



IOCH

Immunization and Other Child Health Project

Vaccination Coverage Survey of the Nawabganj Municipality

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Survey Report No. 112

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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 Nawabganj Municipality in April 2003.

Objectives

The overall objective of the survey was to assess the level of immunization coverage in the Nawabganj 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 1st round of the 11th NIDs.

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 Nawabganj 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 1st round of the 11th NIDs.

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.

Coverage levels for the routine immunization of children

Access to child immunization: Based on crude data (card plus history), 97% children received at least one dose of antigen (DPT 1st dose in this case) from routine immunization sessions. 2% children did not receive a dose of any antigen.

Crude coverage of 12-23 months age group: 98% children received BCG, 93% children received three doses of OPV, 93% received three doses of DPT and 89% received measles vaccine. 89% children were fully immunized.

Valid coverage of 12-23 months age group: 98% children received BCG, 90% children received three doses of OPV, 91% received three doses of DPT and 88% received measles vaccine. 86% children were fully immunized.

Valid coverage by 12 months: 97% children received BCG, 89% children received three doses of OPV, 90% received three doses of DPT and 84% received measles vaccine. 83% 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 (98% for boys vs. 96% for girls). However, measles coverage for the boys was 2 percentage points lower than that for the girls, resulting in lower crude FIC (Fully Immunized Children) for boys than girls (88% crude FIC for boys vs. 89% crude FIC for girls). The proportions of invalid doses for different antigens for girls were higher than those for boys, resulting in higher valid FIC for boys than that for girls (87% valid FIC for boys vs. 86% valid FIC for girls).

Dropout rates: Although access to child immunization was quite good (97% for DPT1), the dropout rates for different antigens were high too. There were 4% dropouts from DPT1 to DPT3 and 8% from DPT1 to measles.

Invalid doses: 1% of the DPT1 doses were administered before 6 weeks of age of the children, and 2% of the measles doses were given before 38 weeks of age of the children.

Missed opportunities: Total missed opportunities (uncorrected plus corrected) for different antigens ranged from 2% to 7%. The prevalence of uncorrected missed opportunities for different antigens was 1%. The composite index for total missed opportunities was 90, reflecting the need for improving the quality of screening during vaccination sessions.

EPI card retention: 98% of the children interviewed were ever given EPI cards; however, EPI cards were available with 62% of the respondents at the time of interview. EPI card retention rate was 64% only, as 36% of the EPI cards were lost.

Knowledge about required visit to immunization center for full immunization: 43% 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 21% had wrong idea about it. Only 36% 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 municipal EPI outreach centers (71%), followed by the hospitals (14%). GOB EPI outreach centers and NGO clinics provided EPI services to 8% and 4% of the cases respectively. All the EPI outreach centers were located within 10 minutes walking distance from the homes of the children.

Reasons for non-immunization and partial immunization or dropout of children: 5 children (out of 210) never received any vaccine and each of them for different reason which included: did not know about need of immunization, fear of adverse reaction, sickness of child or child was away from home on NID day. The primary reasons for partial immunization or dropout included lack of knowledge about the need of subsequent doses or measles vaccination for getting fully immunized (27%), and sickness of the children (42%).

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. 88% of the women received TT1. The corresponding figures for TT2, TT3 and TT4 were 86%, 69% and 45% respectively. Only 31% of the women received TT5, which provide lifelong protection against tetanus. 12% of the women never received any TT vaccine.

Age distribution of women never receiving TT immunization: The older women are less likely to receive TT vaccine. 27% of the women over 35 years of age had never received any dose of TT vaccine; while the corresponding figures ranged from 7% to 11% for the women below 36 years.

TT immunization dropout rates: TT immunization dropout rates were high. The dropout rate for TT2 to TT3 was 20%. The corresponding rates for TT3 to TT4 and TT4 to TT5 were 34% and 33% respectively. The dropout rate for TT1 to TT5 was as high as 65%, indicating that 65% 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. 20% of the TT3 doses were given before 6 months interval between TT2 and TT3, and as such were invalid. 26% of the TT4 doses were invalid, since they were given before one year interval between TT3 and TT4; similarly, 43% 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: 79% of the women did not have correct knowledge about the number of TT doses required for a woman for full immunization. Only 21% 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: 88% of the women were ever given TT cards; however, TT cards were available with 19% of the women only at the time of interview. TT card retention rate was 22% only, as 78% of the TT cards were lost.

