Health Economics Working Paper No 1.2019

Department of Health Economics

Role of Social Health Protection in Universal Health Coverage: A case study of Rawalpindi, Islamabad

Pakistan Institute of Development Economics

Role of Social Health Protection in Universal Health Coverage: A Case Study of Rawalpindi, Islamabad

Author [1]Ms. Hira Siddiqui

Co Authors [2]Dr. Fazli Hakim Khattak
[3]Mr. Muhammad Imran Khan

[1]AUTHOR IS MPHIL SCHOLAR, DEPARTMENT OF HEALTH ECONOMICS AT PIDE ISLAMABAD
[2] AUTHOR IS THE HEAD, DEPARTMENT OF HEALTH ECONOMICS AT PIDE ISLAMABAD
[3] AUTHOR IS FORMER RESEARCH ASSISTANT AND VICE PRSIDENT OF (PIDE-SEE) AT PIDE ISLAMABAD

Contents

List of Figures

Figure Discription Pages

List of Tables

Tables Discription Pages

ACKNOWLEDGEMENT

All glories to Allah Almighty, the most beneficent, the most merciful, who gave me strength and enabled to undertake and execute this research task. Countless salutations upon the Holy Prophet Hazrat Muhammad (SAW), the city of knowledge for guiding mankind, the true path of life.

I would like to extend my deepest appreciation to all, who helped me to complete this manuscript. I worked with a number of people during this work and it is a pleasure to convey my gratitude to all of them in my humble acknowledgment.

I owe an immense debt of gratitude to my honorable supervisor, Dr. Fazli Hakim Khattak, Head of Department, Health Economics, at the motivational and scholarly guidelines he has given me. It was his encouragement that made it possible for me to accomplish this goal. Without his help, this work was not possible.

A humble word of thanks for my Nani Jan and my uncles (Mr. Zafar and Faisal) for their prayers, love & affection.

I am deeply indebted to my sweet brothers (Waqas & Waqar), my sisters (Hina, Ayesha, Bushra) for their continuous support, care & for always being there whenever I needed them. I find myself wordless to thank my lovely khala and her family for all the unconditional love and support that they had always given me standing in every step.

I would like to thanks to all my friends especially my wordless thanks to my beloved and good friend Amina Ehsan Qazi and Fatima Ameer for all their unconditional love and support that had always given me; standing by me in every step.

Last but not least, my mother deserves a special mention for her valuable support and prayers. I thank you from the core of my heart for everything you have given to me. Thank you so much for giving me chance to prove and improve myself through all walks of my life.

*May **Allah Almighty** bless you all.*

Hira Siddiqui

LIST OF ACRONYMS

Antenatal Care	ANC
Benazir Income Support Program	BISP
Capacity to Pay	CTP
Catastrophic Health Expenditure	CHE
Gross Domestic Product	GDP
Household Integrated Economic Survey	HIES
International Labor Organization	ILO
Lower Middle-Income Countries	LMIC
National Health Account	NHA
National Social Security Funds	NSSF
Out of Pocket Expenditure	OoP
Pakistan and Living Standards Measurement	PSLM
Prenatal Care	PNC
Prime Minister National Health Program	PMNHP
Social Health Insurance	SHI
Social Health Protection	SHP
State Life Insurance Corporation	SLIC
Structure Equation Model	SEM
Sustainable Development Goals	SDGs
Tetanus Toxoid	TT
Universal Health Coverage	UHC
World Health Organization	WHO

ABSTRACT

This study aims to analyze the current status of Universal Health Coverage in Pakistan, it accesses the quality healthcare services, equity in access to health services and the level of financial risk protection. The gaps and hurdles in the achievements of UHC are identified and solutions are sorted out in the policy framework. The paper is based on primary data, which was collected through questionaire, adopted from PSLM and HIES. This paper has used discriptive statistics and basic excel tools to analyze the collected data. The study found that, the major source of income by occupation is wages and salaries. Immunization coverage is 54%. Only those children are included in immunization which are under 5 years of age. However, 45% childeren were without immunization card, which showed that children above 5 years of age are excluded from the domain of immunization coverage. The coverage status of Pre-natal care during is 96% and 97% of women received a tetanus toxoid injection during pregnancy. The study concluded that SHP has a significant role in acheving UHC in Islambad Rawalpindi.

Key words: Social Health Protection, Universal Health Coverage, Out of Pocket payments

1. INTRODUCTION

1.1 Introduction

A country's social health protection (SHP) should guarantee the access to essential health care in the case of illness, unemployment and disability. These types of guarantees should be nationally defined and applied consistently across the country, regardless of age, gender, ethnicity, income, employment status or geography in order to avoid injustices between the rich and the poor. Social Health Protection [4](SHP) is a significant instrument for economic growth and development because Healthier population is more creative and productive; labor supply increases in the economy, when morbidity and mortality rates are lowers. Conversely, the nonexistence or lack of access to necessary health care has substantial negative social and economic consequences. Poor health facilities can push people into poverty and also it can pullout workers out of the workforce, which results in poor economic growth and confines the economic development of country.

Approachable Social Health Protection system delivers Universal Health Coverage [5](UHC) with desirable health care at the time of need. It is affordable and systematically available, with adequate quality and offers financial protection in time of need. In Pakistan patients pay around 70% of their health expenditures, out of pocket (OOPs) and access to SHP is expensive, which cause the most drastic financial shocks to a household. In the absence of SHP, illnesses or accidents often encourage various negative consequences. Pakistan's OoPs on health are 24% of the household expenditure. OoPs expenditures incurred as spending as outpatient care for their illness is 29%. About 47% are spent on Medical Products, equipment & appliances. While, decomposing the data into provincial health care access, the data reflects that health expenditure on Medical Products, equipment & appliances is highest in Baluchistan, with (55.84%) followed by KP (49.77%), Punjab (30.67%) and Sindh (29.74%). The percentage share of outpatient Oops is highest in KP

[4]According to ILO, SHP means a series of public or publicly organized and mandated private measures against social distress and economic loss caused by the reduction of productivity, stoppage or reduction of earnings or the cost of necessary treatment that can result from ill health.

