Understanding the private health sector
in Yemen

World Health Organization
Eastern Mediterranean Region

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Contents

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1
Country context

Yemen has a total area of

550 000 km²

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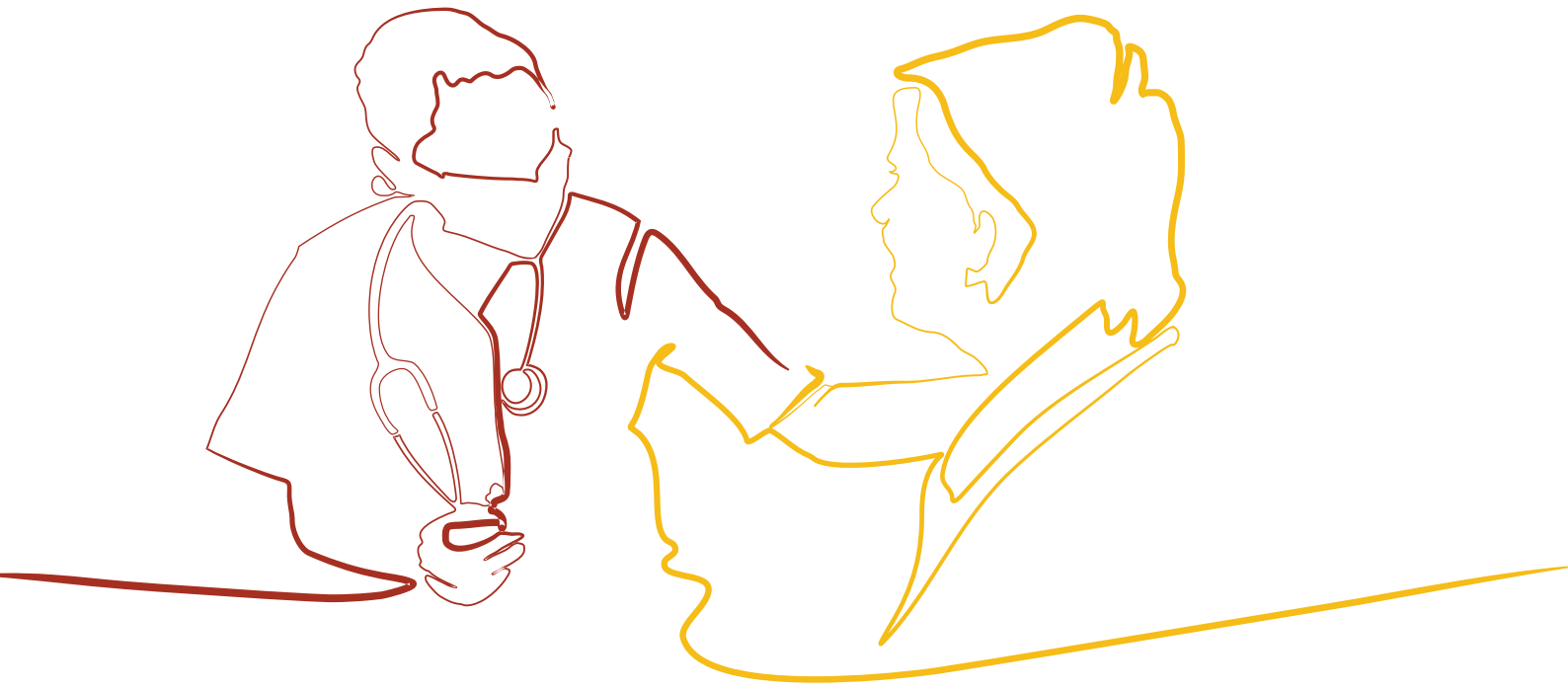
settlements

Yemen has a total area of 550 000 km² and is characterized by difficult terrain and a population widely dispersed in more than 130 000 settlements, making delivery of health services extremely challenging. Administratively, Yemen is divided into 22 governorates, 333 districts, 2210 subdistricts and 38 284 villages. The Yemen National Health and Demographic Survey 2013 showed the population was growing quickly, at a rate of 3.02% *(1)*. The population was estimated to be 25 million in 2013, and around 70% of people live in rural areas *(1)*. It is one of the least developed countries in the world, with a low Human Development Index score of 0.483 in 2015 that dropped further to 0.452 in 2017 (rank: 178 out of 189) *(2)*. An estimated 81% of the population were living below the poverty line in 2018, a rise of one third since 2014 *(3)*. Health and development indicators remain poor, and the country was not able to achieve any of the Millennium Development Goals.

Yemen has been experiencing internal conflict for several years, a situation that has led to economic collapse and a catastrophic humanitarian situation. Approximately 79% of the population require humanitarian assistance, more than 50% lack access to clean water and 68% lack access to basic health services. There is a huge demand for health care, related to both communicable and noncommunicable diseases. In 2016, only 50% of health facilities were functioning, the result of damage due to war and shortages of financial and human resources. The limited public health services are unable to meet health demands in terms of geographical coverage, service availability or quality of care. Approximately 16.4 million people lack access to basic health services, of which more than half a million are pregnant women.