Sources of TT immunization: Majority of the women received TT vaccine from the municipal EPI outreach centers (60%), followed by the hospitals (21%). GOB EPI outreach centers and NGO clinics provided TT immunization to 9% and 4% of the cases respectively.

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 (72%) and fear of injection (12%). The primary reasons for partial TT immunization or dropout were that the women were not aware of the need of subsequent doses to get fully immunized against tetanus (56%), the health workers did not specify the next dose (8%) or did not advise for 5 dose TT schedule for full immunization (12%).

Coverage levels for the 1st Round of the 11th NIDs

OPV and Vitamin A coverage: 99% of the children <5 years received OPV in the 1st rounds of the 11th NIDs. Vitamin A capsules were given to 92% of the eligible children (12 – 59 months of age). Besides, 3 ineligible children (out of 210) were wrongly administered Vitamin A, as they were under 1 year on the 1st round NID day.

Sources of OPV during the 1st round of the NIDs: 92% of the children (who were vaccinated in the 1st round) received OPV from the SNID sites; while 1% received from mobile team. 6% of the child received OPV during child-to-child search in the 1st round.

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

Households visited during child-to-child search: 91% of the households were visited by the health workers/volunteers during child-to-child search in the 1st round of the 11th NIDs, as reported by the parents/respondents. However, 81% of the households were found with date of visitation (by the workers/volunteers during child-to-child search) written on the door or wall, and the family members of 4% of those households did not know that their households were actually visited by the health workers/volunteers during child-to-child search.

Sources of information of the 1st round of the NIDs: Majority of the parents learned about the 1st round of the 11th NIDs from miking (80%), followed by municipal health workers (31%). About 17% of the parents came to know about the NIDs from their relatives and neighbors. Television as a source of information of the NIDs was mentioned by 16% of the parents.

Reasons for not receiving vaccines from the NID sites: The primary reason for not receiving OPV from the NID sites in the 1st round of the 11th NIDs included: a) children waited at home to be immunized by the health workers during child-to-child (25%); b) parents' preoccupation on NID day (25%); and c) sickness of the child/mother (13%).

Comparison with previous survey results

In June 2001, a coverage evaluation survey was conducted in the Nawabganj 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 immunization. Access to child immunization has increased from 94% in 2001 to 97% in 2003 and crude FIC (fully immunized children) from 79% in 2001 to 89% in 2003. The valid FIC by one year has increased from 56%

in 2001 to 83% in 2003. The dropout rates for child immunization have also reduced considerably (dropout rate for DPT1 to DPT3 has reduced from 9% to 4% and DPT1 to measles from 15% to 8%) over the past two years. The proportions of invalid doses for different antigens have also significantly reduced over the period (measles invalid doses have reduced from 11% to 2% and DPT2 invalid doses from 7% to zero percent). The coverage of TT1 has remained almost unchanged; however TT5 coverage has increased from 21% in 2001 to 31% in 2003. The coverage of OPV during NIDs has been static at 99% (which is very high coverage) over the past two years; however Vitamin A coverage has reduced from 94% in the 9th NIDs to 92% in the 10th NIDs.

Conclusions and recommendations

Access to child immunization was quite good (97% for DPT1); but this high access dropped to 89% for fully immunized children because of dropouts of different antigens. (Dropout rate for DPT1 to DPT3 was 4% and DPT1 to measles was 8%). Similarly, access to TT immunization for the women 15 – 49 years (irrespective of their marital status) was fairly good. 88% of the women received the first dose of TT; but TT dropout rate was very high (65% for TT1 to TT5), resulting in very low coverage of TT5 (31%), 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 few invalid doses in child immunization (1% for DPT1 and 2% for measles), which further reduced the crude full immunization coverage of 89% to 86% when validity of doses was taken into account. Total missed opportunities for different antigens ranged 2% - 7%. As regards TT immunization, a very high proportion of TT doses were invalid (20% for TT3, 26% for TT4 and 43% 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.***

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, 64% and 22% 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. 64% of the mothers could not mention how many times a child was required to be taken to EPI center to get fully immunized. Similarly, 79% 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 primary reason for non-immunization of women; while lack of knowledge about the need and importance of subsequent doses (or measles vaccine) to get fully immunized resulted in high drop out rates for child and TT immunization.