[5] UHC means everyone, everywhere can access essential quality health care and services without facing financial hardship

(36.21%) followed by Punjab (30.67%), Baluchistan (29.74%) and the lowest share of Oops is of Sindh with only 24.30%. For the Inpatient services, the highest share of Oops is faced by Sindh (30.58%) and the lowest share is of KP (14.02%). The government of Pakistan's health insurance program has started to cater a significant portion of the poor population. Still out of the total household expenditure, 68% is paid out of pocket to meet the health expenses. It is very important to note that in Pakistan, the catastrophic health expenditure spending is 40% and non-food expenses are responsible for a major proportion of the economic shocks faced by poorer households. Basic household expenditures like food, shelter, and clothing are reducing due to out of pocket health care expenditures. Even some of the household borrow money or sell their assets and utilized their saving to meet the need of their health care cost. These health care cost shocks push individuals or a household toward poverty. Furthermore, these OOPs are the main hurdle at the time of seeking health care facilities because of their affordability (Adlung et al, 2006). This study focusses on role of social health protection program on universal health coverage in Rawalpindi and Islamabad. The study has also considered the assessment of SHP role for achieving the goal of movement towards UHC in selected areas. This working paper is intended to answer important question based on policy of impact evaluation, where it is important for policy makers to understand whether SHP helps to achieve UHC with the affordable cost? The study is based on the following objectives:

- To investigate the role of social health protection (SHP) in universal health coverage (UHC):
- To examine the progress towards UHC in term of essential health care services and financial protection coverage.

After 18th constitutional amendment, health is a provincial government mandate and provinces are setting up their local governments (National Health Vision 2016-2020). All the provincial governments mutually agreed with each other for enhancing and improving efficiency of health system by increasing the public health spending in their geographical domains (National Health Vision 2016-2020). This paper specifically targets the audience including, the Ministries of Health, Ministry of Planning, Development & Reforms,

Pakistan Bureau of Statistics, Development Partners, Health Financing Practitioners, Researcher and the Secretariat in the Parliament.

2. LITERATURE REVIEW

Before highlight the subject, it is focused that why the countries invest for better health to achieve the Universal Health Coverage targets (UHC). UHC describe that everybody receives the needed quality healthcare without enduring financial hardship at the time of receiving care (WHO 2010). The first objective is to ensure that needed health care, ranging from promotion, prevention, treatment, rehabilitation, to palliative care, is accessible. Further, the care needs to be of sufficient quality to achieve the desired outcomes. Equity is emphasized in the UHC concept by including everybody. The second objective is to achieve financial protection; this entails compulsory prepaid pooled coverage for health expenditures, so that people don't forgo health care because of their inability to pay and in case of seeking health care, they do not have to compromise their other basic social needs because of health expenditures.

The concept UHC has widely gained acceptance in the last one and a half decades. Emphasis on UHC reforms secured an eminent position in World Health Assembly resolution in 2005, World Health Report on primary health care in 2008, WHO on the path towards UHC in 2010, World Health Assembly resolution in 2011, United Nation General Assembly resolution on UHC in 2012. Presently, one of the targets of SDGs for 2030 is to achieve UHC worldwide. Low and middle-income countries with total of 6 billion population have initiated UHC reforms in the last few years. Brazil, Russia, India, China and South Africa (BRICS) is home to half of the world's population, which are already pursuing the large scale UHC reforms (First global monitoring report 2015).

The main arguments for country's support to UHC are health, economic, and political benefits. To investigate the concerning health benefits, Lancet (2012) used the data of more than 150 countries. The study found that "broader health coverage generally leads to better access to necessary health care and improved population health. Moreover, the study demonstrated that an increase of 10 percent in pooled government spending on health results in decreasing 8 deaths per 1000 children under the age of five years. On the other

hand, higher adult mortality was observed in the cases, where out of pocket expenditures made higher proportion of health expenditures.

Evidence shows that improvements in health indicators are driven by the broader health service coverage along with financial protection (Amouzou A et al, 2012). USA's 2012 National Health Service reform to reduce the proportion of uninsured population. It has been observed that majority of large scale UHC reforms have been forced by political leaders in their run up to elections or soon after gaining the power. If it is planned carefully, with a focus on sustainability, UHC reforms can certainly ensue political benefits. Acknowledging the benefits from the UHC WHO 2013 underscored the importance of research on the subject UHC.

The report said, "Many questions about universal health coverage require local answers" (WHO Report 2013) and encouraged all the countries to be both producers and consumers of the research on UHC. A study conducted by Adlung (2014), indicate the key issues of health disparity and discriminatory access to medicinal services identify with gaps in enactment, outline and financing of social health protection plans and frameworks and the social and monetary status of the powerless. The author inferred that gaps in Social Health Insurance (SHI) scope and lack of access to medicinal services are the real reasons for poor health (Adlung, 2014). Social and economic disparities existing beyond the health division also contribute incredibly to the obstacles getting the moderate and adequate health services.

Kuhl et al (2012) argued that SHP coverage is given by a mix of open plans including the social protection and privacy protection. These are some basic components in the plan and financing of social health assurance frameworks, which may also constitute boundaries that create disparities and constitute foundational shortcomings. A study of Ortiz (2014) argued that, Access to health protection is accordingly a key for both population health and for boosting the economy. Guaranteeing that everybody can go to quality health services is essential for maintainable advancement in view of value and comprehensiveness. To adequately address the worldwide health protection crisis, all-inclusiveness of health coverage must include equal access for all individuals wherever they live and work, in the

country or urban zones, in the formal or casual economy, regardless that one is poor or rich, women or men, elderly or youngsters.

According to WHO (2014) the criteria of affordability of medical services identifies with the non-presence of these financial obstacles are the main cause for people, population groups and societies to access the healthcare services. The accessibility of social insurance identifies with the physical presence of an arrangement of fundamental health facilities to the general public, health personnel like doctors, nurses, paramedic staff convey these services, foundation enabling people to access these health services without any constrains. Without at least one of these segments, viable access to satisfactory care won't be conceivable. The author likewise clarifies that creating financing systems that give satisfactory assets is a key to advance towards UHC.

Serra et al (2011) Effective access to care, higher prominence of financial risk pooling, and higher levels and shares of pre-paid health spending are regarded as key dimensions of extended health system coverage. The potential link between system coverage and population health status has played a crucial role in the aforementioned debate. The expected relationship between health outcomes and system coverage measured either by pre-paid spending (total, public or private) or health service utilization is still ambiguous and a priority to be investigated further.