2

Health status and selected health indicators

The war in Yemen is having a devastating impact on the health of the population, particularly on women and children *(4)*. Increasing levels of poverty, damage to infrastructure, lack of social protection, poor education and limited access to basic social services are contributing to the poor health status of the population. It is estimated that 2.9 million children and lactating or pregnant women are acutely malnourished *(5,6)*. Table 1 shows that Yemen is lagging behind the regional average on almost all health indicators.

Table 1. Selected health indicators in Yemen compared with the regional average, 2016 *(7)*

Indicator	Value	
	Yemen	Eastern Mediterranean Region
General health status		
Life expectancy at birth (years)	65.3	69.1
Healthy life expectancy at birth (years)	55.1	59.7
Adult mortality rate (probability of dying between ages 15 and 60 years) per 1000 population	209	150
Reproductive and child health		
Maternal mortality ratio (per 100 000 live births)	385	166
Proportion of births attended by skilled health personnel (%)	45	–
Neonatal mortality rate (per 1000)	26.8	27.7
Under-five mortality rate (per 1000 live births)	55.3	51.7
Measles-containing vaccine second-dose (MCV2) immunization coverage by the nationally recommended age (%)	49	67
Diphtheria-tetanus-pertussis (DTP3) immunization coverage among one-year-olds (%)	71	80
Prevalence of stunting in children under five (%)	46.5	24.6
Prevalence of wasting in children under five (%)	16.3	9.1
Communicable diseases		
Tuberculosis incidence (per 100 000 population)	48	114
Malaria incidence (per 1000 population at risk)	30.5	20.5
Hepatitis B surface antigen (HBsAg) prevalence among children under five (%)	2.54	1.6
New HIV infections (per 1000 uninfected)	0.04	0.06
Noncommunicable diseases		
Probability of dying between ages 30 and 70 from any cardiovascular disease, cancer, diabetes or chronic respiratory disease (%)	30.6	22
Mortality rate attributed to exposure to unsafe WASH services (per 100 000 population)	10.2	–
Violence and injuries		
Road traffic mortality rate (per 100 000 population) (estimates 2007–2015)	21.5	19.9
Estimated direct deaths from major conflicts (per 100 000 population)	21.6	24.1

