALL ZERO DOSE CHILDREN	43
LACK OF KNOWLEDGE	32.6
Not aware of the programme	23.3
Not aware of the need for additional dosages	7
Not aware of the place/ time **	2.3
LACK OF MOTIVATION	46.5
Child was too young	23.3
Child was sick	16.3
We were out of station	11.6
Nobody there to take the child to the booth	4.7
Inconvenient day/time/ venue	2.3
They (service providers) did not come to my house	2.3
OBSTACLES	30.2
Fear/ rumour of side effect	20.9
Fear of getting polio with vaccine	9.3
Have no faith in additional dosages	9.3
Fear of too many dosages	7
Doctor advised against / said was not required	2.3
It will affect the fertility of the child	2.3
** This also includes teams visiting homes without prior intimation	

3.8 SOURCE OF KNOWLEDGE

To assess the reach of the various communications methods and aids used, the respondents were asked about the different ways in which they came to know about the PPI campaign.

Overall, interpersonal sources (IP) were the main source of knowledge and reached 85% of the respondents. Interpersonal sources' reach was significantly higher amongst SC/ST and amongst uneducated households. Amongst the interpersonal sources, the Health functionaries (49% Health worker and 31% AWW) are mentioned to be the major source of information followed by relatives/friends (16%). AWW were accessed by significantly lower proportion of Muslims. However, they were accessed by significantly higher proportion of SC/ST.

Table 15 Source of Knowledge regarding IPPI

Base :All	Interp	ersonal S	ources				- Luia		
% across	All	Any interper sonal	Health worker	AWW	Govt. Doctor	Pvt. Doctor	Ped iatri cian	Relative /Friends	Religion/ Communi ty leaders
ALL	1480	85.4	49	31	1.6	0.4	0.4	15.5	2.2
LOCATION									
Rural	1040	91.2	51.6	40.3	1.1	0.1	0.4	12.5	2.9
Urban	440	71.8	42.7	9.1	3	1.1	0.5	22.7	0.7
NORMAL/HIGH RISK						art o			
Normal	1200	86.7	51.4	31.9	1.7	0.4	0.4	13.3	2.5
High Risk	280	80	38.6	27.1	1.4	0.4	0.7	25.4	1.1
GENDER									
Male	740	86.6	48.6	31.4	2.2	0.4	0.4	16.5	2
Female	740	84.2	49.4	30.6	1.1	0.4	0.4	14.6	2.4
RELIGION									
Hindu	1016	86	46.4	36.1	1.8	0.3	0.5	14.9	1.6
Muslim	461	83.9	54.4↑	20↓	1.3	0.7	0.2	17.1	3.7
CASTE									
SC	302	90.1	49	39.11	1.7	0	0.7	13.6	3.3
ST	141	95	42.6	56↑	0.7	0	0	5.7	0
Others	1037	82.7↓	49.9	25.3	1.7	0.6	0.4	17.5	2.2
EDUCATION OF PARENTS									
Both literate	726	82.5	48.6	24.4	1.7	0.8	0.5	18.7	1.8
Both illiterate	331	89.4	51.1	38.4	0.9	0	0	11.2	2.1
One of them literate	419	87.4	48.2	36.8	2.1	0	0.5	13.4	3.1

Close to one third of the respondents had the information from the mass media. Amongst the mass media methods, Mike/ Drumbeating (44%) emerged to be the major source of information followed by T.V (21%), Radio (11%) and Wall painting (6%).

Overall, Mass media reached significantly higher proportion of literate households compared to illiterate/ semi-literate households. Surprising was the drastically low mention for newspapers and magazines (only 2%).

Table 16 Source of Knowledge regarding IPPI

Base :All	Mass I	Media	730					
% across	All	Any ¹⁰ mass media	TV	Radio	Newsp apers/ Mags	Wall/ paintings/ posters	Mike/ Drumbeating	Never heard of IPPI
ALL	1480	61.7	20.9	11.3	2	6.1	43.9↑	0.1
LOCATION								
Rural	1040	58.1	11.6	13.4	0.5	6.1	44.8	0.1
Urban	440	70.2	42.7	6.4	5.7	6.1	41.8	0.2
NORMAL/HIGH RISK								
Normal	1200	60.9	20.4	11.7	2.3	5.9	42.2	0.2
High Risk	280	65	22.9	9.6	0.7	6.8	51.4	0
GENDER								
Male	740	62.9	20.4	11.3	1.5	5.4	46.2	0.3
Female	740	60.5	21.4	11.2	2.6	6.8	41.7	0
RELIGION								
Hindu	1016	61.6	23	13.4	2.8	6.4	41.8	0.2
Muslim	461	62	16.1	6.7	0.4	5.4	48.8	0
CASTE								
SC	302	49	9.3	6.6	0.7	5	37.7	0
ST	141	39.7	5.7	3.5	0	5	27.0↓	0
Others	1037	68.4	26.3	13.7	2.7	6.6	48.0	0.2
EDUCATION OF PARENTS								
Both literate	726	73.3	34.4	16.5	4	7.2	48.1	0.1
Both illiterate	331	42.6	3.6	5.1	0	3.9	35	0.3
One of them literate	423	56.7	11.2	7.2	0.2	6	43.4	0

Mass media here includes TV/Radio/Newspaper/Wall Paintings and Mike/ Drumbeating.

4 ROUTINE IMMUNIZATION

4.1 Routine Immunization Sessions

According to the Govt. of India guidelines, a child should receive a BCG vaccination to protect against tuberculosis, three doses of DPT to protect against Diphtheria, Pertussis, and Tetanus, three doses of Polio vaccine, and a Measles vaccination by the age of 12 months. It is expected that the routine immunization session should be held at least once a month in all villages/areas (over a thousand population).

In West Bengal, the RI session seemed to be held fairly regularly as more than three fourth respondents mentioned the frequency to be at least once a month. Overall 83% of respondents reported that RI session are held in their area/clusters.

Table 17 Routine Immunization Session

Base :All Childre	n						
% across	All	RI session not held	RI Session held within the area/ village*	Once a month	Twice/ Thrice a month/ weekly	Others (Bimonthly/in 45 days / more than 45 days	Don't know frequency
ALL	1480	15.4	83.4	20.7	58.5	1.4	2.8
LOCATION							
Rural	1040	12.5	86.4	19.9	61.7	1.6	3.2
Urban	440	22.3	76.4	22.7	50.9	0.7	2
Normal/High Risk							
Normal	1200	14	84.9	21	59.1	1.7	3.2
High Risk	280	21.1	77.1	19.6	56.1	0	1.4
RELIGION			Section 1				1 10
Hindu	1016	15.9	82.9	23	54.4	1.7	3.7
Muslim	461	14.3	84.6	15.6	67.5	0.7	0.9
CASTE							and the second
SC	302	10.3	89.4	17.9	66.6	1.7	3.3
ST	141	17	81.6	12.1	66	0.7	2.8
Others	1037	16.7	82	22.8	55.2	1.4	2.7
GENDER							
Male	740	16.1	82.9	20.8	58	1.3	2.7
Female	740	14.7	84	20.7	59	1.4	3
EDUCATION OF PARENTS							
Both literate	726	17.2	81.7	20	58.8	0.7	2.2
Both illiterate	331	13.9	85.8	22.7	57.1	2.1	3.9
One of them literate	423	13.5	84.7	20.8	58.9	1.9	3.1

^{*} Totals may not add upto 100% due to "not sure" if RI sessions held

In most States the accepted practice is to fix a particular day/date on which Immunization services would be made available. This practice has far reaching benefits of 1) Beneficiaries remember that Immunization services would be available on the particular day, 2) It makes the logistics of arranging the vaccines etc. a lot easier and it would be a firm commitment on the part of service providers.

