PAKISTAN

FIND
Because diagnosis matters

HEALTHCARE PROFILE

HEALTHCARE STATUS

POPULATION (2017)	LIFE EXPECTANCY AT BIRTH (2016)	TOP 3 CAUSES OF DEATH (2012)	HEALTH INSURANCE COVERAGE
207M	66 (AVG IN SOUTH ASIA) 69	8% HEART DISEASES 8% CANCER 8% LOWER RESP. INFECT.	~19% OF POP.

FINANCING AND EXPENSES

TOTAL HEALTHCARE EXPENDITURE (2015)	HEALTHCARE BUDGET PER CAPITA	DOMESTIC GOV. HEALTH EXPENDITURE AS % OF GOV. EXPENDITURE (2015)	BREAKDOWN OF HEALTHCARE EXPENDITURE (2015)
$7.3 BN (2.7% OF GDP)	$35-40 (AVG IN SOUTH ASIA) $58	3.7%	4% FOREIGN DONORS 28% GOVERNMENT 2% PRIVATE INSURANCE 66% HOUSEHOLDS

INFRASTRUCTURE

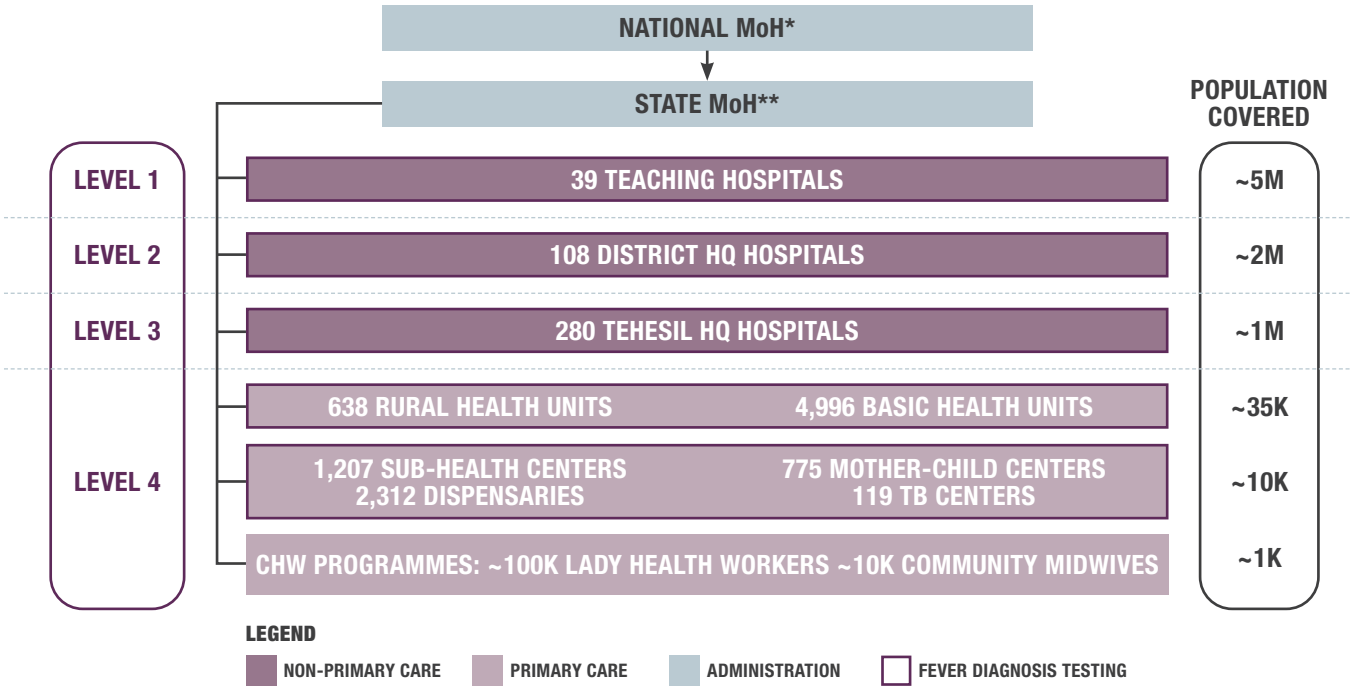
UNIVERSAL HEALTH COVERAGE (UHC): SERVICE COVERAGE INDEX (2015)	DENSITY OF PHYSICIANS (PER 1,000 POP.)	DENSITY OF NURSING & MIDWIFERY (PER 1,000 POP.)	NUMBER OF HOSPITALS	NUMBER OF DISPENSARIES	NUMBER OF HEALTH UNITS
40	PAKISTAN ~1 WHO RECOMM. 1	PAKISTAN ~0.5 WHO RECOMM. 2.5	945	4,577	5,911

