



IOCH

Immunization and Other Child Health Project

Vaccination Coverage Survey of the Jessore Municipality

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Survey Report No. 95

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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
SNID	Sub-national Immunization Day
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 1st 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 1st 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 1st 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 municipal areas. 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 areas. As a part of this effort, the IOCH conducted a coverage evaluation survey in the Jessore Municipality in December 2002.

Objectives

The overall objective of the survey was to assess the level of immunization coverage in the Jessore 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 10th 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 Jessore 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 12. 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 10th NID Campaign- 2002.

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 4.41¹ and EpiInfo.

¹ COSAS (Coverage Survey Analysis System) is a dedicated software for analyzing coverage evaluation survey data.
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Coverage levels for the routine immunization of children

Access to child immunization: Based on crude data (card plus history), 99% children received at least one dose of antigen (DPT 1st dose in this case) from routine immunization sessions. 1% children did not receive a dose of any antigen.

Crude coverage of 12-23 months age group: 99% children received BCG, 92% children received three doses of OPV, 92% received three doses of DPT and 83% received measles vaccine. 83% children were fully immunized.

Valid coverage of 12-23 months age group: 99% children received BCG, 86% children received three doses of OPV, 87% received three doses of DPT and 79% received measles vaccine. 77% children were fully immunized.

Valid coverage by 12 months: 98% children received BCG, 86% children received three doses of OPV, 87% received three doses of DPT and 71% received measles vaccine. 68% children were fully immunized.

Routine immunization coverage by sex: There was no significant sex difference in accessing routine child immunization services. Boys' access to immunization, as measured by the crude coverage of DPT1, was 2 percentage points higher than that of the girls (100% for boys vs. 98% for girls), resulting in 2 percentage higher crude FIC for boys than that of girls (84% crude FIC for boys vs. 82% crude FIC for girls). However, proportion of invalid measles doses among the boys was higher than the girls, resulting in lower valid FIC for boys than that of the girls (75% valid FIC for boys vs. 78% valid FIC for girls). A similar trend was also observed in case of valid coverage by 12 months (67% valid FIC by 12 months for boys vs. 69% valid FIC by 12 months for girls).

Dropout rates: Although access to child immunization was very good (99% for DPT1), the dropout rates for different antigens were high. There was 7% dropout from DPT1 to DPT3 and 16% from DPT1 to measles.

Invalid doses: 4% of the DPT1 doses were administered before 6 weeks of age of the children, and 5% of the measles doses were administered before 38 weeks of age of the children.

Missed opportunities: Total missed opportunities (uncorrected plus corrected) for different antigens ranged from 3% to 5%. The prevalence of uncorrected missed opportunities for different antigens ranged 1% - 3%. The composite index for total missed opportunities was 62, reflecting poor quality of screening during vaccination sessions.

EPI card retention: 99% of the children interviewed were ever given EPI cards; however, EPI cards were available with 59% of the respondents at the time of interview. EPI card retention rate was 60% only, as 40% of the EPI cards were lost.

Knowledge about required visit to immunization center for full immunization: 41% of the mothers 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 25% had wrong idea about it. Only 34% of the mothers could mention correctly the number of times (i.e. 4 times) a child is required to visit immunization center to get fully immunized.

Sources of immunization services and distance of vaccination centers: Childhood immunization in this area was provided mostly by the NGO clinics (60%), followed by the hospitals (13%). Municipal outreach centers and GOB outreach centers provided EPI services to 14% and 5% of the cases respectively. All the EPI outreach centers were located within 10 minutes travel time, and 90% of the children went to the EPI centers on foot.

Reasons for non-immunization and partial immunization or dropout of children: Only 2 children out of 210 were found non-immunized and 33 were partially immunized. The primary reasons for partial immunization or dropout included sickness of the children (27%), lack of awareness about the need and importance of measles vaccination (15%) and fear of pain of injection (9%).

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. 83% of the women received TT1. The corresponding figures for TT2, TT3 and TT4 were 82%, 62% and 46% respectively. Only 28% of the women received TT5, which provide lifelong protection against tetanus. 17% of the women never received any TT vaccine.

Age distribution of women never receiving TT immunization: The younger, as well as older women are less likely to receive TT vaccine. 50% of the women under 20 years and 39% of the women over 35 years of age had never received any dose of TT vaccine; while the corresponding figures ranged from 6% to 16% for the women of other age-groups.