In West Bengal, amongst those who reported that Immunization session were held in their area, 92% mentioned that it is held on a particular day. Close to two thirds mentioned this day to be Wednesday. Interestingly enough, all weekdays did find mention as the fixed days on, which Immunization were given. This may be because of availability of Immunization services through private providers/ and bigger hospitals in urban areas that may be providing the services on any day.

Table 18 Day on which Routine Immunization Session is held

Base :All mentioning					/ village					
Characteristic % across	Base	Held on a particular day	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Every day
ALL	1235	92.2	1.1	8.8	2.7	63.4	5.0	5.7	5.0	0.6
LOCATION										
Rural	899	90.9	0.7	6.7	3.2	69.1	3.8	7.3	0.1	0
Urban	336	95.8	2.1	14.6	1.2	48.2	8.3	1.2	18.2	2.1
NORMAL/HIGH RISK										
Normal	1019	92.8	1.3	9.5	1.5	64.9	3.3	6.8	4.9	0.7
High Risk	216	89.4	0	5.6	8.3	56.5	13	0.5	5.6	0
RELIGION										
Hindu	842	89.9	1.5	9.7	2.7	64.5	0.4	5.6	4.9	0.6
Muslim	390	97.2	0	6.7	2.6	61.0	15.1	5.9	5.4	0.5
CASTE										
SC	270	91.9	1.1	5.9	0	80.0	0.7	2.2	1.9	0
ST	115	95.7	5.2	7.8	0	80.0	0	1.7	0.9	0
Others	850	91.9	0.5	9.9	3.9	55.9	7.1	7.3	6.6	0.8
EDUCATION OF PARENTS										
Both literate	593	92.2	1.2	11.5	2.4	60.2	2.5	6.9	6.9	0.7
Both illiterate	284	94	0	8.1	3.2	65.5	9.9	4.6	2.5	0.4
One of them literate	355	90.7	1.7	5.1	2.8	67.3	5.4	4.5	3.4	0.6

4.2 Presence of Immunization Card

Immunization Card as it exists in India is in practice a 'Mother and Child' Immunization card. The card is expected to be given to the pregnant women right at the time when she comes for her first AnteNatal Checkup (ANC) in the first trimester. It has provisions to record both TT Immunization & IFA supplementation, scheduled for the mother and the vaccines to be provided to the child in the first year. The service provider is expected to have a counterfoil card and the main card is to be kept with the family. Each time a vaccination is given, it is recorded in the card. This acts as a checklist and ensures that both beneficiaries and service providers are aware of the Immunization schedule for the child and can therefore take actions to ensure complete Immunization compliance.

The mothers of children of age 12- 23 months were asked whether the child had a vaccination card. In West Bengal, more than four fifths had an Immunization card. Across background characteristics there were no significant differences.

Table 19 Presence of the Immunization Card

% across	Base	Card Present	Card not present
All	296	86.8	12.8
LOCATION			
Rural	208	86.1	13.5
Urban	88	88.6	11.4
NORMAL/HIGH RISK			
Normal	240	89.6	10
High Risk	56	75.0	25
RELIGION			
Hindu	200	87.5	12
Muslim	96	85.4	14.6
CASTE			
SC	53	83	17
ST	28*		a seci-
Others	215	86.5	13
GENDER			
Male	148	90.5	9.5
Female	148	83.1	16.2
EDUCATION PARENTS			
Both literate	150	89.3	10
Both illiterate	59	79.7	20.3
One of them literate	87	87.4	12.6

Base too low not analysed any further.

Totals may not add upto 100% because of non response

4.3 BCG Vaccination

BCG is the vaccine against childhood TB and is given as early as possible. Usually the vaccine is given on the left shoulder where it leaves a scar. All children of 12-23 months irrespective of whether they were reported to have received BCG vaccination were checked for the BCG scar. The following table presents the findings for the 12-23 month old children.

More than 87% of children had received BCG. However amongst them, the BCG scar was present only in 79% of children. Along compliance with BCG, it is the timing of receiving BCG that is of equal importance. Of the children who received BCG, about 59% had received it in the first month. The remaining had received it in later months.

Across religion and caste, the differences were not significant. The overall compliance with BCG showed a strong correlation with education of parents. In households where both parents were educated the BCG compliance was as high as 93% compared to 80% in households with illiterate parents.

Table 20 BCG Vaccination

% across	Base	BCG Not given/ DK	BCG Given+	BCG given (Base)	BCG Given, Scar present	BCG Given, Scar not visible/ Not verified	BCG given in first month	BCG given in 2-6 month	BCG given after six months
ALL	296	11.8	87.8	260	78.8	21.2	58.8	35	5
LOCATION									
Rural	208	13.5	86.1	179	74.9	25.1	53.6	40.2	5
Urban Normal/HR	88	8	92	81	87.7	12.3	70.4	23.5	4.9
Normal	240	10	89.6	215	80	20	60.5	34.4	4.7
High Risk GENDER	56	19.6	80.4	45	73.3	26.7	51.1	37.8	6.7
Male	148	8.1	91.91	136	80.9	19.1	58.8	36.8	3.7
Female RELIGION	148	15.5	83.8↓	124	76.6	23.4	58.9	33.1	6.5
Hindu	200	10	90	180	79.4	20.6	60	35.6	3.9
Muslim Caste	96	15.6	83.3	80	77.5	22.5	56.3	33.8	7.5
SC	53	11.3	88.7	47	85.1	14.9	61.7	38.3	0
ST	28*		9-1-		-		-	-	
Others EDUCATION OF PARENTS	215	11.6	88.4	190	76.8	23.2	58.9	33.7	6.3
Both literate	150	6	93.3	140	77.1	22.9	58.6	34.3	5.7
Both illiterate	59	20.3	79.7	47	80.9	19.1	59.6	34	4.3
One of them literate	87	16.1	83.9	73	80.8	19.2	58.9	37	4.1

[·] Base too low not analysed further

⁺ Totals of when BCG was given may not add up to 100% because of non response

4.4 DPT Vaccination

DPT doses are given to provide the child immunity from Diphtheria, Purtussis and Tetanus. Three doses need to be given to develop sufficient immunity. The first dose needs to be given by 1½ months and the remaining two doses should be given at an interval of one month each. Apart from these three doses, a booster dose after the age of 16 months is required for effective immunity.

The following table details the coverage according to three doses of DPT and also brings out the drop out ratio from 1st dose to 3rd dose. In West Bengal, 86% of children had received DPT 1. This figure fell by a steep 16% for DPT 3 (70%).

Across background characteristics, the coverage was, overall higher amongst the Hindus (compared to Muslims) and educated households (both parents educated). Across education, the variation in drop out ratio (from DPT 1 to DPT 3) was most significant. It was less than one tenth amongst the fully literate households while it was as high as one third in other households.

