

OUT OF POCKET EXPENDITURES AND  
HEALTH SECURITY IN BHUTAN



INTERNATIONAL CENTRE FOR HUMAN DEVELOPMENT

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# Out of Pocket Expenditures and Health Security in Bhutan

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## Abbreviations and Acronyms

BHU	Basic Health Unit
BLSS	Bhutan Living Standard Survey
BTN	Bhutanese Ngultrum
FYP	Five Year Plan
FDI	Foreign Direct Investments
GDP	Gross Domestic Product
GHO	Global Health Observatory
GNH	Gross National Happiness
HDI	Human Development Index
HDR	Human Development Report
ILO	International Labour Organization
MCH	Maternal and Child Health
MOH	Ministry of Health
NCD	Non-communicable diseases
NHA	National Health Accounts
OECD	Organization for Economic Cooperation and Development
OOP	out of pocket
ORC	Outreach Clinic
PHC	Primary Health Care
RMA	Royal Monetary Authority
RGOB	Royal Government of Bhutan
UN	United Nations
UNDP	United Nations Development Programme
UHC	Universal Health Coverage
USD	United States Dollar
WHA	World Health Assembly
WHO	World Health Organization



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The opinions expressed are those of the author and do not, in any way, reflect the official positions of the Royal Government of Bhutan, the Indian Institute of Advanced Study and of the UNDP Executive Board or its Member States. The author is responsible for the accuracy of the information presented.

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## Abstract

Health security is a key element of human development. Out of pocket expenditures, a common feature in health financing structures across the globe, are detrimental to health security. These payments, as means to finance healthcare, have significant implications on healthcare access and risk protection. Because of their inherently regressive nature, they hurt the poor and vulnerable the most. Out of pocket expenditure for healthcare impedes access to health services and contributes adversely to population's health and human development.

This study examines health security in Bhutan through an empirical assessment of out of pocket expenditure in a context where healthcare is provided by the government free of charge to the citizen.

Bhutan's health security model draws strength from its government's commitment to provide universal and free healthcare to all its citizens. This has ensured that out of pocket spending on healthcare remains among the lowest in the world and Bhutan is able to offer a high level of security and financial protection to its population. Bhutan's case, however, cautions that having a publicly organized free health system is not a panacea for health security. There are evidences of some form of out of pocket expenditure being incurred by almost 40 percent of Bhutanese households, attributed significantly to indirect costs for accessing health services.

Suggestions put forward include policy options for strengthening institutional and organizational mechanisms; developing benefit packages; addressing travel costs; targeting focus on rural and

vulnerable population groups; and, robust monitoring of universal health coverage in Bhutan. Besides these policy recommendations for Bhutan, the study presents a useful discussion agenda for health financing reforms in a number of developing countries.

### Keywords

Bhutan, human development, social security, health security, universal health coverage, out of pocket expenditure

## SECTION 1

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## Introduction

Health is crucial to sustainable development. The eastern thought drawn from philosophies of Hinduism, Buddhism, Confucianism, Taoism and others have always underscored the importance of good health and regarded health among the greatest gift to human life. Western philosophers such as Aristotle, Immanuel Kant, John Rawls and others have emphasized the interrelationship of health and human wellbeing from varying perspectives of ethics, morality, rights and nature.<sup>1</sup>In recent years, Amartya Sen mentioned that “health is among the most important conditions of human life and a critically significant constituent of human capabilities which [people] have reason to value”<sup>2</sup>

Health and development are inherently intertwined and good health is an important precondition for human wellbeing and flourishing. Besides being in itself an intrinsic good, good health of the population contributes to economic growth.<sup>3,4,5</sup> The United Nations (UN) General Assembly resolution on *The Future We Want* summarized this important interrelationship by highlighting the role of health as “a precondition for and an outcome and an indicator of all three dimensions of sustainable development”<sup>6</sup>

<sup>1</sup> Papadimos 2007.

<sup>2</sup> Sen 2002a: 660.

<sup>3</sup> Gyimah-Brempong and Wilson 2004.

<sup>4</sup> Bloom et al. 2004.

<sup>5</sup> Commission on Macroeconomics and Health 2001.

<sup>6</sup> United Nations 2012.

Models of development and wellbeing have evolved since the World War II era from the economic growth and poverty reduction based models to the one based on “non-growth economic development and wealth equity through reductions of both poverty and affluence”.<sup>7</sup> A holistic and people-centered view on development has emerged during the 1990s through the United Nations Development Programme’s Human Development Reports. The human development approach puts at the centre of the development agenda “the richness of human life, rather than the richness of the economy in which human beings live, which is only a part of it”.<sup>8</sup> Human development is defined as “the expansion of people’s freedoms to live long, healthy and creative lives; to advance other goals they have reasons to value; and to engage actively in shaping development equitably and sustainability on a shared planet. People are both the beneficiaries and drivers of human development, as individuals and in groups”.<sup>9</sup> Adopting this perspective involves emphasizing development that respects the choices and freedom of people and seeks to enlarge human “capabilities” and “functioning”.<sup>10</sup>

The human development approach gives a special emphasis to healthcare, as it contributes to capabilities in multiple dimensions of income potentials, educational achievements and public participation. Due to its multi-dimensional implications, the approach advocates that the society guarantee healthcare so that health improves in general and inequalities attributable to healthcare diminishes. The approach, thus, allows us to look at the governance of healthcare in a comprehensive manner.

Any gaps in health coverage could hamper health functioning of individuals. The human development approach calls for a governance of health system (policy, financing, regulation, organization and delivery) that ensures access to necessary and appropriate care and therefore strengthening their capabilities

<sup>7</sup> Borowy 2012:453, 485.

<sup>8</sup> Sen 2004.

<sup>9</sup> UNDP 2010.

<sup>10</sup> Deneulin and Shahani 2009.

and freedom. There is a need, therefore, to provide affordable, accessible and appropriate healthcare to all irrespective of their ability to purchase these services. Therefore, health security is a key element of human development.

There is no universally agreed definition on ‘health security’ with widespread but inconsistent use of the term. Recurrent themes include protection against disease threats and disasters, foreign policy interests and health systems strengthening.<sup>11</sup> The World Health Organization stated that ‘functioning health systems are the bedrock of health security’<sup>12</sup> and this study limits the scope of ‘health security’ as the measures a society puts in place for individuals and households to ensure protection and equitable access to healthcare. This resonates with the World Health Assembly resolution 58.33 (2005)<sup>13</sup> and 64.9 (2011)<sup>14</sup> which emphasize universal access, equity in access and financial risk protection for healthcare.

Individuals and households incur a diverse set of expenditures on healthcare. When these expenditures are unorganized, often unplanned, without risk-pool and paid directly based on episodic incidents, they are considered as OOP payments for healthcare. OOP payments, as a means to finance healthcare, have implications for health security, translating ultimately on people’s health status and wellbeing.

First, it deters timely seeking of care, or not seeking at all, owing to lack of financial means. It has been established that a large proportion of the world’s poor do not have access to needed health services because they cannot afford to pay.<sup>15</sup> Utilization of health services, a useful proxy of effective health coverage, is often lower than optimum because of direct payments for healthcare that may be unaffordable for the poor and marginalized populations. Where countries in Africa imposed direct payments on health

<sup>11</sup> Aldis 2008.

<sup>12</sup> WHO 2007.

<sup>13</sup> WHO 2005.

<sup>14</sup> WHO 2011.

<sup>15</sup> Preker et al. 2004.

services, the uninsured were using far less health services than those who were insured.<sup>16</sup> In north India, hospital admissions declined by almost a fifth in a district where user charges were introduced compared to an almost static hospitalization rate in another district which did not have user charges.<sup>17</sup> In Mexico, it was revealed that early detection and treatment of disease is more likely among the insured than among the non-insured.<sup>18</sup> A health system which requires its population to make direct payments for their health bills deters its population, particularly the poor and vulnerable groups, from access to healthcare owing to financial reasons.

Second, it has potentially huge significance for household living standards. The threat of OOP payments to household living standards is widely established.<sup>19,20,21</sup> When people avail health services by making direct payments at the point of delivery, it leads to severe financial difficulties for individuals and households. The nature of healthcare expenditure as being highly unpredictable—as is the unpredictable nature of sudden illness or accidents—renders them as a critical agent of household financial impoverishment because not only does the households incur unplanned expenses, but they also incur loss of income from inability to attend to work, premature death of the household member or, worse still, lifelong disabilities of household member. Even if the individuals or households borrow money to cover their unplanned healthcare bills, they risk being trapped in long-term debt.<sup>22</sup>

Third, direct payments for healthcare could contribute to other social issues. In rural China, expenditures for healthcare did influence a variety of financial household decisions, including

<sup>16</sup> Scheil-Adlung et al. 2006.

<sup>17</sup> Prinja et al. 2012.

<sup>18</sup> Pagán et al. 2007.

<sup>19</sup> Commission on Macroeconomics and Health 2001.

<sup>20</sup> Whitehead et al. 2001.

<sup>21</sup> Kawabata et al. 2002.

<sup>22</sup> Doorslaer et al. 2005.

the extent of temporary migration and school enrolment.<sup>23</sup> In the United States, half of personal bankruptcies that were filed in 2001 were because of medical expenditures.<sup>24</sup>

Finally, there are implications from governance perspective. OOP payments have an important significance to equity and efficiency of the healthcare resources. These expenditures encourage overuse of healthcare by people who can pay and underuse by those who cannot.<sup>25</sup>

OOP payments for health, while with varying intensities, is a common feature in health financing structures across the globe; a fifth of total expenditure on healthcare is met directly through OOP payments. Lower income countries possess the heavier burden where about half of all health expenditure is direct payments made by individuals and households at service delivery points. A slightly unexpected trend in *Figure 1* is the aggregated statistics indicating better status for “low income” countries as compared to the “lower middle income” group and aggregated OOP in “Africa” region standing only slightly higher than “Western Pacific” region. This could be explained by the fact that there are very poor countries with a significant amount of external funding, some of which gets translated into pooled health expenditure. Yet, in other poorer countries, community-based local schemes are significant health financing sources reducing the burden of direct OOP payments. *Figure 2* reveals the inverse correlation between OOP expenditure and human development (See *Annex 5* for detailed country statistics).

The World Health Organization estimated that about 150 million people a year face catastrophic healthcare costs because of direct payments and 100 million people are pushed below the poverty line each year due to OOP payments for health services.<sup>26</sup> Further estimates reveal that at least 89 countries, covering nearly 90 percent of the world’s population, have variable risk of its

<sup>23</sup> Jalan and Ravallion 2001.

<sup>24</sup> Himmelstein et al. 2005.

<sup>25</sup> WHO 2010.

<sup>26</sup> WHO 2010.

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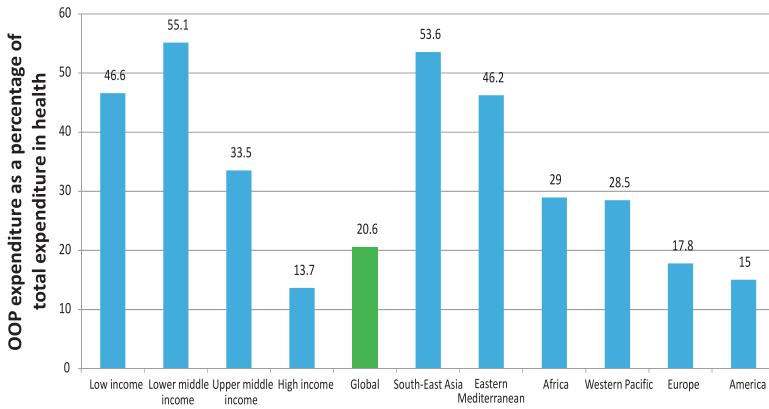


Figure 1: OOP expenditure as a percentage of total expenditure on healthcare: Global, 2011

Source: WHO Global Health Observatory.