In Pakistan a large portion of income is used to finance health care services through OoP and these payments are approx. 55% of total health care cost (Habib, Perveen, & Khuwaja, 2016). Only 26 % of the population in Pakistan are covered by the government, armed forces, corporate sector or other safety nets for its health care expenditures. This population is not covered practically and fully for health expenditures (Nishtar, 2010). The World Health Report 2010 says “Health-care systems hemorrhage money”.

Conservative estimates suggest that 20-40% of resources spent on health are lost due to inefficiency. Even in advanced economies like the United States of America (USA), wastage of resources spent on health is rampant. Health Research Institute reported that more than half of the health expenditure in the US is wasted (Kelley, 2009); Thomson Reuters study found lesser but still reported a loss of 600-850$ billion per year (Serra, 2012). Thus, World Health Report 2010 advised that adequate health spending is not the

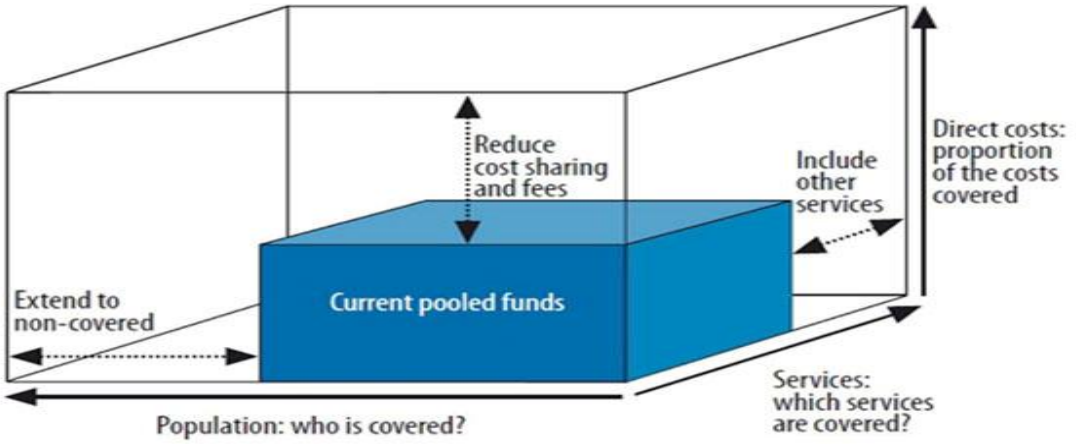
only way for the countries to achieve UHC, but also emphasized improving the efficiency of health systems to achieve UHC.

Efficiency in the context of UHC is usually measured by assessing how a health system is performing in producing quantity and/or quality of the outputs (health service coverage and financial protection) for a certain level of inputs (pooled health expenditure) (Periago M et al 2010). There is a variation in the efficiency of health systems between and within countries. A significant gap is found between what countries actually attain and what they could possibly attain with the same resources (WHO, Working Paper 2016)

3. CONCEPTUAL FRAMEWORK

The service coverage dimension captures the aspiration that all people can obtain the health services they need, while the financial coverage dimension aims to ensure that they do not suffer financial hardship linked to paying for these services at the time they need them.

Figure 1: Three dimension Universal Health Coverage



Source, WHO health report 2012, Geneva.

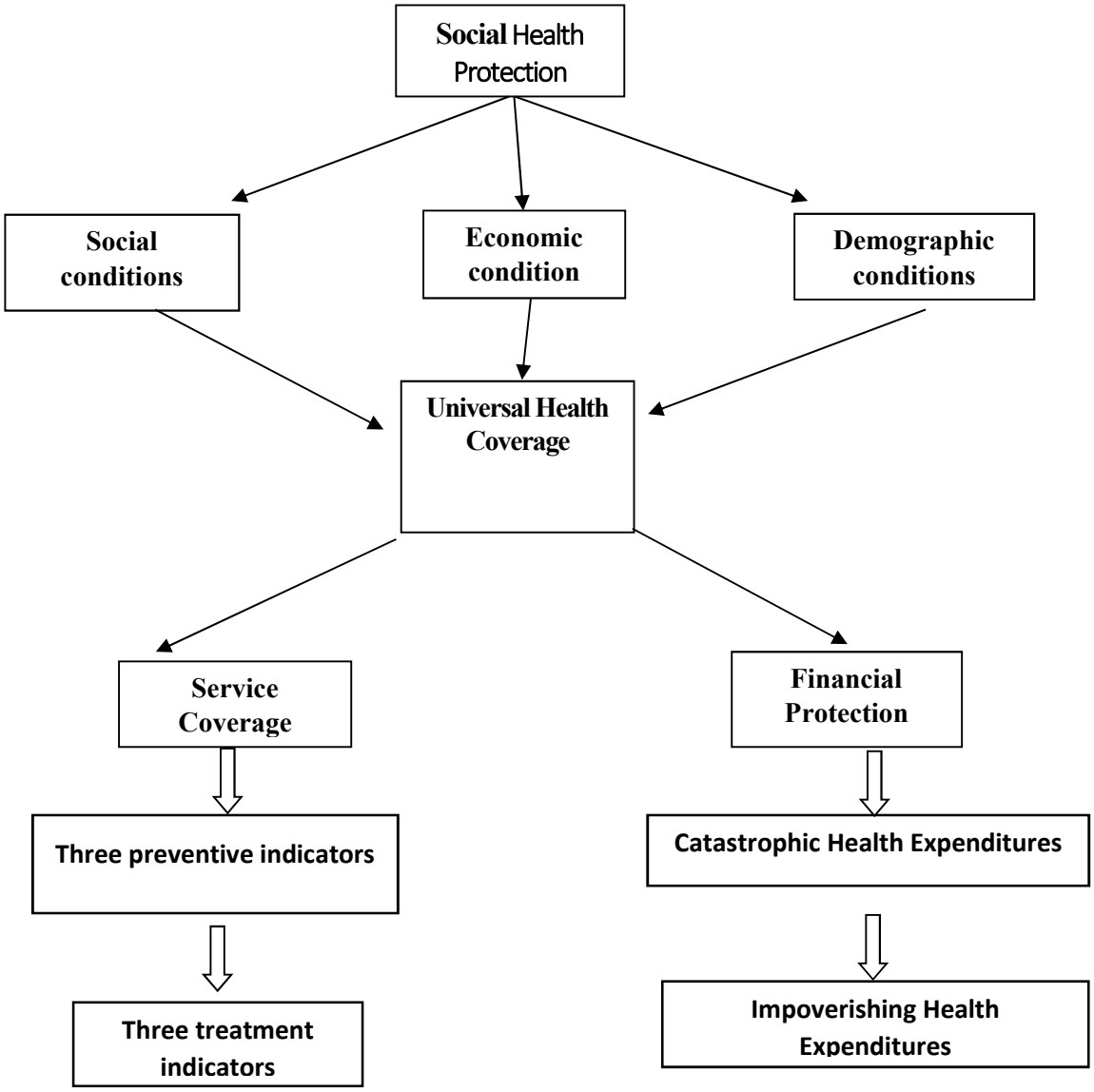
Monitoring progress towards UHC should focus on 2 things:

- The proportion of a population that can access essential quality health services and the proportion of the population that spends a large amount of household income on health.