A 2018 study among rural women estimated that the obesity rate was

31.3%,

hypertension was

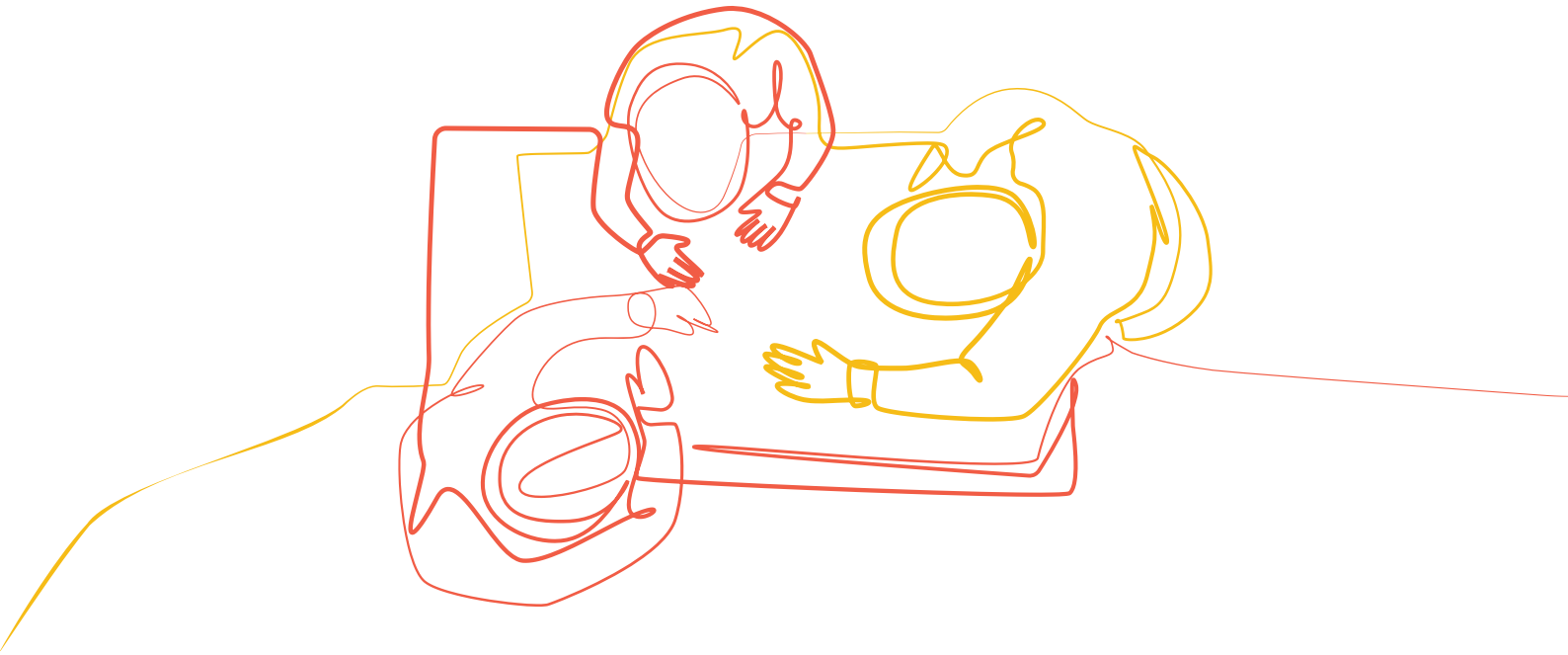
15%

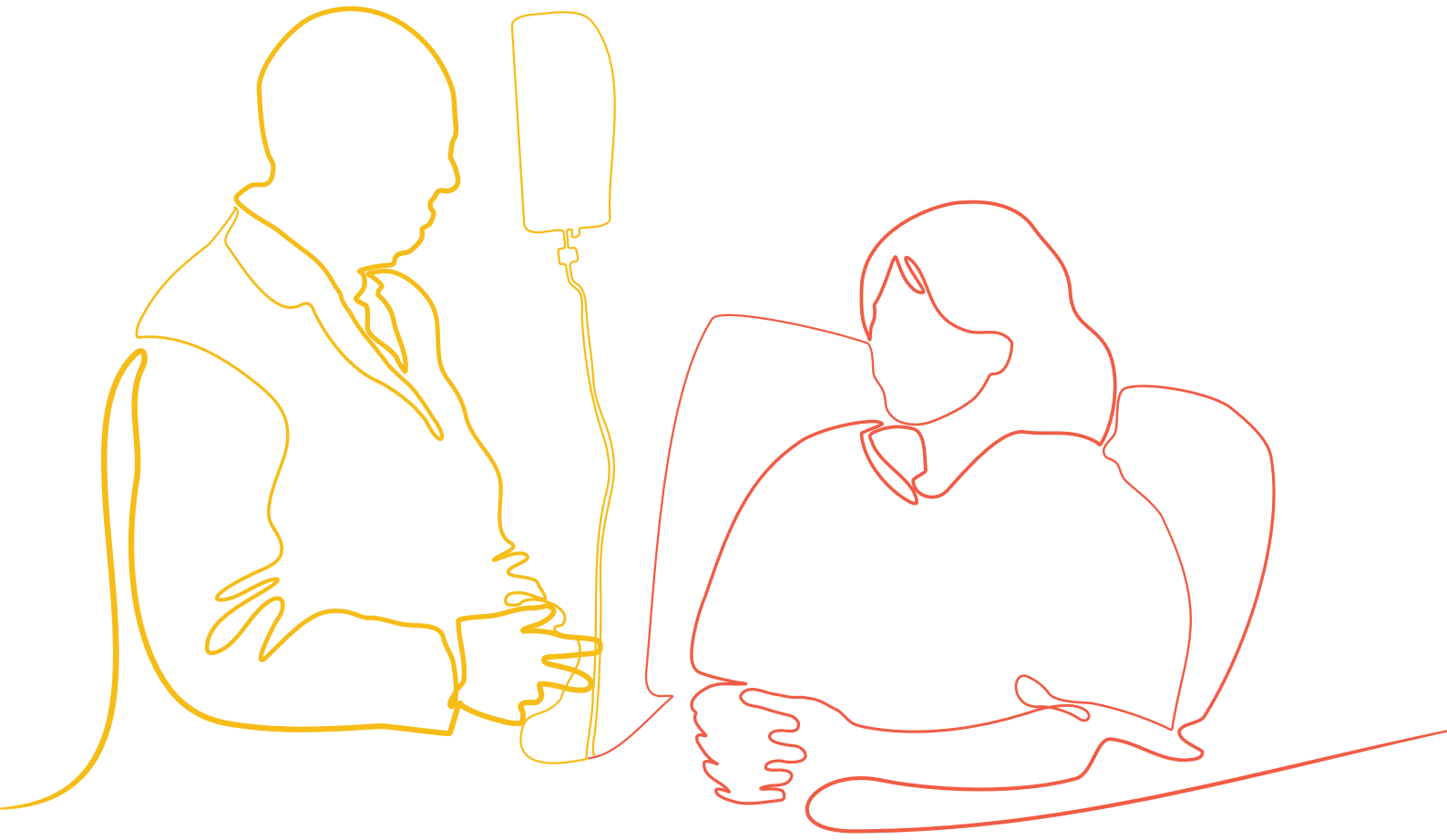
and diabetes mellitus was

7.8%

Noncommunicable diseases account for 30% of avoidable deaths in Yemen *(7)*. A 2018 study among rural women estimated that the obesity rate was 31.3%, hypertension was 15% and diabetes mellitus was 7.8% *(8)*. The probability of dying from cardiovascular disease, cancer, diabetes or chronic renal disease between exact ages 30 and 70 years is high at 30.6% *(7)*. There are no published data on the exact health service needs of the population. WHO reports that around 9.5 million people were reached by health services through the Health Cluster: 1.8 million consultations were provided and 130.5 thousand disease alerts were detected and investigated *(7)*. It is evident that the health needs are enormous and beyond the capacity of the existing health structure and resources of the country *(4)*.

The country context and its health system indicators show a high demand for health care and gaps left by a weak public health system *(9)*. Considering the importance of engaging the private health sector to achieve universal health coverage, it is necessary to compile detailed information about the private sector to define potential upcoming steps for effective public–private partnership.