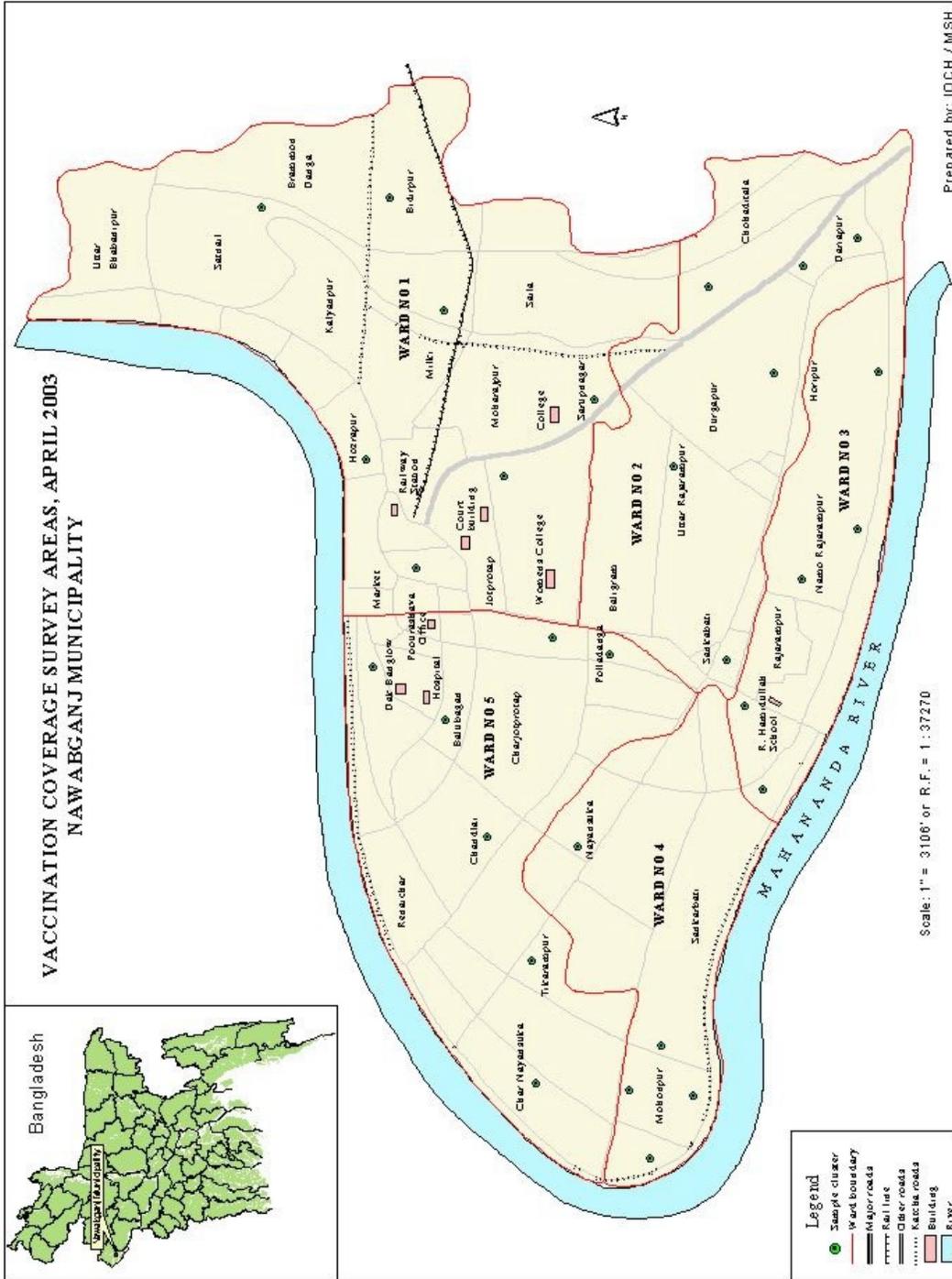
- *The program should strengthen BCC activities to inform the community of importance and benefits of immunization in general, and to motivate the mothers/women to get themselves and their children fully immunized in particular. Very selective and focused mass media campaign, in addition to IPC by health workers, may also be conducted to achieve this end.*

1% of the children 0 –59 months did not receive OPV in the 1st round of the 11th NIDs. 9% of the households were not visited by the health workers/volunteers during child-to-child search in the 1st round of the 11th NIDs, and 19% households were found not marked with visitation date of the workers during child-to-child search on the door or wall of the house.

- *Area specific innovative strategies suitable to local situation have to be undertaken during the next SNIDs/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 SNID/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/SNID 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*

8% of the eligible children (12 – 59 months) did not receive Vitamin A during the 1st round of the 11th NIDs. Besides, 3 ineligible children (out of 210) were wrongly administered Vitamin A, as they were under 1 year on the 1st round NID day.

