Watch Report

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Introducing *Watch*
An Initiative in Monitoring Health and Development

Background and Objectives

Although substantial progress has been made to attain the goal of better health in the last two decades in Bangladesh, officials of both public and private sectors (such as NGOs) experience difficulty in understanding the change because of the lack of adequate, appropriate and timely information. A case was thus made for regular vigilance of selected health indicators.

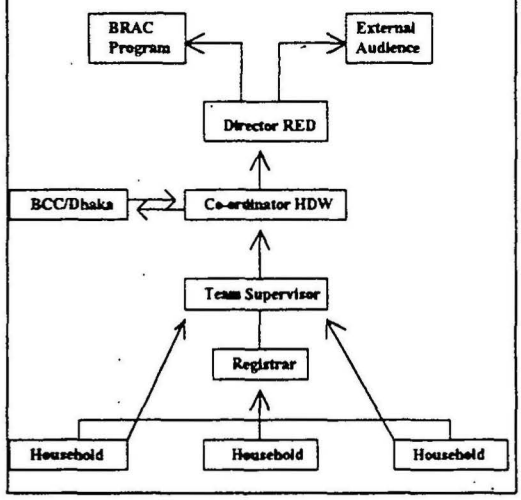
In 1986, BRAC launched a vital registration program, known as *Watch*, in three rural unions in its project area in Manikganj district, which consisted of 87 villages with a total population of 51,739. The program was introduced to document the demographic changes that was induced as a result of a development project with health, income generation, education and women's program in the area. The health component included oral rehydration therapy, immunization for both the mother and children, growth monitoring, nightblindness prevention, and health education. The registration system was expanded in 1987 to three more rural unions in Joypurhat district covering 63 villages with 35,708 population where no such development intervention was underway. This made the *Watch* to be based upon an experimental design wherein nearly 60 percent population in the Manikganj (the central) area received such services as credit for income generation and employment, non-formal education and primary health care for the rural poor, while the rest of the population in (the northern) area received only limited services provided by the government program. Both the central and northern areas were similar in the sense that their economy was largely based on subsistence agriculture and social institutions were predominantly traditional but different in terms of literacy and fertility behavior (Hadi, 1993).

To begin with, the study areas were totally enumerated, ie., 100 percent of the population were included in the sample. Since then, the study population were updated every month with all vital events (births and deaths, and later migrations and marital status) collected. Gradually, such other information of health coverage as immunization and vitamin A capsule were added to the system. Lately, education of (6-16 year old) children was included to see the trend in enrolment and retention rates. Immunization, vitamin A and education were updated every six month. Each individual in the system has a unique

and permanent identification number which permits linking of information over time. Information on individual and household socioeconomic conditions, and other background characteristics collected in the benchmark census were updated in 1993.

The rationale for establishing the *Watch* was the assumption that it would help modifying the policy and programs of the development by providing timely feedback on the success or failure of the intervention. It has been argued that the *Watch* would not only provide valuable insights to undertake innovative studies but also would contribute to understand the trends and variation of development indicators and their impact.

Figure 1: WATCH Information Flow Chart



The *Watch* has been regularly producing a) information of such population and health parameters as birth and death rates, incidence and prevalence of diseases, cause of death, coverage of EPI and vitamin A capsule distribution, and their differentials by socioeconomic characteristics; and b) data on change in population movement (in and out migration), marital status (marriage, divorce, widow, desertion rates) and education. In addition, the system provides an updated sampling frame and a longitudinal database that could be used for various types of development research.

The System at a Glance

Flow of Information

Figure 1 shows that information are generated at the households when the registrars interview the adult members of the household (usually women) once a month. The information gathered are reviewed by the supervisor and after necessary editing and coding in the field, the data are sent to the Coordinator of the *Watch* at Research and Evaluation Division (RED) in Dhaka. After registering, the data go to BRAC Computer Center (BCC) for entry and return to RED. The reports are prepared by the *Watch* project staff under the supervision of the Director of RED. The findings of the studies are then disseminated primarily to BRAC programs and occasionally to external audience.

