



**IOCH**  
**Immunization and Other Child Health Project**

**Vaccination Coverage Survey of the  
Sirajganj Municipality**

**July 2002**

**Survey Report No. 77**

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## Acronyms

BCC	Behavior Change Communication
BCG	Bacillus of Calmette and Guerin
CES	Coverage Evaluation Survey
COSAS	Coverage Survey Analysis System
DPT	Diphtheria, Pertussis and Tetanus
EPI	Expanded Program on Immunization
FWC	Family Welfare Center
IOCH	Immunization and Other Child Health
Mahallah	Smaller localities (smaller than a village)
MOHFW	Ministry of Health and Family Welfare
Mouza	Smallest administrative locality in an Upazila
MSH	Management Sciences for Health
NGO	Non Governmental Organization
NID	National Immunization Day
OPV	Oral Polio Vaccine
TT	Tetanus Toxoid
WHO	World Health Organization

## Terminology

This provides the meaning of some of the more technical terms used in this report and a brief explanation of their use.

**By card:** An immunization given to a child is termed as by card if the date of the dose is entered on an immunization card. Only doses recorded by card are treated as valid data in this survey.

**By history:** Immunization history collected from a parent's recall is termed as by history. Often no date will be mentioned. This information is only included in crude data.

**Crude coverage** rate is calculated from the doses recorded by card and/or by history. It is not ascertained whether the doses were given at the correct age and/or following the correct interval (where applicable). Crude data however, helps us to understand how much additional coverage could be achieved if all vaccines were given at the optimum age for the child and following the optimum interval. It also provides useful information on access to the EPI program and on the operational aspects of the provision of health services.

**Valid coverage** rate is calculated from the vaccinations recorded by card plus history. In the calculation process, first the rate of validity is calculated based on cards only, then this rate is applied to history cases too. Valid data includes only the doses of vaccines that were given after the minimum date of eligibility and/or after the minimum interval necessary to be effective and to protect the child. There is no maximum interval for a dose and therefore a dose administered after 52 weeks is still regarded as valid. By comparing crude coverage with valid coverage data of any particular antigen, one can determine how much coverage was lost due to the inability to give vaccine at the appropriate time.

**Invalid doses** are those administered at the wrong age and/or at the wrong interval. Doses administered before the minimum age in the case of DPT/Polio 1<sup>st</sup> doses and Measles vaccine or with less than four weeks interval in the case of DPT or Polio vaccines are classified as "invalid" doses.

The **criteria for a valid dose** used in this survey is the criteria recognized by the Bangladesh EPI program: minimum age for DPT/Polio 1<sup>st</sup> dose - 6 weeks old; minimum DPT/Polio interval - 4 weeks; minimum age for Measles vaccine - 38 weeks old.

**Dropout** cases refer to the children/women who have initially received at least one dose of any antigen and then failed to receive the subsequent doses to get fully immunized. Dropout rate implies the inability of the EPI to follow-up and protect the cohort of children initially reached out.

**Program access** is measured by the percentage of children surveyed who received DPT 1<sup>st</sup> dose (crude data – by card and history) in the routine immunization session.

**Fully immunized** means the child has received all the doses it requires (BCG, OPV 1-3, DPT 1-3 and measles).

**Missed opportunity** refers to a visit of a child to a vaccination center for a dose that he received. However at that time he was also eligible for another dose of antigen that he did not receive. If the missed dose was provided at a later date, it is a *corrected missed opportunity*. If not, it is an *uncorrected missed opportunity*.

## SUMMARY RESULTS

### Background

The routine EPI program in the municipalities is carried out by a variety of private and public providers at fixed (hospitals, clinics, dispensaries, etc.) and at outreach sites. NGOs and private practitioners also provide immunization services in many places. The municipal authorities are primarily responsible for providing and/or coordinating primary health care including routine EPI services in municipal areas. However, in the absence of an effective management information system and reliable service statistics at municipal level, it is often difficult to assess the level of immunization coverage of the municipalities. In view of this situation, the IOCH decided to conduct a series of coverage evaluation surveys in the selected municipal areas to assess the level of immunization coverage in these municipal areas. As a part of this effort, the IOCH conducted a coverage evaluation survey in the Sirajganj Municipality in July 2002.

### Objectives

The overall objective of the survey was to assess the level of immunization coverage in the Sirajganj Municipality. The specific objectives were to:

- a) assess the level of routine immunization coverage of the children (12-23 months) and find out the reasons for non-immunization and partial immunization;
- b) assess the level of TT immunization coverage among women of 15-49 years of age, irrespective of their marital status, and find out the reasons for non-immunization and partial immunization; and
- c) assess the coverage levels of OPV and Vitamin A administered during the 10<sup>th</sup> NID campaign.

### Methodology

The survey employed the WHO recommended 30-cluster survey methodology that has been widely used in many developing countries to assess immunization coverage. In all, 30 clusters were randomly selected from the Sirajganj Municipality following PPS sampling procedures. A list of the selected clusters is provided in Annex- A and their locations are shown on the maps in page 10. From each cluster, 7 children 12 – 23 months and 7 women of reproductive age (15 – 49 years) irrespective of their marital status were selected following 30 cluster survey methodology to ascertain their routine immunization coverage. Also, 7 children < 5 years (0 – 59 months) were selected to assess the immunization coverage of the 10<sup>th</sup> National Immunization Campaign.

