Catastrophic Health Expenditures and Its Socio-Economic Consequences: A Case Study of Tehsil Ali Pur (Pakistan)

Abdul Hameed, Nosheen Saba, Muhammad Amjad Bilal, Saima Zaman, Nimra Gul and Irfan Hussain Khan

Abstract
Health expenditures become catastrophic when they exceed a specific portion of the monthly income of the household. This study analyzed the socio-economic impact of catastrophic health expenditures in Tehsil Ali Pur, District Muzaffargarh (Pakistan). Data is collected through a semi-structured questionnaire from 270 households using a random sampling technique. The binary logistic regression model was used to analyze the relationship between health catastrophes and various other socio-economic variables. Study findings show that in the last three months, 61% of the targeted households faced catastrophic health expenditures. About 70% of the respondents confirmed that it had affected their daily consumption level, and 92% had lost their working days due to their health issues. Moreover, 74% of the respondents reported that they had managed health expenditures either by selling properties or by taking out loans. Results indicated that the probability of catastrophic health expenditures (CHE) decreases by 0.007 with a one-unit increase in income. In contrast, it increases by 0.545, 0.00019, and 0.313 with the increase in household size, health care cost, and chronic illnesses, respectively. It is recommended that health insurance policies or other safety nets be implemented to save poor households from the trap of poverty.

Keywords: Health Catastrophe, Economic Consequences, Logistic Regression.

Introduction
Globally, health systems are intended to provide universal health care to all sectors of the population (Chisholm et al., 2010). Galante et al. (2012) conclude that everyone's simple access to decent health care is critical for preventing financial stress. For many families, relying on out-of-pocket health care expenses is a significant source of economic stress. According to a health report published by the World Health Organization in 2010, more than a hundred million people were forced into poverty as a result of catastrophic health expenditures, while higher out-of-pocket health expenditures put a strain on the standard of living of more than a hundred and fifty million

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people. Higher health-care costs are disastrous because they reduce core expenditures such as food, education, and other family necessities. Healthcare expenditures become catastrophic when a household spends 40% of its disposable monthly income (WHO, 2014; Wagstaff et al., 1991) or 10% of its total income on healthcare (World Bank, 2010). This has significant ramifications for the economy since it pulls households into poverty. In this study, spending 10% of total income on health concerns is classified as catastrophic health expenditures since total income was easily determined in the study region compared to other criteria. The trickle-down of financial resources due to catastrophic health expenses causes complications. Pakistan, like other developing countries throughout the world, needs help to pay costs in a variety of disciplines, including the health sector. According to statistics, male and female life expectancy are 66 and 67 years, respectively (WHO, 2016), while the death rate under five years is 75 (per 1000 live births) (WHO, 2017). Pakistan's government spends only 0.6% of GDP on health, which is much lower than an adequate budget. The majority of this health expenditure is earmarked for secondary and tertiary health care, with 15% going to preventative and primary health care (Commission, 2016).

Except for preventative and immunization programs, Pakistan's health services are regressive, benefiting wealthier and urban households rather than rural and poor ones. Pakistan has a devolved health system, with provincial governments responsible for providing health care facilities to the masses in their respective provinces and the federal government accountable for health facilities in federally administered areas, as well as health sector policymaking and planning (Akram & Khan, 2007).

Pakistan has a regressive health system and is one of the countries with a more significant reliance on out-of-pocket health spending. According to Pakistan's national health accounts for 2015-16, the country's overall health expenditures are Rs 908 billion. The public sector funds around 34% of these expenses. The federal government pays 21.8% of these public sector expenses, with the civilian sector accounting for 58% and the military for 42%. The private sector funds around 64.4% of out-of-pocket costs, while private households pay 89% (PBS, 2018).

In Pakistan, public health expenditure varies by province. According to the Economic Survey 2017-18, Punjab spent 84.8 percent of its total public spending on health, followed by Sindh (41.4 percent), Khyber Pakhtunkhwa (17.6 percent), and Baluchistan (11.3 percent). Furthermore, in the fiscal year 2019, the federal and provincial governments' cumulative health sector spending grew by 1.3 percent, from Rs 421.8 billion to Rs 416.5 billion. This spending amounted to 1.1 percent of GDP, compared to 1.2 percent (Pakistan Economic Survey 2019-20). The availability of healthcare facilities varies across the nation, as do health expenditures (Akbari et al., 2009). Urban residents have better access to healthcare than those living in rural areas such as FATA. Quality and contemporary healthcare facilities are difficult to obtain in these places, and the general public has struggled to access them. The doctor-population and hospital-bed-population ratios in tribal territories are 1/7670 and 1/2179, respectively (PPAF, 2015). The state of maternal health facilities in the former FATA is substantially worse than the rest of the country. According to the PDHS 2018 survey, in these locations, 49 percent of females are delivered by a skilled provider as compared to the national level of 69 percent, and under-five-year mortality rate is 104 as compared to the national level of 87 per 1000 live births.