TT immunization dropout rates: TT immunization dropout rates were high. The dropout rate for TT2 to TT3 was 24%. The corresponding rates for TT3 to TT4 and TT4 to TT5 were 26% and 39% respectively. The dropout rate for TT1 to TT5 was as high as 66%, indicating that 66% 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. 31% of the TT3 doses were given before 6 months interval between TT2 and TT3, and as such were invalid. 43% of the TT4 doses were invalid, since they were given before one year interval between TT3 and TT4; similarly, 46% of the TT5 doses were invalid for the same reason.

Protection against tetanus at birth: 95% of the newborn babies were found protected against tetanus, indicating that 5% newborn babies were still not protected against tetanus at birth.

Knowledge about full TT immunization: 90% of the women did not have correct knowledge about the number of TT doses required for a woman for full immunization. Only 10% women could correctly mention that a woman was required to receive 5 doses of TT vaccine for full immunization for lifelong protection against tetanus.

TT card retention: 81% of the women were ever given TT cards; however, TT cards were available with 10% of the women only at the time of interview. TT card retention rate was 12% only, as 88% of the TT cards were lost.

Sources of TT immunization: Majority of the women received TT vaccine from the NGO clinics (46%), followed by the municipal outreach centers (15%). Hospitals and GOB EPI outreach centers provided TT immunization to 14% and 13% of the cases respectively.

Reasons for non-immunization and partial immunization of women: The primary reason for non-immunization of TT cited by majority of the women was lack of awareness of need and importance of TT immunization (74%) and fear of injection (15%). 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 (53%) or the health workers did not specify the date for next dose (16%).

Coverage levels for the 10th NIDs

OPV and Vitamin A coverage: 98% of the children <5 years received OPV in both the rounds of the NIDs. The coverage for OPV was 99% in each of the rounds. Vitamin A capsules were given to 92% of the eligible children (12 – 59 months of age). Besides, Vitamin A capsules were wrongly administered to 4 ineligible children who were <1 year old on the 1st Round NID day.

Sources of OPV during the 10th NIDs: Most of the children received OPV from the NID sites (98% in the 1st round and 96% in the 2nd round). Only 1% children in the 1st round and 2% in the 2nd round received OPV during child-to-child search.

Distance of NID sites and mode of transportation used: All the NID sites were located within 10 minutes walking distance from the home of the children.

Households visited during child-to-child search: 84% of the households were visited by the health workers/volunteers during child-to-child search in the 2nd round of the 10th NIDs, as reported by the parents/respondents.

Sources of information of the NID: Majority of the parents learned about the 10th NIDs from relatives and neighbors (40%), followed by television (37%). About 34% parents came to know about the NIDs from municipal workers. Miking as a source of information was cited by 30% parents.

Reasons for not receiving vaccines from the NID sites: The primary reasons for not receiving OPV from the NID sites were: lack of information of the NIDs (25% in the 1st round and 38% in the 2nd round), preoccupation of parents on the NID days (25% in the 1st round and 12% in the 2nd round), and children were away from home on NID days (25% in the 1st round and 13% in the 2nd round).

Comparison with previous survey results

In October 2000, a coverage evaluation survey was conducted in the Jessore Municipality by the IOCH. A comparison of the results of that survey with the results of this one reveals that there has been some 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 96% in 2000 to 99% in 2002 and crude FIC (fully immunized children) from 81% in 2000 to 83% in 2002. The valid FIC has increased from 73% in 2000 to 77% in 2002. However, the dropout rates and invalid doses of child immunization remained unchanged. TT coverage of women has considerably

increased over the last two years. The coverage of TT1 has increased from 78% in 2000 to 83% in 2002 and TT5 coverage from 20% to 28%. The coverage of OPV during NIDs has increased from 96% in both rounds of the 7th NIDs in 1999 to 98% in both rounds of the 10th NIDs in 2002. Vitamin A coverage has also increased from 89% in the 7th NIDs to 92% in the 10th NIDs.

Conclusions and recommendations

Access to child immunization was very good (99% for DPT1); but this high access dropped to 83% for fully immunized children because of high dropout rates of different antigens. (Dropout rate for DPT1 to DPT3 was 7% and DPT1 to measles was 16%). Similarly, access to TT immunization for the women 15 – 49 years (irrespective of their marital status) was also good. 83% of the women received the first dose of TT; but TT dropout rate was very high (66% for TT1 to TT5), resulting in very low coverage of TT5 (28%), 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 and women initially reached out.