The WHO standard questionnaires were used for documenting the routine immunization status of the children and women. Also, separate questionnaires were used to collect data on NIDs and reasons for non-immunization and dropouts. The data were collected by the experienced Field Investigators of the Survey Team of the IOCH. Data processing and analysis were done by the Monitoring & Evaluation Unit of the IOCH using COSAS 4.41<sup>1</sup> and EpiInfo.

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<sup>1</sup> COSAS (Coverage Survey Analysis System) is a dedicated software for analyzing coverage evaluation survey data.

### **Coverage levels for the routine immunization of children**

**Access to child immunization:** Based on crude data (card plus history), 94% children received at least one dose of antigen (DPT 1<sup>st</sup> dose in this case) from routine immunization sessions. 6% children did not receive a dose of any antigen.

**Crude coverage between 12-23 months:** 94% children received BCG, 83% children received three doses of OPV, 83% received three doses of DPT and 78% received measles vaccine. 77% children were fully immunized.

**Valid coverage between 12-23 months:** 94% children received BCG, 75% children received three doses of OPV, 73% received three doses of DPT and 75% received measles vaccine. 71% children were fully immunized.

**Valid coverage by 12 months:** 94% children received BCG, 74% children received three doses of OPV, 72% received three doses of DPT and 71% received measles vaccine. 68% children were fully immunized.

**Routine immunization coverage by sex:** Female children had more access to routine immunization services than the male children. Boys' access to immunization, as measured by the crude coverage of DPT1, was 4 percentage points lower than that of the girls (92% for boys vs. 96% for girls). The crude coverage of measles for the boys was also 3 percentage points lower than that for the girls (76% for boys vs. 79% for girls), resulting in higher crude FIC (fully immunized children) for the girls than the boys (74% FIC for boys vs. 79% crude FIC for girls). However, proportion of invalid doses for DPT1 and measles were higher among the girls than the boys, resulting in lower valid FIC for the girls than the boys (72% valid FIC for boys vs. 70% valid FIC for girls).

**Dropout rates:** Although access to child immunization was high (94% for DPT1), the dropout rates for different antigens were high too. There was 12% dropout from DPT1 to DPT2 and 18% from DPT1 to measles.

**Invalid doses:** There were a number of invalid doses due to early immunization and/or inadequate interval between the doses. 5% of the DPT1 doses were administered before 6 weeks, and 4% measles doses before 38 weeks of age of the children. In addition, 1% of the DPT2 doses were invalid as they were given before the 4 weeks interval between the doses.

**Missed opportunities:** Total missed opportunities (uncorrected plus corrected) for different antigens ranged from 2% to 10%. However, the prevalence of uncorrected missed opportunities for different antigens was low (0 – 4%). The composite index for total missed opportunities was as high as 68, reflecting poor quality of screening during vaccination sessions.

**EPI card retention:** 94% of the children interviewed were ever given EPI cards; however, EPI cards were available with 45% of the respondents at the time of interview. EPI card retention rate was 48% only, which means that 52% of the EPI cards were lost.

**Knowledge about required visit to immunization center for full immunization:** 42% of the parents interviewed did not have any idea about how many times a child was required to be taken to an immunization center to get fully immunized; while 19% had wrong idea about it. Only 36%

of the parents could mention correctly the number of times (i.e. 4 times) a child is required to visit immunization center to get fully immunized.

**Source of immunization services and distance of vaccination centers:** Childhood immunization in this area was provided mostly by the municipal outreach centers (37%), followed by the GOB clinics (24%) and hospitals (18%). NGO clinics and private clinics provided EPI services to 10% and 9% of the cases respectively. All the EPI outreach centers were located within 10 minutes traveling distance from homes of the children.

**Reasons for non-immunization and partial immunization or dropout of children:** The primary reasons for non-immunization of children cited by the parents were lack of awareness of need and importance of immunization (50%) and fear of pain of vaccination (17%). The reasons for partial immunization or dropout included sickness of the children (29%), lack of knowledge about the need of subsequent doses to get fully immunized (14%) and lack of knowledge about the importance of measles vaccine (17%).

#### **Coverage levels for the routine TT immunization of women**

**TT immunization coverage:** Access to TT immunization for the women 15 – 49 years was fairly good. 81% of the women received TT1. The corresponding figures for TT2, TT3 and TT4 were 79%, 57% and 41% respectively. Only 21% of the women received TT5, which provide lifelong protection against tetanus. 19% of the women never received any TT vaccine.

**TT immunization dropout rates:** TT immunization dropout rates were high. The dropout rate for TT2 to TT3 was 27%. The corresponding rates for TT3 to TT4 and TT4 to TT5 were 29% and 48% respectively. The dropout rate for TT1 to TT5 was as high as 74%, indicating that 74% of the women who received first dose of TT did not complete 5 doses TT immunization schedule.

**Invalid TT doses:** A significant proportion of TT doses were invalid as they were administered before the minimum required interval between the doses. 27% of the TT3 doses were given before 6 months interval between TT2 and TT3, and as such were invalid. Two-third of the TT4 doses (67%) were invalid, since they were given before one year interval between TT3 and TT4; similarly, 50% of the TT5 doses were invalid for the same reason.

