



Universal Health Coverage Assessment

Pakistan

Muhammad Ashar Malik

Global Network for Health Equity (GNHE)

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Prepared by Muhammad Ashar Malik¹

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¹Community Health Sciences Department, Aga Khan University, Karachi, Pakistan

Introduction

This document provides a preliminary assessment of the Pakistani health system relative to the goal of universal health coverage, with a particular focus on the financing system and related aspects of provision.

In the 2010 World Health Report, universal health coverage is defined as providing everyone in a country with financial protection from the costs of using health care and ensuring access to the health services they need (World Health Organisation 2010). These services should be of sufficient quality to be effective.

This document presents data that provide insights into the extent of financial protection and access to needed health services in Pakistan.

Key health care expenditure indicators

This section examines overall levels of health expenditure in Pakistan and identifies the main sources of health financing (Table 1).² In 2012, total health expenditure accounted for a very low 2.7% of the country's Gross Domestic Product (GDP). This was half the average of 4.5% for other lower-middle-income countries and less than a third of the global average of 9.2%.

Public allocations to fund the health sector (including Social Security)³ were only 5% of total government expenditure. This was much lower than the average of 8.5% for other lower-middle-income countries, and well below the 15% target set by the Organisation for African Unity's 2001 Abuja Declaration (which, coincidentally, was the same as the global average for 2012).

Table 1: National Health Accounts indicators of health care expenditure and sources of finance in Malaysia (2012)

Indicators of the level of health care expenditure	
1. Total expenditure on health as % of GDP	2.7%
2. General government expenditure on health as % of GDP	1.0%
3. General government expenditure on health as % of total government expenditure	4.7%
4a. Per capita government expenditure on health at average exchange rate (US\$)	12.4
4b. Per capita government expenditure on health (PPP \$)	28.5
Indicators of the source of funds for health care	
5. General government expenditure on health as % of total expenditure on health*	36.9%
6. Private expenditure on health as % of total expenditure on health**	63.1%
7. External resources for health as % of total expenditure on health#	4.7%
8. Out-of-pocket expenditure on health as % of total expenditure on health	54.8%
9. Out-of-pocket expenditure on health as % of GDP	1.5%
10. Private prepaid plans on health as % of total expenditure on health	0.6%

Notes:

* This includes government tax-funded health spending and mandatory Social Security spending on health

**This includes external resources that flow through NGOs

Some external resources flow through government and some through NGOs. Indicators 5 and 6 therefore add up to 100% whereas indicator 7 in this Table is a separate indicator altogether. This is different from Figure 1 where donor funds are distinguished from tax-based financing.

This includes voluntary commercial, not-for-profit private health insurance and voluntary community-based health

Source: Data drawn from World Health Organisation's Global Health Expenditure Database (http://apps.who.int/nha/database/Key_Indicators/Index/en)

²Figures in this section all derive from 2012 data in the World Health Organisation's Global Health Expenditure Database (<http://apps.who.int/nha/database/Home/Index/en>). Comparisons with other countries are based on figures expressed in terms of purchasing power parity. The country's income category is determined from the World Bank's classification for the same year (<http://data.worldbank.org/about/country-and-lending-groups>).

³Different countries use the terms 'national health insurance,' 'social health insurance' and 'social security' differently to describe different types of mandatory health insurance. In each country assessment in this series, the term applied is the one commonly in use in the country in question. Pakistan does not have a large mandatory health insurance scheme. What it calls Social Security is a very small scheme.

In fact, government health expenditure translated into only 1.0% of GDP. This amount was much less than the average for lower-middle-income countries (of 1.7%), and is very low for what is essentially the mandatory pre-paid component of a health financing system. The global average, for example, was 5.3%.

The challenge faced by the government of Pakistan in ensuring adequate coverage is encapsulated by per capita government expenditure on health. This was around \$29 (in terms of purchasing power parity) in 2012, less than half the lower-middle-income country average of \$65 and more than 22 times less than the global average of \$652.

In 2012, Pakistan did not receive a large amount of donor financing, which accounted for only around 5% of total health sector expenditure. Nonetheless, this was double the average percentage for lower-middle-income countries.

As would have been expected from the relatively low levels of government expenditure, out-of-pocket payments played a very large role in Pakistan (at 55% of total financing in 2012). This was extremely high in global terms (where the average was 21%). It was also well above the 20% limit suggested by the 2010 World Health Report to ensure that financial catastrophe and impoverishment as a result of accessing health care become negligible (World Health Organisation 2010).