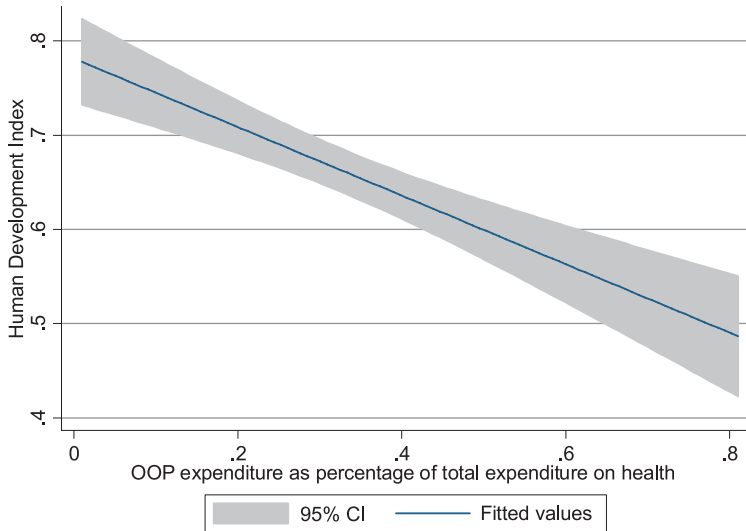


Figure 2: OOP expenditure and human development index: Global, 2011  
Linear prediction, 183 countries, Pearson correlation coefficient -0.3954

Sources: UNDP 2011; WHO Global Health Observatory.

population incurring financial catastrophe as a result of direct payments for healthcare.<sup>27</sup> This indicates a widespread lack of financial risk protection for healthcare globally—a deficiency that particularly affects lower-income countries the most. Asian<sup>28</sup> and African<sup>29</sup> countries are particularly hard hit.

This study, in the following sections, reviews health security in Bhutan through an analysis of the health financing system, including an empirical assessment of OOP expenditure for healthcare. Analysis of the case study and lessons from international experiences form the basis of policy options suggested in the final section.

<sup>27</sup> Xu et al. 2007.

<sup>28</sup> Doorslaer et al. 2005.

<sup>29</sup> Sambo et al. 2013.





## SECTION 2

---



# Health Security in Bhutan

## 2.1 Country background

The Kingdom of Bhutan is a landlocked Himalayan nation in South Asia. It is bordered by China in the north and India in the south. The country's total population is of 720,679 people (2012), the majority of which are agrarian and rural based (see *Table 1*). In 2008 Bhutan became a democratic constitutional monarchy, and the first Constitution for the country was signed in the same year.

Bhutan has seen significant transformations in economic and human development status of its population in the last five decades of accelerated investments in socio-economic development.

GDP growth rates have averaged at over 8 percent in the last decade. Moving on from a primarily agrarian economy, secondary and service sectors (particularly hydroelectricity) are gradually becoming the driving forces of the economy with GDP contribution of 40 percent in 2011.<sup>1</sup> Income poverty has been halved in a matter of five years (2007-2012); in 2012, 12 percent of the population continued to live in poverty. In a period of 40 years (1970-2010), Bhutan recorded sex-specific life expectancy gains of 23-29 years, taking it into the rungs of global best performers on this front.<sup>2</sup> Childhood mortality rates have more than halved in the last 20 years. Adult literacy rate now stands at 63 percent, an impressive gain considering just over five decades of modern education in the country.

<sup>1</sup> National Statistical Bureau 2012.

<sup>2</sup> Wang et al. 2012.

Table 1: Key socio-economic indicators

<i>Indicator</i>	<i>Value</i>	<i>Source</i>
Gross Domestic Product (USD Million)	1,419.6	National Statistical Bureau 2012.
Population	720,679	National Statistical Bureau 2012.
Rural population	68.98%	National Statistical Bureau 2013.
Population poverty rate	12%	National Statistical Bureau 2013.
Life expectancy at birth	68.1 years	Ministry of Health 2012.
General literacy rate	63%	National Statistical Bureau 2013.
Infant Mortality Rate (per 1,000 live births)	47	Ministry of Health 2012.
Under-5 Mortality Rate (per 1,000 live births)	69	Ministry of Health 2012.
Old age dependency ratio	7	National Statistical Bureau 2012.
Labourforce participation rate	59.4%	National Statistical Bureau 2013.
Unemployment rate	2.7%	National Statistical Bureau 2013.

These achievements were underscored in the 2013 Human Development Report.<sup>3</sup> Out of 187 countries, Bhutan ranked 140 according to the Human Development Index (HDI) calculated for the year 2012. While the HDI for Bhutan has gradually increased since 2010, much more needs to be done. The reach of child and maternal health services needs to be expanded while the growing incidences of non-communicable diseases have to be proactively managed. The National Human Development Report<sup>4</sup> highlights issues of sub-population differences in human development with

<sup>3</sup> UNDP 2013.

<sup>4</sup> Gross National Happiness Commission 2011.

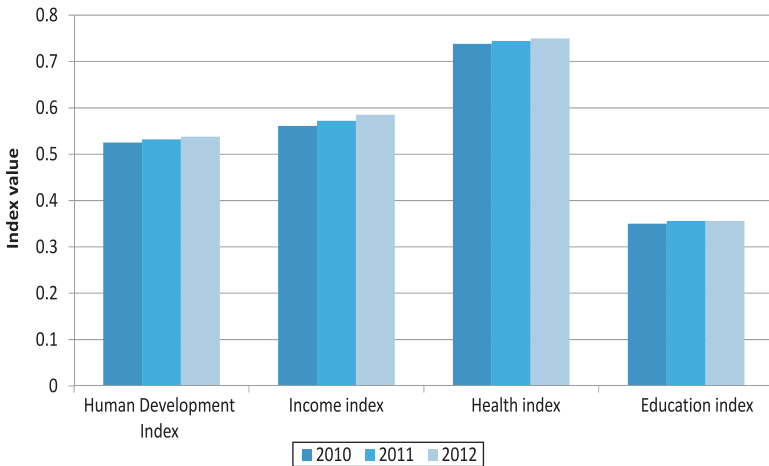


Figure 3: HDI trend in Bhutan

Source: UNDP 2013.

health achievements unequal among geographic settings and income variants. The national report particularly emphasized on development achievements reaching rural populations that are still lagging behind.

## 2.2 Overview of health system and financing

The health system in Bhutan is structured primarily around the functions of the Ministry of Health, which plays the all-encompassing role of policy-making, financing and provision of healthcare. All mainstream health services are provided by the government and are free of charge at the point of use. There is no private medical practice in Bhutan. Private provision of health is limited to retail pharmacies in major towns and a few diagnostic centres located in the capital city (Thimphu) and two major commercial towns (Phuntsholing and Gelephu). Of late, anecdotal evidences suggest a growing number of people, particularly the rich and the affluent, privately buying healthcare abroad (mostly Thailand and India).

The government runs a three-tier health delivery system. At the primary level is the distribution of Basic Health Units (two categories based on the breadth of services offered) normally staffed by nurses, midwives and paramedics and operating as primary care centres. There are 192 such facilities distributed across the country out of which 14 offer a broader range of services and are manned by a medical doctor each. These primary-level facilities are supported by 550 outreach centres focusing on immunization programmes, maternal care and child health services. The secondary level comprises of the district hospitals; presently 32 of them in the country. While the policy has been to ensure at least one such facility in all districts, some larger districts have more than one (eg. Trashigang, Samtse, Chukha), two districts (Haa and Gasa) do not have such a facility owing to their smaller population bases. These facilities, ranging from 20 to 60 –bedded hospitals, are equipped with a basic range of diagnostic facilities and cater to both in-patient and out-patient services. The expenditure made by districts accounts for 31.5 percent of the total health expenditure.<sup>5</sup>At the tertiary level are the two regional referral hospitals and a national referral hospital which provide specialized medical services. *Annex 1* plots the distribution of various levels of health services across the country. Patients requiring further specialized care, which is not available in the country, are referred to empanelled hospitals in India and Thailand funded by the government. Bhutanese traditional medicine has been integrated into the mainstream health services at all levels of care.

The framework of health system in Bhutan is embedded in the national development approach of Gross National Happiness<sup>6</sup> and the national health policy objectives attempt to emulate the principles of equity, social justice, sustainability and efficiency, in the context of preservation of national culture. The Constitution of the Kingdom of Bhutan<sup>7</sup>guarantees its people “free access

<sup>5</sup> Ministry of Health 2010a.

<sup>6</sup> See [www.grossnationalhappiness.com](http://www.grossnationalhappiness.com) for conceptual and thematic discussions on Gross National Happiness.

<sup>7</sup> The Constitution of The Kingdom of Bhutan 2008, Article 9.

to basic public health services in both modern and traditional medicines” and “endeavour to provide security in the event of sickness and disability or lack of adequate means of livelihood for reasons beyond one’s control”. The National Health Policy<sup>8</sup> assures these constitutional provisions and emphasizes universal coverage to ensure protection against catastrophic expenditure and impoverishment due to healthcare.

Healthcare financing in Bhutan is overwhelmingly public with the government resources predominating the source of funds for the health system. Over the last two decades, the government financed around 80 percent of the health resources (*Figure 4*). The remaining originate from private sources in the form of user charges by public facilities on selected services, private insurance, off-hour private consultations, private spending abroad and indirect expenses related to healthcare. The extent of pooled private financing mechanisms like formal insurance is insignificant, albeit gradually increasing, in the national health financing mix.

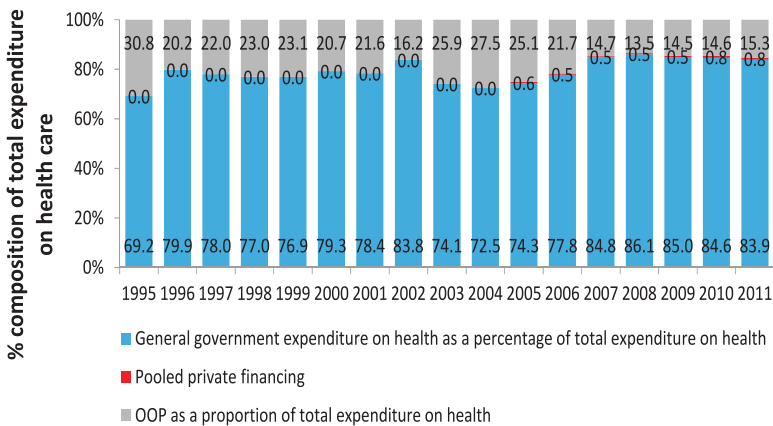


Figure 4: Composition of total expenditure on healthcare

Source: WHO Global Health Observatory.

Total healthcare expenditure as a percentage of Gross Domestic Product (GDP) has stood above 4 percent in the past two decades

<sup>8</sup> Ministry of Health 2010b.

(Figure 5). Discounting the spike in health expenditure in early 2002 (explained by the huge capital expenditure initiated for the construction of two large regional referral hospitals), health expenditure as a proportion of GDP has declined from the previous decade averages of 6.5-7 percent to the 4-5 percent range post-2002.

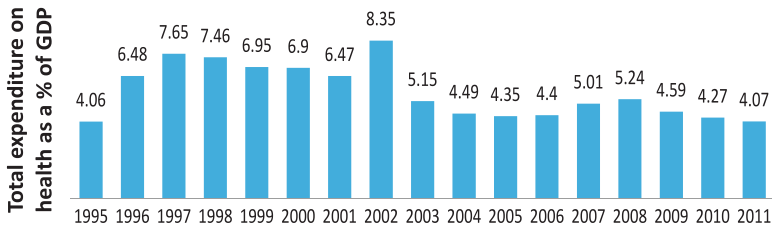


Figure 5: GDP composition of total healthcare expenditure

Source: WHO Global Health Observatory.

Table 2 provides the snapshot of health financing systems in South Asia. The predominance of government investments in healthcare stands out as the key distinguishing feature of the Bhutanese system. Bhutan has the lowest OOP as a composition of health expenditure amongst the South Asian countries.

