

**CASE STUDY OF LOW IMMUNIZATION
COVERAGE AREA IN BHAIRAB THANA**

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INTRODUCTION

The Immunization coverage evaluation survey conducted in February 1993, shows as many as 74 percent of all children aged 12-23 months have been fully immunized (1). In 1995, the coverage in all urban areas of Bangladesh for the complete immunization among 12-23 months old children was 85% compared to 76% for the entire country (2). The recent high coverage in immunization services indicates a dramatic success of the extended program on immunization (EPI) over a period of five to six years. The recent survey also reveals that the overall coverage of immunization services in urban areas in Bangladesh has been just as high or higher than in the rural areas. However, a significant proportion of children are still not immunized, leaving population at higher than average risk of dying from the six vaccine preventable diseases. Many factors are likely to be associated with the level of coverage or acceptance of immunization, such as absence of health centers, lack of knowledge, distance from the immunization facilities, household income and parental education (3).

A large study was initiated in 1996 in Bhairab to explore the situation of immunization in Bangladesh as a part of an international study. The survey data of 1996 from the immunization study indicated a very low status of immunization among children. Based on this evidence, a study was undertaken by the Research and Evaluation Division of BRAC, to assess the reasons of low coverage and identify the changes, if any, in the compliance to the immunization status.

OBJECTIVE

The objectives were to assess the current immunization status of children and to identify the reasons of low immunization status.

METHODOLOGY

This study was conducted in Bhairab thana of Kishoregang district. It was found that the river isolates three places in the municipality area, and thus it is difficult to have access to the area. Therefore it was decided that these areas should be selected for case studies. These areas were *Purbokanda*, *Mohespur* and *Jelepara*. The households that had children less than two years of age, were selected for this study. For comparison between 1996 and 1998, data from both primary and secondary sources were used. Primary data were generated from household survey of three areas. Focus group discussion with mothers of target age children, and service providers were done in February 1998. Secondary data were used from a previous survey. In-depth interviews with mothers of target age children were undertaken in October-February 1996. Fifty-three households in 1996 and 63 households in 1998 were surveyed. Three focus group discussions in 1998 and seven in-depth interviews in 1996 with mothers were arranged. Structured questionnaires were used for household survey and a checklist for focus group discussion and in-depth interview was developed.

RESULTS

Profile of the villages:

There were forty to fifty households in to each village. Three of the villages under study were separate paras but people considered these paras as separate villages. There 138 households in the three villages, having a population of 800, consisting of 394 males and 406 females. One each in two villages, all people were exclusively Muslims and Hindus. In the other village, 60% of the people were Hindus and 40% were Muslims.

In the Muslim village 25% people were involved in business, 10% in day-labour, and 11% in agriculture. On the other hand, in the Hindu majority village 58% of the population were involved in fishing and 11% in business. In the Hindu dominated village 61% people were engaged in fishing and 21% in business (table 3).

Twenty nine percent of the mothers of eligible children were literate in one village and it was less than 12% in the other two villages. Among the married couples more women were found to be literate than their husbands (table 1.2).

None of the study villages had government schools. Two of the villages had BRAC schools only. One Mosque was situated in the Muslim village. Proshika, a NGO had a credit programme for poor people in one village. These villages were close to the town but isolated by water bodies. In the dry season, people moved about by foot, as there is no road communication. But in the rainy season, people were reliant on boats to get around for at least six months. For commercial services, country boats were not available in these localities. Poor people could not afford to have a country boat, so they faced difficulties to move in the rainy season. A NGO called Utshargo organized three to four monthly vaccination sessions in the surrounding areas of the study villages, which were situated

within a distance of one to one and half a kilometer. However, people could not identify those vaccination centres. They were not informed about the date, time and place of vaccination sessions. The distance between the study area and the Thana Health Complex was about three to four kilometers.

Status of immunization coverage of main study cell:

Immunization coverage was very low in the three villages than the other study areas of the urban area. In the urban areas, 33% and 18% of the children were not immunized in low and high coverage area respectively. However, in the study area where the case studies were undertaken 41% children were not immunized (table 4).

