

Inequalities in Health: Who gets vaccinated in Bangladesh?

Inequality in health refers to differences in health in different groups in the population. Inequality that is deemed “unfair” “unacceptable” or “avoidable” is called *inequity*.

This newsletter focuses on inequalities in access to healthcare, focusing on **vaccination services in Bangladesh**

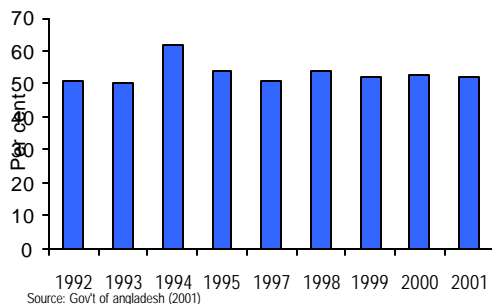
Expanded Programme on immunization (EPI) in Bangladesh

The Expanded Programme on Immunisation (EPI) of the World Health Organisation (WHO) was created in 1974 as a worldwide alliance of collaborating nations whose goal was to expand immunization services and coverage. The program consists of vaccination against six childhood diseases; polio, measles, pertussis, tetanus, diphtheria and tuberculosis.

Vaccination against some of the most lethal and debilitating diseases is one of the most cost effective interventions of modern times, and is thought to prevent 3.2 million child deaths annually worldwide.

The modern expanded programme on immunization (EPI) was launched in 1979 in Bangladesh, and was intensified in 1986. With government commitment, donor support, and NGO and civil society involvement, the programme attained great success within 5 yrs. The coverage in terms of children fully immunized reached 62% in 1991 from 2% in 1986. In Rajshahi the coverage rate reached 80 percent.

National Trends in coverage (fully immunized children) of children aged less than 12 months



However since then the rate has plateaued at around 50 percent (except for in 1995 when it reached its highest at 62 percent.). Bangladesh was never able to achieve the target of Universal Child Immunisation (UCI) of 80 percent and the plateauing of the coverage rate is even more frustrating.

A child is considered **fully immunized** if s/he has received all doses of the vaccines against the six diseases. This means all 3 doses of DPT and OPV, the BCG and Measles
Coverage is **valid** if the child has received all doses at the appropriate ages otherwise it is called **crude** (IOCH 2001).

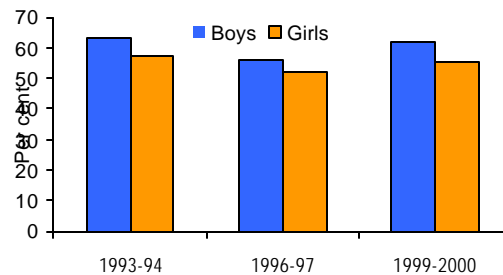
At birth	BCG
6 weeks	DPT1/OPV1
10 weeks	DPT2/OPV2
16 weeks	DPT3/OPV3
38 weeks	Measles

Furthermore there are large variation in immunization coverage among regions and socio-economic groups, where a more equitable coverage is desired.

Girls consistently have lower coverage rates

Girls consistently have lower immunization coverage rates than boys in Bangladesh, by about 5 percent.

Children aged 12-23 months who were fully immunized by sex and years



The difference between girls and boys also widens as the higher doses of vaccines are considered.

Close proximity to health facilities and coverage

Children living in communities where outreach clinics were not within 'close proximity' (i.e. within 2 miles), were 30 percent less likely to be immunized than those children that lived in communities where the outreach clinics were within 2 miles (Jamil et al, 1999).

Who gets priority in service provision....

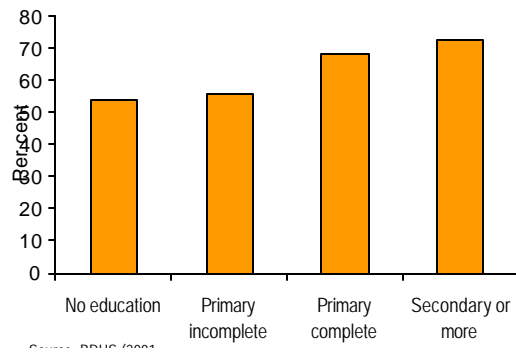
The health workers behaved differently with different people... a health worker gave a syringe and a Measles vaccine vial to the porter, just before closing the session. The porter and the health worker then went to a house on the other side of the road. To explain this the vaccinator said that they went to vaccinate a child in that house. The house owner was a rich man and the parents did not want to come to the session.

Source: Aziz et al, 1999

Lower social status and wealth means lower coverage

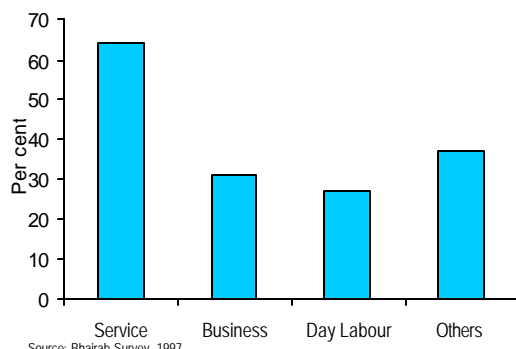
The children whose mother had an education level as high as the secondary or higher level had nearly 40% higher rates than those whose mother did not have any schooling. (Mothers education is commonly used to represent social status).

Children (12-23 months) fully immunized by mother's education



The children whose fathers held higher status salaried jobs (service) were immunized two-and-a-half times frequently than those of day labourers (considered a low status occupation).

Children (12-23 months) fully immunized source of household income in Bhairab (1997)



Coverage of children belonging to the poorest 20 percent of the population was 70 percent that of the richest 20 percent of the population (47.2 vs.66.7 per cent).

