

**Effect of Water Quality and Housing Characteristics on Out-of-pocket Health  
Expenditure**

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## ABSTRACT

Water-borne diseases are one of the most significant reasons for infant mortality rates around the world especially in developing and under-developed countries such as India, Bangladesh, the Philippines, etc. These countries face multiple diarrhoea attacks throughout the year. In these countries, where the average population is not economically well-to-do, treatment costs can take up a significant part of their income, resources which could have been allocated to other areas like education, precautionary measures and sanitation. Water-borne diseases can be caused by a plethora of reasons and increase the health expenditure of a household. This paper discusses the impact of individual characteristics, Housing Characteristics and water and sanitation variables on out-of-pocket health expenditure. India Human Development Survey Round 2 (IHDS-II) dataset that covers variables related to health, education, income, and housing variables like house amenities such as number of rooms, availability of kitchen, number of rooms, access to electricity, toilet, piped water, etc have been considered for the analysis in the present study. The results show that water sources for both consumption and other usage to be significant. Individual characteristics such as age, income, education, and hand washing after defecation are also found to be significant. The analysis also provides an insight that access to electricity to be significant and to be increasing the health expenditure that can be attributed to over-conditioning of indoor room air conditions. The inference achieved from our work is very much in the same line to these variables addressed in the existing literature.

**Keywords:** Health expenditure, water quality, water source, housing characteristics, individual characteristics, sanitation

**JEL Codes:** I19, I12, Q53