- *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.*



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	98	98	97
OPV1	98	96	95
OPV2	94	92	91
OPV3	93	90	89
DPT1	97	96	96
DPT2	94	92	92
DPT3	93	91	90
Measles	89	88	84
Fully immunized	89	86	83
Zero Dose	2	-	-

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	98	97	98	97	98	96
OPV1	98	97	98	94	98	93
OPV2	92	95	92	91	91	91
OPV3	92	94	92	88	91	88
DPT1	98	96	98	95	98	95
DPT2	92	95	92	92	91	92
DPT3	92	94	92	89	91	89
Measles	88	90	87	88	83	85
Fully immunized	88	89	87	86	83	84
Zero dose	2	3	-	-	-	-

Figure 1: Drop-out rate for child immunization

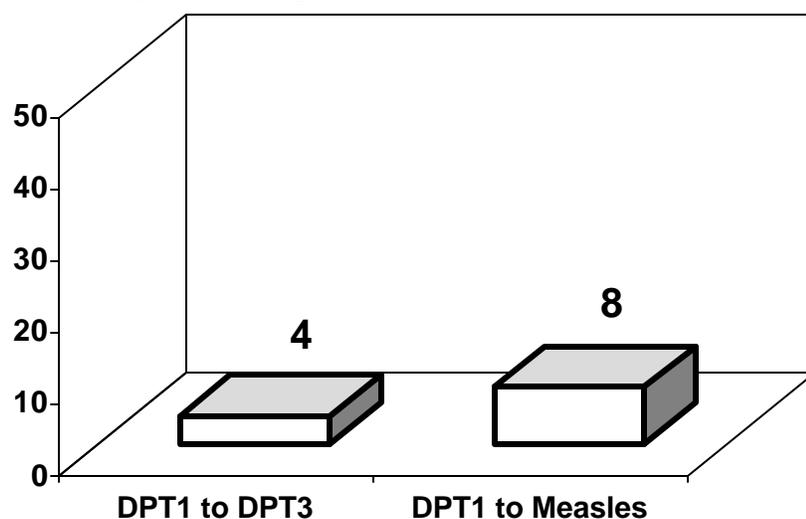


Table 3: Invalid doses of immunization provided to the children

Antigens	Percents
DPT1	1
DPT2	-
DPT3	-
Measles	2

Table 4: Missed opportunities by antigens

Name of the vaccine	Uncorrected		Corrected		Total		
	Number	Percent	Number	Percent	Number	Percent	
BCG	3	1	1	1	4	2	
DPT1	3	1	12	6	15	7	
DTP2	2	1	12	6	14	7	
DPT3	1	1	11	5	12	6	
OPV1	2	1	12	6	14	7	
OPV2	2	1	12	6	14	7	
OPV3	1	1	11	5	12	6	
Measles	-	-	5	2	5	2	
*Index						90	

** 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	131	62
EPI card ever given	205	98
EPI card retention	131	64

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

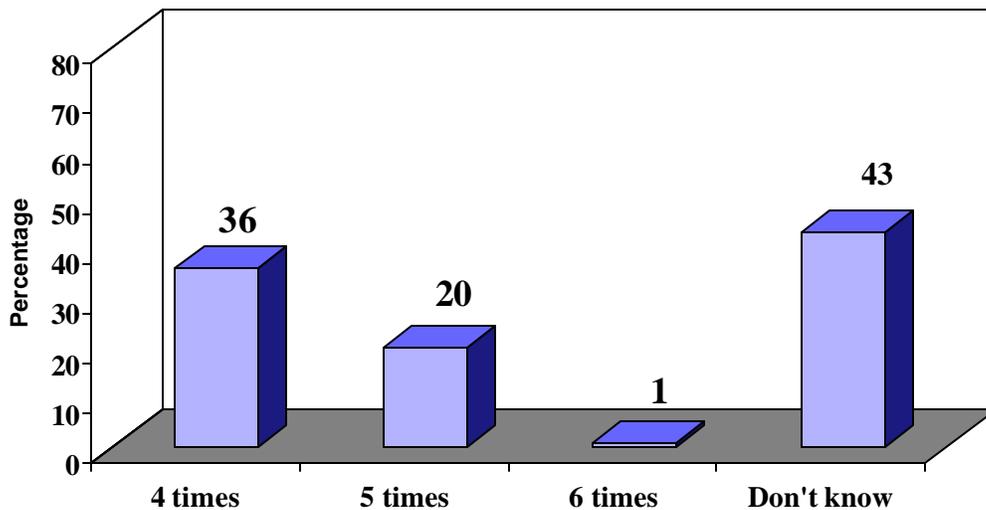


Table 6: Time required to reach the EPI center by mode of transportation

Time required	Mode of transport	
	Walking	
	#	%
1-5 Minute	126	60
6-10 Minutes	84	40
Total	210	100