Based on the data and numbers presented above, this study examined the socioeconomic consequences of health catastrophe spending in Tehsil Ali Pur Muzaffargarh. Because these are isolated places, it isn't easy to acquire data from households. As a result, our study provided an accurate picture of health expenditures in South Punjab in the past.
Literature Review

Health catastrophic spending is an essential field of research for health economics, and several studies have been undertaken on various facets of this pressing subject. According to the World Health Organization (2014), health care is considered catastrophic when it reduces spending on fundamental requirements such as food and other household necessities. Various variables contribute to out-of-pocket expenses. The direct cost comprises the cost of medicines purchased, doctor consultation fees, laboratory service costs, hospitalization, and diagnostic services. The compensation obtained from a third party is deducted from the overall sum. The indirect costs of receiving health care, such as transportation costs and missed wages, are not included in the total cost.

Shah et al. (2021) explain that health expenditures become catastrophic when they exceed a specific portion of the household's monthly income. This study analyzed the socio-economic impact of catastrophic health expenditures in Tehsil Utman Khel, district Bajaur of FATA. Data is collected through a semi structured questionnaire from 270 households using a random sampling technique. A binary logistic regression model was used to analyze the relationship between health catastrophes and various other socioeconomic variables. Study findings show that in the last three months, 61% of the targeted households faced catastrophic health expenditures. About 70% of the respondents confirmed that it had affected their daily consumption level, and 92% had lost their working days due to their health issues.

According to Galougah et al. (2019), the primary purpose of the health system is to safeguard the community from healthcare costs. Health expenses become catastrophic when they have a significant influence on family life. Studies such as World Health Organization (2015), Wagstaff et al. (1991), Xu et al. (2003), and Xu et al. (2005) show that catastrophic health expenditures occur when a household spends a significant portion of its available income on out-of-pocket payments for health care services, pushing the household into poverty. According to World Health Organization reports, health expenditures become catastrophic when a household spends more than 40% of its income on healthcare services.

Quintussi and Pril (2015) discovered that in the absence of healthcare funding systems, households employ several techniques to deal with their healthcare costs. These tactics include saving, borrowing, and selling accessible assets, all of which have a detrimental influence on the household's long-term welfare. Among these coping strategies, selling productive assets has the most catastrophic consequences since it represents a compromise on future revenue creation. Creditors supply them with loans at exorbitant interest rates based on their requirements, and households dealing with health concerns may have to sacrifice basics such as food.

According to Chuma and Maina (2012) health-related expenses create financial hardship for around 150 million individuals annually, while out-of-pocket costs drive another 100 million into poverty. The problem of health-related catastrophic expenditures exists in both rich and developing nations, although 90% of those impacted live in low-income countries. Health catastrophes can occur regardless of how much a household pays for health care services. Enormous amounts of health expenditures sometimes have no negative consequences on affluent households; relatively low health expenditures can generate financial troubles for impoverished families, affecting their livelihood. Chuma and Maina (2012) projected that each year, over 150 million individuals face financial disaster because of their health expenditures and out-of-pocket expenses, pushing roughly (Gómez, 2011) discovered that catastrophic health expenditures are reliant on the type of health facilities available to families, which resulted in out-of-pocket expenses.
spending. It is guaranteed that when a family has an in-patient member, they will incur more out-of-pocket expenses, resulting in a health crisis. According to the study, health catastrophes are 36.6% more prevalent in families with in-patient members than in households with out-patient members who merely need to spend money on medicine. The chance of catastrophic health expenditures increases by 3.5% as the number of working adults grows.

