Watch Report

Report No. 7 Research and Evaluation Division, BRAC May 1994

Socio-demographic and Community Differentials in Vitamin A Coverage: Evidence From March 1994 Data

Introduction

The vitamin A deficiency, at the global level, is considered as a major public health problem since "five to ten million children exhibit signs in their eyes of vitamin A deficiency and up to 100 million may have subclinical depletion with more subtle effects on well-being and eventual survival." (McKenry, 1994). The supplementation of vitamin A, therefore, may significantly reduce mortality and protect the health of children.

According to one estimate, nearly a million children suffer from vitamin A deficiency of whom 30,000 go blind each year in Bangladesh (HKI, 1993). The government has been operating a nationwide vitamin A capsule distribution program nationwide to cover most of the 6 to 71 months old children living in the poor rural households.

This report assesses the coverage of vitamin A capsules distributed in March 1994 and analyzes the socio-demographic and community differentials in coverage in two rural areas of the country.

Data and Methods

BRAC has been operating a demographic and health surveillance system since 1986, known as *Watch*, in three rural unions in its project area in Manikganj district (central area). The system was introduced to document the changes resulting from a development project in such areas as health, income generation, education and women's affairs. The *Watch* was expanded in 1987 to three more rural unions in Joypurhat district (northern area) where no such development intervention was present. BRAC has been collecting information on vitamin A capsule (VAC) coverage twice a year since September 1989. All children aged between 6 and 71 months in March 1994 were included in the sample. This study is based on 10,205 children living in the above two areas were eligible to receive VAC during the 36th cycle of distribution.

Findings and Discussion

The coverage of vitamin A capsule (VAC) in March 1994 is reported to be

nearly 82%. Figure 1 shows that the coverage is marginally higher in the north than central area. The gender variation in coverage, although existed, is not statistically significant.

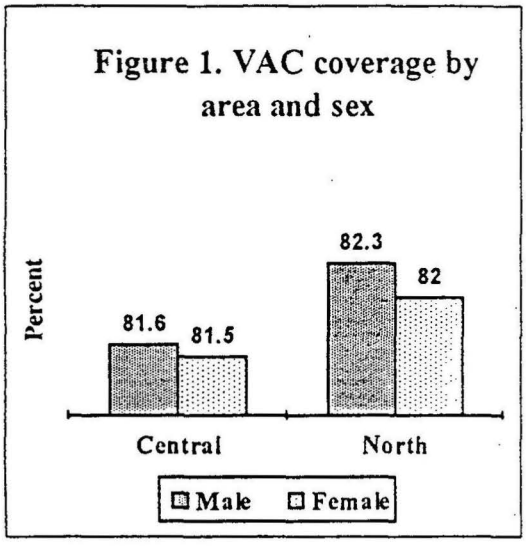
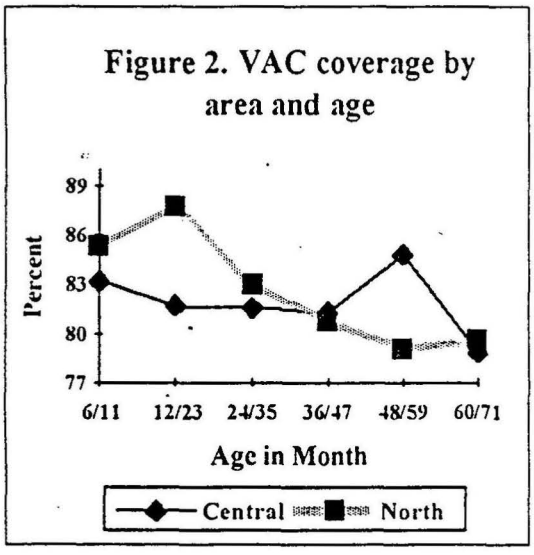
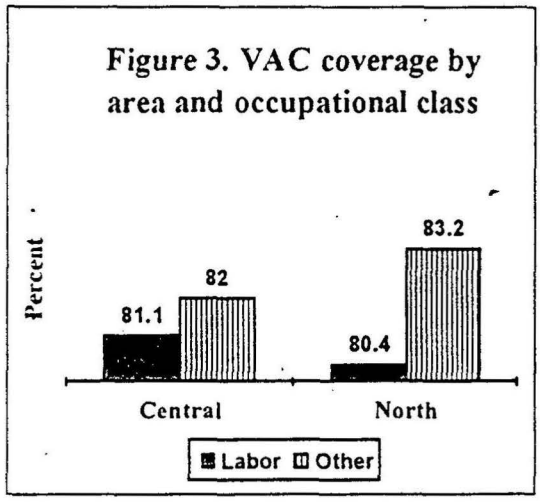


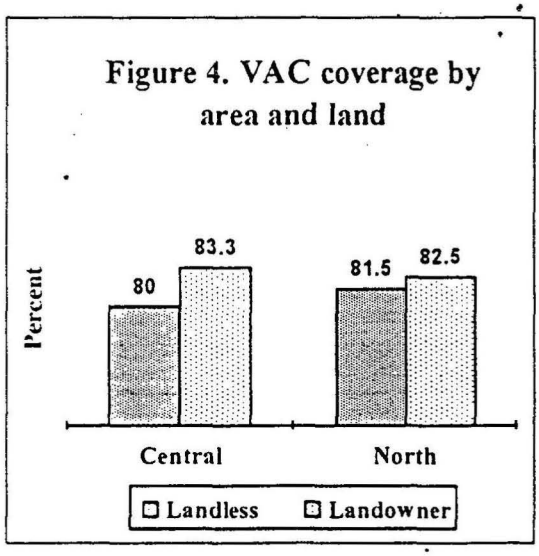
Figure 2 shows that the coverage rate varies by age of children ($p<.01$). The younger children are more likely to have received vitamin A than the older children although the highest coverage is at age 5 in the central area.