3

Health system overview and organization of service delivery

3.1 Public health sector

3.1.1 MOPHP

Public health services are mainly provided by the MOPHP. Table 2 shows the number and types of public health facilities as of 2012. MOPHP facilities are arranged in a four-tier system, as follows:

- **first level – primary health care units (fixed) and outreach services**
- **second level – district hospitals**
- **third level – general hospitals**
- **fourth level – two specialized referral hospitals (10).**

Table 2. Number and type of public health facilities in Yemen, 2012

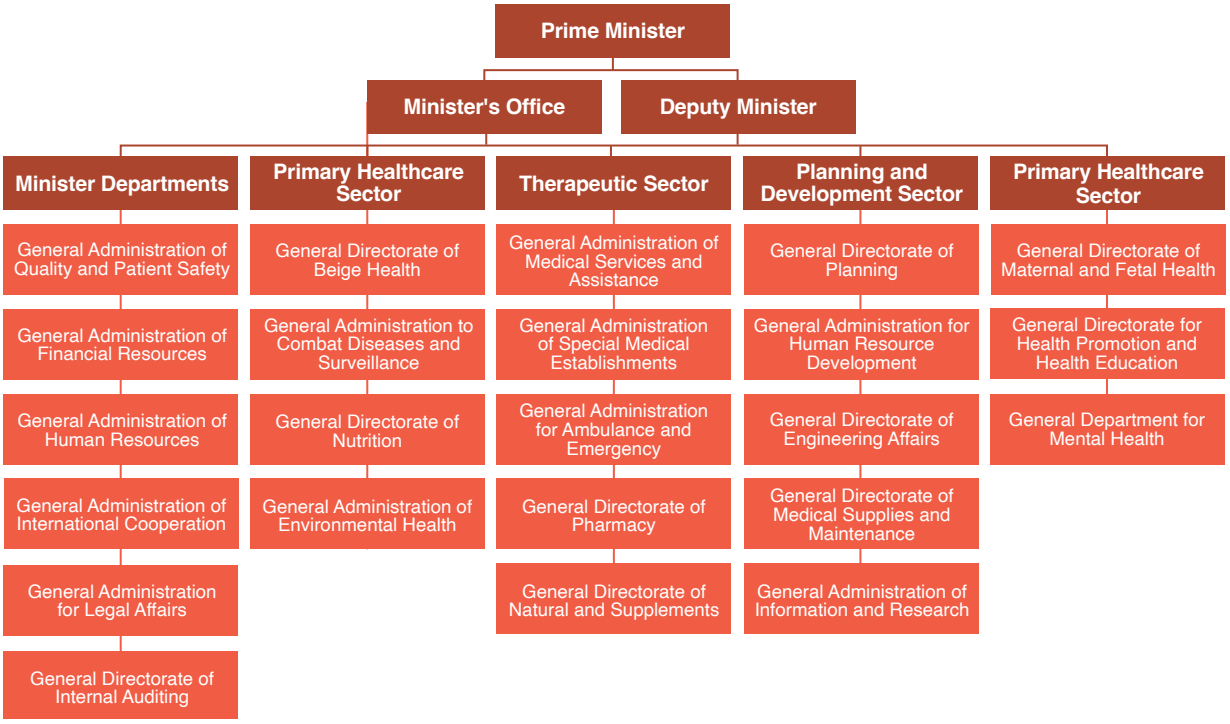
Type of facility	Number
Referral hospitals	2
Governorate hospitals	54
District hospitals	185
Health centres	873
Health units	3007
Mother and child health centres	2266
Health compounds	41
Total number	**6428**

Source: National Health Human Resources Strategy 2014–2020.

Fig. 1 shows the MOPHP organogram. The Ministry administration is decentralized; the managerial functions are delegated to the governorate health offices and then to the district health offices. Major hospitals are given autonomy under the hospital management boards.