Table 21 DPT Vaccination

% across	Base	DPT 1 Given	DPT 2 Given	DPT 3 Given	Drop Out ratio DPT 1 to DPT 3 ¹¹	Drop Out ratio DPT 1 to DPT 2	Drop Out ratio DPT 2 to DPT 3
ALL	296	85.8	77.7	69.6	18.9	9.4	10.4
LOCATION							
Rural	208	83.2	75.0	67.3	19.1	9.8	10.3
Urban	88	92	84.1	75.0	18.5	8.6	10.8
NORMAL/HIGH RISK							
Normal	240	86.7	79.6	72.1	16.8	8.2	9.4
High Risk	56	82.1	69.6	58.9	28.3	15.2	15.4
RELIGION							
Hindu	200	88.5	83	77.5	12.4↓	6.2	6.6
Muslim	96	80.2	66.7	53.1	33.8↑	16.9	20.3
CASTE							
SC	53	83	71.7	67.9	18.2	13.6	5.3
ST	28*	HIP.	20 .	-		-	-
Others	215	87.4	80.5	70.7	19.1	8	12.1
GENDER							
Male	148	89.9	79.7	74.3	17.3	11.3	6.8
Female	148	81.8	75.7	64.9	20.7	7.4	14.3
EDUCATION OF PARENTS							
Both literate	150	90	87.3	82.7	8.1↓	3	5.3
Both illiterate	59	76.3	69.5	52.5	31.1↑	8.9	24.4
One of them literate	87	85.1	66.7	58.6	31.1↑	21.6	12.1

^{*} Base too low not analysed any further

¹¹ Drop out ratio from DPT 1 to DPT 3 = (All those who received DPT 1 – All those who received DPT 3) / All those who received DPT 1
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4.5 OPV Vaccination

OPV or Oral Polio Vaccine is given to provide the child immunity against Polio. DPT and OPV doses are in most cases given together. The following table details out the coverage of OPV under routine Immunization. The dosages given under the PPI program were not included here.

As would be expected the figures for OPV follow the same trends as the DPT coverage. Overall in West Bengal, 85% of children in age 12-23 months had received OPV doses under routine Immunization. The proportion of OPV 2 came down to 80% and reached 69% for OPV3.

As seen in DPT coverage section above, educated households (both parents educated) and Hindu population had a better coverage than their counterparts. Similar trends, as seen in drop out ratios of DPT, are evident for OPV also.

Table 22 OPV Vaccination

% across	All	OPV 1 Given	OPV 2 Given	OPV 3 Given	Drop Out ratio OPV 1 to OPV 3 ¹²	Drop Out ratio OPV 1 to OPV 2	Drop Out ratio OPV 2 to OPV 3
ALL	296	85.1	79.7	68.6	19.4	6.3	14
LOCATION							
Rural	208	82.7	77.9	66.3	19.8	5.8	14.8
Urban	88	90.9	84.1	73.9	18.8	7.5	12.2
NORMAL/HIGH RISK							
Normal	240	86.7	82.5	71.7	17.3	4.8	13.1
High Risk	56	78.6	67.9	55.4	29.5	13.6	18.4
RELIGION							
Hindu	200	89.5	85	77.5	13.4↓	5	8.8
Muslim	96	76	68.8↓	50.0	34.2↑	9.6	27.3
CASTE							
SC	53	83	71.7	67.9	18.2	13.6	5.3
ST	28*		-			-	
Others	215	86	81.9	69.8	18.9	4.9	14.8
GENDER							
Male	148	88.5	81.8	73	17.6	7.6	10.7
Female	148	81.8	77.7	64.2	21.5	5	17.4
EDUCATION OF PARENTS							
Both literate	150	90	87.3	80.7	10.4	3	7.6
Both illiterate	59	79.7	74.6	54.2	31.9↑	6.4	27.3
One of them literate	87	80.5	70.1	57.5	28.6	12.9	18

¹² Drop out ratio from OPV 1 to OPV 3 = (All those who received OPV 1 – All those who received OPV 3) / All those who received OPV 1
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4.6 Measles Vaccination

In West Bengal only, 61% of children aged 12-23 months had received Measles vaccination. Of all children, 54% had received the Measles vaccine by 12 months. The coverage by Measles after 12 months was quite low suggesting that those who are getting the vaccination get it by the age of 12 months.

Analysing Measles coverage across background characteristics we find that significantly higher proportion amongst Muslims and uneducated households had not received Measles vaccination.

It is note worthy that though lesser females were getting immunised for all other antigens, the differences there were not significant. By the time of Measles, the gender differences have surfaced forcefully. While the Measles coverage amongst males was touching 70%, amongst females only about half of them had received Measles.

Table 23 Measles Vaccination

Base :All Children in	n the age gro	oup of 12-23 r	months				
% across	All	Measles Not given /DK/CS	Measles given	Measles given before 9 months	Measles given at 9 –12 months	Measles given at 13-15 months	Measles given at 15 + months
ALL	296	39.2	60.8	2.4	53.7	2.7	1
LOCATION							
Rural	208	41.8	58.2	2.4	50	3.4	1.4
Urban	88	33.0	67	2.3	62.5	1.1	0
NORMAL/HIGH RISK							
Normal	240	35.4	64.6	2.5	58.3	2.5	0.8
High Risk	56	55.4	44.6	1.8	33.9	3.6	1.8
RELIGION							
Hindu	200	29.5↓	70.5	2	62.5	3.5	1.5
Muslim	96	59.4↑	40.6↓	3.1	35.4	1	0
CASTE							
SC	53	35.8	64.2	3.8	56.6	3.8	0
ST	28*			-		11 -	
Others	215	38.6	61.4	1.4	54.9	2.3	1.4
GENDER							
Male	148	30.4	69.6↑	2.7	61.5	2.7	2.
Female	148	48.0	52.0↓	2	45.9	2.7	0
EDUCATION PARENTS	OF						
Both literate	150	27.3	72.7	3.3	63.3	4.7	0.7
Both illiterate	59	47.5	52.5	0	49.2	0	1.7
One of them literate	87	54.0	46	2.3	40.2	1.1	1.1

Base too small not analyzed further

Totals of when Measles was given does not add upto 100% because of non response.

4.7 VITAMIN A

Vitamin A Deficiency (VAD) can cause eye damage and blindness among children. It impairs children's immune system, increasing their chances of dying of common childhood diseases and undermines the health of pregnant and lactating women. Vitamin A supplementation, food fortification or dietary change can easily prevent it. Guidelines from Ministry of Health and Family Welfare, India recommends that children age 9-12 months be given Vitamin A supplements at the time of Measles vaccination and every six months thereafter (200,000 IU) until the age of 3 years.

Overall 56% had received Vitamin A. As can be seen from the following table, 49% had received Vitamin A dose along with the Measles vaccine (100,000IU) while another 7% received it separately from measles.

Across background characteristics, significantly higher proportion amongst Muslims and uneducated households had not received the Vitamin A dose.

Table 24 Vitamin A Vaccination

% across	All	Vitamin A Not given	Vitamin A given +	Given along with Measles	Given separately from Measles
ALL	296	40.5	56.1	49.3	6.8
LOCATION					
Rural	208	41.3	54.8	47.1	7.7
Urban	88	38.6	59.1	54.5	4.5
NORMAL/HIGH RISK					
Normal	240	37.1	60	52.9	7.1
High Risk	56	55.4	39.3	33.9	5.4
RELIGION					
Hindu	200	31.5	65.5	591	6.5
Muslim	96	59.4↑	36.5↓	29.2↓	7.3
CASTE					
SC	53	34	64.2	60.4	3.8
ST	28*	1			
Others	215	40	55.8	49.3	6.5
GENDER					
Male	148	33.1	62.8	55.4	7.4
Female	148	48	49.3	43.2	6.1
EDUCATION OF PARENTS					
Both literate	150	32.7	65.3	58.7	6.7
Both illiterate	59	45.8	47.5↓	39	8.5
One of them literate	87	50.6	46	40.2	5.7

^{*} Base too small not analysed further + Totals may not add up to 100% because not sure/don't know

4.8 FULLY IMMUNISED

the vaccines. The coverage of all vaccines shows significant variations across gender and religion. The differences by gender are significant for BCG and Measles. The differences by religion are significant for Measles. 71% Hindus received Measles vaccination to 41% of Muslims. The other characteristics exhibiting variations is the education of the parents, with compliance being highest for those whose Fully immunised means all who have received all the vaccines of Routine Immunization. A total of 56.4% of the children have received all both parents are educated and lowest was both are illiterate.

which dose was given. Therefore the overall proportion of fully vaccinated before 12 months may even be slightly higher than the The table also details the proportion who had received all vaccines before 12 months. Overall, 50% of the children had received all vaccines before 12 months. However, this proportion doesnot include the cases/doses where the respondent did not remember the age at proportion shown in the table.