Place of residence and coverage

The urban rural divide

70 percent of children living in urban Bangladesh are likely to successfully complete the immunization schedule compared to 59 percent of children living in rural areas.

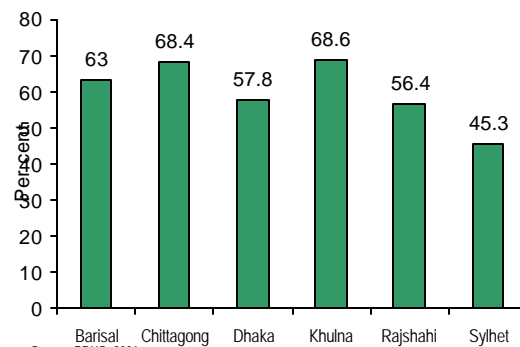
However, within urban areas the situation in urban slums is much worse. Children living in Dhaka's slums had 20 percent lower coverage rates than the overall city coverage.

The difference is in fact much less than one would have expected. The improved coverage in the slums is due to the work by numerous non-governmental organisations (NGOs). NGOs traditionally reach the disadvantaged groups more successfully than do the public sector programmes.

Differences between divisions

There are large differences between the administrative regions of the country. Coverage for children aged 12-23 months in Sylhet was the lowest at 45 per cent., with the highest coverage found in Khulna where it was 69 percent.

Children (12-23 months) fully immunized by division (1999-2000)



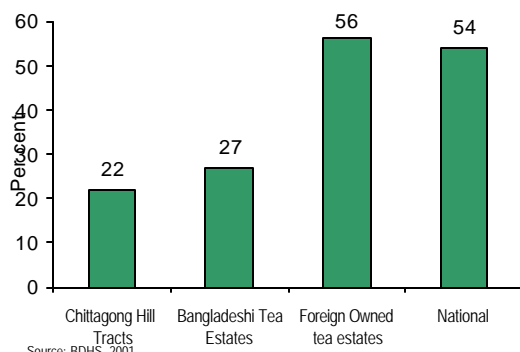
Such a difference between Sylhet and Khulna is not unique for immunisation. Though Sylhet is not considered as one of the poorest regions of Bangladesh it is lagging behind in other markers of development including family planning acceptance, education level, and nutritional status (BDHS 2001; Chowdhury et al. 1999a). Explanations for the low rates include ecology (a large part of the division remains under flood water for most of the year, poor staff-population ratio (a large number of field positions remains vacant for years), conservatism leading to less freedom and independence of women and less adoption of new ideas, and less NGO programmes.

Differences between and within districts exist

Differences also exist *within* districts. Kishoreganj is the lowest performing district in terms of immunization rates; and although the total coverage in the district was 28%, there were certain pockets that had coverage as low as 5%. These were the low-lying and small villages that remained marooned by floodwaters for most parts of the year (see box).

Ethnic minorities have lower coverage

The Chittagong Hill Tracts (CHT) has a very low coverage rate of 22% compared to the national rate of 54%. Among the ethnic groups within CHT the rate for the Bangalis' who settled there from the plains was the highest. The range in coverage for the ethnic minorities varied from a low of 8 percent for the Mros up to 17 percent for the Tripuras.



Workers of tea estates of Sylhet are non-locals who were brought to the area from other parts of India in early 19th century. The labourers who worked for locally owned tea estates had lower coverage for their children compared to those who worked for foreign companies.

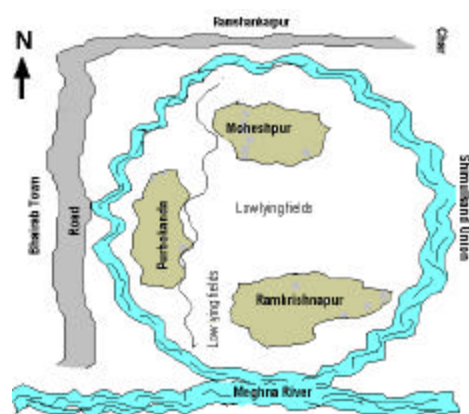
The way ahead

Removal of disparities between groups is a must for enhancement of overall immunization coverage. NGOs with their power to reach the unreached should come forward to contribute in this effort. At the same time delivery of services must be strengthened and reinforced through improved management of EPI at various level.

Geographic targeting and targeting of underserved areas should also be promoted. Monitoring of EPI for various subgroups is critical.

Being small is a curse?

In Bhairab a traditionally low performing area, pockets of villages exist where the coverage is significantly lower (as low as 5%) than other villages. One reason for such poor coverage is the sheer size of the village and poor transportation. The three villages shown in the figure (Ramkrishnapur, Purbakanda and Moheshpur) are separated from other areas by a big river and low-lying fields and remain isolated from the mainland for about eight months by floodwaters. Being very small no person from the villages gets elected to local union council and thus they are politically unimportant. The villages are far from nearest health centres and the health workers seldom visit these villages. The villages do not have enough children to set up separate vaccination centres; for the same reason of small size no NGO is active in these villages. There is no public school and only recently BRAC, an NGO, has set up a non-formal school. For every development activity the villagers are neglected. In Bangladesh, there are many such villages.



Bangladesh Health Equity Watch

BHEW is a Bangladeshi initiative established to determine whether the health situation in the country is improving and if these improvements are equitable. It is a collaborative initiative of four organisations that share a common concern for equitable health and development in Bangladesh: Bangladesh Bureau of Statistics (BBS), Bangladesh Institute of Development Studies (BIDS), BRAC, and ICDDR,B

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