Health sector reforms were introduced in the 1990s, which included measures such as cost sharing and decentralization of health services. One major pillar in the health sector reform was the redefinition of the role of the MOPHP to enforce its planning and oversight functions and to initiate its gradual withdrawal from health service provision. While the public sector would continue to provide basic and preventive health care, it was planned for private providers to take a larger role in health care provision, especially curative and hospital services.

Fig. 1. MOPHP organogram



Source: MOPHP.

3.1.2 Health service provision by other ministries and entities

The Ministry of Interior, the Republican Guard and the Ministry of Defense provide health facilities, and Aden Refineries (Ministry of Oil and Minerals) provides health services for its employees and their dependents.

3.2 Private health sector

The private health sector is composed of a large for-profit sector and a limited number of not-for-profit providers.

3.2.1 For-profit private health sector

The number of private for-profit health care providers is rapidly growing in Yemen. Based on estimates for 2012, there were 14 414 facilities of various types in the private sector (Table 3). Evidence shows that approximately 75% of the Yemeni population seek health services at private facilities (MOPHP unpublished data, 2014).

Table 3. Number and type of private facilities, 2012

Type of facility	Number
Hospitals	180
Infirmaries/hospices	327
Medical centres	597
General practitioners' clinics	678
Specialized clinics	1097
Dental clinics	779
Dental laboratories	129
Laboratories	1321
X-ray facilities	105
Midwifery clinics	61
First aid clinics	1396
Pharmacy	3363
Total number	**10 033**

Source: National Health Human Resources Strategy 2014–2020.

According to the MOPHP, the private health sector is largely unregulated and, as a result, has deviated from its planned complementary role to become a competitor to public health services *(9)*. Geographically, private health facilities are concentrated in urban areas and tend to provide lucrative services, such as simple surgical operations. No data are available on bed capacity, types or level of services provided, or on staffing of private facilities. However, it not possible to fully separate or draw a demarcation between the public and private health sectors, particularly as health providers undertake dual practice.

Informal health care services also exist and include a wide range of practitioners such as traditional healers, orthopaedists, herbal therapists and spiritual therapists. The informal sector attracts clients through advertising and offers a wide range of services, for example, cosmetic procedures, treatment of mental disorders and fertility treatment. In January 2019, the MOPHP issued a decree to close a number of alternative medicine centres in the capital city of Sana'a.

3.2.2 Not-for-profit private health sector

The not-for-profit private health sector is limited in Yemen, and little information is available about its size and scope. The not-for-profit sector is understood to focus on primary health care services, including maternal and child health; however, the growth of the sector and its behaviour have not been adequately studied.

3.3. Service delivery challenges

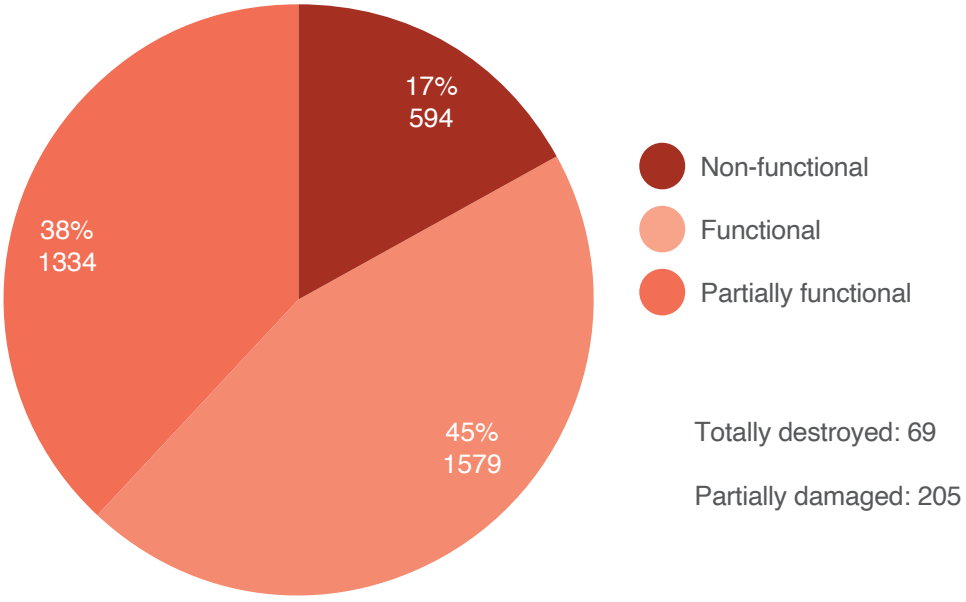
Yemen introduced an essential health services package (EHSP) in 2004, which aims to provide equitable access to basic health services, with a focus on maternal, newborn and child health. So far, the EHSP

has not been formally assessed, but its funding and implementation were found to be limited in a 2015 study *(11)*. In addition, health facilities report chronic shortages of equipment, supplies and life-saving medicines at all levels of care *(9)*. Moreover, the availability of services at referral hospitals is also limited.