Together with the World Bank, WHO has developed a framework to track the progress of UHC by monitoring both categories, taking into account the overall level and the extent to which

UHC is equitable, offering service coverage and financial protection to all people, living in remote rural areas. Using the 2010 World Health Report's three-dimensional framework of UHC figure 2 has been constructed.

Figure 2: The connection between SHP and UHC



Variables required for this purpose is a social economic condition, income, age, family size, household food and non-food expenditure, health care expenditure, health service coverage, and financial protection indicators. Data related to these variables enable the researcher to access the performance of SHP for UHC. To assess the performance of SHP for UHC Guidance was sought from "Tracking Universal Health Coverage. First Global Monitoring Report" for

selecting tracer indicators related to both dimensions of UHC. For health service coverage, three preventive and three treatment indicators were selected. Preventive indicators included immunization coverage, prenatal consultation, family planning methods. Treatment indicators included skilled birth attendance, post-natal consultation, and treatment of diarrhea cases with Oral Rehydration Salt. For financial protection dimension, two recommended financial protection indicators were estimated: percentage of households with no catastrophic health expenditures and percentage of households with no impoverishing health expenditures.

4. DATA AND METHODOLOGY

4.1 Study Design and Questionnaire

The study is based on Cross sectional data. Questionnaire was designed with modifications in the adopted questionnaires from two Pakistan national representative surveys, Household Integrated Economic Survey (HIES) and Pakistan Social and Living Standards Measurement Survey (PSLM). The logic behind adopting the questionnaire from these surveys is to compare the finding and results of this research with the nationally representative sources. In the questionnaire first section contain basic information of the household like age, gender, marital status, education, family size and occupation. Second section include income, food expenditure, non-food expenditure and health care expenditure of a household. The second section also includes whether, households are receiving any social health protection or not. Third section include service coverage related questions like immunization and diarrhea, mother health (prenatal, post-natal care, place of child birth, who assist delivery, TT dose vaccine and multivitamins). Family planning coverage with modern methods and communicable and non-communicable diseases (prevalence, type, treatment).

4.2 Study Sampling Method

Three hospitals were randomly selected from the list of hospitals in Rawalpindi and Islamabad, which include CDA hospital, Rwp DHQ and HBS. The patients from these three hospitals in Islamabad and Rawalpindi were selected. Simple Random sampling was used to select the respondents from the list provided by the administration and HR department of hospitals.

Sampling formula: sample size $= \pi(1-\pi)/e^2$

Where

$\pi =$ proportion

$e =$ required size of standard error

It is assumed that $\pi = 0.5$ whereas $e = 0.05$ (at 95 percent confidence interval)

The study has included the responses of 200 respondents from field survey.

4.3 Operational Definition of Variables

1. Out of Pocket Health Care Payments

OoP payments are defined as direct payments made by individuals to health care providers at the time of service use. This excludes any prepayment for health services, for example in the form of taxes or specific insurance premiums or contributions and, where possible, net of any reimbursements to the individual who made the payments (WHO).

2. Health Care Expenditure

Health spending consists of health and health-related expenditures. Expenditures are defined on the basis of their primary or predominant purpose of improving health, regardless of the primary function or activity of the entity providing or paying for the associated health services.

3. Household Consumption Expenditure

Household consumption expenditure comprises both monetary and in-kind payment on all goods and services and the money value of the consumption of home-made products.

4. Food Expenditure

Household food expenditure is the amount spent on all foodstuffs by the household plus the value of the family's own food production consumed within the household. However, it excludes expenditure on alcoholic beverages, tobacco, and food consumption outside the home (e.g. hotel and restaurants).

5. Household Subsistence Spending

The household subsistence spending is the minimum requirement to maintain basic life in a society.

6. Catastrophic Health Expenditure

Catastrophic health expenditure occurs when a household's total out-of-pocket health payments equal or exceed 40% of a household's capacity to pay or non-subsistence spending. The threshold of 40% could be changed according to countries' specific situation.

7. Impoverishment Health Care Expenditures

A non-poor household is impoverished by health payments when it becomes poor after paying for health services.

Table 1: Health Service Coverage Indicators and Financial Protection Tracer Indicators

Health Service Coverage Indicators	
Children under 5 year of age that were received full immunization (based on record and recall).	Skilled health care provider during the delivery
Women who are pregnant and give birth between 3 years and visited healthcare facility for antenatal care (ANC) and check-up.	Diarrhea cases for children who are under the 5 years and given Oral Rehydration Salt (ORS) to the child as the treatment.
Women who received post-natal care (PNC) within 6 weeks after delivery.	Diarrhea cases for children under the 5 years where a health facility was consulted for treatment
Family planning coverage with modern methods (aged 15-49)	Communicable and non-communicable diseases
Financial Protection Tracer Indicators	
Catastrophic Health Expenditures	Impoverishing health care expenditures

Source: "Tracking UHC. First Global Monitoring Report"

Table 1 shows that Service coverage related questions like immunization and diarrhea, mother health (prenatal, post-natal care, place of childbirth, who assist delivery, TT dose vaccine and multivitamins). Family planning coverage with modern methods and communicable and non-communicable diseases (prevalence, type, treatment). These indicators used to assess the UHC coverage through SHP. Financial Protection measure through catastrophic Health Expenditures and impoverishing health care expenditures. These indicators show how much people protected from the Health care cost.