Figure 3: Sources of child immunization services

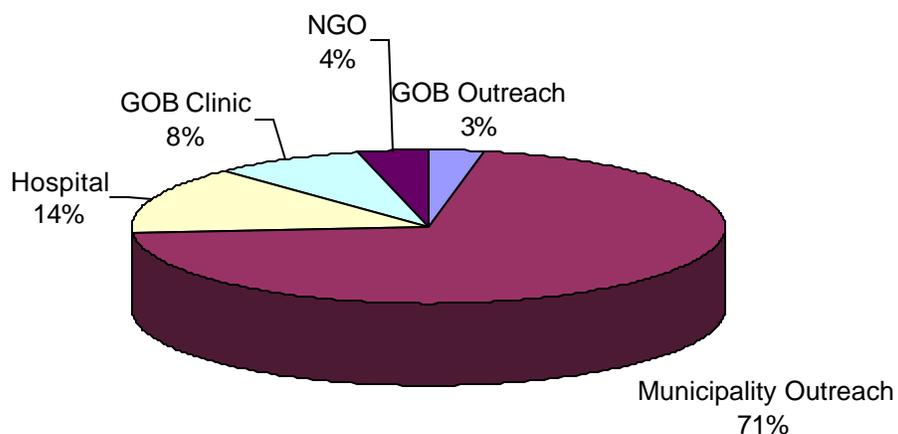


Table 7: Reasons for non-immunization and partial immunization of the children

Reasons for non-immunization or partial immunization	Non-immunized (%) (N=5)	Partially immunized (%) (N=19)
Did not know about need of immunization	20	-
Did not know about need of next dose	-	11
Did not know about importance of measles vaccine	-	16
Fear of adverse reaction	20	5
Future plan to vaccinate the child	-	5
No faith in immunization	-	-
Family problem/mother sick	-	5
Vaccinator not friendly	-	-
Child was sick and not taken to immunization center	20	42
Painful for the children	-	11
Child not at home or away from home	20	5
New born baby	20	-

