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HEALTH EQUITY AND FINANCIAL PROTECTION REPORT

PAKISTAN

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About the Health Equity and Financial Protection Reports

The Health Equity and Financial Protection reports are short country-specific volumes that provide a picture of equity and financial protection in the health sectors of low- and middle-income countries. Topics covered include: inequalities in health outcomes, health behavior and health care utilization; benefit incidence analysis; financial protection; and the progressivity of health care financing. Data are drawn from the Demographic and Health Surveys, World Health Surveys, Multiple Indicator Cluster Surveys, Living Standards and Measurement Surveys, as well as other household surveys, and use a common set of health indicators for all countries in the series. All analyses are conducted using the health modules of the ADePT software. Also available are Health Equity and Financial Protection datasheets that summarize key measures of equity and financial protection.

The most recent versions of the Health Equity and Financial Protection reports and datasheets can be downloaded at **www.worldbank.org/povertyandhealth**.

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List of Abbreviations and Acronyms

ARI	Acute respiratory infection
BIA	Benefit-incidence analysis
CPI	Consumer price index
DHS	Demographic and Health Survey
GDP	Gross domestic product
GHE	Government health expenditures
LCU	Local currency units
MCH	Maternal and child health
MDGs	Millennium Development Goals
NGO	Non-governmental organization
NHA	National Health Accounts
PPP	Purchasing power parity
WHO	World Health Organization
WHS	World Health Survey

HEALTH EQUITY AND FINANCIAL PROTECTION IN PAKISTAN

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Executive Summary

This report analyses equity and financial protection in the health sector of Pakistan. In particular, it examines inequalities in health outcomes, health behavior and health care utilization; benefit incidence analysis; and financial protection. Data are drawn from the 2006-07 Pakistan Demographic and Health Survey, the 2003-04 Pakistan World Health Survey and the 2005-06 Pakistan National Health Accounts. All analyses are conducted using original survey data and employ the health modules of the ADePT software.

Is ill health more concentrated among the poor?

Yes. In general, ill health is more concentrated among the poor in Pakistan. This includes two of the selected indicators of *child health* – both infant and under-five mortality. Fever appears to be slightly more prevalent among the better-off, although this may be due to underreporting of illness for the poorer populations. Results of inequality for diarrhea, acute respiratory infection (ARI), and malaria are not statistically significant. With respect to measures of *adult health*, some conditions are concentrated among the poor (such as obesity among non-pregnant women, depression and poor self-assessed health status) whereas diabetes and involvement in non-road traffic accidents are more common among the better-off. Results for many adult health indicators are not statistically significant. With respect to *risky health behaviors*, the results are inconclusive: only insufficient intake of fruits and vegetables and insufficient physical activity are statistically significant and both these behaviors are more likely to occur among the poor.

Do the poor use health services less than the rich?

Yes. The 2004 WHS showed that utilization of outpatient care is concentrated among the wealthy and that utilization of inpatient care is not significantly more concentrated among any socioeconomic group. Of the selected maternal and child health (MCH) interventions, childhood immunization, medical treatment of ARI, antenatal care take-up, and skilled birth attendance are more concentrated among the better-off part of the population, with other interventions not significantly pro-rich or pro-poor. Among adult preventives services, only cervical cancer screening is statistically significant; the results show that the wealthy population are more likely to utilize this service than the poor.

Is the distribution of government spending on health pro-rich or pro-poor?

Mildly pro-rich for outpatient care and not significantly pro-rich or pro-poor for inpatient care. When using one set of BIA assumptions, namely the constant unit cost method, government spending on all services, both outpatient and inpatient, is not found to be significantly pro-rich or pro-poor. However, results using two alternative sets of assumptions suggest that government subsidies for outpatient care accrue primarily to the wealthy, especially for outpatient care offered at hospital level. The distribution of inpatient care subsidies is not significantly pro-rich or pro-poor under any assumption. Importantly, since inpatient care is where the majority of government subsidies are focused (82.6 per cent) and

outpatient hospital care accounts for less than 1 per cent of these subsidies, overall total government subsidies to the health sector are neither pro-rich nor pro-poor.

What is the effect of out-of-pocket payments on household financial well-being?

Considerable. Nearly half of all households spend more than 10 per cent of total household consumption on out-of-pocket health payments and roughly 12 per cent spend more than a quarter of these funds on health. Using the alternative nonfood measure, nearly three-quarters (73.0 per cent) of households spend more than 10 per cent of *nonfood* consumption on out-of-pocket payments and around a third (31.3 per cent) spend more than 40 per cent. However, catastrophic payments are concentrated among the wealthy, particularly significant when comparing health payments to total household consumption. Health spending also contributes rather substantially to impoverishment in Pakistan. Out-of-pocket payments are responsible for an increase in the poverty rate equivalent to over 6 per cent, when using the US$2.00 a day measure, and 17 per cent, when using the US$1.25 a day measure. In addition to increasing the incidence of poverty, out-of-pocket health payments also aggravate the depth of their poverty considerably, with an increase in roughly 16 per cent of the poverty gap attributed to healthcare payments when using the US$2.00 a day poverty measure and an increase in over 25 per cent when using the US$1.25 a day measure.

1 Pakistan's health system

This section provides a brief overview of Pakistan's health system, focusing on features that are likely to be especially salient for equity and financial protection.

1.1 Equity and financial protection as policy goals

Pakistan's government is committed to improving the equity of health outcomes and the ability to offer financial protection in the health sector through the implementation of the National Health Policy. The state vision of the National Health Policy is to create:

> "A health system that: is efficient, equitable and effective to ensure acceptable, accessible and affordable health services. It will support people and communities to improve their health status while it will focus on addressing social inequities and inequities in health and is fair, responsive and pro-poor, thereby contributing to poverty reduction".

It further states that it is

> "critical to move towards a system which is able to address the challenges and prevents households from falling into poverty. In Pakistan, health sector investments are viewed as part of the government's poverty alleviation endeavor. To make progress towards achieving the [Millennium Development Goals] MDGs is a national commitment which envisages reducing poverty by 2015"

Ministry of Health (2009)

1.2 Health financing system

<u>Health expenditure</u>

Pakistan spends 2.62 per cent (2009) of its gross domestic product (GDP) on health. This is far lower than the average spending levels in other countries in the South Asia Region, which have spent an average of 5.3 per cent (2009) of their GDP on health[1]. Over recent years, government expenditures on health have risen slightly as a percentage of the total government expenditures. In 2005, 2.9 per cent of Pakistan's total government expenditure was on health, increasing to 3.6 per cent in 2009. Low levels of government financing mean that, in 2009, the private sector accounted for 67.2 per cent of total health expenditure. Out-of-pocket payments accounted for the majority of private sector money, equivalent to 84.5 per cent. This poses significant questions about the ability of the health system to offer adequate financial protection to households. Other sources of funds include non-profit institutions, private insurance, and employers.

[1] Non-weighted average of: India, Afghanistan, Nepal, Sri Lanka, Maldives and Pakistan.