McIntyre et al. (2006) stated that it is clear that people from low-income nations are forced into poverty or the poverty trap when faced with specific medical expenses, mainly when the household is unable to make an income owing to health issues. However, out-of-pocket costs are not the same everywhere; instead, they vary from family to household since each household has a varied disease-related finance capability. In 1980, low-income nations’ health reforms mainly focused on promoting user fees in public hospitals and increasing the involvement of the private sector in the delivery of health care services. However, these policies put pressure on individuals with low incomes. This transformation appears to exist despite different nations and international entities considering a diversion from their previous agenda.

Various research suggests that the presence of chronic disease results in more significant healthcare expenses in different countries like Nepal (Saito et al., 2014), China (Li et al., 2012), Kenya (Buigut et al., 2015), Ghana (Hansen et al., 2015; Sawyer & Sroczynski, 2017). This is because chronic sickness necessitates frequent patient visits to medical facilities, resulting in more significant healthcare costs and, in some cases, pushing the household into a poverty trap. Ghiasvand et al. (2014), Kusi et al. (2015), and Barasa (2017) discovered that bigger family sizes and the presence of older individuals result in more significant health costs in several countries of the world, including Iran, Ghana, and Kenya. A big family has more family members and a higher likelihood of visiting health centers, resulting in increased health costs and a health crisis.

According to Nishtar et al. (2010), Pakistan’s health system is made up of various institutional agents. About 26.33% of the overall population is covered up to a set amount for their health costs. However, the majority of individuals (73.68%) pay out-of-pocket for their health difficulties. Even in public hospitals, patients must pay user fees and pharmaceutical costs with their funds. In Pakistan, around 25% of the population lives below the poverty line. Thus, high healthcare costs either force people into poverty or prevent them from using medical facilities.

Over the previous three years, over two-thirds of the total population has experienced a health disaster, and health-related costs account for more than 70% of economic shocks. This problem is especially prevalent in rural regions and households with a high female-to-elderly ratio, i.e., in families with more than 60 household members. People from low-income families are more likely to fall into poverty, even if they have little medical expenses. The majority of Americans cover their healthcare expenses by selling their possessions, borrowing from others, or ignoring the problem and going untreated.

According to Akbari et al. (2009), 67.4% of Pakistanis interact with private doctors and medical practitioners about their health concerns and purchase their recommended medications from private medical stores. Along with private medical institutions, both rural and urban residents employ the services of tabibs and homeopathic physicians; nevertheless, tabibs are more prevalent in rural regions than in metropolitan ones (PSLM 2004-05). The survey also finds that Sindhis rely more heavily on the private sector, while Baluchistan relies the least on private medical services.

In Pakistan, final and tertiary public health care services are unequally distributed across rural and urban regions (Afzal, 2013). Poor individuals in rural locations are unable to fully benefit from final and tertiary health services, including publicly funded immunization programs for children. The
total role of publicly funded health facilities has declined owing to their poor condition, resulting in a drop in the public sector's participation. In contrast, the role of the private sector has dramatically expanded. According to the 18th amendment to the constitution, provincial governments are responsible for the provision of health facilities; nevertheless, the allocation of duties and sources of needed income arrangements between federal and provincial governments remains unclear.

**Research Methodology**

When consumers have comprehensive knowledge, they aim to maximize their utility, which is determined by the relative pricing of different commodities, given their income and preferences. Variations in income and prices influence consumer behavior regarding the consumption of various goods (Begg et al., 2000). Health care is a common good, and a variety of factors such as household income, family size, the existence of a severe sickness in the home, and health insurance influences its demand. Factors such as increased household size and the prevalence of serious diseases increase demand for health care services and, as a result, higher health expenditures, which can contribute to the catastrophic health expenditure problem. Similarly, persons with lower incomes confront the challenge of catastrophic health costs.

**Study Area**

Muzaffargarh is the most populous district of the former FATA, with 1.173 million people scattered across an area of around 1290 square kilometers. The district has two hospitals, two RHCs, twenty BHUs, and eight dispensaries in the public sector. Muzaffargarh does not have any registered or equipped private healthcare facilities. Muzaffargarh has eleven medical doctors, 31 paramedics, and two nurses per 100,000 people in public sector health institutions (PPAF, 2015). Tehsil Ali Pur is located in the east of Muzaffargarh. The population of Tehsil is the Ali Pur tribe, which is regarded as the most calm and underdeveloped. Ali Pur consists of several villages, including Matako, Kulala, Bandagai, Manodehrai, Hayati, and Bado Arang. This study used random sampling to collect data from convenient villages in Union Council Damar wala Janobi, Alipur Merani, Alipur Urban, Aliwali, Bait Mullanwali, Bazwala Latti, Fateh Pur Janubi, Ghalwan, Khair Pur Sadat, and Basti Kaheeri Khair Pur Sadaat in Tehsil Ali Pur, district Muzaffargarh.