Finally, in 2012, private health insurance in Pakistan played an insignificant role at less than 1% of total health sector financing.

Structure of the health system according to health financing functions

Figure 1 provides a summary of the structure of the Pakistani health system, depicted according to the health care financing functions of revenue collection, pooling and purchasing, as well as health service provision. Each block represents the percentage share of overall health care expenditure accounted for by each category of revenue source, pooling organisation, purchasing organisation and health care provider.⁴

Revenue collection

As already indicated, out-of-pocket payments are the largest source of health financing in Pakistan. Health services at

government facilities officially charge no fees. This free, un-rationed system has created an immense demand for health care at secondary and tertiary hospitals. As these facilities are under-funded, people make un-official payments or pay bribes to access public hospital services.

Medicines, and other essential supplies associated with health care accessed at public hospitals, usually have to be purchased privately. Out-of-pocket payments for medicines account for over 50% of total out-of-pocket payments.

Even to access free services at public hospitals, people have to visit the private clinics of the physicians who are allowed dual practice at these hospitals. At these private clinics they pay the doctors a fee to obtain recommendations for admission or treatment at the government health care facility.

The next largest source of funding, at just under one third of total financing, is general government taxes. Almost three-quarters (73%) of these were made up of indirect taxes in 2007/08 (see Table 4). General taxes are a weak financing mechanism in a resource-constrained setting such as Pakistan where government austerity policies have cut down allocations to social sectors, including health. Unfortunately there are no earmarked taxes for the health sector.

About 7% of health financing is through mandatory and voluntary prepaid health insurance. There are two mandatory financing mechanisms in the country. Social Security is funded by contributions from employers in the private sector. The other is deductions from private savings in the form of Zakat (this is an Islamic religious financial obligation). Neither of these funds is earmarked exclusively for health, however. Other social services are also funded from these sources, such as financial support for the education of the children of eligible families. Social Security contributed less than 1% of total revenue and its share of government expenditure on health was 2.9% in 2011/12.

Private for-profit and not-for-profit health insurance schemes are funded through contributions and mainly based in large cities. Large private employers are increasingly buying private group health insurance for their employees. Voluntary health insurance comprised 1% of total private expenditure on health in 2011/12.

Pooling

As Figure 1 shows, a significant proportion of the total financing system is not pooled because of the high level of direct out-of-pocket payments.

⁴The data quoted in this section are slightly different from the previous section because they are based on more detailed disaggregation by the authors of Pakistani National Health Accounts data.

Figure 1: A function summary chart for Pakistan (2011/12)

Revenue collection	General taxation		Donors	Other private	Out-of-pocket
Pooling	Ministry of Health and Population	Other govt. /Semi-govt.	Social security	Other private	No pooling
Purchasing	Ministry of Health and Population	Other govt. /Semi-govt.	Private insurance		Individual purchasing
Provision	Public providers		NGOs		Private for profit providers

Source: Created by the authors using data from the Pakistani National Health accounts

The pooling of remaining health funds is very fragmented in Pakistan, both horizontally and vertically. The largest pool is government revenue but this is distributed across levels of government (federal, provincial and district) and between different government organisations, including the Ministry of Health, Social Security, state-owned enterprises and the armed forces (which receive funds directly from the federal Ministry of Finance). These different risk pools are not coordinated or risk-equalised.

Pooling through health insurance is limited in Pakistan. The insurance system is fragmented with a number of small pools, each targeting a small segment of the population. Less than 1% of total financing was pooled in this manner in 2011/12.

With respect to resource allocation, there is no formal and explicit formula to allocate budgets to public facilities. Resource allocation is mainly based on historical patterns and political and other influences, including some informal assessment of performance and patient load. There are wide variations in the resources allocated to urban and rural health facilities.

Purchasing

The purchasing of health services is highly fragmented in Pakistan, both horizontally and vertically. Pakistan has a federal system and each authority funds a specific network of providers and services. Some of these funding sources

overlap and some are distinct. For example, the national programme for family planning and primary health care gets funding from the provincial government, but a tertiary care hospital located in a province receives funding from both the federal and provincial governments. However, due to civil service coordinating mechanisms, there are very few instances of duplicate funding.