Table 25 Fully Immunised

Base All												
Characteristic % across	All	BCG DPT1	DPT1	DPT2	DPT3	OPV1	OPV2	OPV3	Measles	Vit A	DPT2 DPT3 OPV1 OPV2 OPV3 Measles Vit A Received all vaccines	Received all vaccines before 12 months
ILL	296	87.8	85.8	77.7	9.69	85.1	79.7	68.6	8.09	56.1	56.4	50.3
LOCATION												
lural	208	86.1	83.2	75	67.3		77.9	66.3	58.2		54.3	48.1
Irban	88	92	92	84.1	75	90.9	84.1	73.9	29	59.1	61.4	55.7
NORMAL/HIGH RISK												
Normal	240	89.6	86.7	79.6	72.1	86.7	82.5	7.1.7	64.6	90	60.4	55.4
High Risk	56	80.4	82.1	9.69	58.9	78.6	67.9	55.4	44.6	39.3	39.3	28.6

¹³ This does not include Vitamin A

Base All			N							m	17	
Characteristic % across	₹	BCG	DPT1	DPT2	DPT3	OPV1	OPV2	DPT3 OPV1 OPV2 OPV3	Measles	Vit A	Received all vaccines	Received all vaccines before 12 months
GENDER												
Male	148	91.91	89.9	79.7	74.3	88.5	81.8	73	€9.61	62.8	64.2	56.1
Female	148	83.8↑	81.8	75.7	64.9	81.8	7.77	64.2	25↑	49.3	48.6	44.6
RELIGION												
Hindu	200	06	88.5	83	77.5	89.5	85	77.5	70.5↑	65.5	66.5	60.5
Muslim	96	83.3	80.2	2.99	53.1	9/	68.8	20	40.6↑	36.5	35.4	29.2
CASTE												
SC	53	88.7	83	7.17	67.9	83	7.1.7	67.9	64.2	64.2	64.2	58.5
ST	28*			•	1		•	•			-	
Others	215	88.4	87.4	80.5	70.7	98	81.9	8.69	61.4	55.8	2.99	50.2
EDUCATION OF PARENTS												
Both literate	150	93.3↑	90	87.3	82.7	06	87.3	80.7	72.7	65.3	70	62
Both illiterate	59	79.7↓	76.3	69.5	52.5	79.7	74.6	54.2	52.5	47.5	44.1	
One of them	87	83.9	85.1	2.99	58.6	80.5	70.1	57.5	46	46	41.4	37.9
literate						N. T.						

^{*} Base too low not analysed further

4.9 Sources of Immunization

Immunization services are still largely availed from the Govt. machinery though, of late, the private practitioners also have come to play an increasingly important role. To understand the relative importance of each kind of service outlet, respondents were asked about the most frequently availed outlet for Immunization services.

In West Bengal, PHC/sub centres emerge as the most frequently availed outlet (63%). The other sources that also found mention were Govt. Hospitals (29%), private physicians (6%). PHCs were accessed by a significantly higher proportion of illiterate households (80%) vis-àvis by literate households (57%).

Table 26 Most frequently used source for Immunization services

Base :All who received any	vaccine				
% across	Base	Mostly Govt./ Municipality Hospital	Mostly PHC/Subcentre	Mostly Private Physician	ANM/ Health Worker's visits
ALL	268	29.1	63.4	6.0	1.1
LOCATION					
Rural	184	23.4	71.7	3.3	1.6
Urban	84	41.7	45.2	11.9	0
NORMAL/HIGH RISK					
Normal	221	27.1	66.5	5.9	0.5
High Risk	47	38.3	48.9	6.4	4.3
GENDER					
Male	139	28.1	63.3	6.5	1.4
Female	129	30.2	63.6	5.4	0.8
RELIGION					
Hindu	186	29.6	64	5.4	1.1
Muslim	82	28	62.2	7.3	1.2
CASTE					
SC	48	33.3	64.6	0	2.1
ST	25	20	76	4	0
Others	195	29.2	61.5	7.7	1
EDUCATION OF PARENTS					
Both literate	141	33.3	57.4	8.5	0
Both illiterate	50	18	80.0↑	0	2
One of them literate	77	28.6	63.6	5.2	2.6

4.10 Injections Safety

The national policy prescribes one sterilised syringe and one sterilised needle to be used per injection. Normally sterilisation is to be done in a double deck steriliser/autoclave or an electric steriliser or boiling for 20 minutes in a saucepan.

In these times of HIV, it becomes extremely important that proper injection safety procedures are followed. However, in field situations, different variants of 'sterilisation' had been practised, many of which do not completely sterilise.

We had asked respondents to recall the procedure of how syringes and needles were prepared for the vaccination injections given to their child.

The most common method emerges to be `cleaning the needles and syringes in once boiled water mentioned by more than 30 percent of respondents. The other method was putting the needles and syringes in boiling water in a saucepan for 20 minutes.

It is highly concerning that more than a third in rural areas do not follow safe injection practices.

Table 27 Injection Safety

Base :All received injection							
Characteristic % across	All	Rural	Urban	Normal	High Risk	Male	Female
Base	265	181	84	218	47	139	126
Any Safe Injection Practices	54.0	47.5	67.8	55.1	48.9	48.9	59.6
Disposable	26.8	17.1	47.6	26.6	27.7	23	31
Boiling in a saucepan for 20 minutes	26	28.7	20.2	28	17	24.5	27.8
Boiling continuously in an electric steriliser	0.8	1.1	0	0.5	2.1	0.7	8.0
Autoclave/ double rack steriliser	0.4	0.6	0	0	2.1	0.7	. 0
Unsafe Injection practices							
Cleaning the needles and syringes in once boiled water	32.8	37	23.8	32.1	36.2	33.1	32.5
Don't remember	13.3	15.5	8.3	12.8	14.9	17.9	7.9

4.11 Reasons for Non Compliance

By the age of 12 months, a child is expected to be completely immunised. Reasons were elicited from the primary care taker of 12-23 months children for not getting their child fully immunised. The reasons mentioned were 'child was sick (38%)', 'not aware of the place (23%)', 'we were out of station (12%)', and 'not aware of the need of all vaccines (12%)'. Other reasons mentioned which can act as an obstacle for the programme are fear/rumour of side effects (8%) and 'no faith on vaccines (9%)'.

There were no significant differences across the background characteristics.