Table 1.1: Health expenditure data, 2009

Indicator	
Health expenditure as share of GDP	2.62%
Government expenditure as share of GDP	24.0%
Government expenditure on health as share of total government expenditure	3.6%
Government health expenditure, per capita	US$7.39 (current), US$20.56 (PPP-adjusted)

Source: WHO National Health Accounts database (2009)

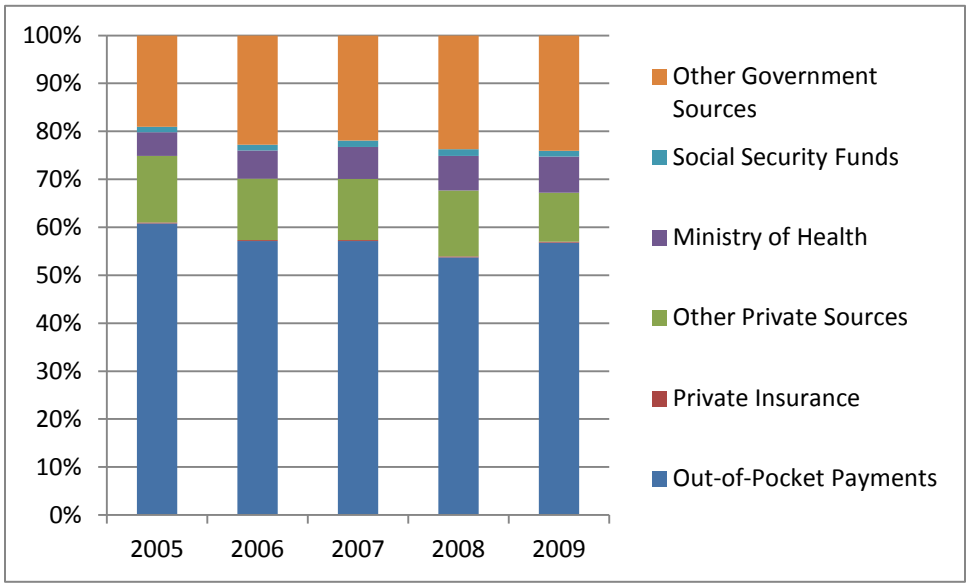
Decentralization and centralization

The 18th Amendment of the Constitution of Pakistan was passed by the national Assembly of Pakistan in 2010. The amendment effectively turned Pakistan into a parliamentary republic with a highly decentralized power structure. After the amendment was implemented in 2011, the Ministry of Health ceased to exist at the federal or central level. Of the Ministry of Health's 15 functions, 3 of them have been devolved to the provinces: 1) prevention of communicable diseases, 2) mental health, and 3) setting educational standards for health providers. The remaining 12 functions have been retained at the federal level and transferred to other ministries. Health facilities will now be financed at the provincial level via cash transfers from the central government to the provinces. It is not yet clear exactly how the federal agencies with newly-given health mandates will coordinate and function. These issues will become clearer as the decentralization process continues.

Revenue-raising/sources of funds

Government spending accounts for 32.8 per cent (2009) of total health spending as shown in Figure 1.1. According to the most recent NHA (2006), 1.9 per cent of this was from donor contributions, but this figure may be significantly underestimated because the Pakistan NHA was not able to capture how much donor money was directed through the government as opposed to given directly to NGOs. The majority of money that flowed through the central government, 60 per cent, was used to subsidize curative services at hospitals (Government of Pakistan 2009). Similar to other low-middle income countries, household out-of-pocket payments accounted for the majority of health expenditures. In 2009, out-of-pocket payments financed 56.8 per cent of all health expenditures. The nominal amount of out-of-pocket payments were highly correlated with the income quintile of the household with the average richest households paying approximately 5 times more than the average poorest household (Government of Pakistan 2009).

Figure 1.1: Health care financing mix, 2005-2009



Source: WHO National Health Accounts database (2009)

Risk- pooling

Pakistan currently has no social insurance system designed specifically for health. Private insurance is the main form of risk pooling found in Pakistan, but remains extremely rare accounting for only 0.2 per cent of total health expenditures in 2009 (Government of Pakistan 2009). Nevertheless, private insurance has been growing at a rapid pace recently with expenditures by private insurance firms rising by 105 per cent between 2005 and 2009 (Government of Pakistan 2009).

1.3 Health care delivery system

Provider organization

Currently, Pakistan's health system is administratively managed at the district level and is considered to be a function of the provincial government. Thus, the Federal Government plays a supportive and coordinating role but, in general, does not directly implement health activities. It does, however, run several national health facilities (including seven hospitals, 39 dispensaries, one tuberculosis clinic, four maternal and child health centers, three rural health centers, and 14 basic health units). Health facilities at the provincial level are broken down into primary, secondary, and tertiary facilities. Primary health care is implemented through Basic Health Units, Rural Health Centers, Maternal and Child Health Centers, and Dispensaries. Secondary care is inclusive of first and second level referral facilities. Tertiary care is provided through major hospitals with specialized facilities. Pakistan maintains a separate health care system for its active and retired servicemen. The Army Medical Corp is responsible for providing care to soldiers and their families. It is not yet clear if, and how, the recent passing of the 18th amendment will affect provider organization.

Payment mechanisms and provider autonomy

User fees are common in public and private facilities in Pakistan. In addition to formal user fees, it is very common for informal payments to be exchanged under the table to access health care: it is estimated that 96 per cent of people who access health care pay an informal fee (Lewis 2010). Facilities can use formal user fees to improve quality of service delivery. Despite collecting user fees, providers are dependent on government and donor funds in order to function. Without supply side subsidies, the majority of the population would be unable to afford care at both public facilities. In general public providers currently do not manage their own budgets and staff, though it is unclear how the 18th amendment will affect provider autonomy.

Resource availability and utilization

In 2002, Pakistan had 8.13 physicians and 6 hospital beds per 10,000 persons. In 2006, there were 965 government owned hospitals and 4,872 basic health units in Pakistan. The majority of the health facilities were situated in urban areas, but there were 595 rural health centers. In total there is one public facility per 11,413 persons (Government of Pakistan 2009).

2 Inequalities in health

Most policymakers regard large inequalities in health outcomes between poor and rich as undesirable. This section reports inequalities in child and adult health outcomes, as well as health behaviors.

2.1 Data availability

A Demographic and Health Survey (DHS) was fielded in Pakistan in 2006-2007 and a World Health Survey (WHS) was fielded in 2003-2004. Although the DHS has rich information for many health outcomes, particularly in relation to child health outcomes, the WHS has fuller data availability with regard to many adult health outcomes. The DHS excluded consumption or income measures, but one can construct an "asset index" using principal components analysis (see Filmer and Pritchett 2001). The WHS contains information on both consumption and assets, but this section uses the asset information for consistency.