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

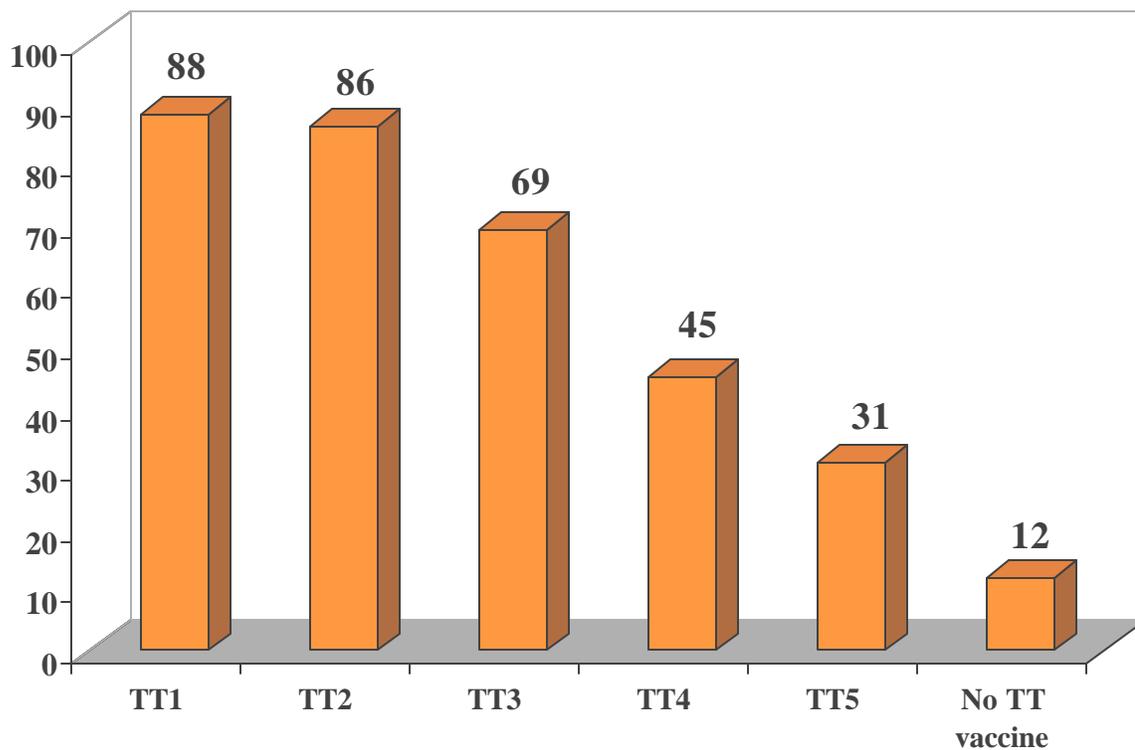


Figure 5: TT Immunization drop-out rate among women 15-49 years

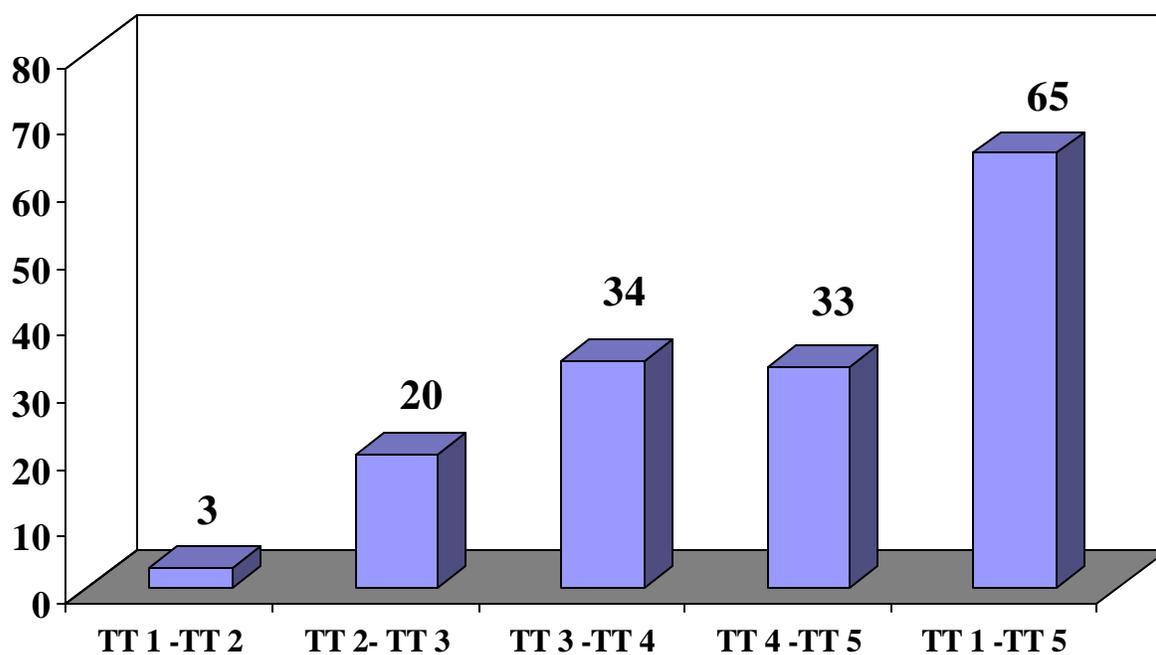


Table 8: Age distribution of women who never received TT vaccine

Age group	Received		Not received		Total	
	#	%	#	%	#	%
15-19	17	89	2	11	19	100
20-25	50	89	6	11	56	100
26-30	68	93	5	7	73	100
31-35	34	85	6	15	40	100
36-45	16	73	6	27	22	100
Total	185	88	25	12	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	1	1	126	99	-	-	-	-	-	-	-	-	127	100
TT2-TT3	-	-	-	-	18	20	73	80	-	-	-	-	91	100
TT3-TT4	-	-	-	-	-	-	-	-	14	26	39	74	53	100
TT4-TT5	-	-	-	-	-	-	-	-	13	43	17	57	30	100

Table10: 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	44	21
Don't know/ no idea	166	79

Table 12: TT cards availability and retention

Card Status	Number	Percentage
TT card available	40	19
TT card ever given	185	88
TT card retention	40	22