### 2.3 Magnitude, distribution and determinants of out of pocket expenditure for healthcare

Since the introduction of modern medicine sixty years ago in Bhutan, the government has taken up the role of financier and provider of all healthcare services in the country. Private expense on health is largely viewed by policymakers as to be non-existent and does not feature much in the official debates. It is easy for policymakers in a publicly financed healthcare delivered free of cost to the citizen, with no private providers till very recently, to overlook these considerations. However, there are evidences of household OOP expenditure for healthcare ranging from 13.5 percent to 31 percent of the total healthcare expenditure in the two decades under review (Figure 4). The analysis that follows



Table 2: Health financing in Bhutan and its South Asian\* comparators, 2011

<i>Country</i>	<i>Total expenditure on health as a percentage of gross domestic product</i>	<i>Government expenditure on health as a percentage of total health expenditure</i>	<i>Private expenditure on health as a percentage of total health expenditure</i>	<i>OOP as percentage of total health expenditure</i>	<i>Human Development Index</i>
Afghanistan	9.58	15.59	84.41	79.37	0.371
Bangladesh	3.72	36.58	63.42	61.27	0.511
Bhutan	4.07	83.87	16.13	15.28	0.532
India	3.87	31.00	69.00	59.37	0.551
Iran, Islamic Republic of	5.95	39.73	60.27	58.47	0.742
Maldives	8.50	44.42	55.58	49.10	0.687
Nepal	5.44	39.31	60.69	54.84	0.460
Pakistan	2.51	27.02	72.98	63.01	0.513
Sri Lanka	3.43	44.65	55.35	45.93	0.711

Sources: UNDP 2013; WHO Global Health Observatory.

Note: Calculations are based on data from WHO Global Health Observatory for all columns except the last one.

\* & UN Subregion of South Asia

investigates the magnitude, composition, determinants and impact of OOP expenditure in Bhutan.

### *Data and methods*

The analysis uses the Bhutan Living Standard Survey (BLSS) 2012<sup>9</sup> data. The BLSS is a nationally representative survey covering all twenty districts of the country and collects data on various aspects of living standards and social wellbeing, including demography, health, education, housing, household income and expenditures, and public services' use and satisfaction. Health expenditure data were derived from blocks 1.3 and 1.4 of the survey questionnaire.

<sup>9</sup> National Statistical Bureau 2013.

“Rimdo” or religious functions, which was considered a health expenditure component in the survey questionnaire, was dropped from the analysis while expenditure incurred on traditional health practitioners was included in order to meet the definition of OOP expenditure.<sup>10</sup> The recall period for health expenditure was one year for all expenditure components except out-patient care, which was then transformed to one year. Sample size of BLSS was 8,968 households and the survey used multi-stage sampling with stratification. Sampling probability weights were considered in the analyses to derive national representation of the data. Data analyses were carried out in STATA version 11.2, StataCorp, Texas, USA, 2012.

### *Result 1: OOP expenditure for healthcare*

In the year preceding May 2012, 38.2 percent of Bhutanese households incurred some form of OOP expenditures on healthcare (*Table 3*). Households reporting direct payments for healthcare ranged from 20.8 percent in Lhuentse district to 57 percent in Tsirang district and 57.4 percent in Paro district.

An average Bhutanese spent Bhutanese Ngultrum (BTN) 1,851<sup>11</sup> as OOP expenditure on healthcare in the past one year. This represents 3.5 percent of consumption expenditure. The proportion of consumption expenditure allocated for healthcare ranged from 0.9 percent in Gasa district to 8.2 percent in Trashigang district.

The averages of OOP expenditure by Bhutanese households varies across the socio-economic variables. As indicated by *Figure 6*, on an average per capita annual OOP expenditure is higher in richer Bhutanese households than in poorer ones. Those residing in the Western region spent less than their counterparts in Central and Eastern regions. Households which have educated household heads and those that are headed by a male member spent higher

<sup>10</sup> OECD et al. 2011.

<sup>11</sup> USD 31 at exchange rate of 7 December 2013 (<http://www.rma.org.bt/>)

Table 3: OOP expenditure in Bhutan

<i>Districts</i>	<i>Percentage of households incurring some form of OOP (%)</i>	<i>Percapita Household OOP expenditure (BTN)</i>	<i>OOP expenditure as a proportion of per capita household consumption expenditure (%)</i>
Bumthang	26.2	609.559	1.3
Chhukha	45.5	2,329.497	3.6
Dagana	34.6	1,615.350	3.7
Gasa	48.5	3,971.082	0.9
Haa	39.1	1,945.708	3.2
Lhuentse	20.8	2,025.268	5.3
Monggar	30.3	1,289.443	1.9
Paro	57.4	2,258.224	3.6
Pema Gatshel	22.9	1,590.986	3.1
Punakha	50.6	4,839.618	6.0
SamdrupJongkhar	55.8	2,230.466	5.2
Samtse	29.9	1,061.995	2.7
Sarpang	22.3	692.120	2.1
Thimphu	35.5	1,489.437	2.9
Trashigang	33.4	2,253.624	4.7
TrashiYangtse	44.3	3,409.734	8.2
Trongsa	42.3	927.026	1.4
Tsirang	57.0	2,619.403	6.4
WangduePhodrang	49.9	3,163.549	6.0
Zhemgang	36.6	1,064.748	2.8
Country	38.2	1,851.403	3.5

Source: Bhutan Living Standard Survey, 2012.

OOP. Similarly, there are differences in average OOP expenditure by physical access to health facilities.

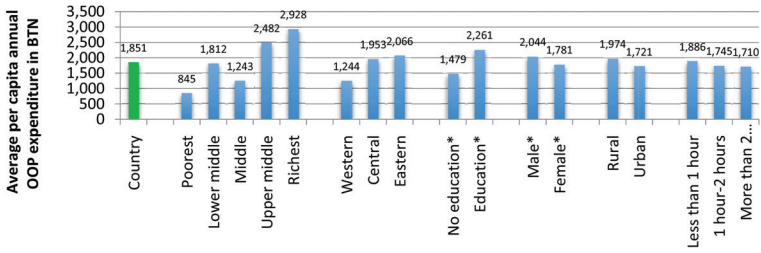


Figure 6: Average per capita annual OOP expenditure in BTN

Note: (\*)Head of households.

Source: Bhutan Living Standard Survey, 2012.

*Result 2: Impact of OOP expenditure on households*

The impact of OOP (determined by the proportion of OOP in total consumption expenditure), as shown in *Figure 7*, follows a similar distribution as the averages of OOP payments in *Figure 6*, except in the case of household living standards where the trend reverses. While richer households pay more OOP on average, the impact of OOP is bigger on the poorer households.

The impact of OOP can be assessed more clearly by analyzing the proportion of households that spend a certain threshold of their total consumption expenditure on healthcare. *Table 4* provides estimates for two threshold levels: 5 percent and 20 percent. The

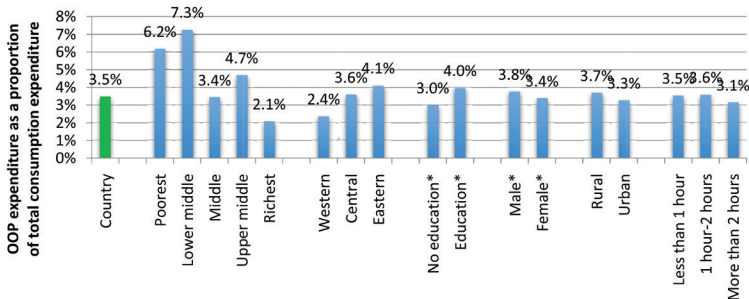


Figure 7: OOP expenditure as a proportion of total consumption expenditure

Note: (\*)Head of households.

Source: Bhutan Living Standard Survey, 2012.

results establish the fact that the impact of OOP expenditure on households is variable amongst the districts in Bhutan with Trashiyangtse district impacted the most.

Another way to look at this issue is through calculating the proportion of households which face high OOP differentiated by income categories. When we consider the household living standards (*Figure 8*), we see a compelling trend of a larger number of poorer households impacted with high OOP costs.

Table 4: Impact of OOP expenditure on households

<i>Districts</i>	<i>% HH incurring OOP more than 5% of total consumption expenditure</i>	<i>% HH incurring OOP more than 20% of total consumption expenditure</i>
Bumthang	6.7	1.4
Chhukha	16.3	5.1
Dagana	14.2	5.0
Gasa	6.1	3.0
Haa	17.2	6.3
Lhuentse	9.5	6.0
Monggar	7.5	1.8
Paro	16.0	4.4
Pema Gatshel	9.1	4.7
Punakha	15.3	5.2
SamdrupJongkhar	10.6	2.6
Samtse	10.4	3.6
Sarpang	7.2	2.6
Thimphu	8.2	2.6
Trashigang	15.1	7.0
Trashiyangtse	27.6	14.6
Trongsa	11.5	1.6
Tsirang	17.0	7.0
WangduePhodrang	18.8	6.4
Zhemgang	12.6	5.8
Country	12.0	4.2

Source: Bhutan Living Standard Survey, 2012.

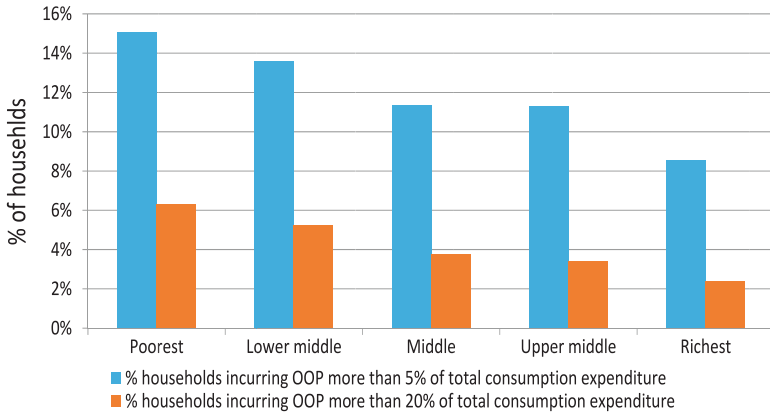


Figure 8: Impact of OOP on household by living standard

Source: Bhutan Living Standard Survey, 2012.

**Result 3: Distribution of OOP expenditure**

Direct OOP payments were made predominantly for out-patient related services in all the districts averaging nationally at 89 percent of total OOP payments. Close to 10 percent was incurred for in-patient related expenditure. Nearly 2 percent of the total OOP was incurred by households for expenses related to deliveries.

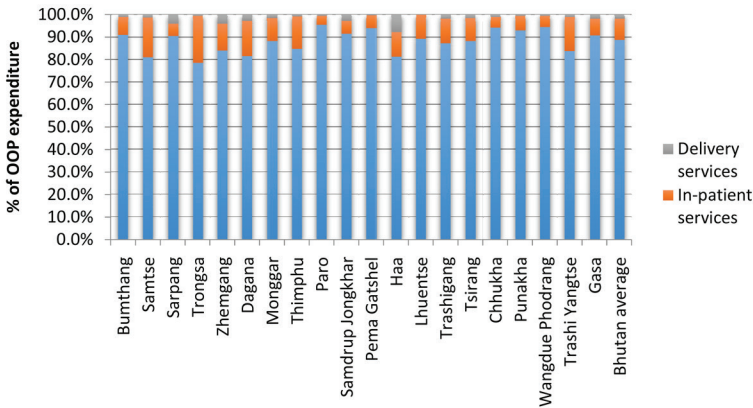


Figure 9: Distribution of OOP expenditure by services categories

Source: Bhutan Living Standard Survey, 2012.

Travel or transportation cost assumes the most significant cost category of direct payments for healthcare. In all the districts, travel is the largest cost category except in Gasa district, where ‘supplements, allied & other’ costs is reported as the biggest cost component. Around 11 percent of the OOP payments were made for purchasing drugs and medical devices and about 7 percent was incurred for medical consultation and advice. A significant portion (10.5 percent) was spent on traditional healers and practitioners nationally. However, there exists a wide variation in the proportion of expense incurred for traditional practitioners ranging from 2 percent in Zhemgang district, around 3 percent in Paro, SamdrupJongkhar and Haa districts to 26 percent in Trashigang district and 34 percent in Wangdiphodrang district.