Providers in the health facilities of government, semi-government and autonomous bodies, and NGOs are mainly reimbursed through salaries. In private sector hospitals there are certain profit-sharing mechanisms combined with salaries. Due to the difference in provider payment mechanisms and levels between the public and private sectors, many providers prefer to practice in private clinics. Recently private insurance schemes have begun to purchase services for their clients using negotiated reimbursement rates.

Another key feature of provider payment mechanisms in Pakistan is the dual practice roles of physicians employed in government hospitals. As already described, these physicians charge fees in private clinics and direct patients to their public hospitals where they also receive salaries.

Active purchasing of services has been introduced at the primary health care level in the private sector: this is known as the People’s Primary Healthcare Initiative. As part of this initiative, government has contracted private not-for-profit rural support organisations to manage primary health care facilities. Government transfers a global budget to these NGOs. As of 2013 these organisations managed primary

health care facilities in 75 districts out of 113. Although the incentives for providers in these facilities under the new reimbursement mechanism are better than under direct provision, these incentives are not linked to the performance of the provider as no performance targets are set (Bano 2008).

In Pakistan, every citizen is entitled to public services but the package of services provided by public facilities is not well defined. There is haphazard expansion of health care benefits based on expert opinion and the influence of clinical practitioners. This has led to a concentration of public spending on tertiary care and urban areas.

Other purchasers offer a range of benefit packages. It is only the benefit packages of autonomous bodies, social safety nets and voluntary insurance schemes that are restricted in terms of the type of services and reimbursement limits.

Finally, there is geographic and organisational replication in access to different benefit packages. A resident of one province can travel to use hospital services in another province. Similarly, a formal sector employee has the choice of using services provided by Social Security health institutions, charity hospitals or public hospitals and clinics.

Provision

Federal and provincial health Ministries are the largest public providers of health care in the country with over 12,000 facilities. Over the last two decades the government has established a huge health infrastructure and it is the largest health workforce employer in the country. Many services that used to be the responsibility of the federal government have been devolved to the provinces since a recent amendment to the Constitution (Nishtar et al. 2013).

Public health services are made up of primary, secondary and tertiary health care. Every union council (which is the smallest administrative unit) has at least one primary health care facility and every tehsil (or sub-district) and district has a secondary care hospital offering at least 9 specialities (Government of Pakistan 2012a).

There is no gatekeeping at the primary level that restricts patient flows to the second and third tiers of health care delivery, and no referral note is required to visit a tertiary care hospital. In the absence of needs-based resource allocation and active purchasing, the supply of health care is also oriented towards secondary and tertiary care located in urban areas. Thus, government hospitals constitute over 82% of government

health expenditure (Government of Pakistan 2012b). Due to this concentration, people rely on large hospitals for their common health care needs. People living in urban areas have easier access to hospitals than those in rural areas.

Although public remuneration of doctors is poor compared to the private sector, doctors have the option of topping up their incomes through private practice. In addition, career opportunities are more secure in government hospitals than in the private sector, especially as private secondary level hospital care has only recently begun to expand. There is a shortage of nursing staff, with Pakistan one of the few developing countries where the doctor to nurse ratio is inverse (1.9:1) (Government of Pakistan 2015).

There is parallel and overlapping provision of medical care from autonomous bodies and state-owned enterprises. The key feature of this parallel provision is that the people enrolled with, or entitled to, services provided by these small provider networks can also use services provided through the provincial or federal Ministries of Health. This increases the pressure on public health facilities.

The fragmented sources of funding and provision in Pakistan have resulted in variation in the provision of services both in terms of quality and access. Medical negligence and malpractice are rarely documented and usually go unchecked (The Network for Consumer Protection 2006). Over-the-counter sale of medicines is rampant (Babar et al. 2013). There is excessive and irrational prescription and use of medicines in general and antibiotics in particular (Raza et. al. 2014).

In a resource-constrained public health system, these trends affect the access of socially and economically disadvantaged groups, mainly in the informal sector, to government health facilities (Nishtar 2010).

The private provider network is not well documented. However, national level surveys suggest that the private sector is the largest provider of health services. For example, in 2010/11 two-thirds (66%) of the people who were ill in the month prior to the survey sought care from private hospitals and clinics, while 22% and 4% sought care from government hospitals and primary health care respectively (Government of Pakistan 2012b).

Financial protection and equity in financing

A key objective of universal health coverage is to provide

financial protection for everyone in the country. Insights into the existing extent of financial protection are provided through indicators such as the extent of catastrophic payments and the level of impoverishment due to paying for health services. This section analyses these indicators for Pakistan and then moves on to assess the overall equity of the health financing system.