8. Household subsistence spending

The poverty line is used to analyse the subsistence spending. The household subsistence spending is the minimum requirement to maintain basic life in a society. There are many ways to define poverty. None of them are perfect considering the soundness in theory and feasibility in practice. Here we use a food share-based poverty line for estimating household subsistence. This poverty line is defined as the food expenditure of the household whose food expenditure share of total household expenditure is at the 50th percentile in the country. In order to minimize measurement error, we use the average food expenditures of households whose food expenditure share of total household expenditure is within the 45th and 55th percentile of the total sample. Considering the economy of scale in context of household consumption, the household equivalence scale is used rather than actual household size. The equivalence scale is:

$eqsize_h = hhsize_h^{\beta}$, where $hhsize_h$ is the household size. The value of the parameter β has been estimated from previous studies based on 59 countries' household survey data, and it equals 0.56.

1st step is to calculate food share:

Divide household's food expenditure by its total expenditure

$$foodexp_h = \frac{food_h}{exp_h}$$

2nd step is to calculate the equivalent household size for every household

$$eqsize_h = hhsize_h^{0.56}$$

3rd step is to Equalized food expenditure

$$eqfood_h = \frac{food_h}{eqsize_h}$$

4th step

Identify the food expenditure shares of total household expenditure that are at the 45th and 55th percentile across the whole sample, name these two variables as food45 and food55. If the survey includes a household weighting variable, the percentile calculation should consider the weight.

5th step

$$pl = \frac{\sum w_h * eqfood_h}{\sum w_h}$$

Where $food45 < foodexp_h < food55$

Lastly subsistence spending

$$se_h = pl * eqsize_h$$

A household is regarded as poor (poor) when its total household expenditure is smaller than its subsistence spending.

$$poor_h = 1 \; if \; exp_h < se_h$$

$$poor_h = 0 \; if \; exp_h \geq se_h$$

9. Household capacity to pay

The household's capacity to pay defined as the non-subsistence effective income of the household. However, some households may report food expenditure that is lower than subsistence spending ($se_h > food_h$)

$$ctp_h = exp_h - se_h \quad if \; se_h <= food_h$$

$$ctp_h = exp_h - food_h \quad if\ se_h > food_h$$

10. Out of pocket expenditure

The burden of health payments is defined as the out-of-pocket payments as a percentage of a household's capacity to pay.

$$oopctp_h = {}^{oop_h}/_{ctp_h}$$

11. Catastrophic health expenditure

Catastrophic health expenditure occurs when a household's total out-of-pocket health payments equal or exceed 25% of a household's capacity to pay or non-subsistence spending. The threshold of 25% could be changed according to countries' specific situation.

$$cata_h = 1 \quad if \quad {}^{oop_h}/_{ctp_h} \geq 0.2$$

$$cata_h = 0 \quad if \quad {}^{oop_h}/_{ctp_h} < 0.2$$

12. Impoverishment

A non-poor household is impoverished by health payments when it becomes poor after paying for health services.

$$impoor_h = 1 \quad if \ \ exp_h \geq se_h \ \ and \ \ exp_h - oop_h < se_h \ \ otherwise$$

$$impoor_h = 0$$

5. RESULTS AND DISCUSSION

5.1 Age, Family Size, Household Income and Expenditure

The results of household income and expenditure shows that average age of the study respondents is 33.82, which is approximately 34 years. High frequently observed age is 30 years across respondents of the study. At minimum the age of 18 and at maximum the age of 75 years can be seen across the respondents of this study. Mean value of a household family size is 6.3 members which are same as the average size of Pakistan average family size, according to the HIES 2015-2016 average household size in Pakistan is 6.31

members. The analysis shows that richest household as compared to poor or middle-income groups has small family size. Poor people prefer a joint family system for saving purpose. The most repeating value of the family size is 5 members. Household income depends upon the employment status. Average Monthly income of respondents is Only 28186.50 PKRs, which is comparable to the average household monthly income of Pakistan. HIES 2015-16 shows that average household monthly income is 32578 PKRs. However, the maximum monthly income of respondents is reported 65000 PKRs. Per Month food expenditure shows the level of food consumption pattern depends upon also household family size and income level. Subsistence food expenditure shows how much a household spends His/her income on basic needs and save income for other needs like education and health care facilities. Average monthly food expenditure of household is 12113.38 PKRs. Most of the respondents are spending 10000 PKRs on food. The minimum monthly food expenditures reported by a respondent are 2100.00 PKRs, and at maximum people spend 80000 PKRs on food every month respectively. The results show that household consumption pattern is also closely associated with their income level. Mean value of the household non-food expenditure is 10681.45 PKRs and the average value of the health care expenditure during the last month is 3734.596 PKRs across respondents of the study. However, some people have also faced the expenditures of 0.02 million in last month. Comparing the cost incurred for health facilities each month to the occupations[6] of the respondents, it is quite clear that a milk man, Farmer, Labor, Fruit Vendor or a Driver would most probably fall into catastrophic conditions due to health expenditure, which is the indicator of extremely low living standard of an average person.

[6] The detail table for occupations of respondents is given at appendix a in the end of document

Table 2: Information of a Household

Averages/statistics	Age of patients	Family size	Monthly income of the household	Monthly food expenditures	[7]Monthly non-food expenditure	Health expenditures during the last month
Mean	33.82	6.3650	28186.50	12113.38	10681.4500	3734.596
Mode	30.00	5.00	30000.00	10000.00	3000.00	.00
Minimum	18.00	3.00	3000.00	2100.00	1400.00	.00
Maximum	75.00	15.00	650000.0	80000.00	180000.00	200000.0

5.2 Immunization status of Children

One of the primary objectives of the government in health sector is to expand the coverage of immunization and also issue vaccination cards to keep track of vaccinations given to the specific age groups of children. However, measuring immunization coverage is not an easy task; parents often do not have the children's immunization card or health cards with information/record on vaccinations received. Immunization rates based only on the information given on immunization cards categorized as 'record'. The alternative is to ask parents about their child's vaccination history and calculate coverage rates using this information termed as 'recall'. This runs the risk that parents will not remember vaccinations and will confuse different types of vaccines or other injections with vaccinations. However, questions are asked in questionnaire in a way to filter out such cases. In this study, both of these measures are calculated for all children of the age under 5 years. Statistics shows that 54% of the mother have immunization card and 45% mother don't have a card and the information about the child immunization is taken on recall basis from the mothers of kids. Immunization coverage in current study is 54% because according to the data only those children are included in immunization assessment, who are under the age of 5 years. The remaining 46% are with no immunization, which also

[7] Nonfood expenditures include (house rent, gas, telephone bill, water and electricity bills)

shows that 46% children are above 5 years of age and they are excluded from this question of immunization coverage.