2.2 Inequalities in health

The tables in this section show how health outcomes vary across asset (wealth) quintiles. The tables show the mean values of the indicator for each quintile, as well as for the sample as a whole. Also shown are the concentration indices, which capture the direction and degree of inequality. A negative value indicates that the indicator takes a higher value among the poor, while a positive index indicates that the indicator takes a higher value among the better-off. The larger the index in absolute size, the more inequality there is.

Table 2.1 shows that, according to the 2006-07 Pakistan DHS, both infant and under-five mortality rates are concentrated among the poor. Fever, however, is more concentrated among the better-off. Results for acute respiratory infection (ARI) and diarrhea, as well as malaria according to the 2003-04 Pakistan WHS, are not statistically significant. Anthropometric data are not available.

Table 2.2 shows that, according to the 2003-04 WHS, obesity among non-pregnant women, asthma, and poor self-assessed health status are all worse among the poor. By contrast, rates of non-road traffic accidents and diabetes are higher among the better-off. The remainder of the selected indicators does not show significant results (tuberculosis, road traffic accidents, angina, arthritis, depression, and measures of difficulty with work and household activities).

Table 2.1: Inequalities in child health

	Lowest quintile	Q2	Q3	Q4	Highest quintile	Total	Concentration index
Infant mortality rate[1]	9.6%	8.7%	7.7%	6.9%	5.5%	7.9%	-0.106***
Under-five mortality rate[1]	11.5%	10.2%	8.6%	9.4%	6.0%	9.4%	-0.098***
Diarrhea[1]	12.7%	13.4%	12.6%	11.3%	13.6%	12.7%	-0.005
Acute respiratory infection[1]	20.8%	19.7%	18.4%	21.3%	18.4%	19.8%	-0.019
Fever[1]	29.7%	29.7%	29.1%	33.3%	33.7%	30.9%	0.027**
Malaria[2]	15.5%	18.9%	10.8%	9.7%	14.1%	14.1%	-0.083

Source: Authors' estimates using ADePT and data from 2006-07 Pakistan DHS[1] and 2003-04 Pakistan WHS[2].
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

Table 2.2: Inequalities in adult health

	Lowest quintile	Q2	Q3	Q4	Highest quintile	Total	Concentration index
Tuberculosis	11.5%	12.1%	12.6%	29.9%	6.9%	14.6%	0.036
HIV positive	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Obesity among non-pregnant women	25.1%	32.9%	30.1%	26.1%	11.1%	24.3%	-0.102**
Road traffic accident	0.9%	2.5%	2.2%	1.2%	1.9%	1.8%	0.048
Non-road traffic accident	0.8%	2.0%	1.3%	1.8%	2.5%	1.7%	0.183**
Angina	3.7%	2.5%	1.9%	2.1%	3.0%	2.6%	-0.028
Arthritis	15.8%	14.1%	13.0%	8.9%	12.7%	12.9%	-0.075
Asthma	4.8%	4.5%	4.1%	3.0%	2.6%	3.8%	-0.103*
Depression	1.7%	3.2%	1.4%	1.3%	3.0%	2.1%	0.021
Diabetes	1.2%	2.0%	1.8%	4.0%	5.8%	3.0%	0.339***
Difficulty with work and household activities	4.1%	5.3%	4.4%	4.9%	7.3%	5.2%	0.083
Poor self-assessed health status	5.1%	5.8%	3.8%	2.1%	3.8%	4.1%	-0.114**

Source: Authors' estimates using ADePT and data from 2003-04 Pakistan WHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

Table 2.3 shows inequalities in health behaviors that place individuals at risk for developing poor health. Only rates of insufficient intake of fruit and insufficient physical activity are shown to be marginally higher among the worse off. Although the data suggest that smoking among the general population and among women alone are higher for the poor, these results are not statistically significant.

Table 2.3: Inequalities in health behaviors

	Lowest quintile	Q2	Q3	Q4	Highest quintile	Total	Concentration index
Smoking (all)	25.5%	24.3%	29.8%	41.4%	16.6%	27.5%	-0.010
Smoking (women)	5.6%	6.0%	4.8%	4.1%	0.7%	4.2%	-0.227
Insufficient intake of fruit and vegetables	99.6%	99.6%	99.4%	99.1%	98.7%	99.3%	-0.002**
Insufficient physical activity	27.5%	23.2%	23.7%	15.9%	23.1%	22.7%	-0.062**
Drinking	0.0%	0.1%	0.3%	0.1%	0.2%	0.1%	0.241
Concurrent partnerships	0.0%	2.2%	0.6%	0.3%	1.0%	0.8%	0.073

Source: Authors' estimates using ADePT and data from 2003-04 Pakistan WHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

In sum, the tables in this section indicate that in Pakistan, in general, ill health and risky health behaviors may be concentrated among the poor, but since many results are not statistically significant it is not easy to assert this finding conclusively. Infant and under-five mortality rates are more concentrated among the poor, and fever is more often reported among the wealthy. Yet, it is possible that the prevalence of fever reported in the data is underestimating the true burden of disease among the poor. The results for adult health are mixed. Of the five statistically significant adult health indicators, three suggest worse outcomes for the poor, while two show increased rates of adverse outcomes for the wealthy. With respect to health behaviors, both significant risky health behaviors (i.e. insufficient exercise and intake of fruit and vegetables) are more concentrated among the poor.

3 Inequalities in health care utilization

In many countries, for a variety of possible reasons, health care utilization tends to be distributed very unequally across income groups, even after taking into account differences in medical needs. This section reports on inequalities in utilization of health care in Pakistan for different types of care, and for different types of health care provider.

3.1 Data availability

A Demographic and Health Survey (DHS) was fielded in Pakistan in 2006-2007 and a World Health Survey (WHS) was fielded in 2003-2004. Although the DHS has rich information for maternal and child health (MCH) interventions, the WHS has fuller data with regard to adult preventive care and general utilization. The DHS excluded consumption or income measures, but one can construct an "asset index" using principal components analysis (see Filmer and Pritchett 2001). The WHS contains information on both consumption and assets, but this section uses the asset information for consistency.

3.2 Inequalities in health care utilization

The tables in this section show how health care utilization varies across consumption or asset quintiles. The tables show the mean values of the indicator for each quintile, as well as for the sample as a whole. Also shown are the concentration indices, which capture the direction and degree of inequality. A negative value indicates that utilization is higher among the poor, while a positive index indicates higher utilization rates among the better-off. The larger the index in absolute size, the more inequality in utilization there is.

Table 3.1 shows coverage of key MCH interventions and treatment of childhood illness using data from the 2006-07 Pakistan DHS. Less than 50 per cent of children under the age of 5 are fully immunized, while only 28 per cent of expectant women receive at least 4 skilled antenatal care visits and approximately 40 per cent deliver their baby by a skilled attendant. All three interventions are significantly more utilized by the better-off, and the treatment of ARI is pro-rich as well. Neither use of a modern method of contraception nor treatment of diarrhea is significant at any level.