**Protection against tetanus at birth:** 90% of the newborn babies were found protected against tetanus, indicating that 10% newborn babies were still not protected against tetanus at birth.

**TT card retention:** 79% of the women were ever given TT cards; however, TT cards were available with 8% of the women only at the time of interview. TT card retention rate was 10% only, indicating that 90% of the TT cards were lost.

**Knowledge about full TT immunization:** 93% of the women did not have correct knowledge about the number of TT doses required for a woman for full immunization. Only 7% women could correctly mention that a woman was required to receive 5 doses of TT vaccine for full immunization for lifelong protection against tetanus.

**Sources of TT immunization:** Majority of the women received TT vaccine from GOB hospitals (35%), followed by GOB clinics (23%). 13% of the women received TT vaccine from municipal outreach centers and 11% from private clinics. NGO clinics provided TT immunization to 11% of the cases only.

**Age distribution of women never receiving TT immunization:** The younger, as well as older women are less likely to receive TT vaccine. 53% of the women under 20 years and 38% of the women over 35 years of age had never received any dose of TT vaccine; while the corresponding figures for the women of other age-groups ranged from 9% to 13%.

**Reasons for non-immunization and partial immunization of women:** The primary reasons for non-immunization of TT cited by majority of the women were lack of awareness of need and importance of TT immunization (67%) and fear of injection (8%); while 23% reported that the TT immunization was not introduced when they had their pregnancies. The primary reasons for partial immunization or dropout were that the women were not aware of the need of subsequent doses to get fully immunized against tetanus (31%), health workers did not specify the next dose (23%) or they were told by the health workers that 2 or 3 doses of TT were enough for them for their pregnancies, and they were not advised (by health worker) for full immunization (35%).

#### **Coverage levels for the 10<sup>th</sup> NID Campaign**

**OPV and Vitamin A coverage:** 95% of the children <5 years received OPV in both the rounds of the 10<sup>th</sup> NIDs. The coverage for OPV in the 1<sup>st</sup> round was 96%; while it was 3 percentage points higher (99%) in the 2<sup>nd</sup> round. Vitamin A capsules were given to 87% of the eligible children (12 – 59 months of age).

**Sources of OPV during the 10<sup>th</sup> NIDs:** Almost all the children received OPV from the NID sites. Only 4% of the children in the 1<sup>st</sup> round and 5% in the 2<sup>nd</sup> round were provided OPV at their homes by the health workers/volunteers during child-to-child search.

**Sources of information of the 10<sup>th</sup> NIDs:** Majority of the parents learned about the 10<sup>th</sup> NID campaign from miking (59%), followed by relatives and friends (34%). 30% of the parents came to know about the NIDs from municipal workers. Television as a source of information was cited by 26% of the parents.

**Reasons for not receiving vaccines from the NID sites:** The primary reasons for not receiving OPV from the NID sites of the 10<sup>th</sup> NIDs were: lack of information of NIDs (19% in 1<sup>st</sup> round), child was away from home (19% in the 1<sup>st</sup> round and 17% in the 2<sup>nd</sup> round) and preoccupation of the parents with other work (6% in 1<sup>st</sup> round and 17% in 2<sup>nd</sup> round).

#### **Comparison with previous survey results**

In July 2000, a coverage evaluation survey was conducted in the Sirajganj Municipality by the IOCH. A comparison of the results of that survey with the results of this one reveals that there has been significant improvement in the coverage of routine child and TT immunization, as well as NID coverage over the past two years. Access to child immunization has increased from 88% in 2000 to 94% in 2002 and crude FIC (fully immunized children) from 66% in 2000 to 77% in 2002. The valid FIC by one year has increased from 50% in 2000 to 68% in 2002. The dropout rates for child immunization have also reduced considerably (dropout rate for DPT1 to DPT3 has reduced from 17% to 12% and DPT1 to measles from 24% to 18%) over the past two years. The

coverage of TT1 has increased from 61% in 2000 to 81% in 2002 and TT5 coverage from 16% to 21%. The coverage of OPV during NIDs has increased from 93% in both rounds of the 7<sup>th</sup> NIDs in 1999 to 95% in both rounds of the 10<sup>th</sup> NIDs in 2002. However, the Vitamin A coverage has reduced from 94% in the 7<sup>th</sup> NIDs to 87% in the 10<sup>th</sup> NIDs.

### **Problems detected**

Access to child immunization was good (94% for crude DPT1); but this high access dropped to 77% for fully immunized children because of high dropout rates of different antigens. (Dropout rate for DPT1 to DPT3 was 12% and DPT1 to measles was 18%). Similarly, access to TT immunization for the women 15 – 49 years was also good. 81% of the women interviewed received the first dose of TT; but TT dropout rate was very high (74% for TT1 to TT5), resulting in very low coverage of TT5 (21%), which provides lifelong protection against tetanus. Such high dropout rates imply inability of the EPI program to follow-up and protect the cohort of children/women initially reached out.

There were many invalid doses in child immunization (5% for DPT1 and 4% for measles), which further reduced the crude full immunization coverage of 77% to 71% when validity of doses was taken into account. Total missed opportunities for different antigens were also high (10% for BCG, 5% for DPT1/OPV1 and 2% for measles). Also, a very high proportion of TT doses were invalid (27% for TT3, 67% for TT4 and 50% for TT5). These high rates of invalid doses and missed opportunities reflect service providers' inability to screen the clients properly.

