## 審査の結果の要旨

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The key research question my study was: What kinds of illness are prevalent in the Bangladeshi population and what are the financial consequences of the healthcare costs associated with these illnesses? The main objective of my studies was, first to describe the level of self-reported illness and identify its risk factors; second to identify the determinants of OOP payments and catastrophic expenditure, and finally to identify disease-, individual- and household-level characteristics associated with distress financing.

The key findings of my studies are as follows:

- 1. In total about 44.9% household members were found to have a least one illness. The most frequently reported illnesses among children were infectious diseases such as cold/fever (41.5%), diarrhea/gastroenteritis (5.6%), and pneumonia (2.1%), whereas for the elderly the most commonly reported illnesses were NCDs such as hypertension (26.5%), rheumatic arthritis (16.8%), heart diseases (13.4%), diabetes (13.0%), gastritis/peptic ulcer (11.9%), and asthma (6.1%). Generally, the common tropical infectious diseases, were considerably more frequent among the poorest households, while for chronic lifelong conditions were reported more frequently among household members in the richest quintile.
- 2. This study found that sampled households, none of whom have any form of risk-pooling insurance, spend about 11% of their total household budget on healthcare, and nearly 9% of households experience financial catastrophe. The key determinants of high medical

expenditure and financial catastrophe was illness either in children or in adults, chronic illness, receiving inpatient care, poorer economic status and lower education level of the household head. The chronic care of NCDs requires long-term routine clinic visits, testing, and medications, reducing households' flexibility to respond to the cost of unexpected hospitalization or other illness episodes.

3. Although the subjects in this study were able to obtain care for the majority of the illness episodes reported, 13% of them were forced to adopt distress coping strategies. This study demonstrated that patients with severe infectious diseases like typhoid incur higher risk of distress financing due to their OOP expenses. From this study I also found that those who used public health facilities in Bangladesh had a higher risk of facing distress financing even though, public health facilities in Bangladesh are heavily subsidized by the Government.

To the best our knowledge, this is the first study to analyze disease pattern, burden of OOP payments, and healthcare payment coping strategies by considering illness episode-, individual- and household-level characteristics. Households that received inpatient or outpatient private care experienced the highest burden of health expenditure. The poorest members of the community also face large, often catastrophic expenses. Chronic illness management is crucial to reducing the total burden of disease in a household and its associated increased risk of level of OOP payments and catastrophic expenses. Households can only be protected from these situations by reducing the health system's dependency on OOP payments and providing more financial risk protection. Therefore, government and international aid organizations should give far greater attention to infectious and chronic non-communicable diseases.