Table 3.1: Inequalities in maternal and child health interventions

	Lowest quintile	Q2	Q3	Q4	Highest quintile	Total	Concentration index
Full immunization	26.8%	41.6%	53.6%	60.2%	65.0%	48.7%	0.171***
Treatment of diarrhea	45.3%	47.3%	48.0%	47.2%	49.9%	47.3%	0.020
Medical treatment of ARI	51.4%	63.2%	67.2%	77.5%	85.4%	67.5%	0.103***
Skilled antenatal care (4+ visits)	9.9%	14.4%	21.0%	37.9%	64.7%	28.3%	0.380***
Skilled birth attendance	15.9%	25.4%	36.4%	52.4%	79.1%	39.7%	0.312***
Contraceptive prevalence among women	59.4%	51.2%	54.9%	53.5%	55.2%	54.6%	0.001

Source: Authors' estimates using ADePT and data from 2006-07 Pakistan DHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

Table 3.2 shows inequalities in preventive care among adults. It indicates a relatively low uptake of all three types of preventive care, according to 2003-04 WHS. The rate of TB screening is very low (2.0 per cent). Cervical cancer screening is higher at 14.8 per cent. However, less than 1 per cent of women have had breast cancer screening. Of these indicators, only cervical cancer screening is statistically significant – and more concentrated among the wealthy.

Table 3.2: Inequalities in adult preventive care

	Lowest quintile	Q2	Q3	Q4	Highest quintile	Total	Concentration index
TB screening	0.6%	2.2%	4.3%	1.1%	1.9%	2.0%	0.051
Cervical cancer screening	13.3%	10.2%	10.0%	11.2%	25.0%	14.8%	0.191**
Breast cancer screening	0.0%	0.0%	0.5%	0.5%	1.2%	0.4%	0.544

Source: Authors' estimates using ADePT and data from 2003-04 Pakistan WHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

Table 3.3 shows the utilization of adult curative care in Pakistan, according to the 2003-04 WHS. Any health care utilization (inpatient and outpatient) and all outpatient utilization rates are higher among the better-off, while results for inpatient utilization are not significant.

Table 3.3: Inequalities in adult curative care

	Lowest quintile	Q2	Q3	Q4	Highest quintile	Total	Concentration index
Inpatient or outpatient (12 months)	54.0%	62.0%	63.2%	72.6%	65.3%	63.4%	0.045***
Inpatient (12 months)	6.0%	7.4%	6.3%	4.1%	6.8%	6.1%	-0.012
Inpatient (5 years)	10.2%	12.9%	14.3%	8.1%	15.8%	12.2%	0.054
Outpatient (12 months)	52.9%	60.6%	63.1%	74.3%	67.1%	63.6%	0.054***

Source: Authors' estimates using ADePT and data from 2003-04 Pakistan WHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

In sum, the tables in this section indicate that the utilization of health care in Pakistan is concentrated among the better-off, increasing the poor's risk for ill health. All significant MCH interventions have positive concentration indices, signifying that utilization of MCH interventions is higher among the better-off. Among adult preventive and curative services, all significant indicators also reveal a concentration of utilization among the better-off.

4 Benefit incidence of government spending

Policymakers typically take the view that government health expenditure (GHE) ought not to disproportionately benefit the better-off, and if anything ought to favor the poor more than the better-off. Benefit-incidence analysis (BIA) shows whether and how far GHE disproportionately benefits the poor. This section reports BIA results for Pakistan, using three different methods for allocating GHE to households, namely the constant unit cost assumption, the constant unit subsidy assumption, and the proportional unit cost assumption. The first is arguably the least plausible of the three, since it implies that higher fees do not translate into more costly care. But it does have the attraction of not needing to be modified if part of (general) GHE goes on demand-side subsidies through, for example, a subsidized health insurance program. Where the results presented below are obtained using the constant-unit-subsidy and proportional-unit-cost assumptions, it is assumed implicitly that supply- and demand-side subsidies have the same distributional impact.

4.1 Data availability

The World Health Survey (WHS) that was conducted in Pakistan in 2003-2004 records the utilization of inpatient and outpatient care. It allows us to determine whether the individual had at least one inpatient stay and at least one outpatient visit during the year preceding the survey[2]. The WHS clearly distinguishes between public and private outpatient care, documents the name of the facility visited, and records the fees paid by the individual during the last inpatient stay or outpatient visit. Household ranking for the WHS for this section is based on consumption.

A BIA also needs data on GHE (i.e. subsidies) by level of service. Pakistan has a National Health Accounts (NHA) from the 2005-2006 period[3]. Government spending on public clinics, health centers, and basic health units is approximated by summing the provincial level contributions made by the civilian territorial government on general services, health administration, medical products, medical products and equipment, and public health services (Table 16 of the NHA report). A limitation of the NHA report for Pakistan is that it does not distinguish between inpatient and outpatient health services. In order to break down total government spending on public hospitals into these two items, we assume that the hospitals have exhausted their product-specific economies of scale, which implies that the average costs of providing inpatient and outpatient services equal their marginal costs. Following Weaver and Deolalikar (2004) we assume that the marginal cost of producing an outpatient service to be 1.4 per cent of that of an inpatient service. We have conducted a sensitivity analysis over the range 1-5 per cent for this parameter and found that even though the shares of hospital outpatient and inpatient care in total government spending on health are affected, the BIA results are barely affected and the distributions of outpatient and inpatient subsidies according to socioeconomic status are quite similar.

[2] Ideally, one would like to observe the actual number of days spent at the hospital and the number of outpatient visits. However, this limitation is offset by the fact that more frequent users are also more likely to have used care during the WHS one-year recall period, thus reducing this potential bias. This approach was also validated by performing a BIA analysis using survey data (from Vietnam) that contained both a binary indicator of utilization and the actual number of inpatient days and doctor visits, and finding that there were not considerable differences between the corresponding BIA results.

[3] See http://www.who.int/nha/country/pak/Pakistan_NHA_2005-2006.pdf.

4.2 Inequalities in benefit incidence

The tables in this section show the distribution across consumption quintiles of utilization for government facilities, fees paid to these facilities, and estimated subsidies to the health sector. The latter depend on the assumptions made to allocate subsidies to households; results are presented for three sets of assumptions. The tables show the shares of fees and shares of subsidies that go to each quintile. Also shown are the concentration indices, which capture the direction and degree of inequality. A negative value indicates that the variable in question is higher among the poor, while a positive index indicates higher values among the better-off. The larger the index in absolute size, the more inequality in the indicator there is.

Table 4.1 shows the distribution of utilization of basic health units and health centers, and of outpatient and inpatient services in public hospitals. In general, utilization of public facilities is fairly low: only 4.1 per cent of the individuals have visited a basic health unit or a health center at least once during the year preceding the survey, and only 2.7 per cent and 3 per cent have benefited from outpatient and inpatient care in public hospitals respectively. There is no evidence in the data that utilization of basic health units and health centers is linked with socioeconomic status as no clear pattern emerges over quintiles and the concentration index is small in magnitude (0.024), with no statistical significance. On the other hand, utilization of hospital services is more prevalent among richer individuals. This is especially true in the case of outpatient services where utilization ranges from 1.4 per cent for the lowest quintile to 4.3 per cent for the highest. The corresponding concentration index is clearly positive and is statistically significant at the 1 per cent level.