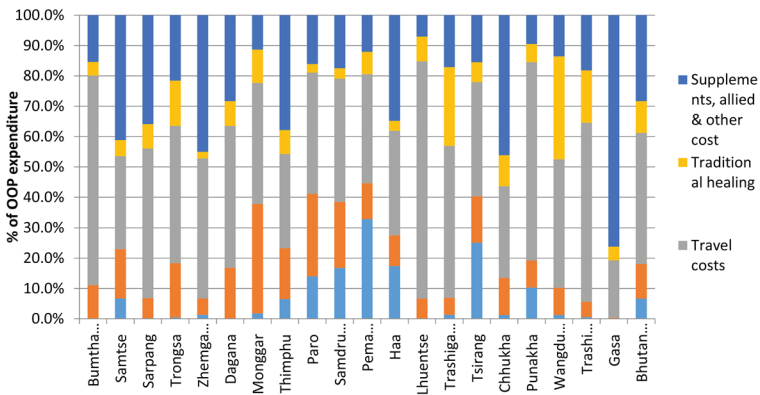


Figure 10: Distribution of OOP expenditure by cost categories

Source: Bhutan Living Standard Survey, 2012.

*Result 4: Health reasons for OOP Expenditure*

As Table 5 indicates, a significant amount of OOP payments were made for conditions related to communicable diseases both for out-patient and in-patient components.

Table 5: Health reasons for incurring OOP expenditure

<i>Health reasons reported for first visit</i>	<i>Out patient</i>	<i>In-patient</i>
	(%)	(%)
Communicable diseases	28.4	27.2
Non-communicable diseases	6.2	5.7
Accidents and injuries	1.8	4.9
MCH and immunization	1.5	5.4
Preventive checks, physiotherapy and counselling	4.8	3.7
Dental services	1.2	0.2
Could not be determined	56.1	53.1

Source: Bhutan Living Standard Survey, 2012.

#### *Result 5: Determinants of household OOP expenditure*

A selected list of socio-economic variables was considered in a multivariate linear regression model. The results of the analysis are presented in *Table 6*. Among the variables, age and education of household, household living standards and distance to health facilities emerged as significant predictors of OOP expenditure. The results indicate that living in a household with elderly household head or educated household head increases the likelihood of incurring higher OOP costs. Households with higher living standards are progressively more likely than poor households to incur high levels of OOP spending. Other significant results emerged on the aspects of access to health facilities. Households living more than one hour away from the health facilities are likely to incur more OOP than those living closer to the health facility.



Table 6: Determinants of household OOP expenditure in Bhutan: estimated coefficients

<i>Independent variables</i>	<i>Coefficient</i>	<i>t</i>
Age of the household head	0.014	6.18****
Female household head (Ref: Male)	0.115	1.66
Educated household head (Ref: Uneducated)	0.260	3.44***
Household consumption expenditure quintiles (Ref: Quintile1-Poorest)		
Quintile2-Lower middle	0.338	3.45***
Quintile3-Middle	0.310	3.29***
Quintile4-Upper middle	0.512	5.47****
Quintile2-Richest	0.707	7.61****
Rural (Ref: Urban)	0.050	0.64
Distance to health facilities (Ref: less than 1 hour)		
1-2 Hours	0.222	2.17**
More than 2 hours	0.074	0.67
Region (Ref: Central)		
Western	-0.063	-0.76
Eastern	0.088	1.15
Constant	5.591	39.33****

Dependent variable: Log of total OOP Expenditure

\*\* p<0.05 \*\*\*p<0.01 \*\*\*\*p<0.001



## SECTION 3

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## Discussions

### 3.1 Persistent nature of household OOP payments for healthcare

Generally, health systems are structured and financed in various ways depending on the national history, governance, social structures and value systems. There are health systems modeled predominantly on tax base (as in the British National Health System), social insurance based (as in Germany, Republic of Korea, Japan), private insurance (as in the United States of America), mandatory savings model (Singapore) or, in most cases, a combination of these structures and systems. The pervasiveness of OOP payment for healthcare exists globally irrespective of the type of health financing system. As demonstrated by *Figure 11*, generally, a health financing model that is predominantly based on prepayment and larger risk pooling of health funds would deter excessive OOP payments.

Bhutan's pathway to universal health coverage has some important distinctive features. First, the health system was founded on the context of a government assuming responsibility for the health of its citizens with the preeminent priority of universal access. This has set a predominantly welfare-oriented political landscape till today. Investments in social sectors, and particularly the health sector, continue as an explicit priority of the successive government even after the democratically elected parliament was established. The overwhelming presence of the government in healthcare, then and now, represents the fundamental strength of the Bhutanese health system. Second, donors have played a major,

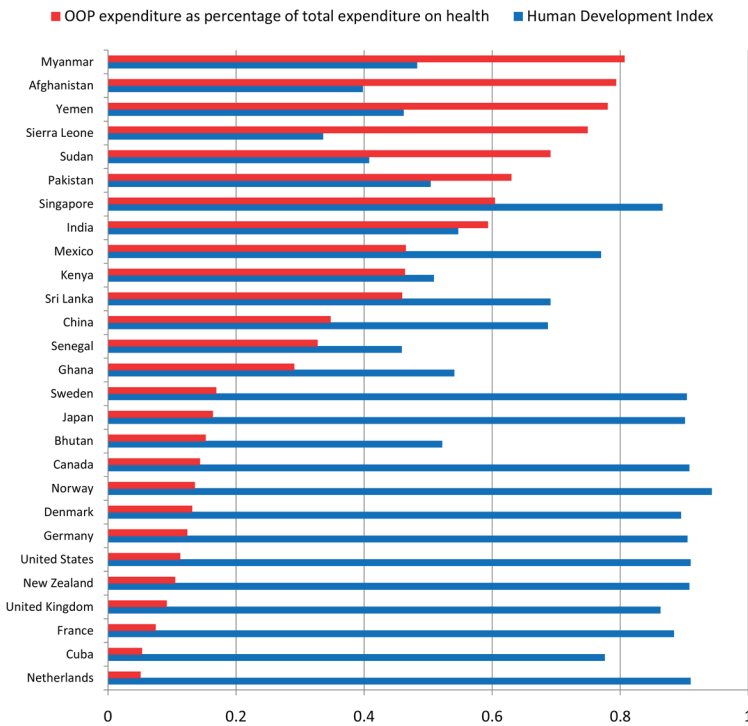


Figure 11: OOP expenditure as percentage of total expenditure on health and HDI: Selected countries, 2011

Sources: UNDP 2011; WHO Global Health Observatory.

Note: Countries selected to represent a sample of the variety of health financing models.

and widely viewed as productive, role in the Bhutanese health system. Third, the Bhutanese health system has been a strong proponent of Primary Health Care (PHC) approach, having also received an award from the World Health Organization. This has contributed to relatively prudent resource utilization and manageable fiscal pressures. Such governance framework guided by policies of free universal healthcare has kept Bhutan amongst the lower OOP spending countries globally.

Nevertheless, despite featuring characteristics of a progressive health financing system, evidence from Bhutan highlights

existence of OOP payments for healthcare. 38.2 percent of Bhutanese households incurred some form of direct payments with an average of 3.5 percent of total household consumption expenditure spent on healthcare. 4.2 percent of households spent more than 20 percent of their total consumption expenditure on healthcare. Since households in Bhutan, particularly those in the rural areas, hold minimum cash-based income owing to more than 60% of the population being subsistence agriculturists, the likely catastrophic impact of these expenditures is exaggerated. However, since these expenditures are occurring in a publicly managed and provided health system with services provided free of charge to the citizen, the case study of Bhutan demonstrates the pervasiveness of household OOP payments even in a publicly funded and free healthcare model. Even in these models, healthcare is accessed through direct OOP payments by households.

### 3.2 Classification/distribution of OOP

Bhutanese households made OOP payments mostly for out-patient related services. This makes sense in a context where health services are free; people exercise more choices and make purchasing decisions for ambulatory care. When a patient gets admitted into a hospital, the hospital expenses are automatically taken care of by the government and therefore the financial burden on the patient and his household is reduced. This contrasts to the general Asian setting where a third of OOP expenditure is made for inpatient care compared to only a fifth for ambulatory care.<sup>1</sup>

Where access to health services is limited, travel cost for accessing healthcare is an important consideration in the OOP expenditure basket. Travel cost makes up almost half of all OOP payments for healthcare in Bhutan. This is followed by purchase of drugs and, then, the medical consultation costs. This starkly contrasts the situations in most other countries where a major proportion of OOP is incurred for direct payments to the service providers and buying medicines and allied health products. A

<sup>1</sup> Doorslaer et al. 2005.

study of 39 low and middle income countries established that with a few countries as exceptions, expenditure on medicine and consultations costs accounted for the largest share of OOP expenditure.<sup>2</sup> Transportations cost, on an average, accounted for about 14.5 percent of total OOP in these 39 low and middle income countries under review. Asian countries on an average spent 37 percent of total OOP for medicine.<sup>3</sup>

The other important consideration, particularly in developing countries, is the expenditure on traditional and home treatments. Bhutanese spent 10.5 percent of OOP expenditure on traditional healers and practitioners nationally (with variations among districts ranging from 2 to 34 percent). This fits well with the estimates in 14 Asian countries comprising 81 percent of Asian population where expenditure on traditional medicine averages to 9.6 percent of OOP payments rising to as high as over a third of OOP payments in Taiwan, Province of China, and Hong Kong, Special Administrative Region of China.<sup>4</sup>

Bhutan's case demonstrates that in a system where healthcare is provided largely free of charge, the nature of the OOP expenses is predominantly access-related; people incur expense while accessing health services (like transportation and accommodation for healthcare). This resonates well with the difficult geographical terrain and the scattered settlements of population making physical access to these services an expensive ordeal. Public facilities also levy charges on certain services like dental and cosmetic services or issuance of medical certificates. Moreover, people, usually the affluent, could also be exercising their free choice to avail, on perceptions of better quality and responsiveness, private healthcare or paying for healthcare from within or outside the country. There is also a cost component in availing services from traditional healers and practitioners.

As a rather intriguing result from the data, infectious diseases emerged as the prime health reasons for which OOP

<sup>2</sup> Saksena et al. 2010.

<sup>3</sup> Doorslaer et al. 2005.

<sup>4</sup> Doorslaer et al. 2005.



expenditure was reported. This implies that OOP expenditure is concentrated on all health events in which people are compelled to spend, infectious diseases being the prime cause of morbidity in rural areas. This reaffirms the result of OOP expenditure being predominantly driven by travel costs. This result also suggests a general weakness in the control and management of infectious diseases in rural Bhutan. If we discount the hugely successful immunization programme (over 90 percent coverage since a decade back), evidences suggest gaps in sanitation and hygiene interventions in the health services delivery system.

### 3.3 Determinants of household OOP payments

The regression results indicate that households with higher living standards are progressively more likely than the poor to incur higher OOP payments in Bhutan. This resonates with studies in Thailand,<sup>5</sup> Pakistan<sup>6</sup> and a multi-country analysis of fourteen Asian countries<sup>7</sup>, which demonstrated that higher income households are more likely to spend more resources on healthcare. While this looks progressive at the first glance, it is not totally so. Because the proportion of health expenses out of their smaller income base tends to be higher, poor people are more vulnerable to catastrophic financial incidents. The poor may also not be availing healthcare owing to competing basic priorities on their smaller income base. Taking cue from *Figure 8*, as the income level progressed, lesser number of households incurred high OOP costs in Bhutan. Studies in the United States,<sup>8,9</sup> Republic of Korea<sup>10</sup> and Islamic Republic of Iran<sup>11</sup> were much more straightforward in establishing that households with lower income levels are more likely than others

<sup>5</sup> Somkotra and Lagrada 2009.

<sup>6</sup> Malik and Syed 2012.

<sup>7</sup> Doorslaer et al. 2005.

<sup>8</sup> Merlis 2002.

<sup>9</sup> Shen and McFeeters 2006.

<sup>10</sup> Ruger and Kim 2007.

<sup>11</sup> Hajizadeh and Nghiem 2011.

to face relatively high OOP costs. Poor are vulnerable to high OOP costs and likely impoverishment owing to these costs.