Catastrophic payment indicators

Using the 40% threshold of non-food household expenditure for assessing catastrophic payments, Table 2 shows that 1.6% of the population incurred catastrophic spending in Pakistan in 2004/05 as a result of accessing health care. However, it is agreed in the international literature that this method is difficult to interpret as it can understate the actual problem because it may not capture the reality that there are people who do not utilize health services when needed because they are unable to afford out-of-pocket payments at all (Wagstaff and van Doorslaer 2003).

As Table 2 shows, catastrophic payments in Pakistan mainly affected wealthier households as revealed by a lower proportion for the weighted headcount compared to the un-weighted headcount. This is probably because access, quality and prices are not standardised across Pakistan. In rural areas many services are cheaper than in urban areas and probably of poor quality. It is likely that people in lower income groups spend less but also get less than optimal health care.

Impoverishment indicators

While the extent of catastrophic payments indicates the relative impact of out-of-pocket payments on household welfare, the absolute impact is shown by the impoverishment

effect. In Pakistan, about 25% of the population lived below \$1.25 per day in 2004/05 (see Table 3). An extra 3.5% dropped into poverty as a result of paying out-of-pocket when accessing health services. This translated into as many as 5.2 million people falling into poverty because of out-of-pocket expenditure on health care.

The normalised poverty gap (also shown in Table 3) measures the percentage of the poverty line necessary to raise an individual who is below the poverty line to that line. The difference between the prepayment and the post-payment poverty gaps was relatively low at 0.9% in 2004/05. This proportion might be very low due to the fact that the methodology only captures those who access health care services, excluding those already very poor individuals who cannot afford to pay for health care.

Equity in financing

Equity in financing is strongly related to financial protection (as described by the indicators above) but is a distinct issue and health system goal. It is generally accepted that financing of health care should be according to the ability to pay.

A 'progressive' health financing mechanism is one in which the amount richer households pay for health care represents a larger proportion of their income.

Table 4 assesses the progressivity of different sources of health financing. In Pakistan the government tax system is generally progressive. In 2006/07 the lowest three income deciles contributed only 2%, 3% and 2% of direct taxes, indirect taxes and all taxes, respectively, while the equivalent figures for the top three richest deciles were 54%, 33% and 41% (Wahid and Wallace 2008).

Table 2: Catastrophic payment indicators for Pakistan (2004/05) *

Catastrophic payment headcount index (the percentage of households whose out-of-pocket payments for health care as a percentage of household consumption expenditure exceeded the threshold)	1.57%
Weighted headcount index**	1.05%
Catastrophic payment gap index (the average amount by which out-of-pocket health care payments as a percentage of household consumption expenditure exceed the threshold)	0.48%
Weighted catastrophic gap index**	0.27%

Notes:

* Financial catastrophe is defined as household out-of-pocket spending on health care in excess of the threshold of 40% of non-food household expenditure

** The weighted headcount and gap indicate whether it is the rich or poor households who mostly bear the burden of catastrophic payments. If the weighted index exceeds the un-weighted index, the burden of catastrophic payments falls more on poorer households.

Source: Author's calculations based on data from the Household Integrated Economic Survey for 2004/05

Table 3: Impoverishment indicators for Pakistan, using a range of poverty lines (2004/05)

	Poverty lines				Government of Pakistan poverty line (\$1.18)*
	\$1.08 (1993 prices)	\$2.15 (1993 prices)	\$1.25 (2005 prices)	\$2.0 (2005 prices)	
Pre-payment poverty headcount	27.2%	79.7%	24.6%	65.2%	34.2%
Post-payment poverty headcount	30.8%	81.6%	28.2%	68.5%	37.8%
Percentage point change in poverty headcount (pre- to post-payment)	3.7%	1.9%	3.5%	3.3%	3.6%
Pre-payment normalised poverty gap	5.6%	32.4%	5.0%	20.8%	7.5%
Post-payment normalised poverty gap	6.6%	34.4%	5.9%	22.7%	8.7%
Percentage point change in poverty gap (pre- to post-payment)	1.0%	2.0%	0.9%	1.9%	1.2%

* based on food and calorie intake

Source: Authors' calculations using the Household Integrated Economic Survey for 2004/05

With respect to the dominant source of finances, Table 5 shows that for the richest quintile average annual out-of-pocket payments were almost four times those of the poorest quintile in 2004/05. Around 90% of out-of-pocket payments were for outpatient services and in the private sector. However, some people also incurred out-of-pocket expenditure in public hospitals. This is probably regressive because wealthier and more influential people tend to be able to ensure that they receive free care.