EPI card (child immunization card) and TT card play an important role in ensuring good quality of immunization services. It helps the mothers to adhere to immunization schedule, as well as assists the service providers to screen properly the children for specific doses of specific antigens. Unfortunately, the retention rates of both the EPI cards and TT cards were low, 48% and 10% respectively.

Women/mothers have a poor understanding of full immunization. 64% of the parents could not mention how many times a child was required to be taken to EPI center to get fully immunized. Similarly, 93% of the women interviewed did not know how many TT doses were required for a woman for lifelong protection against tetanus.

5% of the children <5 years did not receive OPV in both the rounds of the 10<sup>th</sup> NIDs. Also, 13% of the children 12 – 59 months did not receive Vitamin A. In spite of intensive communication activities during NIDs, lack of information of NID campaign as a reason for not receiving OPV from NID site was still reported by 19% in the 1<sup>st</sup> round.

### **Suggested solutions**

1. Programmatic strategies must be undertaken to reduce the existing high dropout rates in both child immunization and TT immunization. The program should focus on quality of counseling of mothers/women (on immunization) by the service providers. The service providers at the first contact must counsel the mothers/women properly to motivate her to return and to get herself and/or her child fully immunized.
2. Program managers and field supervisors should ensure that EPI sessions are held as per plan, and at a regular and adequate interval (more than 28 days).
3. The service providers should be given refresher training to improve their technical skills on counseling of mother/women on immunization.

4. In order to reduce existing high rate of invalid doses (particularly for TT immunization) and missed opportunities, emphasis should be given on screening of clients for both child and TT immunization. The service providers should be given refresher training to improve their technical skills on screening of clients for immunization.
5. The pregnant mothers should be motivated (by the service providers and/or by the BCC activities through mass media) to receive the required number of TT doses necessary to protect their newborn babies.
6. Mothers should be explained (by the service providers) the benefits and importance of EPI cards/ TT cards for immunization of themselves and their children.
7. Mothers should be asked to preserve the EPI card safely until their children are 5 years old, and to bring the cards with them whenever they comes to the clinic/ EPI center for immunization of their children. They should also be asked to carefully preserve their TT cards, and to bring the cards with them whenever they come to clinic/ EPI center for TT immunization.
8. In the case of loss of EPI card/TT card, it should be provided over and over, and the history of the earlier vaccinations accurately recorded again and again, if necessary.
9. During IPC between the mothers and the service providers and/or at the first contact, the mothers should be clearly explained the importance of full immunization of children and women, and of the immunization schedule for full immunization for both children and women.
10. The program should strengthen BCC activities to inform the community of importance of immunization in general, and to motivate the mothers to get themselves and their children fully immunized. Very selective and focused mass media campaign may also be conducted to achieve this end.
11. Area specific innovative strategies suitable to local situation have to be undertaken during the next NIDs to reach to the left out children.
12. More attention should be given to high risk areas and traveling population during next NIDs.
13. Communication activities need to be strengthened through mass media, such as television, as well as through IPC by the health workers, to inform the communities of the next NID campaign.
14. Parents should be encouraged to attend the fixed NID sites/centers and discouraged to wait for home visits by the service providers during child-to-child search.
15. For distribution of Vitamin A capsules during NID, special attention should be given to the exact age group to limit shortage (through better screening for age) and no Vitamin A capsule should be given to the parents to administer them to their children either at NID site or in their homes.



## TABLES AND CHARTS

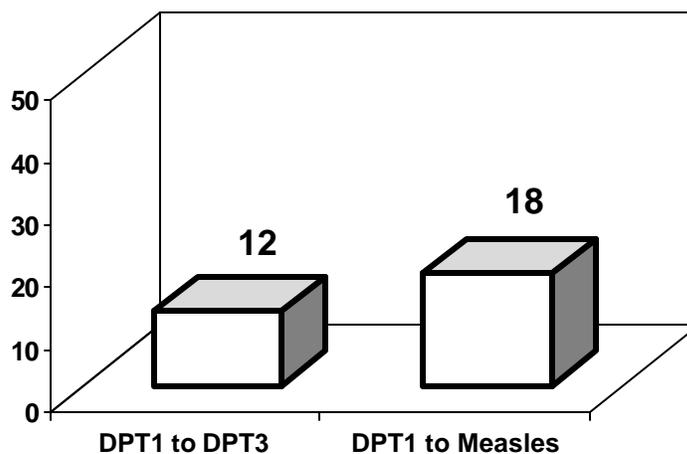
**Table 1: Routine immunization coverage levels of the children**

Name of the Vaccine	Coverage (%) Immunization of 12-23 months age group		Coverage (%) Immunized by 12 months of age
	Crude data (Access)	Valid data	Valid data
BCG	94	94	94
OPV1	94	90	90
OPV2	91	83	82
OPV3	83	75	74
DPT1	94	90	90
DPT2	91	81	80
DPT3	83	73	72
Measles	78	75	71
Fully immunized	77	71	68
Zero Dose	6	-	-