**Sampling Technique and Instrument Development**

Due to a lack of official records, this study used a conventional technique to estimate the number of houses in the study region, which includes Damar Wala Janobi, Alipur Merani, Alipur urban, Ali Wali, and Bait Mullanwali (about 500 families). This study employed Solvin's method for sampling estimation, and our sample size was 84 homes from each village. However, data was gathered from 90 households in each town to ensure more accurate findings. The data was collected from a total of 270 houses using a random sampling approach with the aid of a semi-structured questionnaire, which was built based on insights from the pilot survey, key informative interviews, and available literature. The study variables included age, education, family size, source of income, demography of households, health utilization patterns, and related expenditures.
Statistical Analysis

Stata 12 is utilized for analysis. In the first step, total income was utilized as a proxy to calculate health-related catastrophic costs. For this reason, overall health expenses were split by family income. The devastating health expenses were computed using the following formula: 

\[ C_{exp} = \frac{H_{exp}}{T_{inc}} \times 100 \]

Catastrophic health expenditures \( = C_{exp} \),

Average monthly health expenditures \( = \bar{H_{exp}} \),

Monthly income of the household \( = \bar{T_{inc}} \).

It represents diseases that require frequent visits to doctors, are long-lasting, cannot be prevented by vaccines or cured by medication, and do not disappear. A dichotomous choice (logistic) model was used to forecast catastrophic health expenses in families (PPAF, 2015).

A household that spends 10% of its whole income on health care is deemed to be at risk of a health disaster. The first set of independent variables consisted of the type of the illness and its treatment regimen. The second set of factors included home characteristics such as the structure and size of the household, as well as clean drinking water. The third group of factors comprised the household head's education level, household economic position, source of income, and monthly household income.

The study's dependent variable, health catastrophic spending, is a binary variable, hence the econometric analysis was conducted using the binary logit model. The likelihood of health-related catastrophic spending was computed using Green's logit equation, and the model's goodness-of-fit was evaluated using the (Akbari et al., 2009) test in STATA.

\[ (y = 1) = \frac{exp (x_i \beta)}{1 + exp (x_i \beta)} \]

Where \( y \) indicates the presence of health catastrophic expenses (\( y=1 \) or 0), \( x_i \) refers to pre-determined variables, and \( \beta \) represents a collection of parameters to be estimated.

Econometric Model: TOQ = \( Qdu + Rs + Mi + Tcost + Ohi \)

Whereas HCE, Edu, Fs, Mi, Tcost, and Chi denote catastrophic health expenditures, household head's education level, family size, monthly income, total health cost, and chronic disease, respectively.

Empirical Results

A total of 270 households in the study area participated in data collection. Based on the responses of the respondents, the following results are derived for the groups of variables.
Table 1: Definition of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint family</td>
<td>The family where married sons are living in a combined home with parents or the households where brothers live together.</td>
</tr>
<tr>
<td>Improved drinking water</td>
<td>The water that is obtained from secure source, i.e. personal wells, tube wells, and water sources located in mountains are free from pollution and contamination.</td>
</tr>
<tr>
<td>BHU</td>
<td>Basic health unit in the village.</td>
</tr>
<tr>
<td>Medical stores</td>
<td>These are the stores operated by medical technicians. These are easily accessible sources of primary health care because the area does not have any outreach services.</td>
</tr>
<tr>
<td>DHQ</td>
<td>District Head Quarter Hospital.</td>
</tr>
<tr>
<td>First aid kits</td>
<td>These represent commonly used medicines that are kept by the villagers in their homes and are used at the time of need.</td>
</tr>
<tr>
<td>Education</td>
<td>It means the education level of the household head.</td>
</tr>
<tr>
<td>Total cost</td>
<td>It represents all costs, i.e., transportation costs, medicine costs, laboratory charges, and doctor fees paid by the households out of their pocket.</td>
</tr>
<tr>
<td>Chronic illness</td>
<td>It represents diseases that require frequent visits to doctors, are long-lasting, cannot be prevented by vaccines or cured by medication, and do not disappear.</td>
</tr>
<tr>
<td>Family size</td>
<td>This represents the number of family members in the household.</td>
</tr>
<tr>
<td>Monthly Income</td>
<td>Monthly income includes household income from all sources.</td>
</tr>
</tbody>
</table>