Healthcare in Pakistan is limited, even in relation to other low-income countries, including those in South Asia

Sources: WHO, World Bank, Advention

HEALTHCARE INFRASTRUCTURE

PUBLIC HEALTHCARE INFRASTRUCTURE



COMMENTS

Healthcare is provided primarily by private providers:

- 70% of consultations are through the private sector (76% in urban areas, 66% in rural)
- Public facilities are perceived as providing low quality of care and lacking resources
- A significant share of health needs appear to be unmet, with over 70% of private providers being concentrated in urban areas where ~20% of the population lives
- Public funding for primary care is limited, with 70% of expenditure directed to the 39 teaching hospitals, and only 15% for the 10K primary care facilities and >100K CHWs

Hospitals (public and private):

- Hospitals do not aim at primary care – severe febrile cases presenting can be diagnosed using laboratory facilities and managed for multiple pathogens in all hospitals

Basic and Rural Health Units:

- Able to provide limited inpatient treatment, aimed mainly at triage of severe diseases
- Diagnostic lab for basic tests and treatment for common pathogens

Dispensaries and Sub-Health Centers:

- Small facilities (generally no physicians, 3-7 nurses) able to perform basic diagnosis of febrile illness and provide treatment for common pathogens

Monther-Child Centers and TB Centers:

- Specific facilities for family planning and TB, not equipped to manage febrile cases

CHW programmes:

- Lady Health Workers follow community case management guidelines for the diagnosis of febrile cases, and can provide antimalarials and antibiotics; however, their main role is to communicate on good health practices and establish population registries
- Community Midwives aim to promote good antenatal, delivery and postnatal care, and can provide antimalarials and antibiotics to mothers or newborns

There is a significant number of public primary care facilities, but perceived low quality of care and lack of resources means private facilities are the main healthcare providers

Note: (*) Ministry of National Health Services Regulations and Coordination (**) Except for Federally-Administered Tribal Areas (FATA) and 45 military hospitals and dispensaries also providing care for civilians. Sources: National MoH, WHO, Advention

FOCUS ON THE ROLE OF DONORS AND THE PAKISTANI PRIVATE SECTOR

DONORS' ROLE IN HEALTHCARE INFRASTRUCTURE

Since 2014, the Global Fund has agreed to gradually take a more involved role in anti-malaria organization and funding in the highest-transmission areas of Pakistan (66 of 151 districts, covering an estimated 80% of cases in 2010):

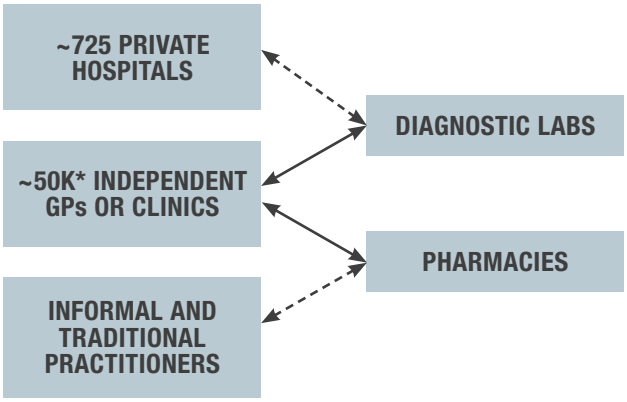
- Management of clinical cases (training of staff and availability of diagnostic equipment in public structures)
- Vector management (e.g. LLINs, IRS)
- Surveillance and outbreak monitoring