**Table 2: Routine immunization coverage levels by gender**

Name of the vaccine	Coverage % Immunization of 12-23 months age group				Coverage % Immunized by 12 months	
	Crude data (Access)		Valid data		Valid data	
	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)
BCG	92	96	92	96	92	96
OPV1	92	96	90	90	90	90
OPV2	91	92	83	84	81	84
OPV3	82	85	74	77	74	74
DPT1	92	96	90	90	90	90
DPT2	91	92	81	82	79	82
DPT3	81	85	71	75	71	73
Measles	76	79	74	75	70	71
Fully immunized	74	79	72	70	70	66
Zero dose	8	4	-	-	-	-

**Chart-1: Drop-out rate for child immunization**



**Table 3: Invalid doses of immunization provided to the children**

Antigens	Percentage
DPT1	5
DPT2	1
DPT3	-
Measles	4

**Table 4: Missed opportunities by antigens**

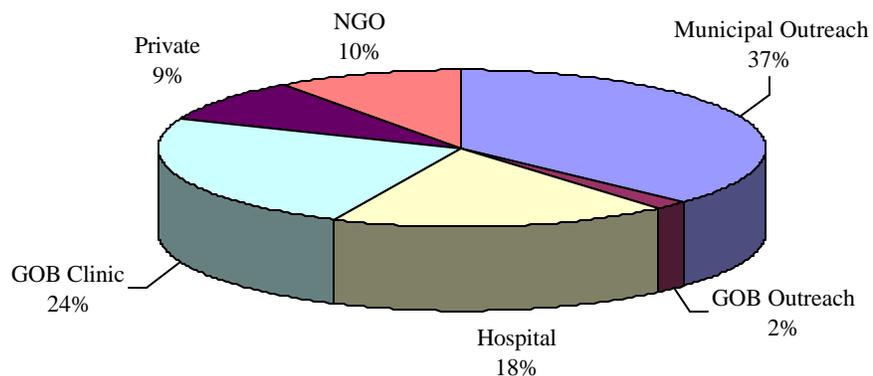
Name of the vaccine	Uncorrected		Corrected		Total		
	Number	Percent	Number	Percent	Number	Percent	
BCG	5	2	17	8	22	10	
DPT1	8	4	3	1	11	5	
DTP2	0	0	4	2	4	2	
DPT3	1	1	3	1	4	2	
OPV1	8	4	3	1	11	5	
OPV2	2	1	4	2	6	3	
OPV3	2	1	3	1	5	2	
Measles	3	1	2	1	5	2	
*Index						68	

*\* The idea is to propose one composite index reflecting the quality of screening during vaccination sessions.*

**Table 5: EPI cards availability and retention**

<b>Card Status</b>	<b>Number</b>	<b>Percentage</b>
EPI card available	95	45
EPI card ever given	198	94
EPI card retention	95	48

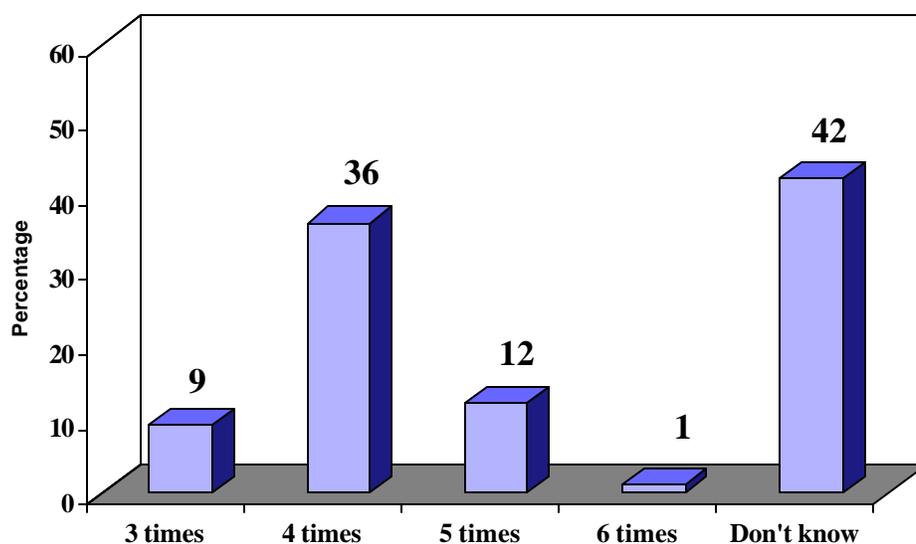
**Chart-2: Sources of child immunization services**



**Table 6: Distance between the child's home and the vaccination site**

<b>Time (Minutes)</b>	<b>Number</b>	<b>Percentage</b>
1-5 Min.	148	70
6-10 Min.	62	30