In the rural areas, immunization coverage was much lower than that of the urban area. Forty four percent of the children in low coverage areas and 19% children in high coverage areas were not immunized in rural area (table 4).

Reasons of low coverage:

1. Providers' views

In focus group discussions, the providers identified several reasons for low immunization coverage in the study area. The Providers stated that it was difficult to organize vaccination sessions in due time because these areas were considered as difficult-to-reach areas. Consequently, the vaccinators could not go there frequently for social mobilization work. Moreover, in the rainy season, the clients could not reach the immunization center as the areas got inundated with water in the monsoon. The providers said that the tasks in

these areas could not be performed adequately. Further more, ignorance and illiteracy of the mothers were considered to be contributory factors is low immunization coverage.

2. Clients' views

Focus group discussions were also conducted with the mothers of the children. Distant location of thana health complex and non availability of doctors and medicine were mentioned by the participant mothers. Some of the mothers' said that due to child's sickness, they failed to attend the vaccination session. Some of them were not aware of their child's age, therefore, did not know when to go for vaccination. The participants also mentioned that no one came to the village for social mobilization. Some women also mentioned household work and carelessness of the mothers as major factors in the non-attendance to immunization sessions. Some mothers admitted losing the Tika cards, and thus is a problem as the vaccinators do not agree to vaccinate clients without Tika cards. Some respondents said vaccinators charged money for vaccination, and they could not afford the amount, as they were poor. A few mothers mentioned that there was lack of awareness about immunization of both father and mother about the importance of vaccination, which contributed to low coverage of immunization. They also blamed the rainy season for low immunization coverage.

Differences of immunization coverage between 1996 and 1998:

It was found that 81% children were not immunized in 1996, whose ages ranged 0-11 months but only 35% were not immunized in 1998. In 1996 none of the children under one-year were fully immunized. In 1998, 12% children were fully immunized. About 19% children were partially immunized in 1996 whereas 54% children were partially

immunized in 1998. Immunization coverage of 1998 was much higher than that of 1996 (table 5).

Between 1996 and 1998 the difference in immunization coverage was very little among children aged 12-23 months (table 6).

Overall, immunization coverage increased in 1998. It was found that among the children of under two years, 08% children were fully immunized in 1996, whereas, 14.3% children were fully immunized in 1998. During 1996, 32% of such children were partially immunized and 60% of them were not immunized. Similarly in 1998, 48% children were partially immunized and 38% children were not immunized (table 7).

Reasons for increased immunization coverage:

Increased immunization coverage in 1998 could be due to two reasons, which are i)- increased source of messages about time, place and knowledge of vaccination, and ii) access to vaccination services.

During in-depth interviews carried out in 1996, the informants mentioned their neighbors informed them about the time and place of vaccinations. They also stated that when the villagers discussed Tika other people heard of it by word of mouth and general discussions. In 1998, they received messages about Tika from several sources. Some of the informants stated that the vaccinators sent messages from the vaccination centre, and they came to their villages before the vaccination session started. Three informants stated, *"In the last year, two women came and encouraged us to ensure vaccination to the children."* Some of the informants said that the vaccinators informed them about the vaccination session by giving a call from the other side of the canal. One informant said

that she was informed about the vaccination session at the house of her parents, which was located close to the place of outreach vaccination centre.

Regarding the sites of vaccination, it was revealed that only 05% mothers received vaccine from the nearest outreach center in 1996, but in 1998 as much as 31% mothers received vaccine from the same site (table 9). Compared to 1996 in 1998 clients were informed more about the nearest vaccination centre.