Districts in scheme	2014	2016	2018	Target
All activities	23	38	55	66
Partial or ramp-up	20	28	11	0
Total	43	66	66	66

In the public sector, the Global Fund operates directly through existing health facilities and infrastructure.

In the private sector, the Global Fund currently operates 61 diagnostic centers which liaise each with around 150 GPs, and may provide free testing and treatment for malaria.

PRIVATE HEALTHCARE INFRASTRUCTURE



Private healthcare in Pakistan is structured around large independent hospitals, many of which are seen as the highest-quality providers in the country, and independent GPs and clinics

- Private hospitals usually have on-site labs, but some may refer patients to external labs for tests that are not available on-site
- Independent GPs or clinics do not have on-site labs and almost always refer patients to private providers when prescribing tests

Informal and traditional practitioners do not necessarily recognize and use conventional treatments or diagnostics, but are consulted for advice for self-medication and self-diagnosis

- Informal and traditional practitioners may manufacture or bulk purchase treatments themselves, with only referrals for to pharmacies for certain treatments (e.g. antibiotics)

The Global Fund helps organize the malaria programme in high-transmission areas

Pakistan's private hospitals are perceived as providing high-quality services

Note: (*) estimate based on the number of board certified physicians. Sources: National MoH, Global Fund, interviews, Advention

MALARIA DIAGNOSIS PROVIDERS' BUSINESS MODEL

PUBLIC HEALTHCARE FACILITIES

Malaria testing and treatment is free in public facilities, but resources and staff experience limit availability:

- A 2009 survey of high-transmission districts for malaria showed that less than 40% of facilities surveyed had staff that were knowledgeable about the national malaria guidelines and were trained to carry out the requisite tests
- Testing is not systematically carried out for febrile patients, with some facilities preferring to rely on clinical diagnosis to avoid additional costs and staff time use. In one hospital in a high-transmission area, 717 suspected cases of malaria were reported in the off-season, but only 99 tests were performed and all were negative for malaria
- Long waits are common for patients, and tests may require visiting other facilities or long turn-around times, so most patients perform the test in private labs

Community health workers are not incentivized to help refer febrile patients to health facilities, and may have an incentive to assist in self-medication or self-diagnosis

- Lady Health Workers are paid a salary that is considered very low, and often complain of a lack of resources and medicines. They may serve as informal practitioners for some patients either for reputational or financial reasons

PRIVATE HEALTHCARE FACILITIES

Febrile tests are an out-of-pocket expenditure for patients, with insurance being limited to inpatient care:

- Physicians seek to limit waiting time and expenses for patients, and so rely excessively on clinical diagnosis
- Hospitals and clinics are incentivized to limit diagnostic tests for outpatient care in order to reduce costs, or to provide palliative inpatient care for patients with insurance rather than radical cure as an outpatient treatment

Pharmacies and dispensaries provide treatment as an out-of-pocket expense and may deviate from guidelines either to provide less expensive treatment courses for patients or to generate more revenue

- In simulations of febrile patients consulting pharmacies without having seen a physician, over 80% of visits ended up with a treatment being dispensed, and only 15% of patients were referred to a doctor at any point during the visit
- The large majority of employees in pharmacies and dispensaries (estimated at around 80%) are salespeople who are not required to have any medical training and work under the supervision of a trained pharmacist; however in practice the degree of supervision can be extremely limited and the salesperson is expected to optimize revenue generation

In the private sector, febrile case management is usually an out-of-pocket expenditure that patients sometimes seek to reduce by foregoing tests

