CHILDHOOD DIARRHOEAL MORBIDITY IN RURAL HOUSEHOLDS IN UPPER RIVER NJORO WATERSHED: RISK FACTORS AND HOUSEHOLD INTERVENTIONS

By

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ABSTRACT

Annually, diarrhoea accounts for the deaths of over 1.6 million children under 5 or about 15% of all deaths of children under 5 in developing countries. A study was carried out between January 2005 and April 2006 in 350 rural households in the Upper River Njoro watershed, to identify and determine risk factors for diarrhoeal disease as well as household interventions to reduce the morbidity. Systematic random sampling was used to sample women/caretakers coming to collect water from 38 watering points identified to be the most populous in the study area. The households sampled had at least one child aged 1-4 years, who were referred to as the index children. This is the age category, most vulnerable to diarrhoeal disease. Questionnaire, continuous and spot observations were used as the data collection tools. Descriptive statistics, correlation and Fisher's chi square exact test were used to analyse the data. Diarrhoea prevalence in index children was 674 per 1000. Activities carried out along and around the watering points encourage microbiological contamination of water, which is further contaminated at household level, with the extent of contamination ranging from 40.4% to 152.4%. Forty one percent of the sampled households do not have any latrine in their homestead. Faecal disposal for the index children encourages environmental contamination and only 19.4% can be classified as safe. Significant risk factors for diarrhoeal disease include low per capita water consumption, having no latrine, presence of human faeces in yard, mother's and father's education level, index child not wearing loincloth, no hand washing before handling food by mother/caretaker and index child feeding self, among others. Compliance for interventions was highest for storage of drinking water in narrow mouth containers and lowest for covering drinking water. Lack of necessary hardware, forgetting, not being used to and lack of time due too many chores were given as some of the reasons for non compliance. Fisher's Exact test indicated that there were significantly lower incidences of diarrhoea in the intervention households compared to the controls. Control of diarrhoeal diseases need to be tackled on the scale of vaccination programmes so that coverage is almost total. Social marketing style approaches based on adequate formative research into risk behaviour, context and motivation are necessary. The involvement of both the public and the private sector are needed if this is to succeed.

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