Table 28 Reasons for Non compliance

% across													
		Lack of knowledge	owledge		Lack of	Lack of motivation	ion			Obstacles			
	All (Base)	Not aware of	Not aware of	Not aware of	We	Child	Inconve	Vaccine was not	Child	Fear/ rumour of	Fear of getting	Have no faith	Illness es/
		the place/	the all vaccinat	programme	out of station	young	day/time / venue	there when we reached	sick	side	disease	in the vaccine	family proble ms
ALL 14	129	23.3	11.6	5.4	11.6	2.3	6.2	1.6	38	7.8	5.4	9.3	3.1
LOCATION													
Rural	95	22.1	11.6	6.3	9.5	3.2	8.4	2.1	38.9	6.3	4.2	9.5	2.1
Urban	34	26.5	11.8	2.9	17.6	0	0	0	35.3	11.8	8.8	8.8	5.9
NORMAL/HIGH RISK													
Normal	95	26.3	14.7	5.3	11.6	3.2	5.3	2.1	36.8	4.2	3.2	9.5	2.1
High Risk	34	14.7	2.9	5.9	11.8	0	8.8	0	41.2	17.6	11.8	8.8	5.9
RELIGION													
Hindu	29	26.9	13.4	4.5	11.9	4.5	4.5	1.5	34.3	9	4.5	0	m
Muslim	62	19.4	9.7	6.5	11.3	0	8.1	1.6	41.9	9.7	6.5	9.7	3.2

14 Totals may exceed 100% because of multicoding.

			Lack of knowledge	owledge		Lack of	Lack of motivation	ion			Obstacles			
% ac	% across	(Base)	Not aware of the place/	Not aware of the need of all vaccinat ion	Not aware of programme	We were out of station	Child was too young	Inconve nient day/time / venue	Vaccine was not there when we reached	Child was sick	Fear/ rumour of side effect	Fear of getting disease	Have no faith in the vaccine	Illness es/ family proble ms
GENDER														
Male		53	28.3	17	5.7	11.3	3.8	3.8	1.9	32.1	5.7	3.8	7.5	3.8
Female		76	19.7	7.9	5.3	11.8	1.3	7.9	1.3	42.1	9.2	9.9	10.5	2.6
CASTE														
SC		19*	1		1,			•	•		•			
ST		17*	,			•	1			1				
Others		93	20.4	10.8	5.4	10.8	2.2	6.5	2.2	40.9	8.6	6.5	9.7	3.2
EDUCATION	OF													
Both literate		45	17.8	2.2	4.4	8.9	2.2	4.4	0	46.7	13.3	11.1	8.9	4.4
Both illiterate		33	24.2	15.2	6.1	15.2	6.1	9.1	6.1	18.2	9.1	8	15.2	3
One of t	them	51	27.5	17.6	5.9	11.8	0	5.9	0	43.1	2	2	5.9	2
literate														

* Base too low not analysed further

5 Maternal Care

5.1 Age at first pregnancy

The National Population Policy advocates a delayed marriage and pregnancy only after 18-19 years. By this age it is expected that the woman is physically and mentally mature to go through the travails of a pregnancy. In this study women whose pregnancy had completed in last one year were contacted. Details were taken on their pregnancy history including the age at which they become pregnant for the first time and the care provided during the last pregnancy.

Study indicates that in West Bengal, one fifth of the select cohorts were pregnant for the first time before their 17th year. Half of them had become pregnant before completing 19 years.

Across religions, there were significant differences found. Amongst Muslim women the trend of early pregnancy was substantially stronger (30% before age 18) as compared to Hindus (14%). There were no significant differences across castes.

Table 29 Age at first pregnancy

Base : Eligible Women ¹⁵	Percen	t becom	e pregnai	nt before	age:			
% across	Base	15 years	17 years	19 years	21 years	21 +	Mean Age at first pregnancy	Median age at first pregnancy
ALL	296	2.7	19.9	49.7	75.3	100	19	18
CURRENT AGE								
Less than 20 years	44	11.4	52.3	97.7	100	100	16.4	15.9
20 -25 years	164	0.6	15.9	46.3	79.3	100	18.8	18.3
26-30 years	68	2.9	10.3	33.8	61.8	100	20.1	19.3
More than 30 years	20*		-	-	-		-	-
NO OF CHILDREN BORN ALIVE								
1 Child	121	3.3	17.4	45.5	69.4	100	19.4	18.4
2-4 children	149	2	20.1	51.7	77.2	100	18.9	17.9
More than 4 children	22*		-	-	-	-		
LOCATION								
Rural	208	2.4	19.7	52.4	77.9	100	18.8	17.9
Urban	88	3.4	20.5	43.2	69.3	100	19.7	18.9
NORMAL/HIGH RISK								
Normal	240	2.9	20	47.1	73.3	100	19.2	18.2
High Risk	56	1.8	19.6	60.7	83.9	100	18.3	17.5
RELIGION								
Hindu	173	1.2	14.5	44.5	71.1	100	19.5	18.5
Muslim	79	5.1	30.4	62	81	100	18.3	17.4
Religion not known	44**		-	-	-	-	-	
CASTE								
SC	57	1.8	19.3	45.6	80.7	100	18.9	18.4
ST	26*	-	-	-	-		-	
Others	169	1.2	18.3	50.3	74	100	19.1	18
Caste not known	44**		-		-	-	TO VALUE OF THE	i de

^{*} Base too small not analysed further

[&]quot; This includes people for whom religion and caste data was not collected. Therefore any further reporting by religion/caste has not been done for them.

¹⁵ Eligible Women are those whose pregnancy of more than 28 weeks ended in between 27/1/2000 to 26/1/2001

5.2 Pregnancy wastage and children surviving

Pregnancy wastage is defined as ratio of children not born alive to the total number of pregnancies multiplied by 100. In other words, of a total of 100 pregnancies how many did not result in a live birth.

Respondents were asked about the total number of pregnancies that the women had gone through and the total number of children that were born alive and are currently alive. The following table provides the details

Overall 7.4% pregnancy wastage was reported in the state.

Table 30 Survival rate and Pregnancy wastage

Base : Eligible Won % across	Base (Number)	No. of pregnancies	Children born alive	Pregnancy wastage %	Children currently alive	Children Surviving %
ALL	296	676	626	7.4	574	91.7
LOCATION						
Rural	208	493	463	6.1	427	92.2
Urban	88	183	163	10.9	147	90.2
NORMAL/HIGH RISK						
Normal	240	522	485	7.1	454	93.6
High Risk	56	154	141	8.4	120	85.1
RELIGION						
Hindu	173	373	347	7.0	319	91.9
Muslim	79	207	194	6.3	182	93.8
CASTE						
SC	57	147	135	8.2	123	91.1
ST	26*	61	57	6.6	47	82.5
Others	169	372	349	. 6.2	331	94.8
PLACE OF STAY *						
With in laws	202	475	447	5.9	414	92.6
With own Parents	44	67	61	9	60	98.4
Own	50	134	118	11.9	100	84.7
AGE OF WOMEN						
Less than 19 years	44	49	47	4.1	47	100
20 – 25 years	164	321	291	9.3	281	96.6
26 – 30 years	68	224	212	5.4	188	88.7
30 plus	20*			-		
CHILDREN BORN ALIVE						
One	121	136	121	11	119	98.3
Two – Four	149	405	380	6.2	360	94.7
More than four	22	131	125	4.6	94	75.2

^{*} Base too low

¹⁶ Eligible Women are those whose pregnancy of more than 28 weeks ended in between 27/1/2000 to 26/1/2001 WEST BENGAL DRAFT REPORT − 11TH JULY 2001
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5.3 Breast Feeding

Infant feeding practices have significant effects on child survival, maternal health and fertility. Breast-feeding improves the nutritional status of young children and reduces morbidity and mortality. Colostrum provides important nutrients and also protects the child against infections.

More than 21% of the mothers initiated breast feeding within two hours after their delivery and 62% within 24 hours while one tenth initiated only after 3 days of their delivery.