- ***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 health workers. The health worker at the first contact must counsel the mother/woman properly to motivate her to return and to get herself and/or her child fully immunized. He/she must:***
 - *explain to mother/woman the importance of full immunization, and concept of 8 doses and 4 visits required for full immunization of a child;*
 - *tell mother/woman of reproductive age the benefit and importance of full TT immunization and the concept of 5 dose TT schedule for lifelong protection against tetanus;*
 - *issue an EPI card/TT card dully filled out and explain the mother/woman the importance of keeping the EPI card/TT card in safe and bringing it on the next due date;*
 - *tell the mother/woman clearly when she should come back for next doses, and inform her that the date is written in the EPI card/ TT card so that she can check it if forgets the date;*
 - *inform the mother/woman of possible side effects of injection and how it should be handled;*
 - *pay attention to the hospitality at the clinic/EPI center, and to supportive environment.*
- ***Program managers and field supervisors should ensure that EPI sessions are held as per plan, and at a regular and adequate interval***
- ***The service providers should be given refresher training to improve their technical skills on counseling of mothers/women on immunization***

There were also too many invalid doses in child immunization (4% for DPT1, and 5% for measles), which further reduced the crude full immunization coverage of 83% to 77% when validity of doses was taken into account. Total missed opportunities for different antigens ranged from 3% to 5%. Like child immunization, a very high proportion of TT doses were invalid (31% for TT3, 43% for TT4 and 46% for TT5). These high rates of invalid doses and missed opportunities reflect service providers' inability to screen the clients properly.

- ***Emphasis should be given on screening of clients for immunization to avoid or reduce invalid doses and missed opportunities. The service providers must:***
 - *screen properly each and every child/ woman to decide his/her eligibility for a specific dose of specific antigen;*
 - *check EPI card/ EPI register/ TT card or any other record to decide on the eligibility of a particular dose of specific antigen(s);*
 - *if a child/woman is found not eligible for a dose today, ask him/her to return at a specified date and explain the reason to her/mother clearly and patiently.*
 - *check if there is any missed opportunity for other antigens.*
- ***The service providers should be given refresher training to improve their technical skills on screening of clients for immunization.***

A considerable number of newborn babies (5% of the total new born babies) were found unprotected against tetanus at birth.

- ***The pregnant mothers should be motivated to receive the required number of TT doses necessary to protect their newborn babies.***

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 the children for specific doses of specific antigens. Unfortunately, the retention rates of both the EPI card and TT card were very low, 60% and 12% respectively.

- ***Mothers/women should be explained the benefits and importance of EPI cards/ TT cards for immunization of themselves and their children.***
- ***Mothers should be asked to preserve the EPI card safely until the child is 5 years old, and to bring the card with them whenever they come to the clinic/ EPI center for immunization.***
- ***Women should also be asked to carefully preserve their TT cards, and to bring their TT cards with them whenever they come to clinic/ EPI center for TT immunization.***
- ***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.***

Mothers have a poor understanding of full immunization. 66% of the mothers could not mention how many times a child was required to be taken to EPI center to get fully immunized. Similarly, 90% of the women 15 – 49 years did not know how many TT doses were required for a woman for lifelong protection against tetanus.

- ***During IPC between the mother/woman and the service provider and/or at the first contact, the mother/woman should be clearly explained the importance of full immunization of children and women, and of the immunization schedule of full immunization for both children and women.***

Lack of awareness of need and importance of immunization was cited as a primary reason for non-immunization of women; while lack of knowledge about the need of subsequent doses to get fully immunized, and lack of knowledge as to when to return for next doses resulted in high drop out rates for TT immunization. Sickness of the children and lack of knowledge about the need and importance of measles vaccine were attributed to the dropouts in child immunization.

- ***The program should strengthen BCC activities to inform the community of importance and benefits of immunization in general, and to motivate the mothers/women to get themselves and their children fully immunized in particular.***

Very selective and focused mass media campaign, in addition to IPC by health workers, may also be conducted to achieve this end.

2% of the children 0 –59 months did not receive OPV in both the rounds of the 10th NIDs. 16% of the households were not visited by the health workers/volunteers during child-to-child search in the 2nd round of the NIDs.

- *Area specific innovative strategies suitable to local situation have to be undertaken during the next NIDs to reach to the left out children. These may include, but not limited to, the following:*
 - *detailed microplanning for each activity;*
 - *use of updated map in microplanning and child-to-child search;*
 - *adequate orientation training of volunteers and workers;*
 - *adequate number of NID sites with required number of health workers and volunteers;*
 - *using masque miking, as well as Imam of the masque during Jumma Pray;*
 - *special team at railway station, bus stand, ferry-ghat etc. for traveling children*
 - *evening NID sites for working mothers; and*
 - *special mobile teams at night to vaccinate homeless and floating children.*
- *Supervision of field workers during child-to-child search needs to be further strengthened to ensure that each and every household is visited and properly marked by the workers*
- *More attention should be given to high risk areas and traveling/homeless/floating population*

Lack of knowledge about the NIDs as a primary reason for not receiving OPV from the NID sites was cited by 25% of the parents in the 1st round and 38% parents in 2nd round. Also, a number of children (25% in the 1st round and 13% in the 2nd round) were away from home on the SNID day.