Equitable use of health services and access to needed care

This section considers how benefits from using different types of health services are distributed across socio-economic groups. One measure of this is a concentration index, which shows the magnitude of socioeconomic-related inequality in the distribution of a variable. In Table 5, if the concentration index has a positive (or negative) value, the distribution of the use of the health service is considered to benefit the richest (or poorest) respectively.

In Pakistan the concentration index of health service utilization in 2004/05 was near to equality (see Table 5). However, utilisation was pro-poor in the case of care from private chemists or dispensers. This probably reflects

the fact that the rich have better access to formal health services in the private sector.

Table 5 shows the distribution of utilisation across income groups. It is generally agreed that individuals' use of health services should be in line with their need for care. Unfortunately there are no data for Pakistan comparing utilisation to need. However, it can be expected that poorer people would have a greater need for health care. Given high out-of-pocket payments, and equal utilisation of health services across income groups, it is likely that access to health care is inequitable in Pakistan. As described earlier, poor families rely on primary health care services while the rich have easy access to secondary and tertiary care health care, and benefit from both public and other provider networks. There is a huge difference in the type of care available to poor people in terms of the availability of staff and supplies, quality of medical practice and accountability.

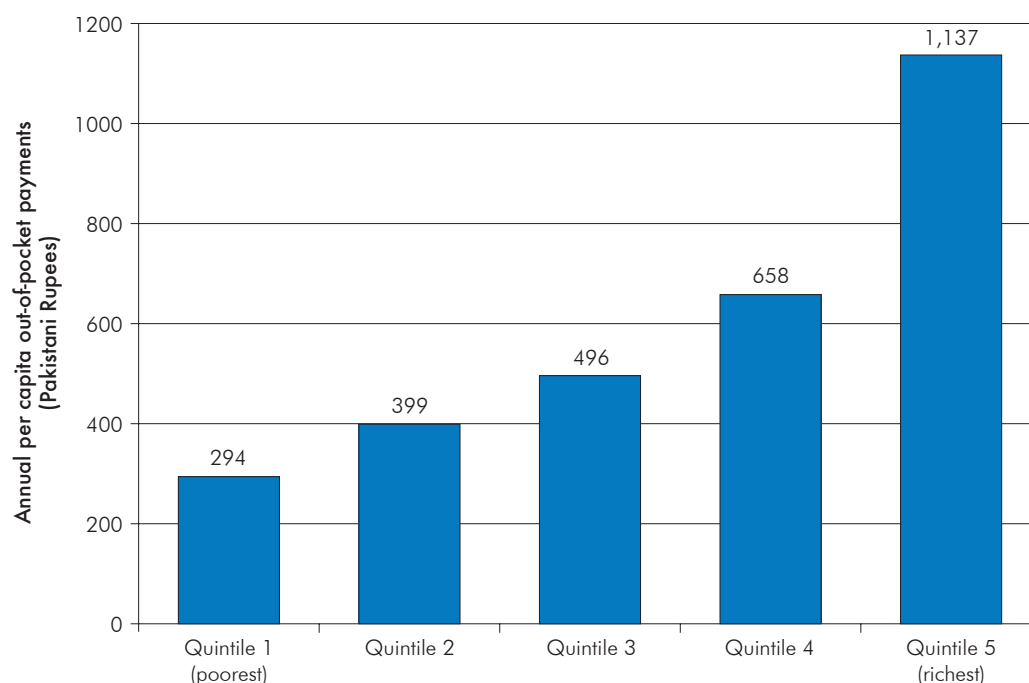
Conclusion

In Pakistan, the health system is dominated by private financing (in the form of out-of-pocket payments) and private provision of health services. Apart from government spending there are very few prepayment mechanisms. Consequently cross-subsidisation is limited, especially as