Table 4.1: Inequalities in use of publicly financed facilities

	Outpatient basic health unit and health center	Outpatient hospital	Inpatient hospital
Lowest quintile	5.2%	1.4%	2.7%
2	2.4%	2.4%	2.3%
3	4.3%	2.9%	2.3%
4	4.1%	2.6%	4.5%
Highest quintile	4.7%	4.3%	3.3%
Total	4.1%	2.7%	3.0%
Concentration index	0.024	0.172***	0.083

Source: Authors' estimates using ADePT and data from Pakistan 2003-04 WHS.
Note: The utilization data refer to the last year in all cases.
* CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

Table 4.2 shows the distribution of fees paid by the individuals during their latest visit to basic health units and health centers, and to public hospitals, as well as the fees paid for their latest inpatient stay in public hospitals. The share of fees paid is shown to increase with income for all types of public health services. This is especially true in the case of outpatient fees in public hospitals, which are markedly more concentrated among the rich (the poorest quintile pays only 7.7 per cent of total fees paid for the whole population, while the wealthiest contribute 41 per cent). The corresponding concentration index (0.318) indicates a highly pro-rich distribution that is statistically significant. Although not as sizeable as

for outpatient hospital care, the concentration index (0.202) for fees paid to outpatient basic health units and health centers is also large, indicating that these fees are also disproportionately paid by the wealthier populations. Finally, while the data suggest that inpatient hospital fees may also be disproportionately concentrated among the rich, the lack of statistical significance renders this result inconclusive.

Table 4.2: Distribution in fees paid

	Outpatient basic health unit and health center	Outpatient hospital	Inpatient hospital
Lowest quintile	7.0	7.7	16.9
2	9.5	10.8	14.9
3	27.2	18.7	24.2
4	35.1	21.8	16.1
Highest quintile	21.1	41.0	27.9
Total			
Concentration index	0.202***	0.318***	0.101

Source: Authors' estimates using ADePT and data from Pakistan 2003-04 WHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

The following table (Table 4.3) shows the incidence of government spending on health. The first two lines of the table show how aggregate government spending on health varies across the three types of service. The table contains three sets of estimates of the distribution of subsidies across consumption quintiles. The first set is based on the constant unit-cost assumption, i.e. each hospital outpatient visit (for example) is assumed to cost the same, an amount equal to total costs incurred in delivering this type of service (i.e. subsidies plus user fees) divided by the number of units of utilization. This approach can lead to negative imputed subsidies because the amount someone pays in fees could exceed the unit cost. In Table 4.3, as in much of the literature, negative imputed subsidies have been set to zero. The second set of results are based on the assumption that the unit subsidy is constant, equal to total subsidies for the service in question divided by the number of units of utilization of that service. The third set of results assumes that higher fees for a particular type of care indicate a more costly type of care received, i.e. it is assumed that unit costs and fees are proportional to one another.

The first two lines of Table 4.3 indicate that 87 per cent of the government subsidies are spent on public hospitals and 17 per cent on basic health units and health centers. The first set of results (based on the constant unit-cost assumption) shows that government subsidies appear to mildly favor the rich for all health services, with a concentration index for overall subsidies of 0.073, but this result is not statistically significant. When unit subsidies (rather than unit costs) are assumed to be constant (the second set of results), the concentration index of the subsidies to outpatient care in public hospitals becomes clearly pro-rich (0.172) and strongly statistically significant. This is due to the marked pro-rich distribution of fees paid for this health service. However, given the very low share of outpatient services in public hospitals in total government spending on health, this does not affect the distribution of overall spending. Finally, when unit costs are assumed to be proportional to the amount spent out-of-pocket, spending on both outpatient care at hospitals and outpatient care to basic health units / health centers

is found to favor the rich with statistically significant concentration indices. With a concentration index of 0.119, the overall effect of government spending is mildly pro-rich but still lacks statistical significance due to the great variability in the distribution of subsidies to outpatient services in hospital, which is the most important component of government spending.

Taken together, these benefit incidence analyses show that government spending on health mildly favors the rich. This is especially true for outpatient care in public hospitals and to a lesser extent for basic health units and health centers. Our results also seem to indicate that government spending on inpatient care might favor the rich, but the statistical evidence is not strong enough to conclude.

Table 4.3: Inequality in the incidence of government health spending

	Outpatient basic health unit, health center	Outpatient hospital	Inpatient hospital	Total subsidies
Total subsidies (in million PKR)	7096	331	35,230	42,657
Share of total subsidy	16.7 %	0.8%	82.6%	100%
Constant unit cost assumption				
Lowest quintile	26.5	13.4	18.0	19.3
2	11.6	20.8	15.1	14.6
3	20.4	21.3	13.2	14.5
4	18.8	18.3	32.1	29.8
Highest quintile	22.8	26.2	21.6	21.9
Total	100.0	100.0	100.0	100.0
Concentration index	0.011	0.087	0.086	0.073
Constant unit subsidy assumption				
Lowest quintile	25.1	10.6	17.9	19.0
2	11.4	17.6	15.1	14.5
3	20.9	21.5	15.0	16.1
4	19.9	18.8	29.7	28.0
Highest quintile	22.7	31.5	22.2	22.4
Total	100.0	100.0	100.0	100.0
Concentration index	0.024	0.172***	0.083	0.074
Proportional cost assumption				
Lowest quintile	7.0	7.7	16.9	15.2
2	9.5	10.8	14.9	14.0
3	27.2	18.7	24.2	24.6
4	35.1	21.8	16.1	19.3
Highest quintile	21.1	41.0	27.9	26.9
Total	100.0	100.0	100.0	100.0
Concentration index	0.202***	0.318***	0.101	0.119

Source: Authors' calculations using ADePT data from Pakistan 2003-04 WHS.
Note: With the constant cost assumption imposed, grossed-up survey data for fees have been used rather than NHA data on fees, and negative imputed subsidies have been set to zero.
* CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

5 Financial protection in health

Countries finance their health care through a mix of out-of-pocket payments, private and social insurance, general revenues, and international development assistance. All except the latter ultimately come from the pockets of households in the country. Therefore, health systems are not just about improving health but also about ensuring that people are protected from the financial consequences of illness and death, or at least from the financial consequences of having to obtain medical care. This section presents data on two alternative measures of financial protection: one that asks whether out-of-pocket spending is 'catastrophic' and the other that asks if it is 'impoverishing'. Neither captures the income losses associated with illness, and both therefore underestimate the full financial impact of ill health on households. The section also explains the institutional arrangements used in Pakistan to provide financial protection in the health sector, and presents data on levels of inequalities in coverage.