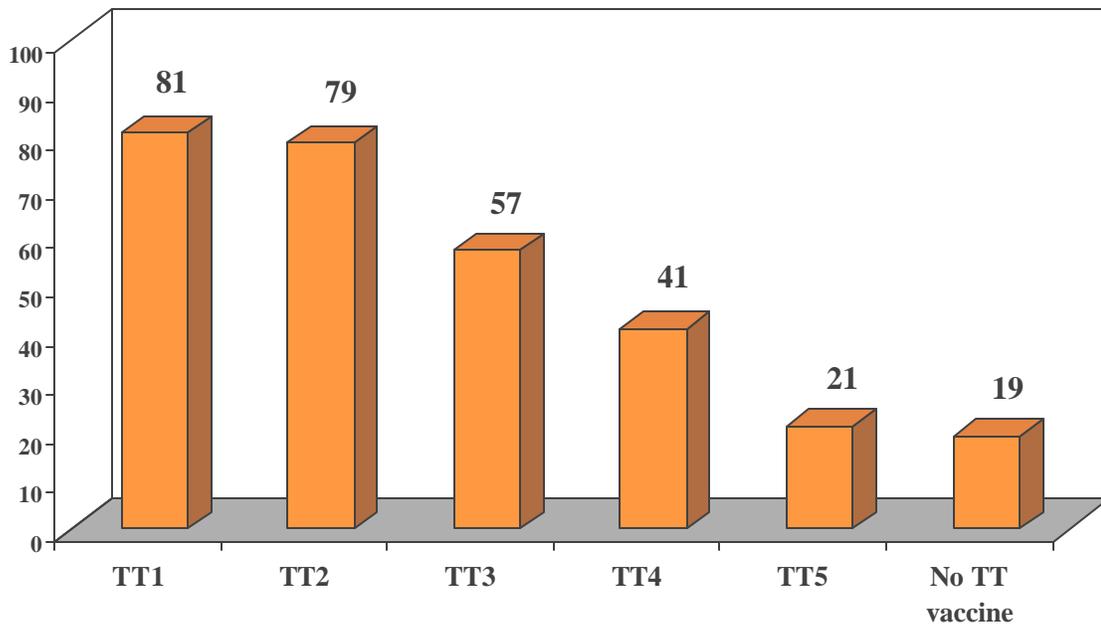
**Chart 3: Knowledge about required visits to immunization centers for full immunization**



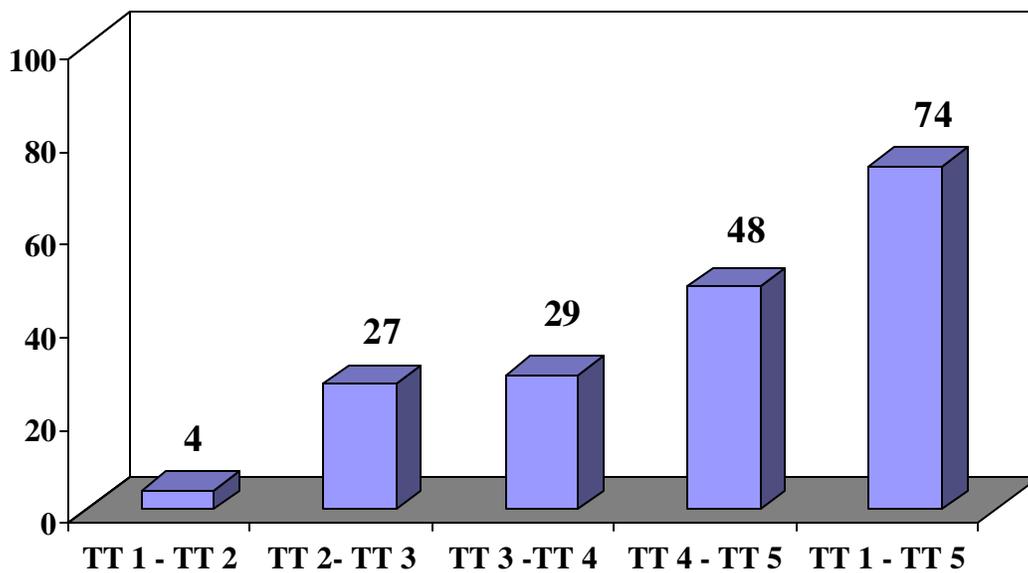
**Table 7: Reasons for non-immunization and partial immunization of the children**

<b>Reasons for non-immunization or partial immunization</b>	<b>Non-immunized (%) (N=12)</b>	<b>Partially immunized (%) (N=35)</b>
Did not know about need of immunization	50	-
Did not know about need of second dose	-	14
Did not know when to return for 2 <sup>nd</sup> /3 <sup>rd</sup> dose.	-	11
Did not know about importance of measles vaccine	-	17
Child was sick and not taken to immunization center	8	29
Fear of adverse reaction	-	6
Vaccinator was not available at the site	-	3
Child was not at home	-	3
Painful for the children	17	6
Others	25	11

**Chart 4: Routine immunization coverage levels for TT among women 15-49 years**



**Chart 5: TT Immunization drop-out rate among women 15-49 years**



**Table 8: Interval between TT1 and TT2, TT2 and TT3, TT3 and TT4, TT4 and TT5 doses**

Interval between dose	<1 months		1 months+		<6 months		6 months+		<1 year		1 year +		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
TT1-TT2	1	1	138	99	-	-	-	-	-	-	-	-	139	100
TT2-TT3	-	-	-	-	24	27	66	73	-	-	-	-	90	100
TT3-TT4	-	-	-	-	-	-	-	-	39	67	19	33	58	100
TT4-TT5	-	-	-	-	-	-	-	-	13	50	13	50	26	100

**Table 9: Children born protected against tetanus**

Status of children born protected	Number	Percentage
Protected	188	90
Not Protected	22	10

**Table 10: Age distribution of women never receiving TT vaccine**

Age group	Received		Not received		Total	
	#	%	#	%	#	%
15-19	9	47	10	53	19	100
20-25	54	87	8	13	62	100
26-30	53	91	5	9	58	100
31-35	37	88	5	12	42	100
36-45	18	62	11	38	29	100
Total	171	81	39	19	210	100