- *Communication activities need to be strengthened through mass media, such as television and radio, as well as through IPC by the health workers and volunteers during next NIDs focusing the importance of getting each and every children vaccinated on NID day*
- *Special teams should be organized at railway station, bus stand, ferry-ghat etc. for traveling children*

8% of the eligible children (12 – 59 months) did not receive Vitamin A during the 1st round of the 10th NIDs. Besides, Vitamin A capsules were administered wrongly to 4 ineligible children (out of 210) who were <1 year of age on the day of 1st round NID.

- *Special attention should be given to:*
 - *ensure that each and every eligible child 12–59 months receives Vitamin A;*
 - *the exact age group to limit shortage (better screening for age); and*
 - *no Vitamin A capsules should be given to the parents to administer them to their children either at NID site or in their homes.*

VACCINATION COVERAGE SURVEY AREAS
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 JESSORE MUNICIPALITY



TABLES AND FIGURES

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	99	99	98
OPV1	99	94	93
OPV2	96	90	89
OPV3	92	86	86
DPT1	99	95	94
DPT2	96	91	90
DPT3	92	87	87
Measles	83	79	71
Fully immunized	83	77	68
Zero Dose	1	-	-

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	100	97	100	97	99	97
OPV1	100	98	92	96	90	96
OPV2	96	97	85	95	83	95
OPV3	92	92	83	90	83	90
DPT1	100	98	93	96	92	96
DPT2	96	97	86	95	85	95
DPT3	92	92	84	90	84	90
Measles	84	83	77	81	69	72
Fully immunized	84	82	75	78	67	69
Zero dose	0	2	-	-	-	-

Figure 1: Drop-out rate for child immunization

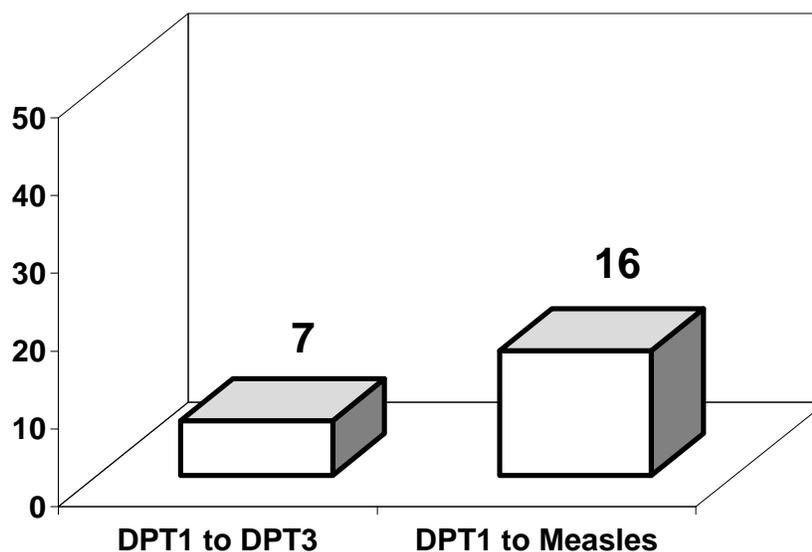


Table 3: Invalid doses of immunization provided to the children

Antigens	Percents
DPT1	4
DPT2	-
DPT3	-
Measles	5

Table 4: Missed opportunities by antigens

Name of the vaccine	Uncorrected		Corrected		Total		
	Number	Percent	Number	Percent	Number	Percent	
BCG	7	3	1	1	8	4	
DPT1	3	1	8	4	11	5	
DTP2	1	1	5	2	6	3	
DPT3	1	1	4	2	5	3	
OPV1	3	1	8	4	11	5	
OPV2	1	1	5	2	6	3	
OPV3	1	1	4	2	5	3	
Measles	6	3	4	2	10	5	
*Index						62	

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

Table 5: EPI cards availability and retention

Card Status	Number	Percentage
EPI card available	124	59
EPI card ever given	208	99
EPI card retention	124	60

Figure 2: Knowledge about required visits to immunization centers for full immunization

