Sustainability of a water, sanitation and hygiene education project in rural Bangladesh: a 5-year follow-up

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An integrated water supply, sanitation and hygiene (WSH) education intervention project was run by the International Centre for Diarrhoeal Disease Research, Bangladesh, over the period 1983–87. In the intervention area the project provided handpumps, pit latrines, and hygiene education to about 800 households. The control population did not receive any interventions, but had access to the usual government and private WSH facilities. After 1987 no external support was provided to maintain these provisions. A cross-sectional follow-up survey, which was carried out in 1992, involved about 500 randomly selected households from the intervention and control areas.

In 1992 about 82% of the pumps were still in good functional condition and of these, 94% had been functioning well in 1987. Fewer latrines were functional in 1992 (64%) than at the end of 1987 (93%). In the former intervention area about 84% of the adults were using sanitary latrines in 1992 compared with only 7% in the control area. Knowledge related to disease transmission, however, was poor and similar in both areas. People claimed that they used the WSH facilities to improve the quality of their lives. The prevalence of diarrhoeal diseases in the 1992 survey among the control population was about twice that among those in the intervention area.

Introduction

Many studies of the behavioural and health impacts of water, sanitation, and hygiene (WSH) projects have been carried out (*1–7*). It has been emphasized that health benefits are achieved when WSH provisions are used and practised by the target population (*7, 8*). Furthermore, it has been stressed that every project should make efforts to become sustainable (*9*), i.e. that it is able to deliver an appropriate level of benefits for an extended period of time after major donor assistance is terminated. Sustainability is in many ways the ultimate test of development efforts.

In Bangladesh remarkable efforts have been made to provide safe water and sanitation and to improve hygiene practices in rural areas (*10*). During the 1980s, when the population increased from about 90 million to 110 million, access to safe water increased in rural areas from 37% to 96% (*11, 12*). However, only 16% of the population used tubewell water for all domestic purposes. Sanitation coverage was only 26% in 1991 in rural areas.[a] Bangladesh has yet to reap the health benefits of WSH projects, water-related diseases remain the main causes of the high morbidity and mortality that prevail in the country (*12*). Rural tubewell projects often face obstacles arising from the abundant and easily available, highly contaminated, surface water (*10*). Also, recurrent floods damage sanitary latrines (*13*). As a result, the use of improved WSH provisions will require special efforts to ensure that they continue uninterrupted throughout the year.

We present here our findings on the behavioural and health benefits about 6 years after the implementation of the Mirzapur Handpump Project, a health impact study of WSH interventions. The results should contribute towards a better understanding of the sustainability of WSH projects.

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