5.1 Data availability

A World Health Survey (WHS) was fielded in Pakistan in 2003-04. The WHS has information on health expenditure and household consumption. In order to facilitate international comparisons, the tables below use data from the WHS. Households are ranked by per capita consumption.

5.2 Catastrophic out-of-pocket payments

This subsection provides information on 'catastrophic' health payments. Catastrophic payments are defined as health care payments in excess of a predetermined percentage of their total household or nonfood spending.

The columns of Table 5.1 give different thresholds above which health payment "budget shares" might be deemed catastrophic. The first line of the table displays the catastrophic payment "headcount", i.e. the proportion of households with a health payment budget share greater than the given threshold. The second line relates the catastrophic payment headcount to the household consumption distribution, and shows the concentration index of the incidence of catastrophic payments. A positive value of the concentration index indicates a greater tendency for the better-off to have out-of-pocket spending in excess of the payment threshold, whereas a negative value indicates that the worse off are more likely to have out-of-pocket spending exceeding the threshold.

The information in Table 5.1 on catastrophic payments is for the 2003-04 WHS. The table shows that, according to the WHS data, when the threshold is raised from 5 to 40 per cent of total household expenditure, the estimate of the incidence of catastrophic payments falls from 67 per cent to 5.6 per cent. When the threshold is raised from 5 to 40 per cent of nonfood expenditure, the estimate of the incidence of catastrophic payments falls from 77.1 per cent to 31.3 per cent. Table 5.1 also shows that the concentration index for catastrophic spending is positive at most thresholds, implying that catastrophic payments are more common among the better-off at nearly any threshold (although results for most nonfood consumption thresholds are not significant).

Table 5.1: Incidence of catastrophic out-of-pocket spending

	Threshold share of total household consumption				
	5%	10%	15%	25%	40%
Headcount	67.0%	45.1%	27.2%	12.2%	5.6%
Concentration index	0.017	0.036*	0.102***	0.242***	0.370
	Threshold share of nonfood consumption				
	5%	10%	15%	25%	40%
Headcount	77.1%	73.0%	67.6%	49.4%	31.3%
Concentration index	0.009	-0.002	-0.016	0.017	0.039*

Source: Authors' estimates using ADePT and data from 2003-2004 Pakistan WHS.
Note: * CI is significant at 10%, **CI is significant at 5%, ***CI is significant at 1%.

5.3 Impoverishing out-of-pocket payments

This subsection presents poverty measures corresponding to household consumption gross and net of out-of-pocket health spending. A comparison of the two shows the scale of impoverishment due to health payments. The idea is that a health problem necessitating out-of-pocket medical spending may be serious enough to push a household from being above the poverty line 'before' the health problem to being below the poverty line 'after' the health problem. Adding out-of-pocket spending to the household's nonmedical consumption ('consumption including – or gross of – health payments') gives us a sense of what its standard of living would have been *without* the health problem. Its nonmedical spending ('consumption excluding health payments') gives us a sense of what its standard of living looks like *with* the health problem. The assumption here is that out-of-pocket spending is involuntary and caused by health "shocks"; health spending is assumed to be financed by reducing current consumption.

The first line of Table 5.2 shows the poverty "headcount" which represents the proportion of individuals living below the poverty line. Two poverty lines are used: the lower line corresponds to US$1.25 a day at purchasing power parities (PPP); the upper line corresponds to US$2 a day. The poverty gap gives the total shortfall from the poverty line, averaged across the entire population; it is expressed in dollars a day. The mean positive poverty gap is a measure of the intensity of poverty: it indicates the average shortfall from the poverty line among those in poverty; it is also measured in dollars a day.
Table 5.2 reports results for the 2003-2004 Pakistan WHS. When out-of-pocket payments are counted as part of a household's consumption, 54.8 per cent of the population in 2003-04 (according to the WHS) was poor using a US$1.25 a day poverty line. If we deduct out-of-pocket payments from the household's consumption, recognizing that this expenditure is involuntary and simply enables a household to cope with a health problem, the poverty rate increases to 64.2 per cent; this is the true poverty rate. Thus about 17 per cent of the population would not have been poor if the resources they were forced to devote to health care had been available to spend on other things. Out-of-pocket spending on health raises the per-capita poverty gap rises by $0.06, equivalent to or a 26.6 per cent increase. The mean positive poverty gap also increases by $0.03, or an 8 per cent increase. The rise in the poverty gap is thus mainly due to more households being brought into poverty through out-of-pocket spending on health, and not because of a deepening of the poverty of the already poor. When using a poverty line of

US$2.00 a day, the increase in the percentage of those impoverished and the percentage increase in depth of poverty are similar, though lesser in magnitude.

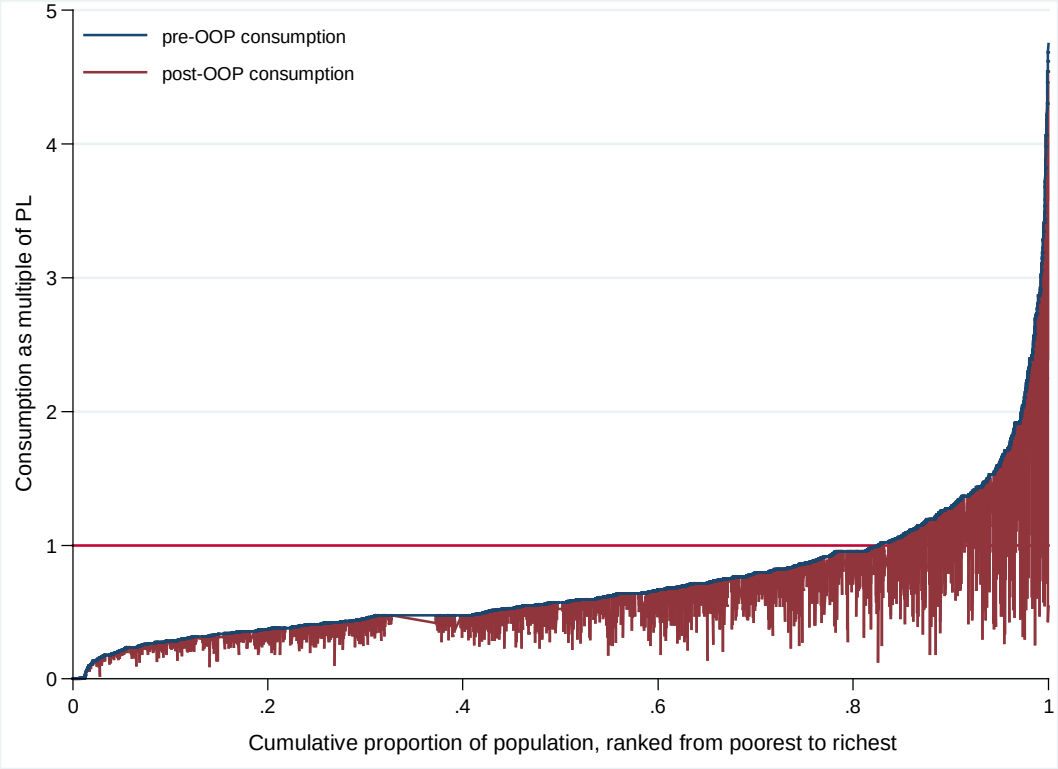
Table 5.2: Impoverishment through out-of-pocket health spending