DISCUSSION

Immunization coverage is likely to be better in the area that is nearer to the outreach center. But in 1996, immunization coverage was low in such place. The current study demonstrates that in 1996 only 5% of clients received vaccine from the nearest outreach center and 71% of clients received vaccine from the THC which was far way from the residence of the clients. Low immunization coverage in 1996 could be related either to people not being informed about time and place of vaccination or session not being organized regularly. In 1998, 31% of clients received vaccine from the nearest center and 59% of clients received vaccine from the THC situated at a distant location. The greater coverage of vaccine in 1998 indicates that people were informed about time and place of vaccination ahead of the event.

In 1996, the clients received messages about vaccination services mainly from the villagers, but in 1998 they received messages from the providers, villagers and other sources. In 1998, the field workers were more active than in 1996. This study confirms the importance of visits by the field workers towards improving the coverage of childhood immunization.

In 1996, it was found that in one village immunization coverage was lower than other study villages in spite of the high literacy rate but the status changed in 1998. In 1998, immunization coverage was found to be almost similar regardless of literacy rates. The importance of mother's education was not reflected on immunization coverage.

Providers stated those difficulties in reaching vaccine centres as a reason for low coverage. Thus the vaccinators could not go for vaccination and social mobilization duties in those areas and the clients also could not go anywhere for vaccination. The

clients were not informed about time and place of vaccination session and they did not have any knowledge of the actual immunizable diseases. They did not have enough knowledge about target age of children and contraindications and side effects of vaccine. Lack of knowledge of the target group has been associated with low acceptance of immunization services. When people believed that immunization might have negative effects, then acceptance will be obviously affected. There is need to increase awareness among ignorant and illiterate mothers about effectiveness and importance of vaccine. It is well known that the immunization services are provided free of charge (7). However, the clients reported that they paid some money to obtain immunization services. It was found in a session observation of the main study that one NGO charged the clients Taka 5 per head as service charge.

It was evident that factors, which are associated with acceptance, are related to certain characteristics of the immunization service providers and target population (5). Availability and accessibility of immunization services and the manner of dissemination of appropriate information and provision of health education are important. The degree of acceptability has been linked with socioeconomic factors as well as beliefs and attitudes of the clients.

It is concluded that immunization services should be given at convenient time and places. Steps should be taken to provide appropriate information to and motivation of the community. This may result in higher acceptability and ultimately in better immunization coverage.

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Appendix

Table 1: Education status of eligible children mothers in1996

Village name	Literate	Illiterate	Total
Purbokanda	28.6 (04)	71.4 (10)	100 (14)
Jele para	09.5 (02)	90.4 (19)	100 (21)
Mohespur	11.1 (02)	88.9 (16)	100 (18)
All	15.1 (08)	84.9 (45)	100 (53)

Table 2: Education status of husband of eligible children mothers in 1996

Village name	Literate	Illiterate	Total
Pubokanda	21.4 (03)	78.6 (11)	100 (14)
Jele para	04.8 (01)	95.2 (20)	100 (21)
Mohespur	05.6 (01)	94.4 (17)	100 (18)
All	09.4 (05)	90.6 (48)	100 (53)

Table 3: Occupation of household members

Occupation	Name of study village/para			
	Purbokanda	Jele para	Mohespur	Total
Business	24.6 (27)	20.8 (16)	11.1 (11)	18.9 (54)
HH work	43.6 (48)	14.3 (11)	29.3 (29)	30.8 (88)
Service	03.6 (04)	-	-	01.4 (04)
Day Labour	10.0 (11)	-	01.0 (01)	04.2 (12)
Teacher	00.9 (01)	-	-	00.4 (01)
Agriculture	10.9 (12)	01.3 (01)	01.0 (01)	04.9 (14)
Skilled Labour	01.8 (02)	02.6 (02)	-	01.4 (04)
Fishing	04.6 (05)	61.0 (47)	57.6 (57)	38.1 (109)
All	100 (110)	100 (77)	100 (99)	100 (286)

Table 4: Immunization status of the children 12-23 months of age by the cell of Main study