Table 31 Initiation of Breastfeeding

Base: All who had	a live birth						
% across	All	Less than 2 hrs	2 Hours - 24 Hours	25 Hrs - 72 Hrs	More than 72 Hours	Others	Not specified
ALL	289	21.1	40.8	26	10.4	1.4	0.3
LOCATION							
Rural	205	23.4	41	24.9	9.3	1.5	C
Urban	. 84	15.5	40.5	28.6	13.1	1.2	1.2
NORMAL/HIGH RISK							
Normal	233	20.2	42.9	25.8	9.4	1.7	C
High Risk	56	25	32.1	26.8	14.3	0	1.8
RELIGION							
Hindu	171	24	42.7	24.6	7	1.8	C
Muslim	78	20.5	32.1	34.6	12.8	0	C
Others CASTE	40	10	50	15	20	2.5	2.5
SC	56	32.1	41.1	17.9	5.4	3.6	C
ST	26	26.9	30.8	26.9	15.4	0	C
Others	167	19.2	40.1	31.1	9	0.6	C
NOT SPECIFIED	40	10	50	15	20	2.5	2.5
PLACE OF STAY**							
With In laws	197	20.3	45.7	24.4	8.1	1	0.5
With own parents	43	18.6	34.9	32.6	14	0	C
Own	49	26.5	26.5	26.5	16.3	4.1	C

^{*}Base too low

^{**} Place of stay refers to the set of parents with whom the respondent has spent most part of the last four months of last pregnancy.

5.4 Antenatal Care

Quality prenatal care contributes to the prevention of maternal mortality and morbidity by detecting and helping to manage potential complications. Antenatal care also provides opportunities for women to learn the danger signs of pregnancy and delivery, to be immunised against tetanus, to learn about infant care, and be treated for existing conditions if any, such as malaria and anaemia.

In West Bengal, all respondents had, met the medical personnel atleast once during their last pregnancy. More than three fifths had met the medical person at least thrice. Amongst Muslims, though the percent receiving at least three ANCs was lower, the proportion receiving two ANCs was higher. This signifies that though the need for check-up is recognised across religion, the optimum number of ANC needs to be communicated with greater emphasis.

Table 32 Received Antenatal contact

Base : All						
% across	Base	Met medical personnel	Met once	Met twice	Met at least three times	Not specified
ALL	296	100	4.7	30.1	61.8	3.4
LOCATION						
Rural	208	100	6.3	37	54.3	2.4
Urban	88	100	1.1	13.6	79.5	5.7
NORMAL/HIGH RISK						
Normal	240	100	5	32.5	60.4	2.1
High Risk	56	100	3.6	19.6	67.9	8.9
RELIGION						
Hindu	173	100	4	27.2	64.7	4
Muslim	79	100	7.6	38	51.9	2.5
CASTE						
SC	. 57	100	0	29.8	61.4	8.8
ST	26	100	7.7	42.3	50	0
Others	169	100	6.5	29	62.1	2.4
PLACE OF STAY						
With in laws	202	100	5.4	33.2	58.4	3
With own parents	44	100	4.5	18.2	75	2.3
Own	50	100	2	28	64	6

5.4.1 ANC Service Provider

Doctors at PHC and the Private physicians emerge as the main ANC service providers. There were no significant differences across the background characteristics.

Table 33 ANC service provider

Base :All women who have received ANC		Location		Normal/HR		Religion		
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim	Others
ANC SERVICE PROVIDER	296	208	88	240	56	173	79	44
Doctor at PHC/ Govt. Hospital	50	47.1	56.8	49.2	53.6	49.7	53.2	45.5
Private Physicians	36.8	35.6	39.8	37.5	33.9	38.7	29.1	43.2
ANM/LHV	12.8	17.8	1.1	15	3.6	9.2	20.3	13.6
TBA	4.4	4.8	3.4	4.6	3.6	5.2	3.8	2.3
Others	0.3	0.5	0	0	1.8	0.6	0	0
Not specified	3.4	2.4	5.7	2.1	8.9	4	2.5	2.3

5.4.2 Quality of ANC services

All respondents were asked if they had received some of the necessary services (namely physical examination, BP checking, Anaemia & Weight monitoring) during ANC. Physical examination of abdomen was done for more than two thirds of the respondents. Similarly blood pressure was checked for two thirds. Weight monitoring was done for more than half of the respondents.

Table 34 Details of ANC

Base :All women		Locatio	n	Norma	I/HR	Religion	
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim
BASE	296	208	88	240	56	173	79
PHYSICAL EXAMINATION OF ABDOMEN							
Yes	68.2	61.1	85.2	67.5	71.4	75.1	53.2
BLOOD PRESSURE CHECKED							
Yes	66.6	60.6	80.7	65.8	69.6	74.6	50.6
No. OF TIMES THE BLOOD PRESSURE WAS CHECKED							
Once	20.6	21.6	18.2	21.3	17.9	22	19
Twice	19.9	22.1	14.8	19.6	21.4	20.8	17.7

Base :All women	99 4 1	Locatio	n	Norma	I/HR	Religion	
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim
BASE	296	208	88	240	56	173	79
Thrice	7.4	4.8	13.6	7.1	8.9	7.5	5.1
More than three times	18.2	11.5	34.1	17.5	21.4	23.7	8.9
WEIGHT TAKEN							
Yes	55.1	50	67	52.9	64.3	58.4	45.6
No	44.9	50	33	47.1	35.7	41.6	54.4
No. of times weight taken							
Once	18.2	20.7	12.5	17.5	21.4	15.6	22.8
Twice	17.9	17.3	19.3	17.9	17.9	20.2	12.7
Thrice	6.8	5.3	10.2	4.6	16.1	5.8	6.3
More than three times	12.5	7.2	25	13.3	8.9	17.3	3.8

5.4.3 TT Immunization

Tetanus Toxoid injections are given to women during pregnancy to protect the new borns from neonatal tetanus, a major cause of neonatal death that is due primarily to unsanitary conditions during childbirth. Two doses of tetanus toxoid during pregnancy offer full protection. However, if a woman was vaccinated during a previous pregnancy, she may only need a booster to give full protection. Five doses are thought to provide lifetime protection.

Almost 95% of the respondents received TT Immunization during their last pregnancy. 91.9% received two or more than two tetanus injections during the last pregnancy itself.

However, though the TT Immunization seems almost universal, the timing of the dose still needs to be worked on. Less than one tenth had received the first dose in the first trimester. However, close to 65% did receive two doses by 6-7th month of the pregnancy.

Table 35 TT Immunization Base : All women		Location		Normal/H	ligh Risk	Re	ligion
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslims
Base	296	208	88	240	56	173	79
TT injections given							
Yes	94.6	94.7	94.3	95.4	91.1	94.8	93.7
No	5.4	5.3	5.7	4.6	8.9	5.2	6.3
No. of times TT injections were given						Lines	
All who had been given TT	280	197	83	229	51	164	7.
Once	8.9	9.1	8.4	8.7	9.8	6.7	13.
Twice or more	91.1	90.9	91.6	91.3	90.2	93.3	86.
Month of pregnancy when 1 st injection dose was given					19 71	-5a0'a;	
Base: All who had been given TT	280	197	83	229	51	164	7
First dose by the third month	9.3	6.1	16.9	6.1	23.5	4.3	18.
First dose later than third month	90.7	93.9	83.1	93.9	76.5	95.7	81.
Month of pregnancy when 2 nd injection dose was given							
Base: All who has been given TT twice or more	255	179	76	209	46	153	6
Second dose by the sixth month	5.5	3.4	10.5	5.3	6.5	5.9	4.
Second dose in 6-7 months	64.7	63.7	67.1	66	58.7	68	59.
Second dose in later than 7 months	29.8	33	22.4	28.7	34.8	26.1	35.
NO OF TT RECEIVED IN TOTAL							
Base: All	296	208	88	240	56	173	7
Zero to one	3.4	2.8	4.5	3	5.4	4	1.
Two	29.1	26	36.4	30	25	30.6	25.
Three to four	29.7	30.3	28.4	30.4	26.8	30.6	22
Five and more than five	37.8	40.9	30.7	36.7	42.9	34.7	50

5.4.4 Sources of TT Immunization

The most common service provider for TT Immunization was Govt. Doctor/ Doctor at PHC (64%). More than one third accessed Private physicians. Chemists did not play a significant role in West Bengal as far as TT immunisation is concerned.