Although the demographic variation in VAC coverage is negligible, the children of labor class are less likely to be covered than the children of other classes (Figure 3). The gap in coverage between the two occupational categories is narrower in the central than the north ($p<.01$) indicating that the development intervention might have increased coverage among children of the poorer section of the community.

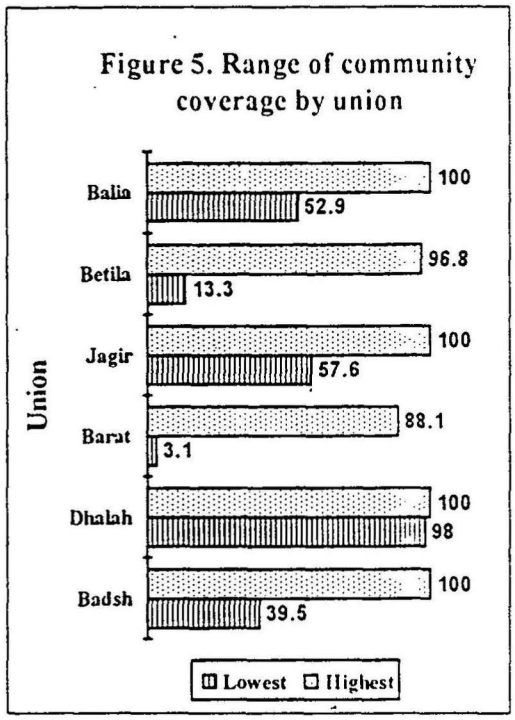


The vitamin A coverage among the landless households is lower than the landowning households in both areas although the difference in coverage by land is slightly higher in the central area (Figure 4). This suggest that coverage is higher among the children of land owner-labor than the landless labor in the central area.



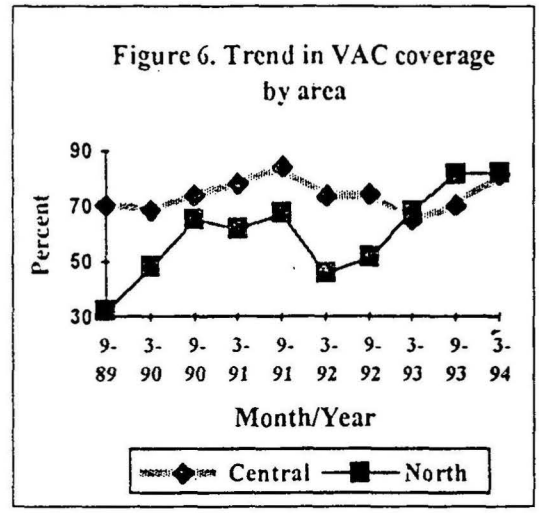
The community variation in coverage is found very wide in the study areas. Figure 5 shows the lowest and highest community coverage in each of the six study unions. This finding has important policy implication since it indicates that

most of the children living in certain communities are at risk of nightblindness and other illnesses which could be changed by taking appropriate steps.



The trend in vitamin A coverage since the inception of VAC surveillance in September 1989 is shown in Figure 6. In the central area, the coverage was 70% in September 1989 while it was only 35% nationally at that time (IPHN/UNICEF, 1990). The coverage in the central area rose gradually to 85% after three years in September 1991, declined to 70% in March 1993 and began accelerating since then to reach nearly 82% in 1994. On the other hand, the VAC coverage in the northern area was only 33% in September 1989 but reached the central coverage level in March 1993 and was increasing since then.

It is, therefore, evident from the data that vitamin A coverage, in general, has been improving in the rural areas of the country. No significant demographic variation in coverage is found in March 1994 data although the VAC coverage vary widely among different communities and socioeconomic groups.



Findings of this report suggest that the low-coverage communities, especially, the children of landless and labor class, should be given priority in providing services. This would not only reduce the differentials in VAC coverage but would further increase the coverage as well.

References

IPHN, UNICEF, and BRAC, 1990: *Nutritional Blindness Prevention Programme: Evaluation Report 1989.* Dhaka: Institute of Public Health Nutrition, United Nations Children Fund and BRAC.

HKI, 1993: *Prevention of Vitamin A Deficiency in Bangladesh: A Social Marketing Approach.* Dhaka: Helen Keller International.

McKenry, 1994: "New Recommendations Stress Importance of Micronutrients Like Vitamin A Supplements for Child Health". *Action in International Medicine Bulletin* Spring 1994.

This report has been prepared by Abdullahel Hadi of the Research and Evaluation Division of BRAC in May 1994.