Table 3: Immunization status of children

Binary response[8]	Frequency	Valid percent	Cumulative percent
No	92	46.0	46.0
Yes	108	54.0	100.0
Total	200	100	

5.3 Pre and Postnatal Care

Maternal health is the serious issue in developing countries including Pakistan. To reduce the maternal mortality, the provision of quality pre-natal care can help to reduce the risk factors including pre-eclampsia, anemia, and sexually transmitted diseases. Pre-natal care also encourages women to learn the symptoms of pregnancy and delivery, to be immunized against tetanus, to know about infant care.

Tetanus Toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a major cause of infant death that is primarily due to unsanitary conditions during childbirth. In addition, these injections protect women from developing tetanus themselves or suffering from sepsis. Two doses of tetanus Toxoid during pregnancy offer full protection. However, if a woman was vaccinated during a previous pregnancy, women may only need a booster dose to give full protection. Five doses are thought to provide lifetime protection. Pre-natal care during last pregnancy 96%. In Pakistan most of the prenatal care i.e. 84 percent took place at public hospital and 10% in private hospital/clinics while 5.2 percent took place at home. Overall 97% of women had received a tetanus toxoid injection during their last pregnancy. The Mother require proper education regarding child health to maintain quality of life. Similarly, mother should be aware of the problem like anemia (blood deficiency) to treat these timely and save their lives to provide proper pre and postnatal care.

[8] If the child has immunized, take value one otherwise zero

Table 4: Status of Pre and Postnatal Care

Pre-natal care during last pregnancy			
	Frequency	Valid Percent	Cumulative Percent
No	3	3.8	3.8
Yes	77	96.3	100.0
Total	80[9]	100.0	
Source of prenatal care			
Govt Hospital/RHU/BHU	65	84.4	84.4
Private Hospital/Clinic	8	10.4	94.8
Home	4	5.2	100.0
Total	77[10]	100.0	
TT dose during last pregnancy			
No	3	3.8	3.8
Yes	77	96.2	100.0
Total	80	100.0	
Skill Birth Attendant			
Doctor	72	90.0	90.0
Mid wife	1	1.3	91.3
TBA/Train Dai	3	5.0	95.0
LHW/LHV	4	100	100
Total	80		
postnatal care with 6 weeks			
Not received postnatal care	33	41.2	41
received postnatal care	47	58.8	100
Total	80[11]	100	
Source of postnatal care			
Govt Hospital/RHU/BHU	35	74.5	74.5
Private Hospital/Clinic	7	14.9	89.4

[9] Out of 200 women 80 patients got pregnant in last 3 years.
[10] Out of 80 pregnant women 77 got prenatal care was received from different sources and TT dose.
[11] Out of 80 pregnant women 47 women got postnatal care after delivery from different sources.

Other	5	10.6	100.0
Total	47	100.0	

5.4 Currently adopted Family Planning Method

The results show that 24.4% of the respondents are using condom as family planning methods and this is the most frequently used birth control method, according to spouse health and family income, followed by the other planning method, which is injectable. This is easier way to cap the growing population, which is almost used by 21.6% of the respondents. Third most frequently used planning method is usage of Pills, which is adopted by 18.8 percent of the respondents. Implant and IDU are not very common methods for family planning in Pakistan. These are rarely used method out of all is female sterilization, which is used by only 8.5 percent of the respondents in our case.

Skilled birth attendant, is a health professional who provides basic and emergency care to women and their newborns during pregnancy, childbirth and the postpartum period. The presence of a skilled health professional (Doctor, TBA or Midwife) during delivery is crucial in reducing maternal and child deaths. Table shows that majority of the women have skill birth attendant during their pregnancy and delivery. 90 percent women have doctors at the time of delivery.

Table 5: Family Planning Method

Method	Frequency	Valid Percent	Cumulative Percent
Pills	33	18.8	19.4
Implant	25	14.2	33.0
IDU	22	12.5	45.5
Condom	43	24.4	69.9
Injectable	38	21.6	91.5
Female Sterilization	15	8.5	100.0
Total	176[12]	100.0	

[12] Out of 200 respondents 176 use different family Planning Methods.

The respondents expressed concern about the quality of contraceptive, particularly its failure as blood complications and internal infections. Moreover, injectable cause more bleeding during mensuration/menses. It's concluded from the observations of the respondents that all contraceptives shall be of high quality to avoid compilations and provide these contraceptives as kind to needy couples. Education regarding use of these contraceptives methods is also an important factor to avoid complications.

5.5 Health Facility Used to Diagnose Disease

The results shown in table 6 indicate, that majority of the respondents have availed government facility to diagnose their disease which is 66.0%. This is because government hospital is less expensive and most of the diseases in the list can be cured on minor expenses at government hospital. Other reasons might be the distance and availability of doctors for specific diseases in government hospitals. Total of 64 respondents argued that, government hospitals are preferable over private hospitals because of high expenses associated with private hospitals. Only 33 out of 97 respondents used private hospitals for treatment of diseases. These respondents were comparatively better-off economically and the reasons behind the use of private hospitals were stated, that distance and quality of treatment are important factors for preferring treatment in private hospitals.