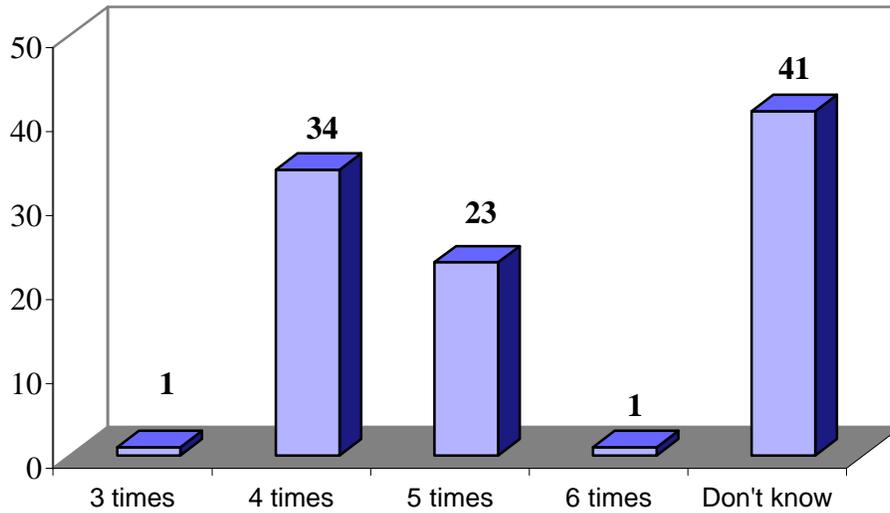


Figure 3: Sources of child immunization services

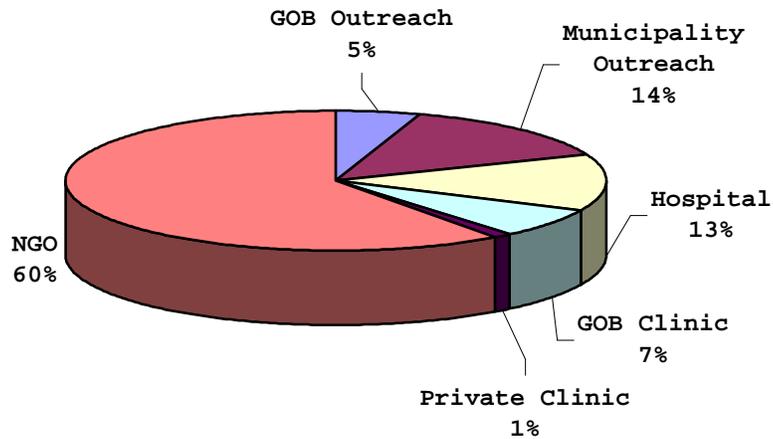


Table 6: Time required to reach the EPI center by mode of transportation

Time required	Mode of transport					
	Walking		Rickshaw		Total	
	#	%	#	%	#	%
1-5 Minutes	112	53	12	6	124	59
6-10 Minutes	77	37	9	4	86	41
Total	189	90	21	10	210	100

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

Reasons for non-immunization or partial immunization	Non-immunized (%) (N=2)	Partially immunized (%) (N=33)
Did not know about need of next dose	-	18
Did not know about importance of measles vaccine	-	15
Did not know about place and time of immunization	-	3
Child was sick and not taken to immunization center	-	21
Child was sick, and was taken to immunization center but not given by vaccinator	-	6
Future plan to vaccinate the child	-	9
Fear of adverse reaction	-	3
Family problem/mother sick	50	3
Mother was busy with other works	-	6
Vaccinator not friendly	-	3
Injection was too painful for the child	50	9
Child not at home	-	4