	Consumption including OOP	Consumption excluding OOP	Change	Percentage change
Poverty line at US$1.25 per capita per day				
Percentage in poverty / Poverty headcount	54.8	64.2	9.4 pp	17.2%
Average shortfall from the poverty line	$0.24	$0.30	$0.06	26.6%
Average shortfall from the poverty line, among the poor	$0.044	$0.47	$0.03	8.0%
Poverty line at US$2.00 per capita per day				
Percentage in poverty / Poverty headcount	81.8	87.0	5.2 pp	6.3%
Average shortfall from the poverty line	$0.77	$0.89	$0.12	15.6%
Average shortfall from the poverty line, among the poor	$0.93	$1.02	$0.08	6.8%

Source: Authors' estimates using ADePT and data from 2003-04 Pakistan WHS.
Note: Poverty lines are at 2005 purchasing power parities, adjusted to current prices using Pakistan's CPI. Figures are for a 4-week figure and are in Pakistani local currency units (LCU).

Figure 5.1 shows the effect of out-of-pocket payments on poverty via a "Pen's parade". Households are lined up in ascending order of their consumption including out-of-pocket payments. The vertical "paint drips" show the extent to which out-of-pocket payments divert a household's spending away from items such as food, education, clothing, etc. The length of the paint drip, therefore, shows how far health spending compromises a household's living standards. In this case, we can see that when using a poverty line of US$1.25 a day, the majority of households, even before out-of-pocket spending on health, are already below the poverty line. The length of the paint drips grow as the population increases in wealth. As a result of out of pocket spending, there is an impoverishment of many households that would otherwise have not have been poor and a deepening of poverty among the already poor.

Figure 5.1: The impoverishing effect of out-of-pocket spending



Source: Authors' estimates using ADePT and 2003-04 Pakistan WHS.
Note: Poverty line at 2005 purchasing power parities, adjusted to current prices using Pakistan's CPI.

In sum, this section shows relatively high levels of catastrophic expenditure across the consumption distribution, regardless of the measure used. Generally, catastrophic payments are found to be concentrated among the rich. The data also indicate that although health spending does increase the depth of poverty of many already poor households, the increase in the poverty gap is mostly due to the impoverishment of households (that would, were it not for health spending, have been above the poverty line) rather than the deepening of poverty among the already poor. Indeed, the increase in the poverty rate due to health spending is 6.3 per cent, when using the US$2.00 a day measure, and 17.2 per cent when using the US$1.25 a day measure.

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7 Annexes

7.1 Measurement of indicators

INDICATOR	MEASUREMENT	DATA
CHILD HEALTH		
Infant mortality rate	Number of deaths among children under 12 months of age per 1,000 live births (Note: mortality rate calculated using the true cohort life table approach; the DHS reports use of the synthetic cohort life table approach)	DHS
Under-five mortality rate	Number of deaths among children under 5 years of age per 1,000 live births (Note: mortality rate calculated using the true cohort life table approach; the DHS reports use of the synthetic cohort life table approach)	DHS
Stunting	% of children with a height-for-age z-score <-2 standard deviations from the reference median (Note: z-score calculated using WHO 2006 Child Growth Standards)	DHS, MICS
Underweight	% of children with a weight-for-age z-score <-2 standard deviations from the reference median (Note: z-score calculated using WHO 2006 Child Growth Standards)	DHS, MICS
Diarrhea	% of children with diarrhea (past two weeks)	DHS, MICS
Diarrhea	% of children with diarrhea (past two weeks; youngest child)	WHS
Acute respiratory infection	% of children with an episode of coughing and rapid breathing (past two weeks)	DHS, MICS
Acute respiratory infection	% of children with an episode of coughing and rapid breathing (past two weeks; youngest child)	WHS
Fever	% of children with fever (past two weeks)	DHS, MICS
Fever	% of children with fever (past two weeks; youngest child)	WHS
Malaria	% of children with an episode of malaria (past year; youngest child)	WHS
ADULT HEALTH		
Tuberculosis	% of adults who reported tuberculosis symptoms (past year)	WHS
HIV positive	% of adults aged 15 to 49 whose blood tests are positive for HIV 1 or HIV 2	DHS
Obesity among non-pregnant women	% of women aged 15 to 49 with a BMI above 30	DHS
Obesity among all women	% of women aged 18 to 49 with a BMI above 30	WHS
Road traffic accident	% of adults involved in a road traffic accident with bodily injury (past year)	WHS
Non-road traffic accident	% of adults who suffered bodily injury that limited everyday activities, due to a fall, burn, poisoning, submersion in water, or by an act of violence (past year)	WHS
Angina	% of adults ever diagnosed with angina or angina pectoris	WHS
Arthritis	% of adults ever diagnosed with arthritis	WHS
Asthma	% of adults ever diagnosed with asthma	WHS
Depression	% of adults ever diagnosed with depression	WHS
Diabetes	% of adults ever diagnosed with diabetes	WHS
Difficulty with work and household activities	% of adults who have severe or extreme difficulties with work or household activities (past 30 days) (Note: This indicator was created from an ordinal variable with five categories)	WHS
Poor self-assessed health status	% of adults who rate own health as bad or very bad (Note: This indicator was created from an ordinal variable with five categories)	WHS