Descriptive statistics (Table 2) suggest that 73% of families live in unstructured dwellings, which are composed of mud. Tribal people prefer mud-built dwellings because they are less costly and more suited to the local climate. In the research region, 67% of households are joint families, while 91% have more than five family members living in residences with an average of five rooms. Similarly, 68% of respondents reported earning a living through private and government jobs, labor work, such as working in private schools, shops, and other types of labor activities, or through remittances. At the same time, 32% of respondents use agriculture to earn a living on their property. The average monthly income for 63%, 23%, and 14% of the respondents was found to be Rs. 10,000, more than Rs 10000 and less than Rs 10000, respectively.

Table 2: Household characteristics and availability of the basic needs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>93</td>
<td>34.4</td>
</tr>
<tr>
<td>Joint family</td>
<td>181</td>
<td>67</td>
</tr>
<tr>
<td>Clean drinking water</td>
<td>178</td>
<td>66</td>
</tr>
<tr>
<td>Presence of BHU in village</td>
<td>135</td>
<td>50</td>
</tr>
<tr>
<td>Medical store in village</td>
<td>164</td>
<td>60.7</td>
</tr>
<tr>
<td>Time to AHQ (more than one hour)</td>
<td>135</td>
<td>50</td>
</tr>
<tr>
<td>Availability of ambulance at the time of need</td>
<td>21</td>
<td>7.7</td>
</tr>
<tr>
<td>First aids kits available at home</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>Kacha house</td>
<td>197</td>
<td>73</td>
</tr>
</tbody>
</table>

Because all tribal regions have almost identical socioeconomic and demographic structures, only 7.7% of the study area's population has access to an ambulance in an emergency, as does the rest of the former federally administered tribal lands. About 60.7% of respondents reported that they have
private paramedics in their villages who provide them with medical facilities when needed. But, majority of them are non-qualified and thus resulting in health complications as well as a higher level of out-of-pocket spending for the patient. Similarly, 50% of respondents claimed that they have a basic health unit in their respective localities but are unable to utilize it owing to a lack of amenities. A similar situation has been observed at the district headquarters hospital, where the conditions are nearly identical to those of the BHUs since, like the BHUs, the district headquarters hospital lacks basic amenities and doctors are away from duty. As a result, 76% of families send their patients to the District Headquarters Hospital in Muzaffargarh, which is around 26 kilometers away and requires approximately Rs 1000 in transportation costs, or to another adjacent district.

**Health Expenditures and Economic Consequences**

In the study area, 81% of households reported that one or more of their family members have got ill in the course of last three months (Figure 1).

**Figure 1: Illness during last three months**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Among the respondents, 60% reported that children are the most vulnerable group for diseases in their families. Similarly, 83% of respondents stated that their medication cost was Rs 1000[1] for the last health issue, they have faced due to unavailability of publicly available health care facilities at Tehsil level and the people had to pay the fee of the doctor out of their pocket. 92% of the respondents reported they have lost nine working days due to their own or health issues of their relatives. Among the respondents, 26% stated that they manage health care costs through savings and the rest of 74% of the respondents manage their health costs through mix strategies including loans and selling their valuable assets and livestock (figure 2).

Comparable findings are found in research from other comparable situations when people from lower socioeconomic backgrounds sell cattle or land to manage their health expenditures (Sauerborn et al., 1996). However, because of their greater reliance on agricultural land and animals, the inhabitants of this area regard asset sales as a last resort for patient care. Quintussi et al. (2015) report that households in India delay important medical treatment due to a lack of health insurance and financial means. Whereas in our research region, all of the respondents believe that they treat their patients either by preventative measures, cash in hand, or loan. This is because tribal people regard the delay.
About 70% of the respondents reported that their routine consumption has badly affected by health issues of the family members and 78% of the respondents reported that health expenditures had affected their food consumption. This result is in line with findings of Chuma and Maina (2012), who found that health care cost has negative effects on routine consumption of the household. This research study also indicates that health care cost has severe impacts on routine consumption pattern of households ranging from food to education of the children. In the study area 70% of the households stated that their health cost has affected routine consumption pattern of the households (figure 3).

