Watch Report

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National Immunization Day (NID) Campaign in Bangladesh: Are the Participation and Coverage Increasing?

Abstract: This report presents the immunization coverage of *National Immunization Day (NID)* of December 1996-January 1997 and compares with the coverage of a similar campaign conducted in April-May 1996. The results, based on a nationally representative sample survey, reveal that NID attracted a significant proportion of rural mothers and created an opportunity in preventing poliomyelitis and nightblindness by immunizing under 5 children. Regional variation in coverage remained very high. The role of non-government development organizations was also significant in raising the immunization coverage among children through NID activities.

Introduction

The National Immunization Day (NID) was observed in Bangladesh to raise immunization coverage and as a campaign to make the mother of young children aware of the need for immunization. The government and other development agencies have routinely been operating mass communication activities to raise the community participation in immunizing children for more than a decade. The 8th December 1996 and 8th January 1997 were observed again as *National Immunization Days (NIDs)* in Bangladesh. In December 1996, polio vaccines were given to all children aged under 5 years and vitamin A drops were given to all children aged 1-<5 years. In January 1997, polio vaccines were given again to all children aged under 5 years. The purpose was to develop immunity against poliomyelitis and nightblindness among children and create awareness of immunization among mothers having children. This report assesses the NID coverage of December 1996-January 1997 and compares it with the performance of previous NID campaign in April-May 1996.

Materials and Method

Data for this report came from a nationally representative intensive monitoring system, known as *Watch*, covering 70 villages in ten regions of the country. *Watch* maintains a database where basic demographic and socioeconomic information are updated. A sampling frame consisting of all children aged under 5 years in December 1996 was prepared. Systematic sampling technique was followed to select 2,032 children where one from every four children was selected at random.

Table 1. NID coverage by type and demographic characteristics among children aged 2-<5 years (n=1,650)

Age and Sex	December		January	Total
	Polio	Vit-A	Polio	
All	89.2	83.2	83.0	72.1
Age				
1-<2	90.2	82.1	83.7	72.2
2-<3	89.8	85.5	84.8	75.2
3-<4	89.0	83.2	81.6	69.4
4-<5	87.8	81.8	81.8	71.3
Sex				
Male	88.8	82.9	84.2	72.8
Female	89.7	83.4	81.8	71.4

Findings and Discussion

Under one children were not given vitamin A. They received only two polio doses. In estimating coverage, under one children were, therefore, excluded. Nearly 72.1% children received all three doses of vaccines although about 89.2% in December and 83% in January received only polio vaccines

(Table 1). Vitamin A intake was relatively lower (83.2%) compared to polio coverage in December. Age variation in NID coverage was significant ($p<.01$). The problem of wrong identification may have resulted relatively poor coverage among older children. Sex variation in coverage was negligible although more male then female children received polio in January.

Table 2. NID coverage by dose and socioeconomic characteristics

Socioeconomic characteristics	December		January	Total
	Polio	Vit-A	Polio	
Mother's Education				
No schooling	86.2	79.6	81.3	68.3
I - V	93.5	89.5	84.0	77.2
VI +	94.9	87.6	88.9	79.9
Land Ownership				
Landless	88.3	82.6	85.1	73.0
1 - 199 dec	90.3	85.9	82.4	72.3
200 - dec	89.7	78.6	79.5	68.4
Father's Occupation				
Agriculture	87.9	81.7	81.3	70.7
Business	87.8	81.4	83.3	71.4
Service	91.6	85.0	83.5	73.1

Table 2 shows that the NID coverage was positively associated with mothers' education as found in other studies (Streatfield et al. 1991; Koenig et al. 1991; Hadi and Nath 1996). It is not clear why education of mother influences to raise the coverage. The wider gaps in coverage between illiterate and literate mothers indicate that the awareness as well as the need of immunization were better understood by educated mothers than others.

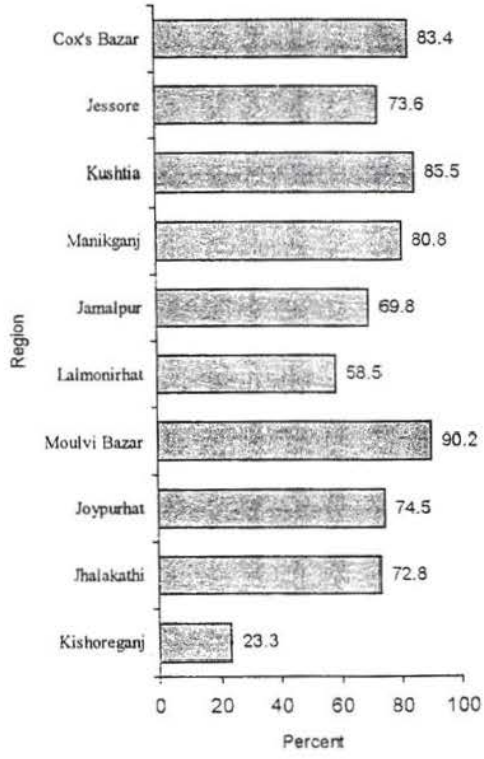
Table 3 NID coverage by dose and involvement with NGOs