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

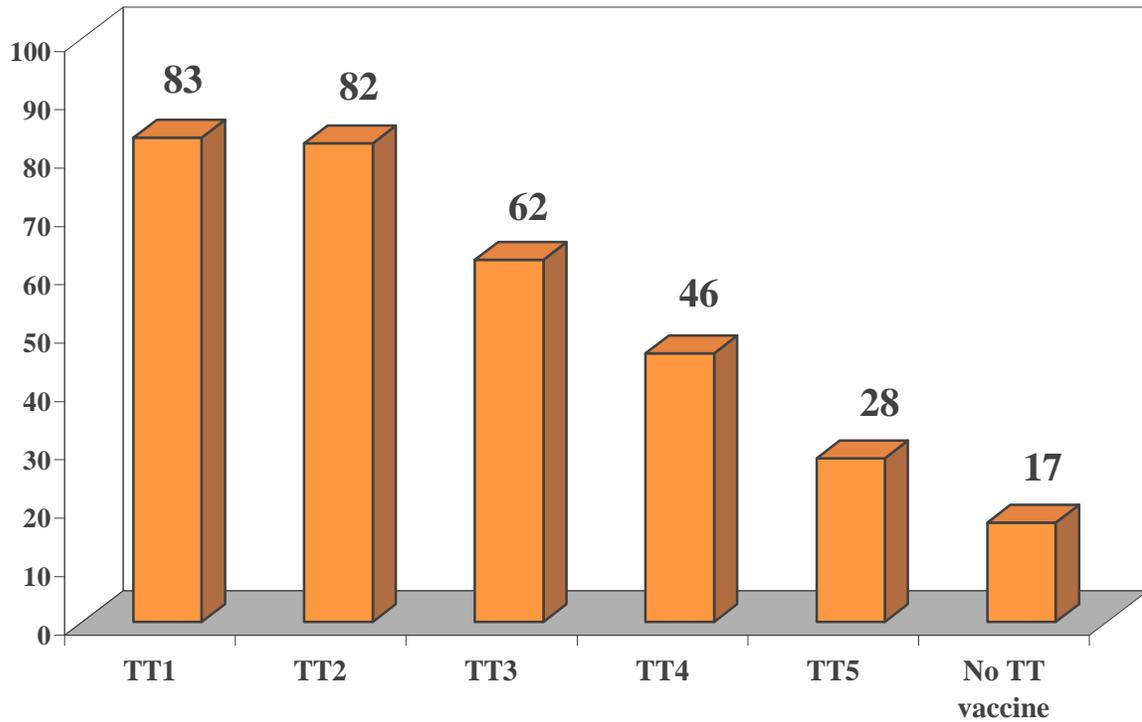


Figure 5: TT Immunization drop-out rate among women 15-49 years

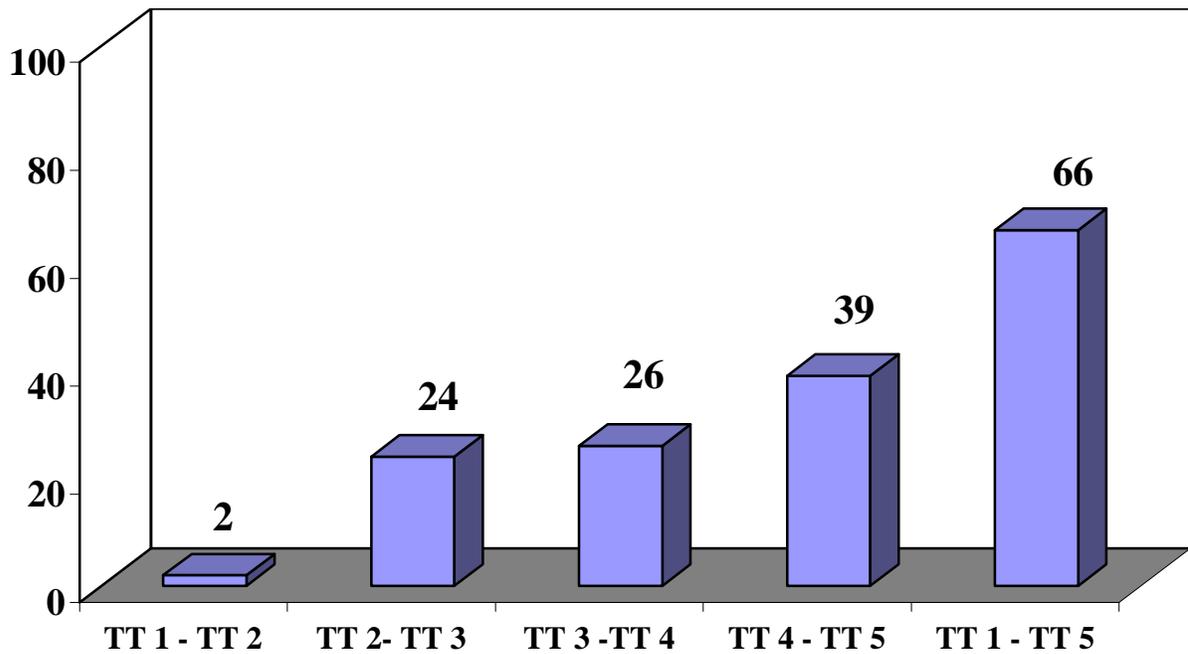


Table 8: Age distribution of women who never received TT vaccine

Age group	Received		Not received		Total	
	#	%	#	%	#	%
15-19	13	50	13	50	26	100
20-25	58	91	6	9	64	100
26-30	66	94	4	6	70	100
31-35	27	84	5	16	32	100
36-45	11	61	7	39	18	100
Total	175	83	35	17	210	100

Table 9: 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	0	0	120	100	-	-	-	-	-	-	-	-	120	100
TT2-TT3	-	-	-	-	26	31	58	69	-	-	-	-	84	100
TT3-TT4	-	-	-	-	-	-	-	-	25	43	33	57	58	100
TT4-TT5	-	-	-	-	-	-	-	-	13	46	15	54	28	100