Table 36 TT immunization service delivery and injection safety

Base : Amongst all those who received TT injections	l	Location		Normal/HR			Religion		
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim		
BASE	280	197	83	229	51	164	74		
SERVICE DELIVERY POINT									
Govt. Doctor/ PHC/Sub Centre/ANM visit to village	64.3	67	57.8	66.8	52.9	62.2	67.6		
Private Physician/ Pvt. Hosp./Pvt. Clinic	35.4	33	41	32.8	47.1	37.8	32.4		
Chemists	0.4	0	1.2	0.4	0	0	0		

5.4.5 Injection Safety

In IPPI 2001 respondents were asked to recall the procedure of how syringes and needles were prepared for the second subsequent application.

Under safe injection practices, the most common method used for immunisation purposes was the use of Disposable (44%). The other common method was 'boiling in a saucepan for 20 minutes' (16%). Under unsafe practices, the most common method emerges to be 'cleaning the needles and syringes in once boiled water' as mentioned by one fourth of the respondents.

It is alarming to note that at least one fourth of the TT Immunization used unsafe needles and syringes.

Table 37 Injection safety practices

Base : Amongst all those who received TT injections	L	Location		Normal/HR		Reli	Religion	
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim	
BASE	280	197	83	229	51	164	74	
Safe Injection Practices	60.4	57.9	66.2	58.5	68.7	61	62.2	
Disposable	43.9	37.1	60.2	40.2	60.8	48.2	45.9	
Boiling in a saucepan for 20 minutes	15.7	20.8	3.6	17.9	5.9	12.8	14.9	
Autoclave/ double rack steriliser	0.4	0	1.2	0	2	0	1.4	
Boiling continuously in an electric steriliser	0.4	0	1.2	0.4	0	0	0	
Unsafe Injection Practices								
Cleaning the needles and syringes in once boiled water	26.4	26.9	25.3	27.5	21.6	25	25.7	
Don't know	13.2	15.2	8.4	14	9.8	14	12.2	

5.5 Iron Folic Acid

IFA Tablets or Iron supplements form an important part of the diet of a pregnant woman. The Iron supplements are the most effective measure against Anaemia.

In West Bengal, close to four fifth of women had received IFA Tablets. Differences across the background characteristics were not significant.

Table 38: IFA Tablets

Base : All	Received Iron Folic A	cid	MAIL TRANSPORT	INCENTAL CONTRACTOR
% across	BASE	Yes	No	DK/Missing
ALL	296	78.4	20.6	1
LOCATION				
Rural	208	80.3	19.2	0.5
Urban	88	73.9	23.9	2.3
NORMAL/HIGH RISK				
Normal	240	81.3	17.9	0.8
High Risk	56	66.1	32.1	·1.8
RELIGION				
Hindu	173	78	20.2	1.7
Muslim	79	74.7	25.3	0
CASTE				
SC	57	70.2	24.6	5.3
ST	26*		-	
Others	169	76.9	23.1	0
PLACE OF STAY				
With In laws	202	77.2	21.8	1
With own parents	44	79.5	18.2	2.3
Own House	50	82.0	18.0	0

^{*} Base too small not analysed further

5.5.1 IFA Receipt and Consumption

The most common source for receiving IFA tablets were Govt. sources and Chemists. Overall, close to 30% availed the IFA tablets from Private Physicians/ Chemists.

While close to 26% received more than 90 tablets only 19% of respondents consumed more than 90 tablets. Amongst those who mentioned receiving IFA tablets, 60% had mentioned a change in stool colour.

Table 39 IFA receipt and consumption

Base : Amongst all who received IFA		Location	1	Norma	I/HR	Religion	
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim
BASE:	232	167	65	195	37	135	59
SERVICE DELIVERY POINT							
Govt. Doctor/ PHC/Sub Centre/ ANM visit	69.0	76.2	47.7	69.2	67.6	64.4	79.7
Private Physician/ Pvt. Hosp./Pvt. Clinic	8.2	8.4	7.7	8.2	8.1	7.4	6.8
AWW	2.2	3.0	0.0	2.6	0	3	0
Chemists	21.1	12.0	44.6	20.5	24.3	25.9	13.6
No. of IFA Dose RECEIVED							
Less than 30	26.3	27.5	23.1	26.2	27	24.4	28.8
30-89	45.3	48.5	36.9	44.6	48.6	45.2	54.2
90 or more	26.3	23.4	33.8	27.2	21.6	29.6	15.3
Not specified	2.2	0.6	6.2	2.1	2.7	0.7	1.7
No. of IFA Dose Consumed							
Less than 30	31.2	32.4	28.2	31.4	30.4	28	35.1
30-89	41.8	45.1	33.3	41.5	43.5	40.2	45.9
90 or more	24.8	21.6	33.3	24.6	26.1	30.5	16.2

^{*} Religion does not add up to 100 as data was not collected for 38 respondents

5.6 Advise on Warning Signals during Pregnancy

Counselling on precautions, what to expect, common problems, referral services and knowledge of the warning signals all form an important part of the ANC.

Respondents were specifically asked whether they had received any advise on some of the common warning symptoms during pregnancy. Overall two fifths of the respondents mentioned they had received any advice. The corresponding proportion was significantly lower amongst Muslims. The differences across other background characteristics were not significant.

The following table provides further details on the common complications for which advice was given.

Table 40 Intimation about warning signals during pregnancy

BASE: ALL		Location	1	Norma	I/HR	Re	ligion
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim
BASE:	296	208	88	240	56	173	79
ADVICE ABOUT WHO/WHERE TO APPROACH IN CASE OF ANY MEDICAL COMPLICATIONS							
Yes	39.9	37.5	45.5	37.5	50	46.21	25.3↓
No	60.1	62.5	54.5	62.5	50	53.8	74.7
WARNING SIGNALS							
All coding 'yes' above Base :	118	78	40	90	28	80	20
Excessive swelling of feet	56.8	59	52.5	54.4	64.3	57.5	45
Any bleeding	64.4	61.5	70	63.3	67.9	63.8	65
Any fits	65.3	66.7	62.5	71.1	46.4	70	45
Not feeling the movements of the baby	39.8	46.2	27.5	40	39.3	42.5	30
Severe weakness	52.5	56.4	45	55.6	42.9	55	50
DK/CS	0.8	1.3	0	0	3.6	1.3	0
Others	0.8	1.3	0	1.1	0	0	0

Kind of complications for which the respondents were advised to seek care. This does not reflect the prevalence of such complications.

5.7 Night Blindness

Night blindness or poor adaptation to dark is an early functional manifestation of Vitamin A deficiency (VAD). About 87 percent of the women who delivered in last one year mentioned that they did not have any problems with vision at night. Close to one seventh however did mention problems with vision at night.

Table 41 Difficulty in vision at night time

Base : Eligible Women ¹⁸	Difficulty in vision at Ni	ght Time ¹⁹	
% across		Yes	No
ALL	296	13.2	86.8
LOCATION			
Rural	208	13.9	86.1
Urban	88	11.4	88.6
NORMAL/HIGH RISK			
Normal	240	13.3	86.7
High Risk	56	12.5	87.5
RELIGION			
Hindu	173	12.1	87.9
Muslim	79	19	81
CASTE			
SC	57	12.3	87.7
ST	26*		-
Others	169	14.2	85.8
PLACE OF STAY ²⁰			
With In laws	202	14.4	85.6
With own parents	44	13.6	86.4
Own	50	8	92

^{*} Base too low not analysed further

¹⁸ Eligible Women are those whose pregnancy of more than 28 weeks ended in between 27/1/2000 to 26/1/2001
¹⁹ From Q4.28

²⁰ Place of stay in last 4 months of last pregnancy WEST BENGAL DRAFT REPORT – 11TH JULY 2001

5.8 Place of Delivery and Assistance at delivery

Institutional deliveries and provision of delivery assistance by trained attendants can greatly improve outcomes for mothers and children by the use of technically appropriate procedures, and accurate and speedy diagnosis and treatment of complications.