RISK FACTORS		
Smoking (all)	% of adults who smoke any tobacco products such as cigarettes, cigars or pipes	WHS
Smoking (women)	% of women aged 15 to 49 who smoke cigarettes, pipe or other tobacco	DHS
Smoking (women)	% of women aged 18 to 49 who smoke cigarettes, pipe or other tobacco	WHS
Insufficient intake of fruit and vegetables	% of adults who have insufficient intake of fruit/vegetables (less than 5 servings)	WHS
Insufficient physical activity	% of adults who spend < 150 minutes on walking/ moderate activity/vigorous activity (past week)	WHS
Drinking	% of adults who consume ≥5 standard drinks on at least one day (past week)	WHS
Concurrent partnerships	% of women aged 15 to 49 who had sexual intercourse with more than one partner (past year)	DHS, MICS
Concurrent partnerships	% of women aged 18 to 49 who had sexual intercourse with more than one partner (past year)	WHS
Condom usage (more than one partner)	% of women aged 15 to 49 who had more than one partner in the past year and used a condom during last sexual intercourse	DHS, MICS
Condom usage (more than one partner)	% of women aged 18 to 49 who had more than one partner in the past year and used a condom during last sexual intercourse	WHS
Mosquito net use by children	% of children who slept under an (ever) insecticide treated bed net (ITN) (past night)	DHS, MICS
Mosquito net use by pregnant women	% of pregnant women aged 15 to 49 who slept under an (ever) insecticide treated bed net (ITN) (past night)	DHS
MATERNAL AND CHILD HEALTH INTERVENTIONS		
Full immunization	% of children aged 12-23 months who received BCG, measles, and three doses of polio and DPT, either verified by card or by recall of respondent	DHS, MICS
Treatment of diarrhea	% of children with diarrhea given oral rehydration salts (ORS) or home-made solution	DHS, MICS
Medical treatment of ARI	% of children with a cough and rapid breathing who sought medical treatment for acute respiratory infection (past 2 weeks)	DHS, MICS
Skilled antenatal care (4+ visits)	% of mothers aged 15 to 49 who received at least 4 antenatal care visits from any skilled personnel (Note: type of skilled personnel varies by country including doctor, nurse, midwife, auxiliary midwife, feldsher, clinical officer, health surveillance attendant, medical assistant)	DHS
Skilled birth attendance	% of mothers aged 15 to 49 that were attended by any skilled personnel at child's birth (Note: type of skilled personnel varies by country including doctor, nurse, midwife, auxiliary midwife, feldsher, clinical officer, health surveillance attendant, medical assistant)	DHS
Contraceptive prevalence	% of women aged 15 to 49 who currently use a modern method of contraception	DHS, MICS
ADULT PREVENTIVE CARE		
TB screening	% of adults who were tested for tuberculosis (past year)	WHS
Voluntary Counseling and Testing for HIV	% of women aged 18 to 49 who were tested for HIV and were told the results of the test	WHS, MICS
Cervical cancer screening	% of women aged 18 to 69 who received a pap smear during last pelvic examination (past 3 years)	WHS
Breast cancer screening	% of women aged 40 to 69 who received a mammogram (past 3 years)	WHS
ADULT CURATIVE CARE		
Inpatient or outpatient (12 months)	% of adults who used any inpatient or outpatient health care (past year)	WHS
Inpatient (12 months)	% of adults who used any inpatient health care (past year)	WHS
Inpatient (5 years)	% of adults who used any inpatient health care (past 5 years)	WHS
Outpatient (12 months)	% of adults who used any outpatient health care (past year; conditional on having not used any inpatient care past 5 years)	WHS

Note: Unless otherwise noted, all children are under the age of 5 and all adults are aged 18 and older

7.2 Methodological notes

Sections 2 and 3: Inequalities in health and health care utilization

The selection and measurement of health outcome indicators used in Section 2 and 3 on inequalities in health and health care utilization was based on (i) a comparison of indicators used in major health publications and databases, (ii) the advice of World Bank Health Specialists on recommended monitoring and measurement practice in their respective fields, and (iii) how measurable those indicators would be in the available data sources. The following major reports/databases were consulted as a guide to indicator measurement: World Bank Development Indicators, the World Bank's HNPStats database, WHO's World Health Survey country reports, and the World Bank's report series on "Socio-economic differences in health, nutrition and population (Gwatkin et al. 2007).

The data sources for this section include the Demographic and Health Surveys (DHS), World Health Surveys (WHS), Multiple Indicator Cluster Surveys (MICS) and multipurpose household surveys (such as the World Bank Living Standard and Measurement Surveys). Where the selected indicators are available in more than one of these surveys, all measures are reported.

In all analyses of inequality in this section, i.e. quintile analysis and calculation of concentration indices, households are ranked by an asset index computed using principal components analysis. In order to avoid presenting estimates biased by insufficient power, indicators were removed from the tables if the sample size in any quintile was less than the following thresholds: 250 per quintile for infant and child mortality estimates and 25 per quintile for all other indicators. This follows the practice of Gwatkin et al. (2007). In addition, the statistical significance of all concentration indices is reported.

Section 4: Benefit-incidence analysis

The section on benefit incidence analysis uses three different methods for allocating government health expenditure to households, invoking three different assumptions that are described in detail in Wagstaff (2011). The first, the constant unit cost assumption, treats the sum of individual fees and government subsidies as constant, and thus any fees paid when using public services results in a reduction in the government subsidy received. The second, the constant unit subsidy assumption, allocates the same subsidy to each unit of service used, irrespective of the fees paid. Finally, the third, the proportional unit cost assumption, makes the cost of care proportional to the fees paid, which implies that the government subsidy received increases as the fees paid increases. In calculating the distribution of fees, service utilization and government subsidies, households are ranked by per capita consumption. The quintile distributions and concentration indices are reported, including measures of statistical significance.

The data sources for this section include the WHS and multipurpose household surveys that are used to obtain information on service utilization at difference levels of care and fees paid by patients. Data on government subsidies at each level of service are obtained from National Health Accounts reports, specifically from one or more of the following tables depending on the level of detail provided: financing

source by financing agent, financing agent by provider, and provider by function, other detailed country expenditure reviews or directly from budget offices.

The limitations of the analysis depend on the data source. One limitation of using the WHS is that we only observe whether or not the individual had an inpatient and outpatient visit, but not the actual number of visits or length of stay. We also observe outpatient visits only for people who did not use inpatient care. The implications of these limitations are being investigated.

Section 5: Financial protection

Section 5 examines health insurance coverage, catastrophic health care payments and impoverishment due to out-of-pocket expenditures. In this section, households are ranked by consumption. The analysis of catastrophic health care payments follows the popular approach elaborated upon O'Donnell et al. (2008), which defines health spending as "catastrophic" if it exceeds some fraction or threshold of total expenditure, or of total nonfood expenditure, in a given period. As O'Donnell et al. (2008) note, the threshold of 10 per cent for total expenditure and 40% for nonfood expenditure are commonly used in the literature. In addition to measures of incidence, distribution-sensitive measures of catastrophic payments are calculated, specifically the concentration index, and statistical significance is reported. The analysis of impoverishing expenditure uses the poverty lines of US$1.25 and US$2.00 per capita per day at 2005 purchasing power parity (PPP) (with PPP values obtained from the World Development Indicators database) and, in some cases, national poverty lines.

Data sources for the analysis of financial protection include the WHS, as well as multipurpose household surveys. Survey data on health insurance coverage is difficult to obtain for most countries.

ABOUT THE HEALTH EQUITY AND FINANCIAL PROTECTION REPORTS

The Health Equity and Financial Protection reports are short country-specific volumes that provide a picture of equity and financial protection in the health sectors of low- and middle-income countries. Topics covered include: inequalities in health outcomes, health behavior and health care utilization; benefit incidence analysis; financial protection; and the progressivity of health care financing. Data are drawn from the Demographic and Health Surveys, World Health Surveys, Multiple Indicator Cluster Surveys, Living Standards and Measurement Surveys, as well as other household surveys, and use a common set of health indicators for all countries in the series. All analyses are conducted using the health modules of the ADePT software. Also available are Health Equity and Financial Protection datasheets that summarize key measures of equity and financial protection.

The most recent versions of the Health Equity and Financial Protection reports and datasheets can be downloaded at **www.worldbank.org/povertyandhealth.**

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