In Bhutan, households with educated household heads are likely to incur more OOP expenditure than households with uneducated heads. This conforms to the findings in Burkina Faso,<sup>12</sup> Pakistan<sup>13</sup> and Thailand.<sup>14</sup> This evidence suggests enhanced health-seeking behaviour and purchasing decision by the educated households leading to higher OOP costs. In Nepal,<sup>15</sup> however, literacy of the head of household was detected as a negative predictor of OOP payments. This goes well with the argument that households with educated heads are more equipped to maintain better health in the household and save healthcare costs. Vulnerability of the uneducated in the long run to high OOP expenditure is, however, established even in the counter argument.

Age of household head emerged as another significant predictor of OOP expenditure. In Bhutan, living in a household with an elderly household head increases the likelihood of incurring high OOP costs. An American study<sup>16</sup> also established that families headed by elderly are more at risk for burdensome healthcare costs. Evidence from Pakistan<sup>17</sup> and Thailand<sup>18</sup> provides clearer focus on this determinant establishing that households with at least one elderly person are likely to incur more OOP expenditure than those without.

Physical inaccessibility is an important determinant of high OOP expenditure. Findings reveal that households living more than one hour away from the health facilities incur more OOP than those living within less than one hour. This result resonates with the findings in Pakistan<sup>19</sup> where households being at greater

<sup>12</sup> Tin Su et al. 2006.

<sup>13</sup> Malik and Syed 2012.

<sup>14</sup> Okunadeet al. 2010.

<sup>15</sup> Rous and Hotchkiss 2003.

<sup>16</sup> Merlis 2002.

<sup>17</sup> Malik and Syed 2012.

<sup>18</sup> Somkotra and Lagrada 2009.

<sup>19</sup> Malik and Syed 2012.

distances from health facilities was a positive predictor of higher OOP payments than OOP payments by households taking less than 30 minutes to reach a hospital or clinic. While the Bhutan results are not conclusive (the effect lost its significance in the multivariate model), experiences from other countries indicate that the likelihood of spending higher OOP expenditure for healthcare increases if the households reside in rural areas as demonstrated by studies in Burkina Faso,<sup>20</sup> India <sup>21</sup>and in the Islamic Republic of Iran.<sup>22</sup>

While there was insufficient data to determine disability and incidents of health problems as a factor in the model, there are researches that are highly conclusive on the differences among these variables to provide sound policy inputs. There is an overwhelming consensus in the literature on the relationship between OOP expenditure for healthcare and households having members who are disabled or with chronic health problems. Evidence from Thailand<sup>23</sup> and the United States<sup>24,25</sup> establishes that households that have a member with disability and with any health problems are more likely than others to spend a high proportion of their incomes on healthcare. Disability and chronic conditions make households vulnerable to making high OOP expenses for healthcare because the requirement of health resources increases. Incidence of non-communicable diseases, which is gradually increasing in all of the developing countries including Bhutan, is further likely to lead to higher household OOP payments.

### 3.4 The case for health security

Because direct payments and OOP expenditure hold such adverse implications for the health and human development of

<sup>20</sup> Tin Su et al. 2006.

<sup>21</sup> Garg and Karan 2005.

<sup>22</sup> Hajizadeh and Nghiem 2011.

<sup>23</sup> Somkotra and Lagrada 2009.

<sup>24</sup> Merlis 2002.

<sup>25</sup> Shen and McFeeters 2006.

the people, a mechanism needs to be developed or strengthened for making healthcare access more secure. Providing secure healthcare essentially comprises using measures and instruments that remove financial barriers preventing access to health services and protecting people from the impoverishing effects of health expenditures. OOP expenditure for healthcare should be reduced to the minimum possible to empower the population with better access and risk protection for healthcare.

There are two fundamental precepts to this: prepayment and risk sharing. Strong evidences back the claim that extent of prepayment is inversely proportional to households' catastrophic health spending.<sup>26</sup> There is also empirical basis to establish that risk-sharing mechanisms for health financing impact positively on the attainment of the overall health system goals, namely fair financing and the level of health.<sup>27</sup>

There is, therefore, a global consensus and a convergence in the view that prepayment and pooling of resources promote progressive mechanisms in healthcare financing, a prerequisite to achieving health security. The concept of Universal Health Coverage (UHC) has formalized this global consensus when a UN General Assembly resolution acknowledged UHC as "a key instrument to enhancing health, social cohesion and sustainable human and economic development"<sup>28</sup>. This new global movement of UHC rests on a much more serious footing this time.

UHC requires that all people obtain the needed health services without financial risks.<sup>29,30</sup> While UHC addresses the significance of coverage (population coverage as well as health service coverage), the underlying importance is placed on financial risk protection, i.e. people are able to afford access to these services. In order to achieve UHC, a prominent objective of national and international

<sup>26</sup> Kawabata et al. 2002.

<sup>27</sup> Carrin et al. 2001.

<sup>28</sup> United Nations 2012.

<sup>29</sup> WHO 2005.

<sup>30</sup> WHO 2011.

health policy today is to replace OOP expenditure with more equitable modes of financing.<sup>31</sup>

The concept of UHC resonates naturally with the human development approach. The similarities are demonstrated by special value attached by both of these concepts on access to health and the principles of solidarity, equity, rights and justice. The human development approach offers insights on designing health financing models that enhance people's capabilities and functioning towards their freedom to flourish. It emphasizes that national healthcare resources are distributed along individuals' capability for health functioning and not based on geographical, wealth, or other social considerations. There is also a convergence of view on the critical role of the government to advance these goals.

<sup>31</sup> Commission on Macroeconomics and Health 2001.



## SECTION 4

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## Conclusions and Policy Recommendations

OOP payment is a critical impediment to the idea of effective health security. Because of its inherently regressive nature (hurting poor and vulnerable the most) OOP expenditure for healthcare impedes access to health services and contributes adversely to population health and human development. OOP expenditure persists as a significant means to finance health costs in most countries across the globe. However, there exists variation in distribution of the OOP burden, with lower income countries, and countries in Asia and Africa in particular, recording high levels of OOP expenditure. Health financing models that are predominantly insurance-based (including tax financed systems) tend to deter excessive OOP payments than models which have voluntary insurance and fee for service as the predominant health financing mechanism. Tax-based systems work best when a significant proportion of population is poor or works in the informal sector.

Each health system has to design its interventions based on its own specific contexts depending on, but not limited to, its level of economic and human development, existing institutions, political and social structures, culture and value system. While there is no blueprint for a successful model, prepayment and pooling in health funds and emphasizing mandatory coverage do offer some degree of health security. UHC represents a progressive paradigm that promises health security while at the same time addressing allied considerations (like equity and quality) in healthcare. Incorporating principles of this concept into national health

policies and programming supported by a robust monitoring system would generate significant dividends to population health and human development.

Bhutan's health security model draws strength from its government's commitment to provide universal and free healthcare to all its citizens. This has ensured that OOP spending on healthcare remains among the lowest in the world and Bhutan is able to offer a high level of security and financial protection to its population. Bhutan's case, however, cautions that having a publicly organized free health system is not a panacea for health security. There are evidences of some form of out of pocket expenditure being incurred by almost 40 percent of Bhutanese households, attributed significantly to indirect costs for accessing health services.

There are important policy messages on health security emanating from this study. There are also lessons from international experiences that have implications for policy in Bhutan. These are discussed below.

#### 4.1 Health financing system and policy

Any system that guarantees health security requires policy, legal and institutional mechanisms that strive to achieve universal health coverage with particular attention to the poor and the vulnerable. While Bhutan has these provisions adequately reflected in the national policy and legal instruments, they need to be translated into operational programmes and be subject to periodic (annual) target setting to elicit more accountability among the policymakers, implementers, communities and the media.

However, policy and legal instruments are not sufficient. They need to be supported by appropriate organization and service delivery frameworks that support these goals while generating efficiency gains and quality improvements. The framework of collection of funds, pooling of these funds, purchasing of health services (the way decisions are made to allocate funds to buy needed health services) and provision of these services have to be reviewed to ensure maximum financial access and risk protection for healthcare programmes.

In terms of collection and pooling of funds, the present tax-based model has served Bhutan well. While no major restructuring on the health financing is recommended at this stage, the system needs to be mindful of constantly escalating costs and the growth in demand and financing requirements for healthcare. The growing threat of non-communicable diseases, in conjunction with population ageing, suggests that Bhutan would be dealing with more costly and complex pathologies. Expanding fiscal space for healthcare and developing measures to improve efficiency and contain costs are critical in addressing these challenges. Health insurance in the formal sector and community-based financing in the informal sector could be explored as complementing options.

In terms of organization of purchasing and delivery of health services, there are promising interventions that could be explored to enhance efficiency and accountability. There is a mounting consensus on the benefits of strategic purchasing and that separating healthcare funding from delivery could improve the quality of care, efficiency and accessibility.<sup>1</sup> Such reorganization would entail administrative separation of financial resources from the Ministry of Health, wherein the Ministry becomes an exclusive provider of services and stays accountable to the health fund (the Ministry of Finance or an autonomous entity created for this purpose) on the operational results and health outcomes. The strong political will and stewardship of the government must be preserved.

## 4.2 Benefit packages

The universal right to healthcare is enshrined in the Constitution of the Kingdom of Bhutan. However, the constitutional provision does not specify the extent or the level of health services, nor does it provide specified guaranteed commitments. Developing universal, explicitly guaranteed packages of services is one way to go.

<sup>1</sup> Figueras et al. 2005.

The process of arriving at a benefit package in healthcare must be done by bringing about a consensus among rural and vulnerable populations as the issue can be both politically and technically contentious. While the size of the benefit package entails critical decisions on balancing the country's financial resources with the breadth and depth of health coverage, it is recommended that issues of equitable access and financial risk protection, including minimizing OOP payments, are appropriately considered. These benefit packages, once developed, should not be seen as rigid. They must be viewed more as a priority setting instrument that stays dynamic and flexible to incorporate changing (and mostly, increasing) priorities in healthcare.

### 4.3 Travel costs

The huge significance of travel cost for healthcare in the OOP basket should prompt immediate policy attention. Rural areas in Bhutan, clearly, need a targeted focus through a renewed emphasis and investments in PHC services. Besides physical access, the quality aspects (technical as well as services) of PHC services should be stepped up to match the growing expectations of the increasing literate client. Ensuring regular availability of health personnel and drugs in the peripheral health facilities would help in enhancing clients' faith in the health system and deter them from seeking care outside the system and having to pay for it.

Free mobile pick-up and drop service to/from health facilities is another option that is getting increasingly popular in some developing countries, including India. Given the scattered settlement of the population and the difficult physical landscape of the country, this option may demand significant resource inputs. There is a need to, therefore, contextualize the idea and explore measures such as travel voucher or reimbursement of public transport costs to make it more cost-efficient and feasible. This initiative has the potential of high returns not just in ensuring better financial protection, but in improving general health outcomes of the population, maternal and child health promising the maximum gains.

#### 4.4 Vulnerable groups

Rural households, poorer households, households headed by elderly heads (or having more elderly members), households with disability and chronic conditions are particularly vulnerable to high OOP costs and, thereby, more vulnerable to financial risks. These groups require specifically targeted interventions. Policy options could range from transportation assistance, exclusion from user charges of any form, provisioning of cash reimbursement for loss of income or cash incentives for utilization of services. Civil society (e.g. religious bodies, non-governmental organizations, local cooperatives) could play an important role in facilitating the extension of coverage to these vulnerable groups. Besides these measures, the health system may review and redesign its sanitation and hygiene interventions in the rural areas for high potential returns in the medium to long term.

#### 4.5 Development partners

Funds and technical cooperation of the international community and development partners constitute an important component of health resource in Bhutan. Achieving and maintenance of UHC and health security, requires a long-term commitment and investment of resource. This entails supporting the country to build a stronger and equitable health system on a predictable and longer term basis. It would also imply building capacities and developing policy frameworks and institutions for sustainable universal coverage.