Figure 6: Providers of TT immunization

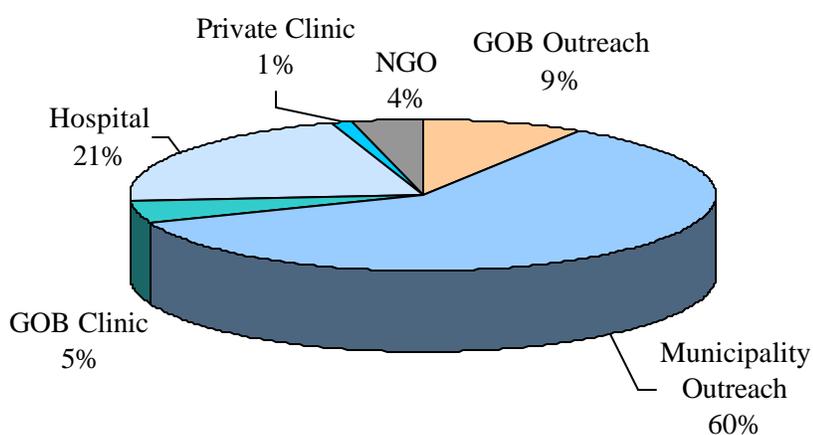


Table 13: Reasons for non-immunization and partial immunization for TT of the women

Reasons	Non-immunization (%) (N=25)	Partially immunization (%) (N=121)
Next dose is not yet due	-	21
Don't feel need for immunization	72	-
Health worker did not specify the next dose	-	8
As per HW advice 2/3 TT is enough during the pregnancy	-	12
Unaware of need of next dose	-	56
Fear of adverse reaction	4	1
In our times TT immunization was not in practice	8	-
Fear of injection	12	1
Mother was sick, not gone to immunization center	-	1
Family problem	4	-

Table 14: OPV and Vitamin A Coverage during the 1st round of the 11th NIDs

Antigen/Vit. A	Coverage level	
	#	%
OPV (N=210)	208	99
Vitamin A (N=144)	132	92

Table 15: Sources of OPV during the 1st round of the 11th NIDs

Sources of OPV	1 st Round	
	#	%
NID site	194	92
Child to child search	13	6
Mobile team	1	1
Not received	2	1
Total	210	100

Table 16: Time required to reach the 11th NID sites by mode of transportation

Time required	Mode of transport	
	Walking	
	#	%
1-5 Minutes	179	85
6-10 Minutes	31	15
Total	210	100

Table 17: Households visited during the child-to-child search of the 1st round of the 11th NIDs

Variable	Number	Percents
Households visited	190	91
Households not visited	20	9
Total	210	100

Table 18: Date of child-to-child search in the 1st round was written on the door or wall of the house

Variable	Number	Percents
Written	169	81
Not written	41	19
Total	210	100

Table 19: Actual visitation status of the households with the date of child-to-child search written on the door or wall