The current conflict and economic hardships have affected both aspects of service provision: the population and the health system. Extreme levels of poverty have limited people's ability to pay the increasing costs of health care including fees for services, investigations and medicines, as well as the high costs of transport to facilities. The health system has become too limited to provide even essential services. In 2018, around 16.4 million people lacked access to basic health care and more than 520 000 pregnant women had no access to reproductive health or emergency obstetric care services *(6)*.

Service availability is reduced due to the closure of facilities and shortages of staff and essential supplies. Out of 3507 health facilities included in WHO's 2016 Health Resources Availability Mapping System (HeRAMS) report, only 45% were fully functioning in the country *(12)*. The remaining facilities were partially or completely destroyed, occupied or forced to close because of lack of operational funds, staff and/or essential commodities (Fig. 2). The highest numbers of damaged facilities were in Sa'ada governorate (60 facilities), followed by the capital city of Sana'a (25 facilities), Abyan and Ta'izz (25 facilities in each) and Hajjah (22 facilities).

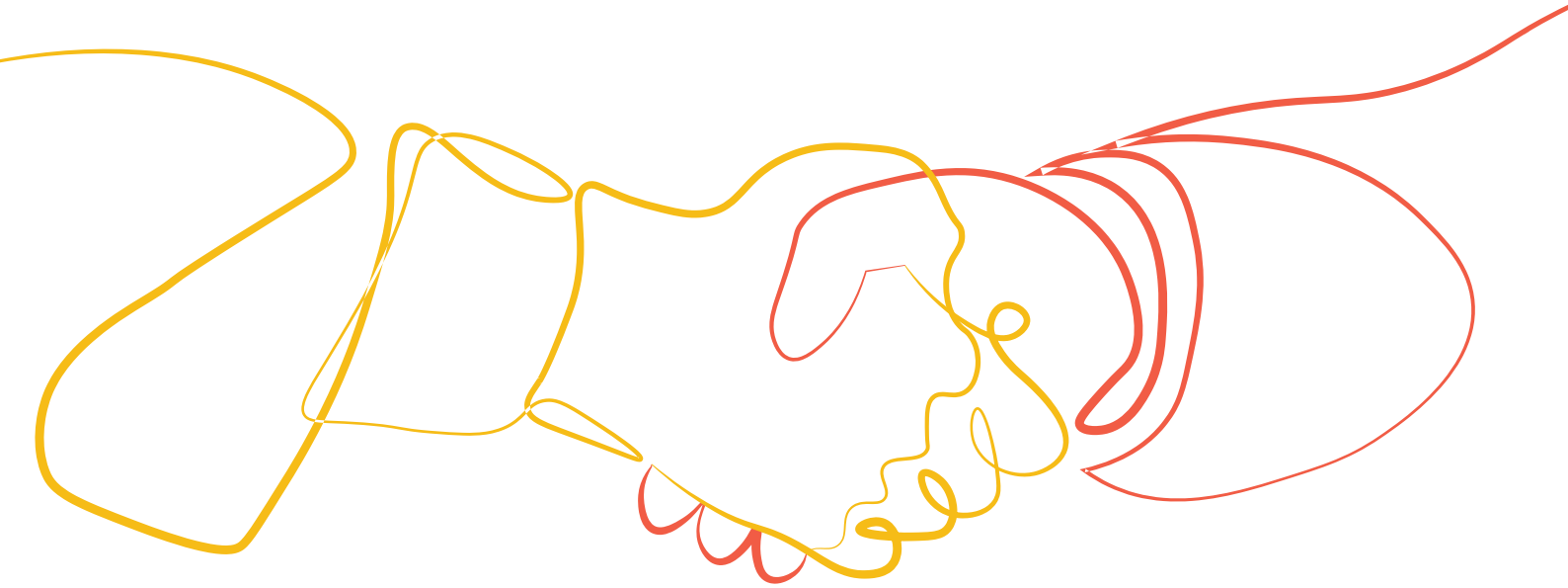
Fig. 2. Functionality of health facilities in 16 governorates, October 2016 *(12)*



The closure of health facilities has reduced the availability of services to the population below the recommended national emergency standards (Table 4). Health unit density per population has decreased by almost 50% for health units and health centres. The density varies between different governorates, but no specific pattern in shortages is indicated by either of the indicators across regions.

Table 4. Population coverage by health facilities (number of facilities/beds per population) *(12)*

	Current level	National benchmark
Health units	1: 9885	At least 1 per 5000 population
Health centres	1:36 340	At least 1 per 20 000 population
Hospitals	1: 150 190	1 per 60 000–150 000 population
Beds	6.2:10 000	10 per 10 000 population



4
Human resources

Table 5. Medical and health science institutions in the public and private sectors, 2012

Institution	Public	Private	Total
Medicine	6	2	8
Dentistry	5	3	8
Pharmacy	4	6	10
Nursing	5	2	7
Non-university nursing	4	0	4
Health science institution	21	37	58
Community colleges	2	16	18
Total	47	66	113

Source: National Health Human Resources Strategy 2014–2020.