Table 10: Children born protected against tetanus

Status of children born protected	Number	Percentage
Protected	199	95
Not Protected	11	5

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

Answers	Number	Percentage
5 doses	20	10
Don't know/ no idea	190	90

Table 12: TT cards availability and retention

Card Status	Number	Percentage
TT card available	21	10
TT card ever given	171	81
TT card retention	21	12

Figure 6: Providers of TT immunization

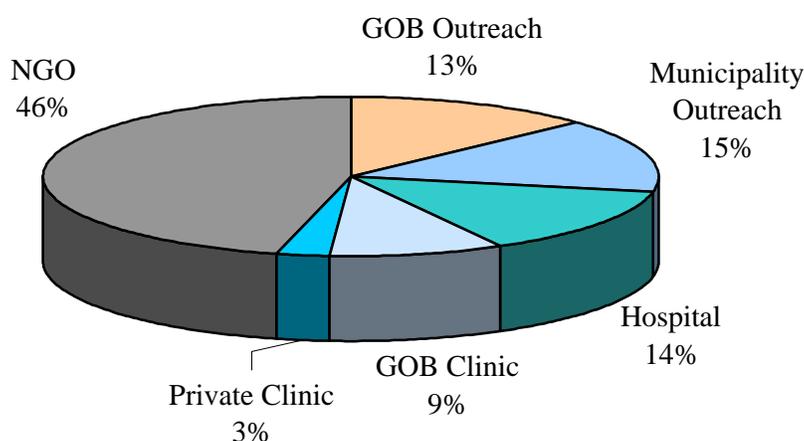


Table 13: Reasons for non-immunization and partial immunization for TT of the women

Reasons	Non-immunization (%) (N=34)	Partially immunization (%) (N=117)
Next dose is not yet due	-	9
Don't feel need for immunization	74	-
Health worker did not specify the next dose	-	16
As per HW advice 2/3 TT is enough during the pregnancy	-	15
Unaware of need of next dose	-	53
Fear of side reactions	-	1
In our times TT immunization was not in practice	9	-
Fear of injection	15	5
Too busy with households work	-	1
Others	2	-

Table 14: OPV and Vitamin A Coverage during the 10th NIDs
N=210

Round	OPV (%)	Vitamin A (%)
1 st round	99	92
2 nd round	99	-
Both rounds	98	-
Any round	100	-

Table 15: Sources of OPV during the 10th NIDs

Sources of OPV	1 st Round		2 nd Round	
	#	%	#	%
NID site	206	98	202	96
Child to child search	2	1	5	2
Mobile Team	-	-	-	-
Not received	2	1	3	2
Total	210	100	210	100

Table 16: Time required to reach the NID sites by mode of transportation

Time required	Mode of transport			
	Walking		Total	
	#	%	#	%
1-5 Min.	193	92	193	92
6-10 Min.	17	8	17	8
Total	210	100	210	100

Table 17: Households visited during the child-to-child search of the 2nd round of the NIDs

Variable	Number	Percents
Households visited	177	84
Households not visited	33	16
Total	210	100

