

National Immunization Day in Slums of Mohakhali, Dhaka

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**BRAC
Research and Evaluation Division**

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Poliomyelitis, commonly known as polio, is an acute viral infection caused by an RNA virus. Polio causes stiffness in the neck and back, varying degrees of paralysis and possibly death. Polio is a curse because it causes physical pain along with social pain as the affected and crippled have to be rehabilitated into society. Polio is essentially a disease of infancy and childhood; the most vulnerable age is between 6 months - 3 years. There is no specific treatment for polio and good nursing care can minimize or even prevent crippling. Immunization with oral drops of polio vaccine (OPV) is the sole effective means of preventing polio. Acute infectious diseases, fever, diarrhoea, and dysentery are contraindications of OPV administration.

Developed countries have used polio vaccine extensively since 1954 and have virtually eliminated the disease, but in developing countries polio still paralyzes over 100,000 children each year. The environmental sources of infection are contaminated water, food and flies, with overcrowding and poor sanitation providing good opportunities for exposure to infection. All these are abundantly present in the slums of Dhaka City.

Bangladesh has an Expanded Programme on Immunization (EPI) through which polio vaccine is given to children aged under 5 years. Along with routine EPI, the government arranges the

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National Immunization Day (NID) and immunizes children aged 0-5 years against polio. The NIDs act as a boost factor in the strategy to eradicate polio from Bangladesh by the year 2000. A BRAC research team observed the latest NID on January 18, 1998 in TB Gate Jhil Par, Agar Khan Plot, Taltola, and Karail slums of Mohakhali area in Dhaka City.

The knowledge and perception of the mothers and the *matobbars* (headmen, leaders) about polio and EPI were sketchy at best. The *matobbars* gave more accurate answers than the mothers but it was not markedly better. Few mothers could say why NID was held, where, or for what reason. Most slum dwellers did not know children of what age or which childhood disease were the targets of the NID. The mothers said that polio vaccine was given in oral drops three times, but it was all right to give more drops. One mother said, *"If we get it free then we will give it to our children for as many times as possible."* She had vaccinated her eldest child but did not remember the process or what it had included. She had heard that it might be good for children and thus sent her child to be vaccinated with a neighbour who knew more about these things. The only evidence of that vaccination was the BCG vaccination mark on the child.

The Dhaka City Corporation organized the NIDs in urban Dhaka including the slums and it was assisted by non-governmental organizations (NGOs), and private voluntary organizations and individuals. The slum community was mobilized 1-3 days before the NID. Some mothers found out about the January 18 NID the previous day from messages broadcast from loudspeakers, some from broadcasts on radio and TV, but most heard about it from neighbours. Even the children had not heard anything. The mothers and *matobbars* said, *"We don't know whether miking was done because most of the time we are not home as we go to work. No one came to give us slips or registered our children."* Some interviewees said they had heard about the previous NID of December 1997 mainly from the public announcements made through loudspeakers in the vicinity of their slums. If the slum dwellers thought their children should be taken to a vaccination centre then they usually mentioned the name of the centre held in the previous NID in December 1997, or they asked us where their children should be taken. Those living in Taltola Sweeper Colony slum said that they were going to take their children to the vaccination centre in the park the next day.

The knowledge and perception about polio were not markedly improved after the NID session probably because other than giving oral drops to the children little exchange of information occurred. Although, after the NID all mothers interviewed correctly said that their children were vaccinated against polio, and that children over age 5 and fully immunized children should not receive this vaccine. But the slum mothers also added that the oral drops will protect their children from becoming crippled, blind, fever, small diseases, hand polio, cough, and measles, and eradicate polio from Bangladesh. Most mothers walked to the centre and it took them 5-15 minutes to reach the vaccination spot, and they waited for 5-15 minutes for the children to be vaccinated. They did not face any difficulties in coming to the centre. The slum mothers opined that it was easier for them if immunization was given directly in the slums.

The knowledge and perception of the vaccinators varied. The vaccinators were NGO health educators, housewives-social workers, and school boys from the slums. The NGO health workers were more knowledgeable and they complained that they had not received ample registers, vaccination slips, posters or table cloths, but the social worker-housewives gave better service in terms of the number of oral drops given than the regular health educators.

The NID Sessions: The BRAC research team observed two NID vaccination centres in Karail and Taltola. Both the NID centres started after 10 AM and closed by 2 PM. Although on our way to Taltola we saw one NID at 8:30 AM already functioning. In Karail there were two vaccination centres near the central play ground, one static arranged by an NGO called Unity Through Population Service, and another mobile centre arranged by university students belonging to the Rotary Club. The mobile team did not use an ice-pack and had the vials in an open bowl. In Taltola Sweeper Colony slum the NID centre was arranged jointly by Rotary Club and Innerwheel Club.