The National Health Human Resources Strategy 2014–2020 laid out the main challenges and needed interventions to improve human resources for health in Yemen. The strategy was based on data from 2012, which showed there were 113 colleges and institutions in the public and private sectors providing medical and health education (Table 5), under the supervision of three ministries (Ministry of Higher Education, MOPHP and Ministry of Technical Education).

Table 6 shows the number and categories of health workforce members registered in 2013. There was a shortage in number as well as an inequitable distribution of the health workforce, to the advantage of urban areas. The skill mix is disproportionate, with 1 doctor to 1.2 nurses, whereas WHO recommends 1 doctor to 4–6 nurses. The shortage is more evident among female health workers and in rural areas. Around 80% of health care providers are located in urban areas, whereas rural areas – where 80% of the population live – are served by the remaining 20%. It is common knowledge that dual practice is a widespread in the public and private sectors, and that private facilities depend on public health staff.

Table 6. National health workforce, 2013

Category	Number
General doctors (Medicine MBBS)	5412
Postgraduate/specialist	5104
Medical assistant	6687
Nurse – degree qualified	319
Nurse – technician	4662
Nurse – intermediate education	7265
Nurse – vocational	163
Midwife – technician	241
Community midwife	6907
Surgical technician	483
Health guide	1299
Laboratory specialist	964
Laboratory technician	7617
Pharmacist – degree qualified	867

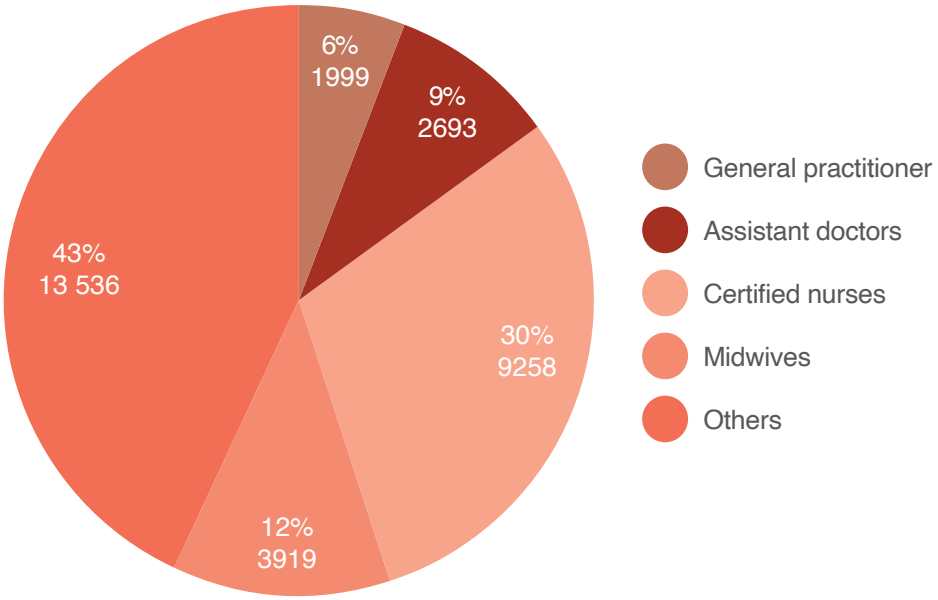
Pharmacy technician	12 878
Dentist – degree qualified	1507
Dentistry assistant	602
Dentistry technician	946
Anaesthetist technician	482
Total health care providers	64 405
Administrative and support staff	10 880
Total health workforce	75 285