#### 4.6 Robust monitoring of Universal Health Coverage (UHC)

UHC is not an end state but rather a journey, and there are possibilities of faltering or sliding back on the way. Regular and robust monitoring is necessary to know what progress has been made and what improvements can be done towards equitable coverage and enhanced risk protection in healthcare. Tools such

as National Health Accounts, benefit analysis of public resources, equity assessments and poverty monitoring are useful to track progress. Capacity building of national officials is crucial. Capacity building in this context implies training, research and exchange of experiences in designing, implementing and monitoring UHC.

## Bibliography

- Aldis, William. 2008.** “Health security as a public health concept: a critical analysis. *Health Policy and Planning* 23(6):369–375
- Anand, Sudhir, and Martin Ravallion. 1993.** “Human development in poor countries: On the role of private incomes and public services.” *Journal of Economic Perspectives* 7(1): 133–150.
- Bloom, David E., David Canning, and Jaypee Sevilla. 2004.** “The effect of health on economic growth: A production function approach.” *World Development* 32(1): 1–13.
- Borowy, Iris. 2012.** “Global health and development: Conceptualizing health between economic growth and environmental sustainability.” *Journal of the History of Medicine and Allied Sciences* 68(3): 451-485.
- Carrin, Guy, Riadh Zeramdini, Philip Musgrove, Jean-Pierre Poullier, Nicole Valentine, and Ke Xu. 2001.** *The impact of the degree of risk-sharing in health financing on health system attainment.* HNP Discussion Paper Series. Washington DC: World Bank.
- Commission on Macroeconomics and Health. 2001.** *Macroeconomics and health: Investing in health for economic development.* Geneva: World Health Organization.
- Deneulin, Severine, and Lila Shahani, eds. 2009.** *An introduction to the human development and capability approach.* Human Development and Capability Association. London: Earthscan.
- Doorslaer, Eddy van, Owen O’Donnell, Ravi P. Rannan-Eliya, Aparnaa Somanathan, Shiva Raj Adhikari, Baktygul Akkazieva, Charu C. Garg, Deni Harbianto, Alejandro N. Herrin, Mohammed Nazmul Huq, Shamsia Ibragimova,**

- Anup Karan, Tae-jin Lee, Gabriel M. Leung, Jui-fen Rachel Lu, Chiu Wan Ng, Badri Raj Pande, Rachel Racelis, Sihai Tao, Keith Tin, Kanjana Tisayaticom, Laksono Trisnantoro, Chitpranee Visasvid, and Yuxin Zhao. 2005.** “Paying out-of-pocket for health care in Asia: Catastrophic and poverty impact.” EQUITAP Project Working Paper # 2, 2005. [<http://ideas.repec.org/p/ess/wpaper/id823.html>]. Last accessed on 25 September 2013.
- Dreze, Jean, and Amartya Sen. 1989.** *Hunger and Public Action*. Oxford: Clarendon Press.
- Figueras, Josep, Martin McKee, Elias Mossialos, and Richard B. Saltman, eds. 2005.** *Purchasing to improve health system performance*. European Observatory on Health Systems and Policies Series. New York: Open University Press.
- Garg, Charu C., and Anup K. Karan. 2005.** “Health and Millennium Development Goal 1: Reducing out-of-pocket expenditures to reduce income poverty - Evidence from India.” EQUITAP Project: Working Paper #15. [[ideas.repec.org/p/ess/wpaper/id1378.html](http://ideas.repec.org/p/ess/wpaper/id1378.html)]. Last accessed on 10 October 2013.
- Gross National Happiness Commission. 2008.** *10<sup>th</sup> Five Year Plan 2008-2013 Vol 1 Main Document*. Thimphu: Royal Government of Bhutan.
- Gross National Happiness Commission. 2011.** *Sustaining progress: Rising to the climate challenge*. Bhutan National Human Development Report. Thimphu: Royal Government of Bhutan.
- Gyimah-Brempong, Kwabena, and Mark Wilson. 2004.** “Health human capital and economic growth in sub-Saharan Africa and OECD countries.” *The Quarterly Review of Economics and Finance* 44: 296-320.
- Hajizadeh, Mohammad, and Hong Son Nghiem. 2011.** “Out-of-pocket expenditures for hospital care in Iran: Who is at risk of incurring catastrophic payments?” *International Journal of Health Care Finance and Economics* 11(4): 267-285.
- Himmelstein, David U., Elizabeth Warren, Deborah Thorne, and Steffie Woolhandler. 2005.** “Illness and injury as



- contributors to bankruptcy.” *Health Affairs Web exclusive*; W5-63-W5-73.
- ILO (International Labour Organization). 2008.** *Social health protection: An ILO strategy towards universal access to health care*. Social security policy briefings: Paper 1. Geneva: International Labour Organization.
- Jalan, Jyotsna, and Martin Ravallion. 2001.** “Behavioural responses to risk in rural China.” *Journal of Development Economics* 66 (1): 23-49.
- Kawabata, Kei, Ke Xu, and Guy Carrin. 2002.** “Preventing impoverishment through protection against catastrophic expenditure.” *Bulletin of the World Health Organization* 80(8): 612.
- Malik, Ashar Muhammad, and Shah Iqbal Azam Syed. 2012.** “Socio-economic determinants of household out-of-pocket payments on healthcare in Pakistan.” *International Journal for Equity in Health* 11: 51.
- Merlis, Mark. 2002.** “Family out-of-pocket spending for health services: A continuing source of financial insecurity. Fund Report.” The Commonwealth Fund. [<http://www.commonwealthfund.org/Publications/Fund-Reports/2002/Jun/Family-Out-of-Pocket-Spending-for-Health-Services-A-Continuing-Source-of-Financial-Insecurity.aspx>]. Last accessed on 15 April 2014.
- Ministry of Finance. 2012.** *Annual financial statements of the Royal Government of Bhutan for the year ended 30 June 2012*. Thimphu: Royal Government of Bhutan.
- Ministry of Health. 2010a.** *National health accounts 2009- 2010*. Thimphu: Royal Government of Bhutan.
- Ministry of Health. 2010b.** *National health policy 2010*. Thimphu: Royal Government of Bhutan.
- Ministry of Health. 2011.** *Mapping of health infrastructures and indicators using geographic information system (gis)*. Thimphu: Royal Government of Bhutan.
- Ministry of Health. 2012.** *Annual health bulletin 2012*. Thimphu: Royal Government of Bhutan.

- National Statistical Bureau. 2012.** *Statistical yearbook of Bhutan 2012*. Thimphu: Royal Government of Bhutan.
- National Statistical Bureau. 2013.** *Bhutan living standard survey 2012*. Thimphu: Royal Government of Bhutan.
- OECD, Eurostat, and WHO. 2011.** *A system of health accounts. European Union: OECD Publishing.*
- Okunade, Albert A., ChutimaSuraratdecha, and David A. Benson. 2010.** “Determinants of Thailand household healthcare expenditure: The relevance of permanent resources and other correlates.” *Health Economics* 19(3): 365–376.
- Pagán, Jose A., Andrea Puig, and Beth J. Soldo. 2007.** “Health insurance coverage and the use of preventive services by Mexican adults.” *Health Economics* 16: 1359-1369.
- Papadimos, Thomas J. 2007.** “Healthcare access as a right, not a privilege: A construct of Western thought.” *Philosophy, Ethics, and Humanities in Medicine* 2: 2.
- Preker, Alexander S., Guy Carrin, David Dror, MelittaJakab, William C. Hsiao, and DynaArhin-Tenkorang. 2004.** “Rich-poor differences in health care financing”. In Alexander S. Preker, and Guy Carrin, eds. *Health financing for poor people: Resource mobilization and risk-sharing*. Washington DC: World Bank.
- Prinja, Shankar, Arun Kumar Aggarwal, Rajesh Kumar, and Panos Kanavos. 2012.** “User charges in health care: Evidence of effect on service utilization and equity from north India.” *Indian Journal of Medical Research* 136(5): 868-876.
- Rous, Jeffrey J., and David R. Hotchkiss. 2003.** “Estimation of the determinants of household healthcare expenditure in Nepal with control for endogenous illness and provider choice.” *Health Economics* 12(6): 431–451.
- Ruger, Jennifer Prah, and Hak-Ju Kim. 2007.** “Out-of-pocket healthcare spending by the poor and chronically ill in the Republic of Korea.” *American Journal of Public Health* 97(5): 804–811.
- Saksena, Priyanka, Ke Xu, RikuElovainio, and Jean Perrot. 2010.** *Health services utilization and out-of-pocket expenditure*

- at public and private facilities in low-income countries.* World Health Report (2010) Background Paper, 20. Geneva: World Health Organization.
- Sambo, Luis Gomes, Josés Muthuri Kirigia, and Juliet Nabyonga Orem. 2013.** “Health financing in the African Region: 2000–2009 data analysis.” *International Archives of Medicine* 6:10.
- Scheil-Adlung, Xenia, AbayAsfaw, FrikkieBooyesen, Karine Lamiraud, Emmanuel Reynaud, Johannes Juetting, Ke Xu, Guy Carrin, Somnath Chatterji, David Evans, Chris James, and Stephen Muchiri. 2006.** *What is the impact of social health protection on access to health care, health expenditure and impoverishment? A comparative analysis of three African countries.* WHO Discussion Paper 2.EIP/HSF/DP.06.2. Geneva: WHO. [[http://www.who.int/health\\_financing/documents/dp\\_e\\_06\\_2-access\\_africa.pdf](http://www.who.int/health_financing/documents/dp_e_06_2-access_africa.pdf)]. Last accessed on 25 September 2013.
- Sen, Amartya. 1999.** “Health in development.” *Bulletin of the World Health Organization* 77(8): 619–623.
- Sen, Amartya. 2000.** “A decade of human development.” *Journal of Human Development* 1(1): 17–23.
- Sen, Amartya. 2002a.** “Why health equity?” *Health Economics* 11: 659–666.
- Sen, Amartya. 2002b.** “Health: Perception versus observation.” *British Medical Journal* 324 (7342): 859–860.
- Shen, Yu-Chu, and Joshua McFeeters. 2006.** “Out-of-pocket health spending between low- and higher-income populations: Who is at risk of having high expenses and high burdens?” *Medical Care* 44(3): 200–209.
- Somkotra, Tewarit, and Leizel P. Lagrada. 2009.** “Which households are at risk of catastrophic health spending: Experience in Thailand after universal coverage.” *Health Affairs* 28(3): w467–w478.
- The Constitution of The Kingdom of Bhutan.* 2008. [<http://www.bhutanaudit.gov.bt/About%20Us/Mandates/Constitution%20of%20Bhutan%202008.pdf>]. Last accessed on 15 April 2014.