Ceil	Rural		Urban		
	Low in low	High in high	Low in low	High in high	Case study area
Full	18.3 (22)	44.5 (53)	17.7 (17)	44.7 (51)	14.8 (04)
Partial	37.5 (45)	37.0 (44)	49.0 (49)	37.7 (43)	44.4 (12)
None	44.2 (53)	18.5 (22)	33.3 (32)	17.5 (20)	40.7 (11)
Total	100 (120)	100 (119)	100 (96)	100 (114)	100 (27)

Table 5: Immunization status of the children 0-11 months of age by study villages

Area	1996				1998			
	Full	Partial	Not	Total	Full	Partial	Not	Total
Jejepara	00 (00)	25.0 (03)	09 (75.0)	100 (12)	22.2 (02)	22.2 (02)	55.6 (05)	100 (09)
Purbokanda	00 (00)	00 (00)	07 (100)	100 (07)	00 (00)	62.5 (05)	37.5 (03)	100 (08)
Mohepur	00 (00)	28.6 (02)	71.4 (05)	100 (07)	11.1 (01)	77.8 (07)	11.1 (01)	100 (09)
All	00 (00)	05 (19.2)	80.8 (21)	100 (26)	11.5 (03)	53.9 (14)	34.6 (09)	100 (26)

Table 6: Immunization status of the children 12-23 months of age by study villages

Area	1996				1998			
	Full	Partial	Not	Total	Full	Partial	Not	Total
Jejepara	11.1 (01)	33.3 (03)	55.6 (05)	100 (09)	29.4 (05)	23.5 (04)	47.1 (08)	100 (17)
Purbokanda	14.3 (01)	42.9 (03)	42.9 (03)	100 (07)	07.7 (01)	69.2 (09)	23.1 (03)	100 (13)
Mohepur	18.2 (02)	54.6 (06)	27.3 (03)	100 (11)	00.0 (00)	42.9 (03)	47.1 (04)	100 (07)
All	14.8 (04)	44.4 (12)	40.7 (11)	100 (27)	16.2 (06)	43.2 (16)	40.5 (15)	100 (37)

Table 7: Immunization status of the children 0-23 months of age by study villages

Area	1996				1998			
	Full	Partial	Not	Total	Full	Partial	Not	Total
Jejepara	04.8 (01)	28.6 (06)	66.7 (14)	100 (21)	26.9 (07)	23.1 (06)	50.0 (13)	100 (26)
Purbokanda	07.1 (01)	21.4 (03)	71.4 (10)	100 (140)	04.8 (01)	66.7 (14)	28.6 (06)	100 (21)
Mohepur	11.1 (02)	44.4 (08)	44.4 (08)	100 (18)	06.3 (01)	62.5 (10)	31.3 (05)	100 (16)
All	07.6 (04)	32.1 (17)	60.4 (32)	100 (53)	14.3 (09)	47.6 (30)	38.1 (24)	100 (63)

Table 8: Immunization status of the children 0-23 months of age

Status	1996			1998		
	0-11	12-23	Total	0-11	12-23	Total
Full	00.0 (00)	14.8 (04)	07.6 (04)	11.5 (03)	16.2 (06)	14.3 (09)
Partial	19.2 (05)	44.4 (12)	32.1 (17)	53.9 (14)	43.2 (16)	47.6 (13)
Not	80.8 (21)	40.7 (11)	60.4 (32)	34.6 (09)	40.5 (15)	38.1 (24)
Total	100 (26)	100 (27)	100 (53)	100 (26)	100 (37)	100 (63)

Table 9: Source of vaccination of the children by study villages

Sources	1996				1998			
	Mohes- pur	Jele para	Purbo- kanda	Total	Mohes- pur	Jele para	Purbo- kanda	Total
THC	66.7 (06)	85.7 (06)	60.0 (03)	71.4 (15)	70.0 (07)	85.7 (12)	26.7 (04)	59.0 (23)
Kalipur (outreach)	-	-	20.0 (01)	04.8 (01)	10.0 (01)	14.3 (02)	60.0 (09)	30.8 (12)
Ramsank. (outreach)	11.1 (01)	-	-	04.8 (01)	-	-	-	-
Uthsargo (NGO fixed)	11.1 (01)	-	-	04.8 (01)	-	-	06.7 (01)	02.6 (01)
Matrisadon (Mu. Fixed)	-	-	-	-	-	-	06.7 (01)	02.6 (01)
Railway (outreach)	11.1 (01)	14.3 (01)	20.0 (01)	14.3 (03)	20.0 (02)	-	-	05.1 (02)
Total	100 (09)	100 (07)	100 (05)	100 (21)	100 (10)	100 (14)	100 (15)	100 (32)