Visitation status	Number	Percents
Visited	163	96
Not visited	6	4
Total	169	100

Figure 7: Sources of information about the 1st round of the 11th NID campaign

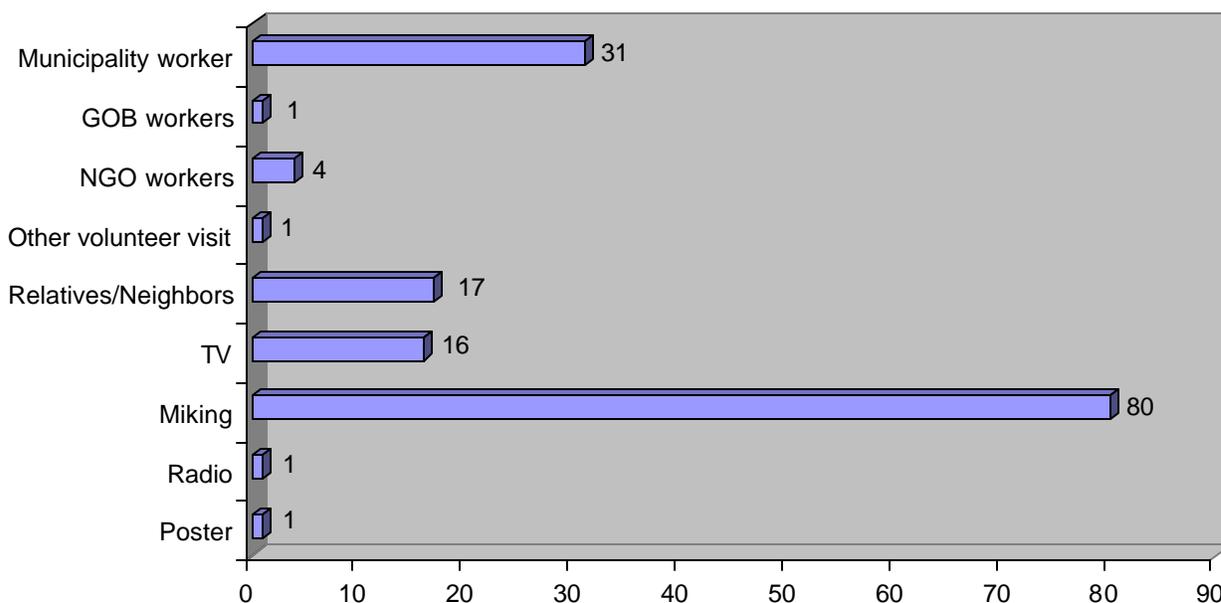


Table 20: Reasons for not receiving of OPV from the NID sites of the 1st round of the 11th NIDs

Reasons	1 st Round (%) (N=16)
Did not know about NID	-
Forgot the date	13
Traveling	6
Too busy	25
Child away from home	6
Child/Mother sick, not taken	13
Waited for house visit	25
No vaccine available	-
Doctor's Advice	-
Child came the immunization center but Escape	12

Table 21: Comparison of the results of the coverage evaluation surveys conducted in Nawabganj Municipality by year of surveys

Variable	Results of the Surveys	
	Survey in 2001* (%)	Survey in 2003 (%)
Child immunization:		
Access (DPT1, crude data)	94	97
FIC (crude data)	79	89
FIC (valid data)	59	86
FIC by 1 year (valid data)	56	83
Dropout rate:		
DPT1 to DPT3	9	4
DPT1 to Measles	15	8
Invalid doses:		
DPT1	2	1
DPT2	7	-
DPT3	4	-
Measles	11	2
TT immunization:		
TT1	87	88
TT5	21	31
NID coverage:		
OPV in 1 st round round	99	99
Vitamin A	94	92

*Source: vaccination Coverage Survey of the Nawabganj Municipality-June 2001 conducted by IOCH / MSH

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

Ward no.	Mouza name	Mahalla name	Total HH	Total Pop.	Cluster No.
1	Bidirpur	Bidirpur	181	954	1
	Gabtala	Gabtala	138	757	2
	Hazrapur	Hazrapur	495	2893	3
	Kanthal Bagicha	Kanthal Bagicha	126	683	4
	Nakhraj Para	Nakhraj Para	347	2068	5
	Professor Para	Professor Para	66	407	6
	Sarupnagar (Jail Khana)	Sarupnagar (Jail Khana)	261	1646	7
2	Dariapur	Dariapur	1148	6058	8,9
	Haripur	Haripur	1023	5903	10
	Kaliganj	Kaliganj	217	1298	11
	Sankabati	Sankabati	334	1980	12
	Upar Rajarampur	Upar Rajarampur	916	5236	13
3	Namo Sankarbati	Namo Sankarbati	1329	7751	14,15
	Nimgachi (Part)	Nimgachi (Part)	368	2090	16
	Namo Rajarampur	Namo Rajarampur	1684	9504	17,18
4	Mohanpur	Mohanpur	764	4685	19
	Char Mohanpur	Char Mohanpur	2179	12714	20,21,22
	Nayansuka	Nayansuka	307	1813	23
5	Arambagh	Arambagh	403	2310	24
	Balubagan	Balubagan	241	1272	25
	Chandlai	Chandlai	647	4064	26
	Char Nayansuka Tikrampur	Char Nayansuka Tikrampur	592	3481	27
	Masjid Para	Masjid Para	634	3997	28
	Polladanga	Polladanga	229	1396	29
	Tikrampur Namu Para	Tikrampur Namu Para	199	1136	30

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

Ward no.	Mouza name	Mahalla name	Total HH	Total Pop.	Cluster No.	Never Vaccinated children
1	Nakhraj Para	Nakhraj Para	347	2068	5	2*
3	Nimgachi (Part)	Nimgachi (Part)	368	2090	16	1*, 2*
5	Balubagan	Balubagan	241	1272	25	3*
5	Char Nayansuka Tikrampur	Char Nayansuka Tikrampur	592	3481	27	2*

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