In the public sector, care is free, but with strong limits on availability

Sources: interviews, Advention

HEALTHCARE STAFF AND TRAINING

	PHYSICIANS	NURSES	CHWs
GENERAL JOB DESCRIPTION	Examine in- and out-patients in line with standard medical procedures using various types of diagnostic mechanisms Prescribe drugs based on examination, test reports and findings and counselling services	Provide nursing care, preventive and curative care Triage patients for physician consultation and perform basic patient assessment	Establish and maintain health registers of inhabitants in the area Visit households locally to promote health practices and triage patients for referral Main areas of focus are mother-child care, community TB management and HIV/AIDS
MALARIA SPECIFIC TASKS	Use IMCI and IMAI approach to diagnose through clinical diagnostic and microscopy confirmation for severe cases	Triage patients for suspected malaria fevers and take blood sample	Identify and refer patients with clinical signs of malaria
MEDICAL TRAINING	4 years or more	2 years	3 months in classrooms and 1 year as a support/trainee
RDT USE KNOWLEDGE	✓	−	✗
BLOOD SAMPLING KNOWLEDGE	✓	✓	✗
POP. RATIO (2014) – HIGH API STATES	1:2000	~1:1250	N.A.
POP. RATIO (2014) – MID API STATES	~1:1200	~1:1000	N.A.
POP. RATIO (2014) – LOW API STATES	~1:600	~1:1250	N.A.

LEGEND

✓ COMPLETE KNOWLEDGE − INCOMPLETE / PARTIAL KNOWLEDGE ✗ NO / VERY LIMITED KNOWLEDGE

Malaria diagnosis and treatment is performed exclusively by physicians

CHWs have no training for blood-based tests or RDTs

Sources: WHO, National MoH, Advention

ACCESS TO CARE

ACCESS TO CARE, 2015

UNIVERSAL HEALTH COVERAGE INDEX (S-SE ASIA, UHC)*	
NO. OF HOSPITAL BEDS FOR 10K POPULATION	6.0
NO. OF PHYSICIANS FOR 10K POPULATION	0.8

Access to care by region varies significantly by region:

- Highest in the capital territory of Islamabad and the south-eastern Punjab and Singh provinces bordering India
- Lowest in the mountainous Federally Administered Tribal Area and in Balochistan bordering Afghanistan

Due to the low funding of preventive and primary care in Pakistan, health practices remain traditional in some regions, with only limited formal care being sought by patients:

- In rural Balochistan, only 41% of mothers receive formal pre-natal care or consultations
- In some communities, diagnoses for illnesses are first sought through informal channels, either familial or untrained medical and faith practitioners

ADDITIONAL COMMENTS ON ACCESS TO CARE DYNAMICS, SPECIALLY IN RELATION TO FEBRILE ILLNESSES

Access to care in Pakistan is complicated by several additional factors:

- Internally or internationally displaced populations, in particular along the border with Afghanistan and in areas of internal conflict in Northern Pakistan
- Significant cross-border worker migrations, in particular along the borders with Afghanistan and Iran
- Frequent natural disasters, including flooding and mudslides during the monsoon season and earthquakes in the Himalayan regions
- Cultural and social norms which may limit physicians' ability to carry out a complete diagnosis (e.g. presence of family members during consultations and patient under-reporting of symptoms)
- Rapid urbanization and limited urban planning

Primary and preventive care is limited in Pakistan, with most focus being put on mother-child care and vaccination uptake

- ~110K CHWs (Lady Health Workers and Community Midwives) are focused on mother-child care
- Pakistan's polio vaccination programme alone mobilizes 260K front-line CHWs and health workers for 3-day drives every trimester

Health coverage in Pakistan is very limited, and poorest in the northern and westernmost areas of the country

Note: (*) UHC is made of 16 indicators such as child treatment, malaria prevention, hospital access, health worker density.
Sources: WHO, World Bank, Pakistan Bureau of Statistics, Advention