Costs related to drowning and near drowning in northern Iran (Guilan province)

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Abstract

In Iran and many other low- and middle-income countries, few studies have been carried out in order to assess which cost analysis methods should be undertaken at the household and community level in relation to incidences of drowning. In this study, we have attempted to develop a model for estimating the impact of the economic burden that drowning and near drowning events incur for victims’ families in the Guilan province in the north of Iran by using an incidence approach. During the financial year of March 2007 to 2008, the following cost-related aspects of drowning episodes were evaluated: (note: main cost elements were income adjusted by family and years) medical costs, productivity loss costs and death costs. A total of 137 drowning fatalities and 104 near drowning incidents were recorded. Males in the age span of 10–29 years constitute a majority of the epidemiology and economy data. When the number of variables included in cost analysis was expanded, the estimated burden of economic duress increased dramatically; however, drowning cost for one drowned victim was equivalent to 17 times the country’s gross domestic product (GDP) per capital. Identification of injured person-based costs in this study will enable development of more effective prevention programs and provide indicators of other costs related to drowning episodes such as property damage and the impact of these accidents on community services and the public health care system.