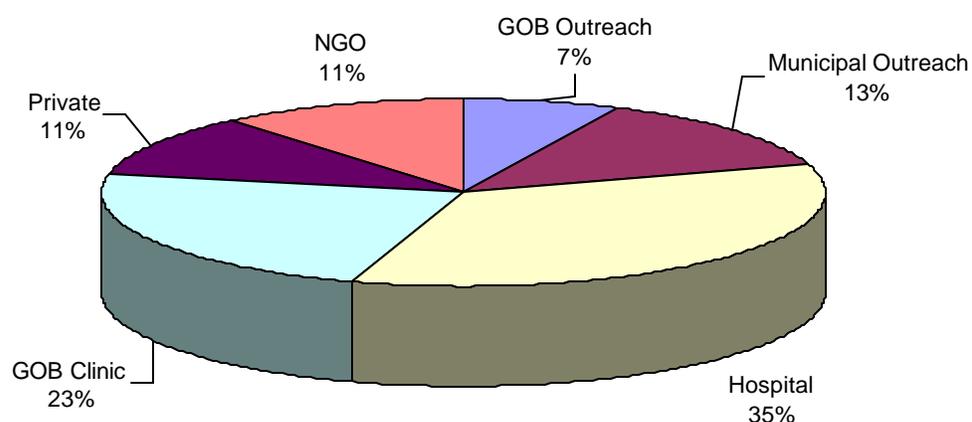
**Table 11: Knowledge about number of TT doses required for life time protection against tetanus**

Answers	Number	Percentage
5 doses	14	7
Don't know/ no idea	196	93

**Table 12: TT cards availability and retention**

Card Status	Number	Percentage
TT card available	16	8
TT card ever given	165	79
TT card retention	16	10

**Chart 6: Providers of TT immunization**



**Table 13: Reasons for non-immunization and partial immunization for TT of the women**

Reasons	Non-immunized (%) (N=39)	Partially immunized (%) (N=127)
Next dose is not yet due	-	8
Don't feel need for immunization	67	-
Health worker did not specify the next dose	-	23
As per HW advice, 2/3 doses of TT are enough during the pregnancy	-	35
Unaware of need of next dose	-	31
In our times, TT immunization was not in practice	23	-
Fear of injection	8	2
Others	2	1

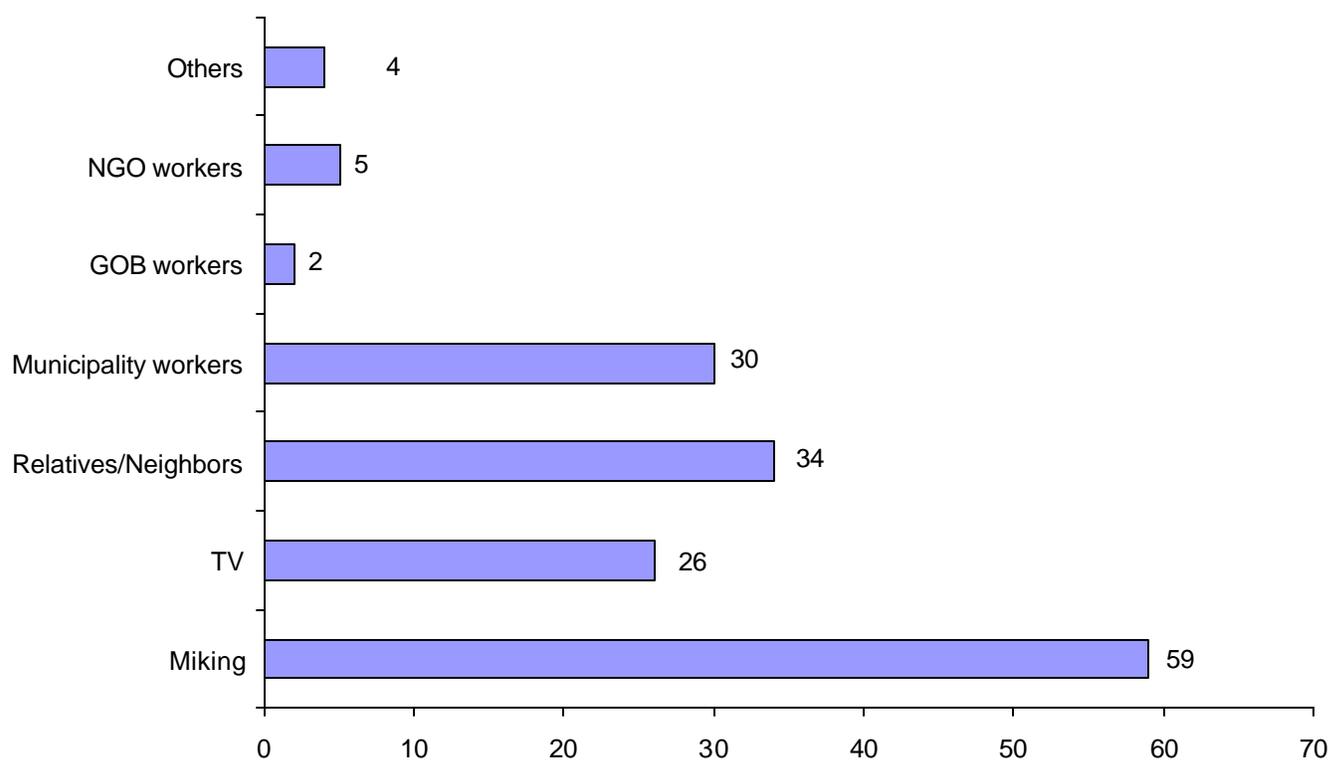
**Table 14: Coverage of the 10<sup>th</sup> NID campaign**