ABSTRACT: This study was conducted in Bhairab thana of Kishoregang district. For comparison between 1996 and 1998, data from both primary and secondary sources were used. The objectives were to assess the current immunization status of children and to identify the reasons of low immunization status. Immunization coverage is likely to be better in the area that is nearer to outreach centre. The current study demonstrates that in 1996 only 5% clients received vaccine from the nearest outreach centre but in 1998, 31% clients received vaccine from the nearest centre. Low immunization coverage in 1996 could be related either to people not being informed about time and place of vaccination or session not being organized regularly. The greater coverage of vaccine in 1998 indicates that people were informed about time and place of vaccination ahead of the event. In 1996, the clients received messages about vaccination services mainly from the villagers, but in 1998 they received messages from the providers, villagers and other sources. In 1998 the field workers were more active than 1996. This study confirms the importance of visits by the field workers towards improving the coverage of childhood immunization. Providers viewed difficulty in reaching the vaccine centre as a reason of low coverage. For this reason the vaccinators could not go for vaccination and social mobilization duties in those areas and the clients also could not go anywhere for vaccination. So lack of knowledge of the target group has been associated with low acceptance of immunization services. When people believed that immunization might have negative effects, then acceptance will be obviously affected. There is need to increase awareness among ignorant and illiterate mothers about effectiveness and importance of vaccine. Availability and accessibility of immunization services and the manner of dissemination of appropriate information and provision of health education are important for better immunization coverage.

সারসংক্ষেপঃ

সাধারণতঃ বাংলাদেশের গ্রাম এলাকার চেয়ে শহর এলাকায় অধিক শিশু টিকাদান কর্মসূচির আয়তাবৃত্ত। তারপরেও দেখা যায় উল্লেখযোগ্য পরিমাণ শিশু টিকাদান কর্মসূচির আয়তায় আসে নাই। শিশুদের টিকাদান কর্মসূচির আয়তাবৃত্ত না হওয়ার বিভিন্ন কারণ রয়েছে। যেমন মায়েদের শিক্ষা ও জ্ঞানের অভাব, নিয়মিত টিকাদান কেন্দ্র অনুষ্ঠিত না হওয়া, টিকাদান ব্যবস্থা দূরে থাকা এবং পরিবারের আর্থিক সংকট। ১৯৯৬ সালে ভৈরব থানায় একটা বড় সমীক্ষা করা হয়। সেখানে দেখা যায় সে, পৌরসভার আয়তাবৃত্ত তিনটি নির্দিষ্ট এলাকায় টিকাদান কর্মসূচির গ্রহণযোগ্যতা খুব কম। কেন গ্রহণযোগ্যতা কম এবং টিকাদান কর্মসূচির কোন পরিবর্তন এইসব এলাকায় হয়েছে কিনা? এটা দেখার জন্যই এই তিনটি এলাকাকে নিয়ে এই সমীক্ষা চালানো হয়েছে শুধুমাত্র দুই বছরের নিচের খানাগুলিকে এই সমীক্ষার অন্তর্ভুক্ত করা হয়েছে। ১৯৯৮ সালের ফেব্রুয়ারী মাসে প্রথম পর্যায়ভুক্ত তথ্য সংগ্রহ করা হয় এবং তুলনা করার জন্য ১৯৯৬ সালের দ্বিতীয় পর্যায়ভুক্ত তথ্য ব্যবহার হয়। এফ,জি,ডি ইনডেপথ ইন্টারভিউ ও জরিপের মাধ্যমে তথ্য সংগ্রহ করা হয়।