Involvement with NGOs	December		January	Total
	Polio	Vit-A	Polio	
Not eligible	89.6	81.4	79.7	69.5
Not involved	88.1	81.4	82.2	69.9
NGO member	90.2	86.5	86.6	76.6

The land ownership appeared to have no significant relationship with coverage indicating that social mobilization during NIDs was able to reach the poorest section of the community. This was also reflected in minor variation in NID coverage by occupation.

Table 3 shows that the children of credit program participants were more likely to receive all types of vaccines than the children of non-participants. The differences were statistically significant ($p<.01$).

Figure 1. Coverage of all NID doses by region



Regional variation in NID coverage was very wide ranging between 90.2% in Moulvi Bazar and only 23.3% in Kishoreganj (Figure 1). Such a wide variation indicates that the campaign to communicate potential parents was poor.

Table 4. Participation of children in NID campaigns during December and January by NGO involvement

Program Involvement	Participation			
	Both	Never	Decem	Januar
All	72.1	6.5	10.4	10.9
Not eligible	69.5	8.7	11.5	10.2
No (but eligible)	69.9	7.2	10.6	21.3
NGO member	76.6	4.0	9.3	10.0

Not all children participated in both December and January campaigns. Table 4 assesses the social mobilization effort of NID campaign by measuring the changes in participation of children between December and January. About 72.1% children participated in both the campaigns while 6.5% children were never reached during the campaign. About 10.4% children attended the December campaign but dropped out in January while 10.9% children did not receive any vaccine in December but received in January. The role of NGO membership was significant in the change of participation in NIDs. The children of NGO members (76.6%) were much more likely ($p<.01$) to participate in both campaigns than either the children of equally poor non-member households (69.9%) or the children of better off households (69.5%). The proportion of never reached and dropout from the December campaign was generally lower among children of NGO members.

Table 5. Change in participation of children between December 1996 and January 1997 by region

Region	Participation			
	Both	Never	Decem	Januar
Manikganj	80.8	1.9	9.0	8.3
Joypurhat	74.5	1.8	12.7	10.9
Jamalpur	69.8	8.1	7.4	14.8
Lalmonirhat	58.5	4.9	20.4	16.2
Kushtia	85.5	1.2	6.7	6.7
Jessore	73.6	4.7	8.8	13.0
Jhalakathi	72.8	5.9	16.6	4.7
Cox's Bazar	83.4	1.6	10.2	4.8
Moulvi Bazar	90.2	1.1	6.3	2.3
Kishoreganj	23.3	38.0	7.3	31.3

Change in the participation between the campaigns by region is shown in Table 5. Retention (i.e. participation in both campaigns) rates were quite high in Moulvi Bazar (90.2%) and Kushtia (85.5%) regions and was lowest in Kishoreganj region (23.3%). The dropout rates were higher in Lalmonirhat (20.4%) and Jhalakathi (16.6%) while the new entrant in January was also high in Kishoreganj (31.3%) indicating that mobilization effort was inadequate in that region.

Figure 2. Change in NID coverage by antigen

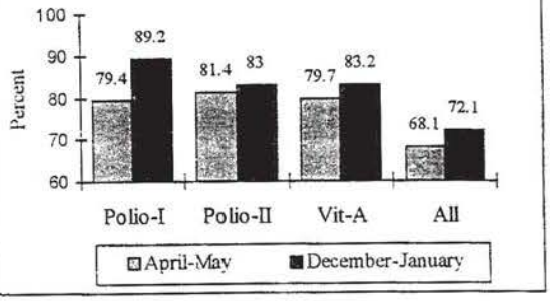


Figure 2 shows the change of NID coverage by antigen between April-May and December-January campaigns. NID, not only sustained, but has also shown an increasing trend for each antigen. The results suggest that the NID campaigns were able to attract most of its target audience and created a positive context in preventing poliomyelitis and nightblindness in rural areas. The report concludes that the NIDs must be continued for an extended period of time for improving the health status of children.

References

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