Round	OPV (%)	Vitamin A (%)
1 <sup>st</sup> round	96	87
2 <sup>nd</sup> round	99	-
Both rounds	95	-
Any round	99	-

**Table 15: Sources of OPV during the 10<sup>th</sup> NIDs**

Sources of OPV	1 <sup>st</sup> Round		2 <sup>nd</sup> Round	
	#	%	#	%
NID site	194	96	198	95
Child to child search	7	4	10	5
Total	201	100	208	100

**Chart 7: Sources of information about the 10<sup>th</sup> NID campaign**



**Table 16: Reasons for not receiving OPV from NID sites during 10<sup>th</sup> NIDs**

Reasons	1 <sup>st</sup> Round (%) (N=16)	2 <sup>nd</sup> Round (%) (N=12)
Did not know about NID	19	
Forgot the date	6	8
Too busy	6	17
Child sick not taken	6	
Waited for house visit	6	8
Child away from home	19	17
Others	38	50

**Table 17: Comparison of the results of the coverage evaluation surveys conducted in Sirajganj Municipality by year of surveys**

Variable	Results of the Surveys	
	Survey in 2000* (%)	Survey in 2002 (%)
<b>Child immunization:</b>		
Acesss (DPT1, crude data)	88	94
FIC (crude data)	66	77
FIC (valid data)	54	71
FIC by 1 yr. (valid data)	50	68
<b>Dropout rate:</b>		
DPT1 to DPT3	17	12
DPT1 to Measles	24	18
<b>Invalid doses:</b>		
DPT1	3	5
Measles	12	4
<b>TT immunization:</b>		
TT1	61	81
TT5	16	21
<b>NID coverage:</b>		
OPV in both rounds	93	95
Vitamin A	94	87

\* Source: Vaccination Coverage Survey of the Sirajganj Municipality- July 2000 conducted by IOCH/MSH

**Annex- A****List of Selected Clusters for the Survey**

Ward	Mouza name	Mahalla name	Total Population	Cluster. No
1	Mashim pur	Mashim pur	4423	1
	Mohammad pur	Mohammad pur	3037	2
	Raipur	Raipur	4183	3
	Shaya Dangara	Shaya Dangara	4691	4-5
2	Dear Dangara	Dear Dangara	2991	6
	Sekh Mujib Road	Sekh Mujib Road	1482	7
	Soharawardi Road	Soharawardi Road	2773	8
3	Jublee Bagan	Jublee Bagan	643	9
	Rahamatganj	Rahamatganj	2023	10
	Shaya Dangara	Shaya Dangara	4202	11
	Shaya Gobinda	Shaya Gobinda	4752	12
4	Bahir gola/Marwari patti	Bahir gola/Marwari patti	756	13
	Datta Bari	Datta Bari	2591	14
	Jahan pur	Jahan pur	3880	15
	Kob das para	Kob das para	1561	16
5	Ek Dala	Ek Dala	4856	17-18
6	E.B Road	E.B Road	595	19
	Sher-E-Bangla road	Sher-E-Bangla road	1945	20
7	Dhan Bandi	Dhan Bandi	8737	21-23
	Hossain pur	Hossain pur	5793	24
8	Char Malsha Para	Char Malsha Para	1391	25
	Char Roy Pur	Char Roy Pur	3121	26
	Mirpur	Mirpur	3062	27
	Mirpur Dakshin Gram	Mirpur Dakshin Gram	1744	28
	Mirpur Uttar Gram	Mirpur Uttar Gram	2406	29
	Putia Bari	Mashim pur	2932	30

**Annex- B****List of Never Vaccinated Children Identified by Clusters**

Ward	Mouza name	Mahalla name	Total Population	Cluster. No	Never Vaccinated Children
1	Mashim pur	Mashim pur	4423	1	1
	Mohammad pur	Mohammad pur	3037	2	1
2	Dear Dangara	Dear Dangara	2991	6	1
	Soharawardi Road	Soharawardi Road	2773	8	1
4	Datta Bari	Datta Bari	2591	14	1
5	Ek Dala	Ek Dala	4856	17*, 18	1*
7	Dhan Bandi	Dhan Bandi	8737	21*, 22*, 23	1*, 1*
8	Char Malsha Para	Char Malsha Para	1391	25	1
	Char Roy Pur	Char Roy Pur	3121	26	2
	Mirpur Uttar Gram	Mirpur Uttar Gram	2406	29	1

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1. Joint National/International Review of EPI Program in Urban Areas of Bangladesh - 23 January - 3 February 2000. Technical Report No. 1, July 2000
2. Joint Review of the Expanded Program on Immunization (EPI) in the Areas of Rural service Delivery Partnership (RSDP), April 2001. Technical Report No. 2, May 2002

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