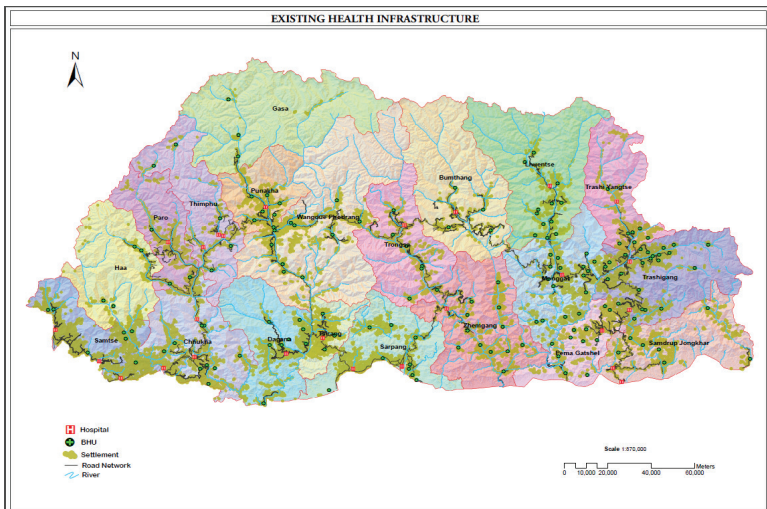
- Su, Tin Tin, PokhrelSubhash, AdjimaGbangou, and Steffen Flessa. 2006.** “Determinants of household health expenditure on western institutional care.” *European Journal of Health Economics* 7(3): 199–207.
- UNDP (United Nations Development Programme). 1990.** *Human Development Report 1990*. New York: Oxford University Press.
- UNDP (United Nations Development Programme). 2011.** *Sustainability and equity: A better future for all*. New York: UNDP.
- UNDP (United Nations Development Programme). 2013.** *The rise of the South: Human progress in a diverse world*. New York: UNDP.
- United Nations. 2012.** UN General Assembly Resolution 66/288. The Future We Want. Resolution adopted by the General Assembly on 27 July 2012. A/RES/66/288\*. [[http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/66/288&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E)]. Last accessed on 12 October 2013.
- Wagstaff, Adam. 2002.** “Poverty and health sector inequalities.” *Bulletin of the World Health Organization* 80(2): 97–105.
- Wang, Haidong, Laura Dwyer-Lindgren, Katherine T. Lofgren, Julie Knoll Rajaratnam, Jacob R. Marcus, Alison Levin-Rector, Carly E. Levitz, Alan D. Lopez, and Christopher J.L. Murray. 2012.** “Age-specific and sex-specific mortality in 187 countries, 1970–2010: A systematic analysis for the Global Burden of Disease Study 2010.” *Lancet* 380(9859): 2071–2094.
- Whitehead, M., G. Dahgren, and T. Evans. 2001.** “Equity and health sector reforms: Can low income countries escape the medical poverty trap?” *The Lancet* 358(9284): 833–836.
- WHO (World Health Organization). 2000.** *The world health report 2000 - Health systems: Improving performance*. Geneva: World Health Organization.
- WHO (World Health Organization). 2005.** World Health Assembly Resolution WHA58.33. [[http://www.who.int/providingforhealth/topics/WHA58\\_33-en.pdf](http://www.who.int/providingforhealth/topics/WHA58_33-en.pdf)]. Last accessed on 12 October 2013.

- WHO (World Health Organization). 2007.** High-level debate tackled need for improved international health security. [[http://www.who.int/world-health-day/previous/2007/activities/global\\_event/en/](http://www.who.int/world-health-day/previous/2007/activities/global_event/en/)]. Last accessed on 15 June 2015
- WHO (World Health Organization). 2010.** *The world health report 2010 – Health systems financing: The path to universal coverage*. Geneva: World Health Organization.
- WHO (World Health Organization). 2011.** World Health Assembly Resolution WHA64.9. [<http://apps.who.int/iris/handle/10665/25>]. Last accessed on 12 October 2013.
- WHO (World Health Organization). n.d.** *Global health observatory (GHO) data repository. Health systems: health financing*. [<http://apps.who.int/gho/data/node.main.484?lang=en>]. Last Accessed on 5 November 2013.
- World Bank. 2004.** *The Millennium Development Goals for health: Rising to the challenges*. Washington DC: World Bank.
- Xu, Ke, David B Evans, Guy Carrin, Ana Mylena Aguilar-Rivera, Philip Musgrove, and Timothy Evans. 2007.** “Protecting households from catastrophic health spending.” *Health Affairs (Millwood)* 26(4): 972-983.



# Annexures

## ANNEX 1: HEALTH SERVICES IN BHUTAN, 2011



Scale 1:870,000

Source: Ministry of Health 2011.

Note: Reproduced with permission of the Policy and Planning Division, Ministry of Health, Bhutan

## ANNEX 2: OOP EXPENDITURE IN BHUTAN

<i>Districts</i>	<i>Households incurring OOP</i>	<i>Total Households</i>	<i>Percentage of households incurring some form of OOP</i>	<i>Percapita Household OOP expenditure (BTN)</i>	<i>Household consumption expenditure (BTN)</i>	<i>OOP expenditure as a proportion of total consumption expenditure</i>
Bumthang	55	210	26.2%	609.559	47,441.206	1.3%
Chhukha	412	906	45.5%	2329.497	65,016.064	3.6%
Dagana	90	260	34.6%	1615.350	44,081.057	3.7%
Gasa	16	33	48.5%	3971.082	4,64,759.610	0.9%
Haa	50	128	39.1%	1945.708	60,194.038	3.2%
Lhuentse	35	168	20.8%	2025.268	38,523.192	5.3%
Monggar	150	495	30.3%	1289.443	67,560.618	1.9%
Paro	222	387	57.4%	2258.224	62,794.646	3.6%
Pema Gatshel	58	253	22.9%	1590.986	51,430.959	3.1%
Punakha	126	249	50.6%	4839.618	80,086.750	6.0%
Samdrup Jongkhar	259	464	55.8%	2230.466	42,731.333	5.2%
Samtse	239	800	29.9%	1061.995	38,659.465	2.7%
Sarpang	112	503	22.3%	692.120	32,538.209	2.1%
Thimphu	749	2111	35.5%	1489.437	51,412.970	2.9%
Trashigang	186	557	33.4%	2253.624	48,015.123	4.7%



## ANNEX 2 (contd.)

Trashiyangtse	109	246	44.3%	3409.734	41,572.152	8.2%
Trongsa	77	182	42.3%	927.026	65,727.988	1.4%
Tsirang	131	230	57.0%	2619.403	41,155.135	6.4%
WangduePhodrang	212	425	49.9%	3163.549	52,373.685	6.0%
Zhemgang	70	191	36.6%	1064.748	38,338.486	2.8%
Country	3358	8798	38.2%	1,851,403	53,089,103	3.5%

## ANNEX 3: DISTRIBUTION OF OOP EXPENDITURE IN BHUTAN BY COST VARIABLES

<i>Districts</i>	<i>Out-patient services</i>	<i>In-patient services</i>	<i>Delivery services</i>	<i>Districts</i>	<i>Consultation and charges</i>	<i>Medicine</i>	<i>Travel costs</i>	<i>Traditional healing</i>	<i>Supplements, allied &amp; other cost</i>
Bumthang	91.0%	7.9%	1.2%	Bumthang	0.0%	11.1%	69.0%	4.5%	15.4%
Samtse	80.9%	17.7%	1.4%	Samtse	6.7%	16.3%	30.5%	5.3%	41.2%
Sarpang	90.6%	5.3%	4.1%	Sarpang	0.1%	6.6%	49.2%	8.1%	35.9%
Trongsa	78.5%	20.9%	0.6%	Trongsa	0.4%	17.9%	45.2%	14.9%	21.6%
Zhemgang	83.9%	12.1%	4.0%	Zhemgang	1.3%	5.4%	46.1%	2.2%	45.0%
Dagana	81.5%	15.9%	2.7%	Dagana	0.0%	16.8%	46.7%	8.2%	28.3%
Monggar	88.2%	10.4%	1.4%	Monggar	1.7%	36.0%	39.9%	11.0%	11.3%
Thimphu	84.8%	14.4%	0.7%	Thimphu	6.5%	16.8%	31.0%	7.9%	37.9%
Paro	95.5%	4.0%	0.5%	Paro	14.0%	27.1%	40.0%	2.8%	16.1%
Samdrup Jongkhar	91.5%	5.7%	2.8%	Samdrup Jongkhar	16.7%	21.7%	40.7%	3.4%	17.5%
Pema Gatshel	94.0%	5.8%	0.2%	Pema Gatshel	32.9%	11.7%	36.0%	7.4%	12.1%
Haa	81.2%	11.0%	7.9%	Haa	17.4%	10.2%	34.4%	3.3%	34.8%
Lhuentse	89.3%	10.5%	0.2%	Lhuentse	0.0%	6.7%	78.1%	8.2%	7.1%
Trashigang	87.3%	10.9%	1.8%	Trashigang	1.3%	5.6%	50.0%	26.0%	17.1%

## ANNEX 3 (contd.)

Tsirang	88.1%	10.2%	1.7%	Tsirang	25.1%	15.2%	37.7%	6.5%	15.5%
Chhukha	94.2%	4.7%	1.2%	Chhukha	1.2%	12.2%	30.2%	10.2%	46.2%
Punakha	93.0%	6.4%	0.6%	Punakha	10.3%	8.9%	65.3%	6.0%	9.5%
Wangdue Phodrang	94.4%	5.0%	0.6%	Wangdue Phodrang	1.2%	9.0%	42.2%	34.0%	13.5%
Trashiyangtse	83.7%	15.1%	1.2%	Trashiyangtse	0.6%	5.1%	58.9%	17.3%	18.2%
Gasa	90.8%	7.4%	1.8%	Gasa	0.0%	0.3%	18.9%	4.5%	76.2%
Country	88.8%	9.5%	1.7%	Country	6.6%	11.4%	43.1%	10.5%	28.3%

#### ANNEX 4: DISTRIBUTION OF OOP EXPENDITURE IN BHUTAN BY SOCIO-ECONOMIC VARIABLES

	<i>Per capita OOP expenditure in BTN</i>	<i>Per capita total consumption expenditure in BTN</i>	<i>Proportion of OOP in total consumption expenditure</i>
Country	1,851.40	53,089.10	3.5%
<b>Household Income levels</b>			
Poorest	845.44	13,693.47	6.2%
Lower middle	1,812.21	24,933.16	7.3%
Middle	1,243.10	36,147.54	3.4%
Upper middle	2,482.04	52,911.73	4.7%
Richest	2,928.07	1,41,492.45	2.1%
<b>Region</b>			
Western	1,244.08	52,691.92	2.4%
Central	1,953.03	54,449.00	3.6%
Eastern	2,065.98	50,263.37	4.1%
<b>Education status of HH Head</b>			
No education	1,478.65	49,509.83	3.0%
Education	2,260.60	57,018.28	4.0%
<b>Sex of HH Head</b>			
Male	2,043.60	54,268.53	3.77%
Female	1,780.87	52,656.26	3.38%
<b>Geography</b>			
Rural	1,974.07	53,402.98	3.7%
Urban	1,720.79	52,754.90	3.3%
<b>Distance to facilities</b>			
Less than 1 hour	1,885.99	53,541.90	3.5%
1 hour-2 hours	1,744.93	48,754.00	3.6%
More than 2 hours	1,709.66	54,305.75	3.1%

**ANNEX 5: OOP EXPENDITURE FOR HEALTHCARE  
AND HDI VALUES: GLOBAL, 2011**

	<i>OOP expenditure as percentage of private expenditure on health</i>	<i>Private expenditure on health as a percentage of total expenditure on health</i>	<i>OOP expenditure as percentage of total expenditure on health</i>	<i>Human Development Index</i>
<hr/> OOP expenditure less than 20% of total health expenditure <hr/>				
<b>Kiribati</b>	6.53	19.99	1.31	0.624
<b>Solomon Islands</b>	56.70	5.21	2.95	0.510
<b>Timor-Leste</b>	14.18	28.51	4.04	0.495
<b>Botswana</b>	12.69	39.19	4.97	0.633
<b>Netherlands</b>	35.47	14.34	5.09	0.910
<b>Cuba</b>	100.00	5.32	5.32	0.776
<b>Seychelles</b>	68.54	7.93	5.44	0.773
<b>Vanuatu</b>	56.70	12.12	6.87	0.617
<b>Samoa</b>	63.83	11.05	7.05	0.688
<b>South Africa</b>	13.78	52.30	7.21	0.619
<b>France</b>	32.08	23.26	7.46	0.884
<b>Namibia</b>	17.87	42.93	7.67	0.625
<b>Micronesia, Federated States of</b>	97.54	9.22	8.99	0.636
<b>Mozambique</b>	15.46	58.27	9.01	0.322
<b>United Kingdom</b>	53.07	17.3	9.18	0.863
<b>New Zealand</b>	62.58	16.78	10.50	0.908
<b>Suriname</b>	23.53	46.82	11.02	0.680
<b>Tonga</b>	67.82	16.43	11.14	0.704
<b>United States</b>	20.89	54.06	11.29	0.910
<b>Luxembourg</b>	72.77	15.73	11.45	0.867