Table 4: Incidence of different domestic financing mechanisms in Pakistan

Financing mechanism	Percentage share	Likely progressivity	Considerations
Direct taxes: • Personal income tax • Company income tax	6.6%	++	The Kakwani index for personal income tax was 0.54 in 2005, indicating that it was very progressive (Ahmed and O' Donoghue 2009). However, the tax base for income tax is very small in Pakistan.
Indirect taxes: • VAT • Excise/other surcharges • Import/export duties	17.7% 8.4% 5.2% 4.2%	+ + - +	Indirect taxes are progressive overall because they generally reflect transactions in the formal sector of the economy. More than 40% of the population in Pakistan still live in rural areas of the country. These are often poorer and depend on home-grown food and raw fuel which are not taxed. Excise duty, the major share of which is the tobacco tax, is an exception and is regressive. Moreover, many essential food commodities that are sold in raw shape are exempted from VAT in Pakistan (Government of Pakistan 2008).
Mandatory health insurance contributions	1.0%	+	This is progressive because contributions are linked to income.
Total public financing sources	25.4%	+	Overall the tax structure is progressive in Pakistan (Walid and Wallace 2008).
Commercial voluntary health insurance	6.6%	+	Private health insurance is a negligible source of financing in Pakistan. It is concentrated in urban areas and caters for upper- and middle-income groups.
Out-of-pocket payments	68.1%	+	Unlike many low- and middle-income Asian countries (O'Donnell 2008), out-of-pocket payments are slightly regressive in Pakistan (Kakwani Index -0.013)*
Total private financing sources	74.6%	+	Both sources of private financing are progressive.
TOTAL FINANCING SOURCES	100.0%	+	Because most financing sources are progressive (except Excise duty), total health financing is likely to be progressive in Pakistan.

Key: ++ = very progressive; + = progressive; ? = insufficient information to make a judgement; - = regressive; -- = very regressive; *author's analysis of data from the Household Integrated Economic Survey of 2004/05
Source: Compiled by the author using multiple sources

Figure 2: Annual out-of-pocket payments on health care services in Pakistan (2004/05)


Source: Author's analysis of Household Integrated Economic Survey data for 2004/05

Table 5: Concentration indexes for benefit incidence of health service use in Pakistan (2004/05)

Type of Service	Concentration index
Public facilities	
Hospitals*	0.0145
Non-hospital facilities	0.0146
Private facilities	
Hospitals*	0.0610
Chemists/dispensers	-0.0207
Total	0.0271

Notes:

- Estimates are based on adult-equivalent adjusted household consumption expenditure
- Utilisation is based on recall of seeking care over the month prior to the survey, without reference to the nature of the illness or type of care received (i.e. out-patient or in-patient)
- * This does not necessarily mean exclusively inpatient care.

Source: Author's analysis of Pakistan Social and Living Standard Measurement Survey for 2004/05

the better off have access to their own provider networks as well as government facilities.

Pakistan is now ranked as a lower-middle income country so it should increasingly be able to rely on domestic resources to finance health care. On many occasions the government has documented universal health coverage as its prime agenda for the health sector. However, to make progress, more serious efforts are required to reform health policy, revenue collection, resource pooling,

resource allocation, purchasing and health care provision. There are a number of dimensions that need the particular attention of policy-makers in Pakistan.

First, health care is now a provincial function and the four provincial governments can set their own priorities in their respective provinces. Although there is a new Ministry at federal level, consensus between the four provincial governments on financing and the scope of services would be essential to pursue the agenda of universal health coverage.

Second, considering the current fiscal space it is unlikely that the government will be able to enhance allocations to the health sector substantially, without expanding the tax base and improving tax collection. Other sustainable modes of health financing should be explored besides general taxes.

Third, it is essential to set up a health system that offers comprehensive care and where the primary health care level has a strong gatekeeping function. From the universal health coverage perspective, a controlled referral system needs to be implemented.

Fourth, medical practice in the country is alarmingly unregulated. Moreover, it is costly at the point of service delivery. For universal health coverage to materialise, an appropriate skills mix is a key policy instrument to save costs, while provider behaviour needs to be regulated for the provision of standardised, quality care.

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GNHE is a partnership formed by three regional health equity networks – SHIELD (Strategies for Health Insurance for Equity in Less Developed Countries Network in Africa), EQUITAP (Equity in Asia-Pacific Health Systems Network in the Asia-Pacific, and LANET (Latin American Research Network on Financial Protection in the Americas). The three networks encompass more than 100 researchers working in at least 35 research institutions across the globe.

GNHE is coordinated by three institutions collaborating in this project, namely: the Mexican Health Foundation (FUNSALUD); the Health Economics Unit of the University of Cape Town in South Africa; and the Institute for Health Policy based in Sri Lanka.

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