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ABSTRACT

Climate change affects human health by altering the proliferation and distribution of pathogen, vectors and allergen. The objective of this study was to estimate the magnitude of climate related diseases in coastal areas in contrast to the plain area and also to determine their relationship with environmental factors. This prospective cross-sectional study was conducted in southern part of Bangladesh from April 2012 to March 2013. Two Upazilla for this study were Dakope in coastal area and Terokhada in plain area. Patients of all ages attending the Upazilla Health Complex (UHC) with target diseases were enrolled. Nine target diseases were: water borne (diarrhea, typhoid, viral hepatitis); vector borne (malaria, kala-azar, dengue) and systemic diseases (asthma, hypertension, arsenicosis). Target diseases were observed in 1042 patients in Dakope and 1296 cases in Terokhada. Diseases were lowest (20%) in monsoon and highest in winter (42%). Large bulk of patients (31-32%) in both areas were young adult (16-30 years). Diarrhoea was highest (49-53%) in frequency in both areas. A few case of dengue (1%) in Dakope and kala-azar (2%) in Terokhada was found. Hypertension (19% Vs 13%) in Dakope and asthma (11% Vs 16%) in Terokhada was more frequent. Diarrhoea, was significantly higher (p<0.001) in patients with pond water consumption. Bushes/ditches (47%) were more prevalent in dengue prone area and cattleshed/poultry (55%) in kala-azar affected area. Diarrhoea, dengue and hypertension were more frequent in coastal area, conversely kala-azar, asthma was more common in plain area. Water consumption, environment and economy had significant influences over them.

Key words: Climate related disease, Water borne, Vector borne, Coastal area, Plain area, Bangladesh.