Field Procedure

To carry out the registration of vital events such as birth, death, marriage, and migration, each union has a field team consisting of one or two registrar(s) and one supervisor (Ahmed, 1992). According to the system, the registrars visit every household in a union once a month and records events which occur following his/her previous visit. The registrars visit about 120 to 150 households every day and covers the whole union over the month. The data on birth, death, marriage, and migration are recorded on separate forms. The registrars also record the events in the household register. The supervisor of the field team is responsible for the overall operation and management of field activities. Each day, the supervisor randomly

checks 5 percent of the households visited by the registrars in the previous day and makes 100 percent verification of the death forms. The supervisor is responsible for field editing and the preparation of summary reports of vital events. In addition, periodic verification of data is conducted by the external investigators.

Data Management

After entry, the hard copies of data are manually verified at RED. The errors discovered are then corrected in the printed data and subsequently updated the data files. If errors could not be rectified, the data forms are returned to the field for verification. The *Watch* staff then carry out range checks and a limited number of consistency checks of the variables on the event files. The event files of different years are kept as flat files and linked with the population and socio-economic files as necessary.

Data Quality

A reasonably good assessment of the various aspects of the demographic data collected through the *Watch* has been done by both the project staff and external evaluators. The analysis revealed a satisfactory level of the quality of the data (Bhuiyan, 1991: Ahmed, 1992). There is an indication of under-reporting of events and misreporting of age, however, the extent of such problems is trivial. Given the simplicity and cost of the system, the outcome is quite satisfactory.

Reporting

So far more than fifteen reports have been produced and nearly five studies are currently underway based on the information of the system covering such issues as immunization, dietary practice, nightblindness, maternal and child health, morbidity, smoking behavior, fertility, reproductive behavior and education. The completed reports include the following:

a) An evaluation of vitamin A capsule distribution program; b) Demographic registration system: An evaluation of the quality of data; c) Is rice based oral rehydration therapy more acceptable? Results from a field trial in rural Bangladesh; d) A household survey on smoking in six areas of rural Bangladesh; e) Demographic registration system: Manikganj and Joypurhat; f) Dietary practices of rural children aged 0-71 months in Manikganj and Joypurhat; g) The neglected outpost: A closer look at rural schools in Bangladesh; h) Impact of BRAC intervention on mortality (1988-90): Findings from a longitudinal database; i) Demographic registration system: A report on vital events 1989-90; j) Change and variation in fertility: Evidence from BRAC; k) An investigation into the nature and determinants of maternal morbidity related to delivery and the puerperium in Bangladesh; l) A Review of BRAC's vital registration system; m) Health Watch of the Bangladesh Rural Advancement Committee: A review; and n) Health and Development Watch: 1986-1993.

Future Activities

Like the Demographic Surveillance System of ICDDR,B and Nutritional Surveillance Project of HKI operating in Bangladesh, the *Watch* has also been gathering data and producing reports. But while the others have concentrated only on health and nutrition, *Watch* has the advantage of covering such socioeconomic issues as education, employment, wage rate, etc. along with demographic and health information.

But the potential of using the *Watch* catchment area as a community laboratory for various kinds of research has remained largely unexplored. Although a community based study on maternal morbidity and mortality has just been completed and a study on the incidence and prevalence of child morbidity and their treatment is currently underway, it is thought that

the system has already generated a wealth of data that could be utilized by innovative studies. Two studies focussing on i) the impact of EPI and VAC distribution on childhood mortality, and ii) the role of gender relationship on contraceptive behavior have been planned using the *Watch* data. Moreover, the system is cost-effective which is producing the same amount of information with less cost compared to others (Bhuiyan, 1991). It has been argued that more areas, preferably two unions from each of the divisions, should be added to the system to make the *Watch* geographically more representative of rural Bangladesh. This should be addressed by linking the *Watch* with the proposed network of health information system consisting of small NGOs operating in different regions of the country. The ultimate aim of the system is to create a database that would facilitate monitoring the programs in Bangladesh's efforts to develop itself.

References

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