Table 6: Type of Health Facility

Type of facility	Frequency	Valid Percent	Cumulative Percent
Govt Hospital	64	66.0	66.0
Private Hospital	33	34.0	100.0
Total	97[13]	100.0	

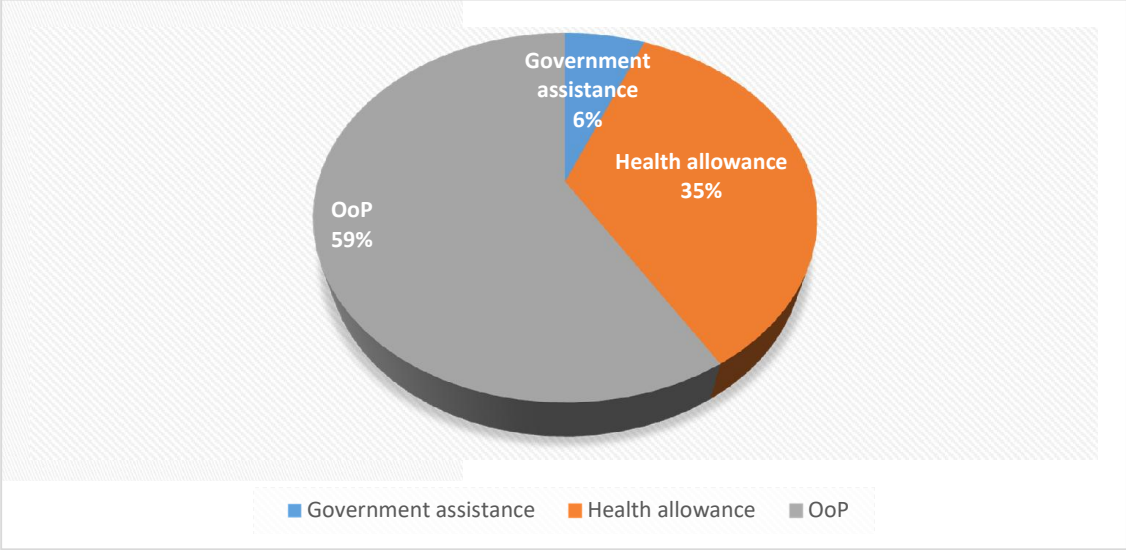
5.6 Source of Financial Assistance for Treatment

The Figure 3 shows that most of the respondents pay out of their pockets for financial assistance in case of health care services, followed by the health allowances, that these

[13] Out of 200 respondents 97 have different diseases and these 97 respondents using different health facilities for their treatment.

respondents have received from different sources and only few respondents have received financial assistance from government sources, which is the lowest of all in our case.

Figure 3: Source of Financial Assistance for Treatment



5.7 Catastrophic Health Care Expenditures and impoverishment due to OoPs

OOP health payments are a major source of health financing in many developing countries (O'Donnell et al., 2008a). In this case, the access to health services is related to the income of the household. Seeking health care is difficult if the cost is too high. Households usually borrow money, sell assets, reduce necessary consumption or sometimes even forgo treatment. Thus, it is the most inequitable mode of financing that pushes millions of people into a vicious circle of poverty (WHO, 2010). Pakistan like other developing countries also faces the highest burden of OOP health expenditures. The share of OOP payments of total health expenditure remains above 60 percent for many years (Malik, 2011). As a result, many people will incur catastrophic health expenditures due to these high OoP payments.

Table 7: Catastrophe and Impoverishment

Catastrophe due to OoPs = 1			
	Frequency	Valid Percent	Cumulative Percent
0	118	59.0	59.0
1.00	82	41.0	100.0
Total	200	100	
Impoverished after health payments = 1			
HH with no impoverishment after health payments	192	95.5	95.5
HH with impoverishment after health payments	9	4.5	100.0
Total	200	100	

Table 7 shows that 59% of the households are not moving towards catastrophe due to OoP payments because most of the households are financially protected and some other reasons include; 66.0% of the household use government hospital for the treatment and this hospital only has the [14]registration fee. The other reason is that some of the family members don't have any major disease. 48 % of the households have the disease and these diseases are hypertension 30%, Cardio Vascular 12 %, Diabetes 23%, and Hepatitis 8%. Out of 48% (having any disease), 62% of the household use governments health facilities where consultation fee, medication is free, and they just pay the parchee fee to hospital and also have a traveling cost for reaching the health facility. Moreover only 4.5% household become impoverished due to health payments.

[14] (parchee)

5.8 Major finding of the analysis

- Monthly income of the household as mean value is Rs28186.50, which is also close to the average household income of Pakistan. HIES 2015-16 shows that average household income is 32578. Mean value of monthly food expenditure of a house hold is Rs12113.38.
- Wages have a major part of house hold income which is twenty eight percent (28%), this is also justifiable according to the HIES 2015-16, which shows that in Pakistan major source of income by occupation is wages and salaries.
- Immunization coverage in this analysis is 54% because according to the data only those children are included in immunization who are under 5 years of age. 45% with no immunization shows that children are above 5 years of age and they are in excluded from this question of immunization coverage. Pre-natal care during last pregnancy is 96%. Overall 97% of women had received a tetanus toxoid injection during their last pregnancy.
- Pre-natal care during last pregnancy 96%.
- Overall 97% of women had received a tetanus toxoid injection during their last pregnancy.
- 24.4% of the respondents are using a condom as family planning methods and this is the most frequently used birth control method.
- Hypertension is the most frequently found disease in family members of our respondents, which is around 30.9% household members.
- The results show, that OoP is the most utilized source for financial assistance in case of health care services which is 58.8%.
- Majority of the respondents have availed government facility to diagnose their disease which is 66.0%.

6. CONCLUSION AND POLICY RECOMMENDATION

6.1 Conclusion

Health enhances the natural capability and capacity of human beings to deal with the vicissitudes of life efficiently, to take pleasure in routine activities. A psychologically healthy person is less prone to depression and anxiety, he enjoys good relations with fellow human beings and can rise to the expectations and challenges life throws at him. Good health has deep impact on overall psychological apparatus and hence it improves memory and sleep cycle and helps one become a responsible citizen to play one`s role in nation building. It is worthy to mention here that SHP must recognize and address mental health as an integral part of the definition of health. Quality is the most important aspect of healthcare service delivery as quality has been shown by various studies to be directly proportional to access and per capita income. Low quality health services were found in countries with least public funds per capita. One of the dangerous outcomes of diverting funds from the health sector is that the quality of health services provided will be compromised greatly putting the health of the population at risk. Therefore, during critical financial times it would not be wise to displace funds away from the health sector.

Public funds allocated for health services are lowest in countries which are vulnerable in terms of health. This means that patients are supposed to pay for their bills from out of their pockets which exposes the patients to the risk of catastrophic health expenditures which is a vicious cycle and leaves one bankrupt and indebted. In order to counter this, prepayment methods and pooling of funds are established financial state strategies to be employed by the policy makers in order to protect the individual and families from suffering financial crisis. Furthermore, equity which means fairness or distribution according to one`s financial status be ensured while formulating and implementing such policies. Having said that, it must be understood that UHC is not merely about the range of services provided but it is also about the manner in which they are covered that is whether the services are people-centric or integrated health services are delivered to the people. In fact, a string of myths has been surrounding UHC for a long time such as it is another form of health financing or just a package of health services or that it covers all possible health interventions) thereby

preventing the growth and evolution of the services that may pave the way for the realization of UHC.