টিকাদান কর্মীদের মতে, অধিক শিশু টিকাদান কর্মসূচির আয়তাবৃত্ত না হওয়ার প্রধান কারণ হচ্ছে সেই তিনটি এলাকার যোগাযোগ ব্যবস্থা খুবই খারাপ। পায়ে হাটার ও কোন রাস্তা নাই। স্থানগুলি নদীর শাখা দিয়ে বিভক্ত। ফলে স্বাস্থ্যকর্মীরা পরামর্শ বা টিকাদান কেন্দ্রের জন্য সেই এলাকায় যেতে পারেনা। পক্ষান্তরে মায়েদের ও বাচ্চা নিয়ে দূরে গিয়ে টিকা দেয়া কষ্টকর হয়ে যায়। ফলে তারা যেতে চায়না। তাছাড়া মায়েরাও বেশি সচেতন নয়। মায়েদের অশিক্ষা ও অজ্ঞতায় দায়ী কম সংখ্যক শিশু কর্মসূচিভুক্ত হওয়া।

শিশুর মায়েরা টিকনা নেয়ার বিভিন্ন কারণ উল্লেখ করেন- যেমন টিকাদান কেন্দ্র বহুদূরে, অনেক সময় ঔষধ ও টিকাদান কর্মীদের পাওয়া যায় না। বাচ্চা অসুস্থ ছিল, লক্ষিত বয়স সম্পর্কে ধারণা নাই, কেউ আসেনা তাদের এলাকায় টিকা দেয়ার কথা বলতে, সংসারের কাজের ঝামেলায় যেতে পারে নাই, টিকা কার্ড হারিয়ে গিয়েছিল ফলে টিকাদানকারী কার্ড ছাড়া টিকা দিতে অস্বীকৃতি জানায়,

টিকাদানকারীরা টাকা নেয় টাকা দেয়ার জন্য ফলে গরীব মানুষ দিতে পারেনা এবং টাকা দেয়াটা গুরুত্ব সহকারে নেয় নাই। ১৯৯৬ সাল থেকে ১৯৯৮ সালের মধ্যে টাকা গ্রহণকারী শিশুর সংখ্যা বেশ কিছু বেড়েছে। ১৯৯৬ সালে ৬০% শিশু মোটেই টাকা নেয়নি কিন্তু এর পরিমাণ ১৯৯৮ সালে ৩৮% দাড়ায় পক্ষান্তরে, ১৯৯৬ সালে সম্পূর্ণ টাকা গ্রহণকারী শিশুর সংখ্যা ৮% ভাগ কিন্তু ১৯৯৮ সম্পূর্ণ টাকা গ্রহণ করেছে ১৪% শিশু। টাকা গ্রহণকারী শিশুর সংখ্যা বৃদ্ধি হওয়ার কারণ হচ্ছে পূর্বে মায়েরা টাকা নেয়ার কথা প্রতিবেশী ও আত্মীয়দের কাছে থেকে শুনছে ফলে ভাল ভাবে জানতে পারে নাই কোথায়, কখন টাকা দেয়া হবে। কিন্তু ১৯৯৮ সালে মায়েরা জানায় টিকাদান কর্মীরা তাদের গ্রামের এসে খবর দিয়ে যায় এবং তাদের গ্রামের কাছাকাছি স্থানে টিকাদান কেন্দ্র অনুষ্ঠিত হয়। ১৯৯৮ সালে মায়েরা জানায় স্বাস্থ্যকর্মীরা না আসলে তারা খবর পাঠায় মায়েদের যাওয়ার জন্য যাহা ১৯৯৬ সালে মায়েরা এমন ধরনের কিছু বলে নাই। ফলে এখন থেকে অনুমান করা যায় যে, স্বাস্থ্য কর্মীরা আগের চেয়ে অনেক বেশি সচেতন হয়েছে।

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