## ANNEX 5 (contd.)

<b>Oman</b>	59.66	19.19	11.45	0.705
<b>Palau</b>	45.82	25.25	11.57	0.782
<b>Papua New Guinea</b>	55.89	20.98	11.73	0.466
<b>Germany</b>	51.39	24.15	12.41	0.905
<b>Slovenia</b>	47.61	27.20	12.95	0.884
<b>Swaziland</b>	42.75	30.58	13.07	0.522
<b>Uruguay</b>	40.39	32.40	13.09	0.783
<b>Denmark</b>	88.72	14.84	13.17	0.895
<b>Norway</b>	94.55	14.36	13.58	0.943
<b>Qatar</b>	63.81	21.39	13.65	0.831
<b>Thailand</b>	55.77	24.54	13.69	0.682
<b>Malawi</b>	53.42	26.58	14.20	0.400
<b>Canada</b>	48.61	29.59	14.38	0.908
<b>Ireland</b>	49.15	29.58	14.54	0.908
<b>Croatia</b>	95.92	15.27	14.65	0.796
<b>Brunei Darussalam</b>	98.92	14.95	14.79	0.838
<b>Czech Republic</b>	91.50	16.49	15.09	0.865
<b>Bhutan</b>	94.74	16.13	15.28	0.522
<b>Turkey</b>	64.41	25.06	16.14	0.699
<b>Kuwait</b>	90.56	17.83	16.15	0.760
<b>United Arab Emirates</b>	63.19	25.61	16.18	0.846
<b>Austria</b>	66.97	24.41	16.35	0.885
<b>Japan</b>	82.01	19.99	16.39	0.901
<b>Bahrain</b>	57.16	28.97	16.56	0.806
<b>Sweden</b>	88.78	19.06	16.92	0.904
<b>Colombia</b>	67.66	25.15	17.02	0.710
<b>Liberia</b>	25.83	68.41	17.67	0.329
<b>Lesotho</b>	69.01	25.93	17.89	0.45

## ANNEX 5 (contd.)

<b>Guyana</b>	86.08	20.88	17.97	0.633
<b>Saudi Arabia</b>	58.06	31.07	18.04	0.77
<b>Algeria</b>	94.71	19.24	18.22	0.698
<b>Iceland</b>	92.9	19.62	18.23	0.898
<b>Saint Vincent and the Grenadines</b>	100.00	18.26	18.26	0.717
<b>Estonia</b>	87.99	21.11	18.57	0.835
<b>Belgium</b>	79.51	24.05	19.12	0.886
<b>Finland</b>	76.00	25.21	19.16	0.882
<b>Iraq</b>	100.00	19.32	19.32	0.573
<b>Romania</b>	98.16	19.77	19.41	0.781
<b>Andorra</b>	73.96	26.55	19.64	0.838
<b>Australia</b>	62.97	31.49	19.83	0.929
<b>Italy</b>	87.58	22.75	19.92	0.874
OOP expenditure 20%-40% of total health expenditure				
<b>Spain</b>	76.20	26.41	20.12	0.878
<b>Fiji</b>	65.82	31.85	20.96	0.688
<b>Israel</b>	60.78	35.15	21.36	0.888
<b>Rwanda</b>	49.41	43.27	21.38	0.429
<b>Haiti</b>	39.18	56.29	22.05	0.454
<b>Gambia</b>	48.45	45.96	22.27	0.420
<b>Poland</b>	79.42	28.78	22.86	0.813
<b>Cape Verde</b>	93.75	24.92	23.36	0.568
<b>Belize</b>	69.77	33.53	23.39	0.699
<b>Dominica</b>	84.30	27.95	23.56	0.724
<b>Jordan</b>	76.51	32.26	24.68	0.698
<b>Argentina</b>	62.81	39.36	24.72	0.797
<b>Switzerland</b>	72.30	34.58	25.00	0.903
<b>Madagascar</b>	68.29	36.9	25.20	0.480
<b>Bolivia, Plurinational State of</b>	88.34	29.23	25.82	0.663

## ANNEX 5 (contd.)

<b>Hungary</b>	74.26	35.24	26.17	0.816
<b>Slovakia</b>	72.22	36.24	26.17	0.834
<b>Belarus</b>	91.02	29.33	26.70	0.756
<b>Panama</b>	82.54	32.51	26.83	0.768
<b>Zambia</b>	67.07	40.21	26.97	0.430
<b>Costa Rica</b>	91.00	29.91	27.22	0.744
<b>Portugal</b>	75.97	35.94	27.30	0.809
<b>Angola</b>	70.99	38.47	27.31	0.486
<b>Lithuania</b>	97.40	28.66	27.91	0.810
<b>Antigua and Barbuda</b>	88.53	31.84	28.19	0.764
<b>Bahamas</b>	53.98	53.22	28.73	0.771
<b>Barbados</b>	80.56	35.98	28.99	0.793
<b>Ghana</b>	66.29	43.91	29.11	0.541
<b>Montenegro</b>	90.99	33.02	30.04	0.771
<b>Libya</b>	100.00	31.21	31.21	0.760
<b>Brazil</b>	57.76	54.26	31.34	0.718
<b>Bosnia and Herzegovina</b>	98.07	31.96	31.34	0.733
<b>Congo</b>	96.02	32.82	31.51	0.533
<b>Equatorial Guinea</b>	93.62	33.76	31.61	0.537
<b>Djibouti</b>	99.08	31.91	31.62	0.430
<b>Tanzania, United Republic of</b>	52.44	60.48	31.72	0.466
<b>El Salvador</b>	88.05	36.69	32.31	0.674
<b>Jamaica</b>	70.95	45.86	32.54	0.727
<b>Senegal</b>	78.53	41.69	32.74	0.459
<b>Korea, Republic of</b>	77.08	42.67	32.89	0.897
<b>Ethiopia</b>	79.87	42.27	33.76	0.363
<b>Malta</b>	103.99	32.62	33.92	0.832



## ANNEX 5 (contd.)

<b>Kyrgyzstan</b>	85.27	40.32	34.38	0.615
<b>China</b>	78.83	44.11	34.77	0.687
<b>Russian Federation</b>	87.85	40.28	35.39	0.755
<b>Serbia</b>	95.64	37.85	36.20	0.766
<b>Burkina Faso</b>	73.53	49.74	36.57	0.331
<b>Greece</b>	94.53	38.81	36.69	0.861
<b>Chile</b>	70.05	53.05	37.16	0.805
<b>Mauritania</b>	94.51	39.44	37.27	0.453
<b>Niger</b>	83.78	44.86	37.58	0.295
<b>Former Yugoslav Republic of Macedonia</b>	99.12	38.6	38.26	0.728
<b>Peru</b>	87.41	43.87	38.35	0.725
<b>Trinidad and Tobago</b>	81.83	47.09	38.53	0.760
<b>Turkmenistan</b>	100.00	39.24	39.24	0.686
<b>Tunisia</b>	87.88	44.92	39.48	0.698
<b>Latvia</b>	95.33	41.55	39.61	0.805
<b>Lao People's Democratic Republic</b>	78.25	50.71	39.68	0.524
<b>Mongolia</b>	93.09	42.68	39.73	0.653
<b>Dominican Republic</b>	78.88	50.67	39.97	0.689
OOP expenditure 40%-60% of total health expenditure				
<b>Togo</b>	84.56	47.76	40.39	0.435
<b>Guinea-Bissau</b>	56.48	73.17	41.33	0.353
<b>Kazakhstan</b>	98.70	42.07	41.52	0.745
<b>Malaysia</b>	76.81	54.32	41.72	0.761
<b>Saint Kitts and Nevis</b>	94.64	44.14	41.77	0.735
<b>Comoros</b>	100.00	42.17	42.17	0.433

## ANNEX 5 (contd.)

<b>Nicaragua</b>	92.36	45.72	42.23	0.589
<b>Benin</b>	91.18	46.74	42.62	0.427
<b>Bulgaria</b>	96.77	44.69	43.25	0.771
<b>Central African Republic</b>	90.24	48.07	43.38	0.343
<b>Congo, Democratic Republic of the</b>	65.71	66.26	43.54	0.286
<b>Burundi</b>	64.75	67.36	43.62	0.316
<b>Uzbekistan</b>	90.25	48.61	43.87	0.641
<b>Moldova, Republic of</b>	82.60	54.41	44.94	0.649
<b>Ukraine</b>	93.51	48.30	45.17	0.729
<b>Sri Lanka</b>	82.99	55.35	45.93	0.691
<b>Kenya</b>	76.73	60.44	46.38	0.509
<b>Mexico</b>	92.02	50.55	46.52	0.770
<b>Gabon</b>	100.00	46.55	46.55	0.674
<b>Uganda</b>	64.82	73.70	47.77	0.446
<b>Honduras</b>	92.4	51.87	47.93	0.625
<b>Maldives</b>	88.34	55.58	49.10	0.661
<b>Ecuador</b>	83.68	58.99	49.36	0.720
<b>Cyprus</b>	87.04	56.73	49.38	0.840
<b>Indonesia</b>	75.74	65.86	49.88	0.617
<b>Grenada</b>	97.82	51.58	50.46	0.748
<b>Syrian Arab Republic</b>	100.00	51.00	51.00	0.632
<b>Saint Lucia</b>	98.83	51.70	51.10	0.723
<b>Eritrea</b>	100.00	51.23	51.23	0.349
<b>Mauritius</b>	88.79	59.74	53.04	0.728
<b>Guatemala</b>	82.75	64.54	53.41	0.574
<b>Mali</b>	99.57	54.58	54.35	0.359
<b>Nepal</b>	90.36	60.69	54.84	0.458

## ANNEX 5 (contd.)

<b>Albania</b>	99.76	55.15	55.02	0.739
<b>Viet Nam</b>	93.34	59.65	55.68	0.593
<b>Philippines</b>	83.88	66.67	55.92	0.644
<b>Paraguay</b>	91.38	61.44	56.14	0.665
<b>Lebanon</b>	75.80	74.50	56.47	0.739
<b>Cambodia</b>	73.35	77.55	56.88	0.523
<b>São Tomé and Príncipe</b>	85.23	66.77	56.91	0.509
<b>Venezuela, Bolivarian Republic of</b>	90.05	63.30	57.00	0.735
<b>Armenia</b>	89.41	64.16	57.37	0.716
<b>Morocco</b>	88.34	65.65	58.00	0.582
<b>Egypt</b>	97.72	59.53	58.17	0.644
<b>Iran, Islamic Republic of</b>	97.01	60.27	58.47	0.707
<b>India</b>	86.04	69.00	59.37	0.547
<b>OOP expenditure above 60% of total health expenditure</b>				
<b>Tajikistan</b>	85.36	70.43	60.12	0.607
<b>Nigeria</b>	95.43	63.31	60.42	0.459
<b>Singapore</b>	87.60	68.98	60.43	0.866
<b>Bangladesh</b>	96.61	63.42	61.27	0.500
<b>Pakistan</b>	86.34	72.98	63.01	0.504
<b>Côte d'Ivoire</b>	87.59	73.39	64.28	0.400
<b>Cameroon</b>	94.47	68.89	65.08	0.482
<b>Guinea</b>	92.70	72.65	67.35	0.344
<b>Sudan</b>	96.52	71.61	69.12	0.408
<b>Georgia</b>	89.22	77.89	69.49	0.733
<b>Azerbaijan</b>	89.25	78.54	70.10	0.700
<b>Chad</b>	96.70	72.88	70.47	0.328
<b>Sierra Leone</b>	91.36	82.00	74.92	0.336
<b>Yemen</b>	98.66	79.11	78.05	0.462

## ANNEX 5 (contd.)

<b>Afghanistan</b>	94.03	84.41	79.37	0.398
<b>Myanmar</b>	92.70	87.04	80.69	0.483

Source: UNDP 2011; WHO Global Health Observatory.

## Notes:

1. Calculations are based on data from WHO Global Health Observatory for all columns except the last one.
2. 183 countries are listed in the ascending order of OOP expenditure as percentage of total expenditure on health. Countries are listed in each category according to the OOP expenditure levels.
3. Where inconsistencies in country name appeared in the two databases, names reflected in UNDP 2011 were taken as final.
4. Countries featuring in either of the database but missing entries in both were removed from the list - Cook Islands; Hong Kong, China (SAR); Korea, Democratic People's Republic of; Liechtenstein; Marshall Islands; Monaco; Nauru; Niue; Occupied Palestinian Territory; San Marino; Somalia; South Sudan; Tuvalu; and Zimbabwe.