Figure 7: Sources of information about the NID campaign

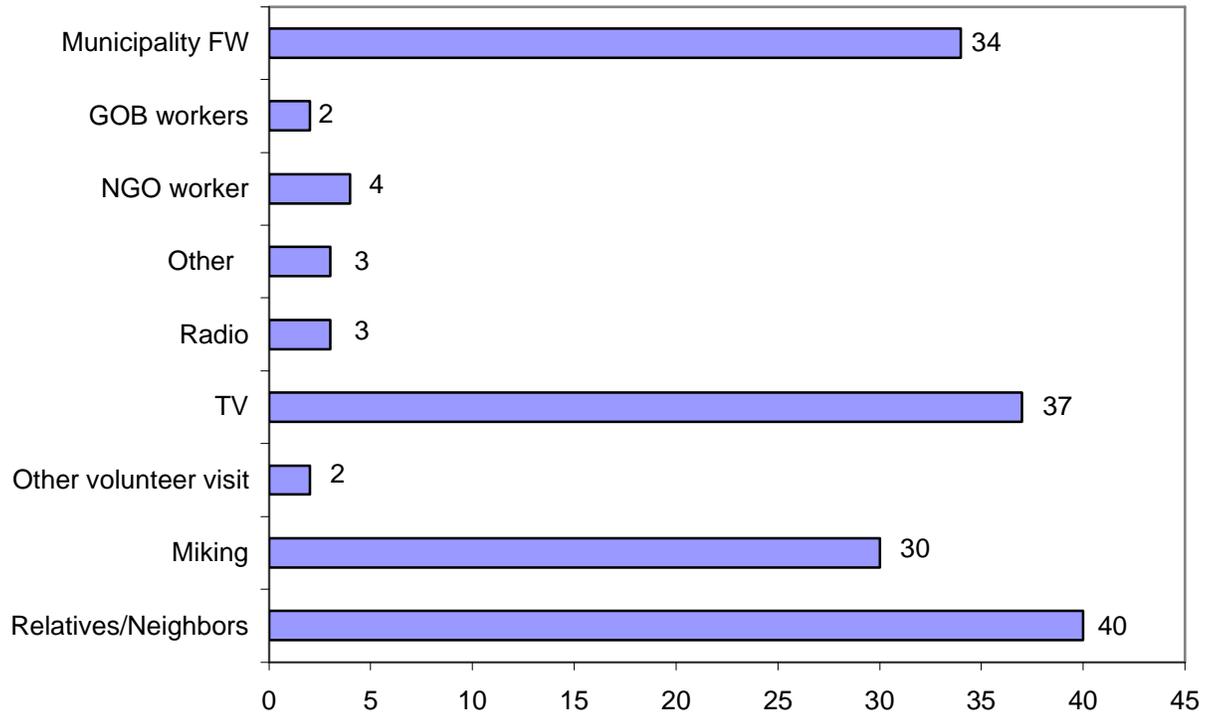


Table 18: Reasons for not receiving of OPV from NID sites

Reasons	1 st Round (%) (N=4)	2 nd Round (%) (N=8)
Did not know about NID	25	38
Forgot the date	-	12
Too busy	25	12
Doesn't believe in vaccine	25	12
Child away from home	25	13
Child/mother sick not taken	-	13

Table 19: Comparison of the results of the coverage evaluation surveys conducted in Jessore Municipality by year of surveys

Variable	Results of the Surveys	
	Survey in 2000* (%)	Survey in 2002 (%)
Child immunization:		
Access (DPT1, crude data)	96	99
FIC (crude data)	81	83
FIC (valid data)	73	77
FIC by 1 yr. (valid data)	69	68
Dropout rate:		
DPT1 to DPT3	6	7
DPT1 to Measles	15	16
Invalid doses:		
DPT1	6	4
Measles	3	5
TT immunization:		
TT1	78	83
TT5	20	28
NID coverage:		
OPV in both rounds	96	98
Vitamin A	89	92

* Vaccination Coverage Survey of the Jessore Municipality-October2000 conducted by IOCH/MSH

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

Word no.	Mouza name	Mahalla name	Total HH	Total Pop.	Cluster No.
1	Barandi Para (khalda road)	Barandi Para (khalda road)	423	2258	1
	Garikhana Road (mistrikha)	Garikhana Road (mistrikha)	184	1173	2
	Ghope	Ghope	2130	11211	3,4
	Jail para	Jail para	155	1115	5
	Loan office para	Loan office para	740	4377	6
	Mollah para (kadamtala)	Mollah para (kadamtala)	218	1267	7
	Mollah para	Mollah para	523	2870	8
	Purba Barandi Nath para	Purba Barandi Nath para	710	3910	9
	Pashim Barandi Nath para	Pashim Barandi Nath para	221	1230	10
2	Ancholik Agri. Research Institute	Ancholik Agri. Research Institute	122	579	11
	Baghmara	Baghmara	236	1211	12
	Ghosh para	Ghosh para	284	1546	13
	Kazi para	Kazi para	669	3622	14
	Circuit house para	Circuit house para	171	970	15
	Natun Khayer tala	Natun Khayer tala	435	2017	16
	Puratan Kasba	Puratan Kasba	697	4206	17
	Post office para	Post office para	275	1428	18
	Roy para	Roy para	457	2322	19
3	Azimabad colony	Azimabad colony	317	1647	20
	Chas chara Rajbari	Chas chara Rajbari	194	1088	21
	Chanchra Raypara	Chanchra Raypara	592	3074	22
	Nazir Shankarpur	Nazir Shankarpur	1082	5552	23,24
	Purba rail bazar	Purba rail bazar	297	1540	25
	Shankarpur (R.K. Mission road)	Shankarpur (R.K. Mission road)	918	4432	26
	Bej para	Bej para	1945	10889	27,28
	Shankar pur	Shankar pur	962	4793	29
	Tal tala	Tal tala	278	1586	30

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

Word no.	Mouza name	Mahalla name	Total Pop.	Total HH	Cluster No.	Never Vaccinated Children
1	Mollah para	Mollah para	523	2870	8	1
3	Chas chara Rajbari	Chas chara Rajbari	194	1088	21	1

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