6.2 Recommendations

Extending Social Health Insurance Coverage to the Poor and Vulnerable

The Social Protection strategies need to include custom-tailored approaches for the identification of persons, their needs and health risks. Despite these modifications there will be risk that protection schemes will not ensure that regulations can be implemented in true letter and spirit. To access the informal sector thoroughly the country will have to improve government owned health sector as well as come up with better integrated schemes based on collective risk sharing at the community level. The rising trend of mutual health organizations and micro insurance schemes in the country is fascinating in this regard. Health programs have been initiated by hospitals, NGOs or local associations. Schemes are usually restricted to a specific region or community covering limited number of people. Furthermore, health insurance packages do not cover all aspects. In spite of limitations micro health insurance holds signs of future success by extending healthcare coverage to conventionally excluded and marginalized individuals since it carries the potential to integrate a big chunk of the rural population in Pakistan that has been without health facilities. Attractive schemes having low transaction costs are the way forward. The challenge to be faced by policymakers lies in the need to promote expansion and scaling up of schemes and linking them with public policies. This will need deliberation so let insurance schemes to flourish.

Providing Adequate Benefit Packages and Adjusting Cost Sharing

Health services which are covered by social protection programs are important for preventing people from severe financial loss. Individuals and families may still fall into the vicious cycle of poverty trap despite being covered by insurance if the benefit package offered does not cover all aspects of health. There is no gold standard regarding benefit package, but its highest objective should be protecting the vulnerable and the poor against excessive costs incurred. Sufficient data is available showing that benefit packages which are restrictive and not comprehensive would not be successful in protecting the vulnerable

against catastrophic health expenditures. People who have fallen in the trap of catastrophic health expenditures due to OOPs are unable to access health services due to financial constraints. For the present sincere efforts are underway to scale up social protection programs so to allow easy and all-inclusive access to needed services, minimize the costs borne by the poor households and let the poor escape from the trap of poverty and illness. By now it is obvious from the aforementioned discussion that there is no one solution for all the maladies.

7. Limitation of the study

UHC has three-dimensional framework of analysis. Service coverage, financial coverage and equity in access. In this study only 2 dimensions were covered because of time constrain. In services coverage indicators all the recommended indicators by WHO are not included in the study. Only essential health care services included are in this research.

References

Amouzou A, Habi O, Bensaïd K, Niger Countdown Case Study Working Group. Reduction in child mortality in Niger: a Countdown to 2015 country case study. The Lancet 2012

Asfaw A. 2004. The Impact of Social Health Protection Mechanisms on Access to Health Care, Health Expenditure and Impoverishment: A Case Study of Senegal. Unpublished research paper

Booysen, F. le R., 2003. Urban-rural Inequalities in Health Care Delivery in South Africa. Development Southern Africa 20(4): 657-671.

Bulletin of the World Health Organization. 78 (1), 66 – 74.

Evans T, Chowdhury M, Evans D, Fidler A, Lindelow M, Mills A, et al. Thailand's universal coverage scheme: achievements and challenges: an independent assessment of the first 10 years (2001–2010). Health Insurance System Research Office: Nonthaburi 2012.

Kelley R. Where can $700 billion in waste be cut annually from the US healthcare system. Ann Arbor, MI: Thomson Reuters 2009;24.

Lamiraud K., Booysen F., Scheil-Adlung X. 2005. The Impact of Social Health Protection on Access to Health Care, Health Expenditure and Impoverishment:

Lonnroth et al, Beyond UHC: Monitoring Health and Social Protection Coverage in the Context of Tuberculosis Care and Prevention, September 2014 Volume 11

Ministry of Finance, Government of Pakistan, Islamabad (2017), Pakistan Economic Survey (2016-17). Available at http://www.finance.gov.pk/survey_1617.html Accessed 5/1/2018.

Moreno-Serra R, Smith P. An exploratory application of data envelopment analysis to the efficiency of health service coverage and access. Results for Development Institute 2012

Moreno-Serra R, Smith PC. Does progress towards universal health coverage improve population health? The Lancet 2012;380(9845):917-923.

Noronha J. Brazil's march towards universal coverage. Bull World Health Organ 2010

Rabazon, H., 2004. Health and Democracy in the twenty-first century: The extension of social dialogue to health care decision-making, Geneva (unpublished working paper). Castro-Leal, F. et al. 2000. Public spending on Health in Africa: Do the poor benefit?

Saksena P, Xu K, Durairaj V. The drivers of catastrophic expenditure: outpatient services, hospitalization or medicines. World health report 2010.

Summers LH. Economists' declaration on universal health coverage. The Lancet 2015

World Health Organization. Spending targets for health: no magic number. Health financing working paper No. 1. 2016.

World Health Organization. The world health report: health systems financing: the path to universal coverage. Geneva: World Health Organization; 2010.

World Health Organization. The world health report: health systems financing: the path to universal coverage: Geneva: World Health Organization; 2010.

World Health Organization. Tracking universal health coverage: first global monitoring report. 2017.

World Health Organization. World health report 2013: Research for universal health coverage. 2013.

Xu K, Evans DB, Kawabata K, Zeramdini R, Klavus J, Murray CJ. Household catastrophic health expenditure: a multicountry analysis. Lancet 2003 Jul 12; 362 (9378):111-117.

Xu K., James C., Carrin G., Muchiri S. 2005. An empirical model of access to health care, health care expenditure and impoverishment in Kenya: learning from past reforms and lessons for the future. Unpublished research paper.

Appendix a1

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Farmer	3	1.5	1.5	1.5
Labor	56	28.0	28.3	29.8
Fruit Vendor	4	2.0	2.0	31.8
Civil Servant	5	2.5	2.5	34.3
Milk Men	4	2.0	2.0	36.4
Armed Forces	10	5.0	5.1	41.4
Driver	15	7.5	7.6	49.0
Shop Keeper	16	8.0	8.1	57.1
Self Employed	7	3.5	3.5	60.6
Govt Employed	36	18.0	18.2	78.8
Other	42	21.0	21.2	100.0
Total	198	99.0	100.0	