In Karail vaccination centre was held in the club room of a certain political party, and it was made of tin roof, bamboo wall and mud floor; in Taltola the vaccination centre was a pandel set up by decorators hired by the organizers. Inside the pandel there were table, table cloth, several chairs, and a loudspeaker with recorder for announcements and songs about polio vaccination. The pandel was located in front of the park and next to a local bazaar and was quite dusty. In Taltola a young girl, aged 15 years had died one month after giving birth. Her

dead body was kept near the pandel in which the vaccination centre was held. Until her Janaja prayer was held and her body taken away for burial no miking was done. But after that miking was constantly done till the end of the vaccination session. The vaccination centres displayed banners and posters with slogans such as, '*Give your child OPV vaccination*', '*Build a polio free Bangladesh*', the 'Moni' logo, and the names of the respective organizations.

Vaccination was not given in an orderly manner with the parents and children standing in lines, but it was less chaotic in Taltola. The waiting area for the parents were not protected against the sun or rain, but there was space for some parents to wait inside the club room and the pandel. No supervisors came to the centre in Karail; but the current and ex-presidents of Innerwheel Club acted as a supervisor for the vaccination session and at the end of the session the national and international presidents of Rotary Club came to see how the session had done in Taltola. The vaccination sessions immunized 1,046 children under the age of five.

There was no shortage of vaccines in the vaccination centres. Vaccine was kept in a vaccine carrier with ice pack. The vaccine vial was put on the ice pack in between the vaccine sessions in Karail but not in Taltola. The children were given 2-6 drops of OPV. Some children were given the oral drops at the back of the tongue. Registers were not maintained for the target children. According to the NGO health workers, in the 1995 NID parents were given slips and mothers came to vaccination centres with the slips. But this took more time and manpower and created disorder so the slip system was discontinued. A 25 day old baby was given 3 drops of OPV in Taltola. Maternal antibodies circulate in children for the first six months and that is why the first dose of DPT is given at six weeks in the regular EPI schedule. Only BCG vaccination can be given at birth. A couple of children spat out the oral drops but they were not given the oral drops again. One child looked familiar to the vaccinators and they asked how many times he had taken the vaccine that day. He replied happily, *Twice*.

In Karail 30 vials out of the 40 taken, and in Taltola 19 out of the 25 vials taken were used but in Taltola all the vials were opened. Slum dwellers (young men and school boys) helping in the vaccination centres were asked to help identify the children who had been missed and they brought those children to be immunized. But according to the slum dwellers children outside

the immediate slums were not present, *"Their mothers work so they will probably come in the afternoon. They won't come now."*

In Karail the vaccinators told the slum women that they would give the oral drops till 2:30 PM at least. But at 1:45 PM a local young political leader came and showed his displeasure, *"Why are you holding a vaccination centre in our club room without prior permission? You cannot do this. You have to leave."* The vaccinators protested and tried to make him understand that the centre was for the good of the slum children and free of cost, but this only made the leader angrier. During this conversation two mothers waited with their children and requested that their children be vaccinated too. The vaccinators were upset and frightened and told the mothers that their children would not be vaccinated but in the last moment they hurriedly vaccinated the children and quickly left Karail. The day before the NID there was some conflict in Taitola also about vaccinating only the children attending a school which was set up with the help of slum leaders affiliated to a certain political party. But the social workers convinced the leaders that all slum children should be vaccinated. In Taitola a woman came with a child half an hour after the centre was closed because she was told that the vaccinators would stay till 2-3 PM.

Interestingly not only slum children but middle income and upper income group of children also came to be vaccinated in the centres located in the slums, but their numbers were few.

A shortcoming of the recently concluded NID was that it did not adequately publicize its mission. NIDs could not immunize all the targeted children, and only half the children who came to the NID sessions were given the oral drops properly. Furthermore, the interference of local political leaders hampered the delivery of this service aimed at our future generation. Current observations indicate that NIDs will probably be socially sustainable but the question of their being financially sustainable remains unanswered. Despite these weaknesses the NID was checkered with successes too.

The government successfully motivated NGOs, private organizations and university students to organize and participate in the NID campaign. The organizations targeted 1,300 and vaccinated 1,046 children, more than two thirds of their target. Half of the children were

vaccinated properly. There was some improvement in the knowledge and perception of the parents about immunizable diseases like polio just from one session of NID which the regular EPI in the last two decades were not able to do. The 1,046-slum children immunized in the NID live very near the EPI headquarters in Mohakhali, yet they had remained non-immunized despite having access to good transportation and finances. The NID sessions immunized socio-economically well-off children along with slum children and this was a success since the routine EPI had missed both the privileged and underprivileged group of children.

This was an attempt to draw attention to the characteristics of the NIDs in Dhaka's slums since little information is available on urban immunization programmes in Bangladesh, let alone in urban slums. Our observation was partial since all the slums or representative samples of slums were not observed, and we did not find out whether all slum children had been vaccinated against polio. This observation gives incites to the remaining challenges that the immunization campaign need to address to make the NIDs a complete success and eradicate polio from Bangladesh.