### Results of Logistic Model

The binary logistic model results reveal that the chance of catastrophic expenditures lowers by 0.007 times for every one unit rise in income, indicating a significant association based on a p-value of less than 0.05. The results are consistent with the findings of Pal (2012) in Burkina Faso, who discovered an inverse link between income and catastrophic health expenses. It is because higher-income households have the ability to pay their health-care costs, but lower-income persons may have to spend a larger part of their earnings on health-care expenses.

A one-unit increase in family size and transportation cost increases health costs by 0.45 and 0.0019 times, respectively, indicating a significant link with p-values less than 0.05. On average, households had to pay Rs 1200 to go to hospitals. Chronic illness, like monthly income, family size, and transportation cost, has a significant positive relationship with catastrophic health expenditures (p-values 0.05), with the probability of catastrophic health expenditures increasing by 0.313 times when the household has members with chronic illness. This conclusion is consistent with several research that suggest that the prevalence of chronic disease results in increased health care expenses in different countries such as Nepal (Saito et al., 2014). China (Li et al., 2012), Kenya
(Buigut et al, 2015), Ghana (Hansen et al., 2015), Sawyer and Sroczynski (2017), and Lara and Gómez (2011). Patients with chronic illnesses require more visits to health care facilities and are treated for the majority of the time, resulting in greater health-care costs and occasionally pushing the household into poverty.

Among the independent variables like education level of household’s head has no significant relationship with health catastrophic expenditures because the p-value for this variable is 0.415 which is greater than 0.05 (table 3). This in contrast to the findings of (Ross & Wu, 1995) and (Su et al., 2006) which reported a significant association between health expenditures and education. In the study area, formally educated people do not have enough knowledge about the prevention of different seasonal and non-seasonal diseases and thus they are unable to prevent their selves and family members against different communicable, seasonal and non-seasonal diseases.

Table 3: Regression model

<table>
<thead>
<tr>
<th>Marginal effects after logit Y= Pr (Catastrophe) (predict)</th>
<th>Pseudo R² = 0.47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coef.</td>
<td>dy/dx</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------</td>
</tr>
<tr>
<td>Education</td>
<td>0.067</td>
</tr>
<tr>
<td>F. size</td>
<td>0.545</td>
</tr>
<tr>
<td>M. income</td>
<td>-0.007</td>
</tr>
<tr>
<td>T. cost</td>
<td>0.000194</td>
</tr>
<tr>
<td>Chr. Illness</td>
<td>0.313</td>
</tr>
</tbody>
</table>

\( dy/dx \) is for discrete change of dummy variable from 0 to 1

**Conclusion**

This study focused on catastrophic health expenditures and their socio-economic consequences. Data is collected through a semi-structured questionnaire using a systematic random sampling technique. The binary logistic regression model is applied to assess the relationship between health catastrophic health expenditure and different socio-economic variables. Among the various socioeconomic variables, like large family size, presence of chronic illness, lower monthly income, and higher health care costs, are found to be responsible for catastrophic health expenditures. The higher health care costs, in turn, affect all aspects of the family’s routine consumption, including the education of the children and food, causes to fall into the poverty trap. The study concludes that 61 percent of households are facing the issue of catastrophic health expenditures. Based on its findings, the study recommends that the government and other stakeholders focus on the improvement of existing healthcare facilities through the provision of updated equipment, ensuring the presence of doctors and paramedical staff, and establishing new healthcare centers in particularly far-flung areas of the district. The study recommends that concerned stakeholders focus on designing health promotion programs to make them aware of different infectious, seasonal, and non-seasonal diseases and possible prevention measures. The study urges the concerned stakeholders to focus on health insurance and alternate safety nets in letter and spirit because the government has provided health cards to some of the households under the Prime Minister National Health Program and Sehat Insaf program. Still, it does not fulfill the needs of the people due to limited coverage. The study has certain drawbacks. For starters, the research does not account for the indirect cost of care-seeking, which includes potential costs such as income loss, indebtedness, and asset depletion that are not monetary.
Because the dataset utilized in this study does not reflect such expenses, we are unable to change measures of economic protection to decouple the short- and long-term consequences of dealing with healthcare expenditures, as we would be able to do with a larger dataset. Second, the study is limited to a specific location and demographic. The study suggests that future research should focus on both direct and indirect expenses when measuring catastrophic health expenditures in the studied area.

References