More than half of the deliveries were conducted at home only, about 46% were institutional deliveries. Amongst Muslims more than three fourths of the respondents have had home deliveries.

Table 42 Place of delivery

Base : All	Place of Deli	very	0-21/2		
% across	Base (Number)	Home	Govt. Hospital	PHC/ Sub- centre	Private Hospital/ Nursing home
ALL	296	53.7	31.1	4.7	10.5
LOCATION					
Rural	208	67.3	20.7	6.3	5.8
Urban	88	21.6	55.7	1.1	21.6
NORMAL/HIGH RISK					
Normal	240	52.5	30.8	5.4	11.3
High Risk	56	58.9	32.1	1.8	7.1
RELIGION					
Hindu	173	43.4	35.8	5.8	15
Muslim	79	77.2↑	16.5	3.8	2.5
CASTE					
SC	57	47.4	42.1	7	3.5
ST	26*		135	4	E Annual Co.
Others	169	55	26	3.6	15.4
PLACE OF STAY21					
With In laws	202	51.5	31.2	6.4	10.9
With own parents	44	50	36.4	2.3	11.4
Own	50	66	26	0	8

^{*} Base too low not analysed further

²¹ Place of stay in last 4 months of last pregnancy WEST BENGAL DRAFT REPORT − 11TH JULY 2001

It is important to assess the proportion that had received skilled/trained assistance during delivery. The following table shows that a Traditional Dai have conducted more than half of the deliveries in Rural areas in West Bengal. Private Physicians and Govt. doctors' services were availed by one fifth of the respondents. It is noteworthy that ANM's attend to less than 1% deliveries which is their basic responsibility. Amongst Muslims, Traditional Dai conducted as many as 61% of the deliveries in comparison to the 37% in Hindus.

Table 43 Assistance during delivery

Base : All	Who co	onducted	the delive	ery				
% across	Base	Any Doctor	Govt. Doctor	Pvt. Physic ian	ANM/ LHV	Traine d Dai	Traditio nal Dai	Others
ALL	296	52.3	33.4	18.9	0.7	8.8	43.6	2
LOCATION								
Rural	208	42.8	22.1	20.7	.1	9.6	52.9	2.4
Urban	88	75.0	60.2	14.8	0	6.8	21.6	1.1
NORMAL/HIGH RISK								
Normal	240	51.6	33.3	18.3	0.4	8.3	45	1.7
High Risk	56	55.3	33.9	21.4	1.8	10.7	37.5	3.6
RELIGION								
Hindu	173	63.0	39.9	23.1	1.2	2.9	37	2.3
Muslim	79	31.6	17.7	13.9	0	17.7	60.8↑	1.3
CASTE								
SC	57	52.6	45.6	7	0	5.3	49.1	1.8
ST	26*	42.0	26.9	15.4	3.8	7.7	53.8	3.8
Others	169	55.0	29.6	25.4	0.6	8.3	41.4	1.8
PLACE OF STAY ²²								
With In laws	202	52.0	33.7	18.3	0.5	8.4	43.6	1.5
With own parents	44	59.1	38.6	20.5	2.3	11.4	31.8	4.5
Own	50	48.0	28	20	0	8	54	2

^{*} Base too low not analysed further

²² Place of stay in last 4 months of last pregnancy WEST BENGAL DRAFT REPORT – 11TH JULY 2001

5.8.1 Nature of delivery

Majority (90%) of the deliveries were normal deliveries. About 9 per cent deliveries entailed Caesarean sections. The incidence of Caesarean section is much higher among Hindus compared to the Muslims, this could be due to the fact that the incidence of institutional deliveries is higher amongst Hindus.

Table 44 Nature of Delivery

Base : All % across	Nature of Delivery								
	Base (Number)	Normal Delivery	Assisted	Caesarian	Destructive operation				
ALL	296	89.9	1	8.8	0.3				
LOCATION									
Rural	208	95.2	0	4.3	0.5				
Urban	88	77.3	3.4	19.3	0				
NORMAL/HIGH RISK									
Normal	240	88.3	1.3	10	0.4				
High Risk	56	96.4	0	3.6	0				
RELIGION									
Hindu	173	87.9↓	0.6	11.0	0.6				
Muslim	79	98.7↑	0	1.3	0				
CASTE									
SC	57	91.2	0	7	1.8				
ST	26*		-						
Others	169	90.5	0.6	8.9	0				
PLACE OF STAY ²³									
With In laws	202	88.6	1.5	9.4	0.5				
With own parents	44	90.9	0	9.1	0				
Own	50	94	0	6	0				

^{*} Base too low not analysed further

²³ Place of stay in last 4 months of last pregnancy WEST BENGAL DRAFT REPORT – 11TH JULY 2001

5.8.2 Details of the delivery

For all women who delivered at home, details were taken to assess whether the *Basic Cleans* of Delivery were observed. These Five Cleans are 1) Clean Hands 2) Clean Surface 3) Clean Blade 4) Clean thread 5) Clean cord. In the survey, data for all cleans except clean hands was collected.

DDK or Disposable Delivery Kit contains provisions for a clean sheet, new blade, new thread and soap such that these all Cleans could be adhered to. However, as can be seen only 5 respondents had received DDK and even they did not use it.

Clean Surface: About half (49.6%) of home deliveries were conducted without ensuring a clean surface.

New Blade was used in three fourth of the cases. Another close to one fifth used boiled blade/scissors. For tying the cord, **boiled thread** was used in almost the same proportion as the non-boiled thread. Close to **three fifths did not apply anything** on the cord. Close to 40% had applied Powder/ Medicine. Only 9.4% of the home deliveries were such deliveries when four cleans were followed.

Table 45 Details of the Delivery

		Location		Normal/HR		Religion	
% down	All	Rural	Urban	Normal	High Risk	Hindu	Muslim
BASE : ALL DELIVERING AT HOME	159	140	19*	126	33	75	61
WHETHER RECEIVED DDK							
Yes	3.1	3.6		4	0	5.3	1.6
No	96.9	96.4		96	100	94.7	98.4
SURFACE USED							
On cot with a clean cloth/plastic sheet	15.1	13.6	-	15.1	15.2	17.3	13.1
On cot without a clean cloth/plastic sheet	13.8	13.6		12.7	18.2	16	8.2
On ground but on clean cloth/plastic sheet	35.2	35.7		34.9	36.4	32	44.3
On ground without a clean cloth/plastic sheet	35.8	37.1	-	37.3	30.3	34.7	34.4
INSTRUMENT USED							
Boiled Scissors/ Blade	17.6	17.9		16.7	21.2	16	23
New blade	72.3	70.7		72.2	72.7	68	73.8
Others	1.9	2.1		2.4	0	4	0
Don't Know	5	5.7		5.6	3	6.7	3.3
Not specified	3.1	3.6		3.2	3	5.3	0
TYING OF THE CORD							
Tied with a boiled thread	45.9	45		48.4	36.4	44	52.5
Non boiled thread	45.9	46.4		42.1	60.6	42.7	45.9
Don't Know	7.5	7.9		8.7	3	13.3	1.6
APPLICATION ON THE CUT CORD							
Nothing was applied	56	54.3		55.6	57.6	57.3	57.4
Powder/ Medicine	39.6	40.7	-	40.5	36.4	38.7	37.7
Oil	2.5	2.9		2.4	3	4	1.6