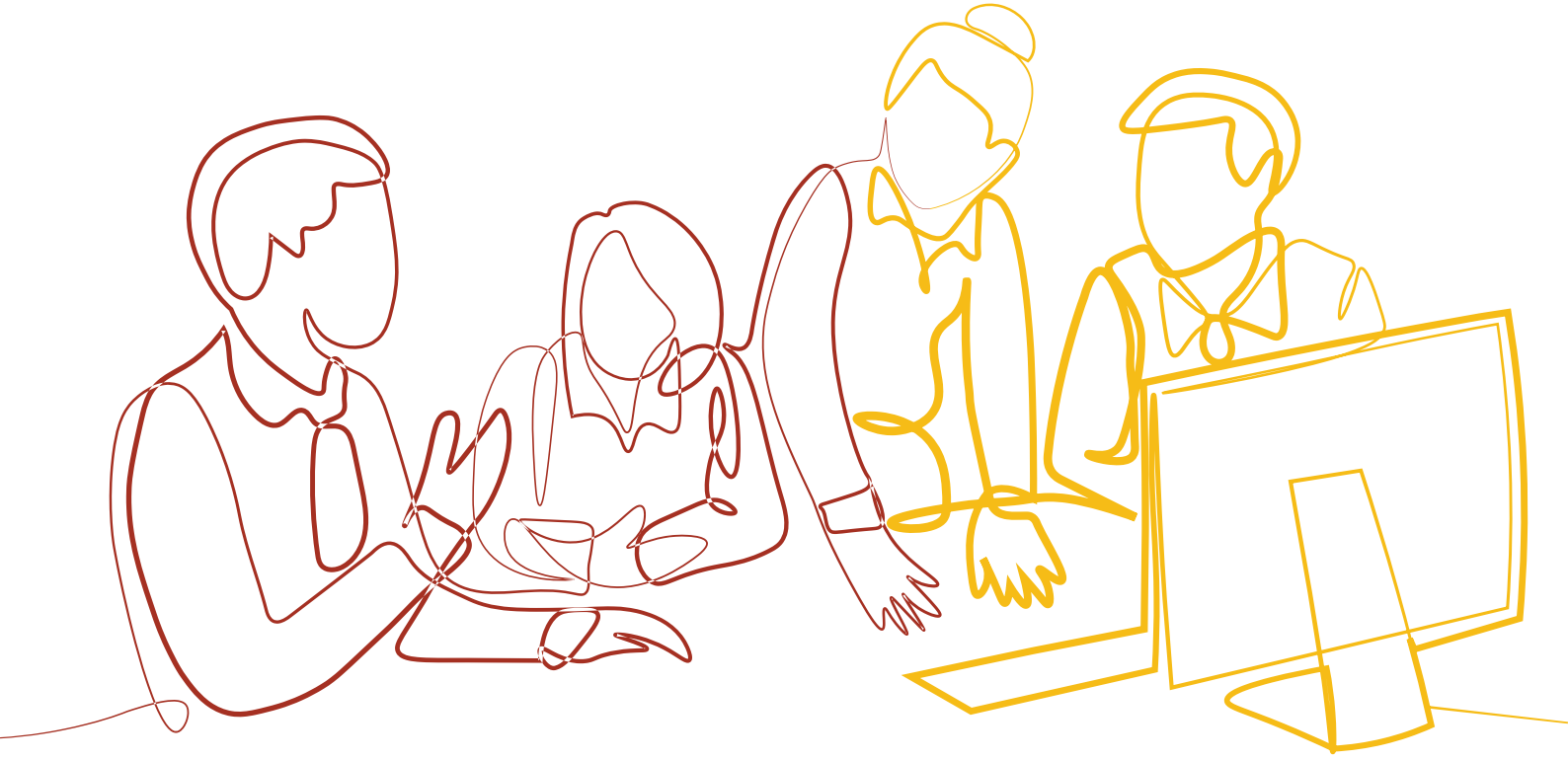
Source: National Health Human Resources Strategy 2014–2020.

The health workforce strategy remained unimplemented when the conflict broke out in 2015, leading to the above-mentioned shortcomings worsening. HeRAMS reported data on health services in 267 districts of 16 governorates as of October 2016 *(13).* The survey counted 33 317 health workers of different categories, indicating a health worker density of 1.7 per 1000 population, well below the WHO recommendation of 2.3 (Fig. 3). As of 2015, WHO estimated the density of health workers at a low of 0.3 physicians, 0.73 nurses/midwives, 0.02 dentists and 0.1 assistant technical workers per 1000 population *(7).* Staff is also unevenly distributed: 49% of included districts had no doctors and 42% had fewer than two doctors.

Similarly to other Government employees, some 40 000 health care providers have not received proper salaries for several years. Health practitioners are required to obtain a work permit from the Medical Council and the respective medical syndicates; however, these requirements are not strongly enforced, and health workers can be recruited by both the public and private sectors. In addition, job descriptions, when they exist, are not applied, such as for those of medical doctors and midwives. This has led to an overlap of responsibilities and conflict among the different categories of health worker. There are no transparent or standardized performance assessment mechanisms *(9,13).*

Fig. 3. Availability and categories of public health workers in 16 governorates, 2016 *(12)*





5
Health financing

5.1 Health expenditure

Health financing indicators have worsened in comparison to the pre-conflict data

The public health system in Yemen has been chronically underfunded. Government expenditure on health as a proportion of gross domestic product (GDP) was stable at around 4% in the years leading up to the conflict *(14).* A review by the MOPHP in 2009 showed that 47% of the Government health budget was directed to the governorate health offices and local authorities and 10.7% was dedicated to one referral hospital (Al-Thawra Hospital) *(15).* Geographically, allocation of the health budget was disproportionate to the size of the population in certain regions. For example, public health expenditure was 12% in Aden where 3% of the population reside, whereas in Sa'dah the expenditure was 1.8% for 3.6% of the population. The MOPHP had direct control over 33–37% of the Government budget between 2003 and 2007. The limited allocation to the central operational costs weakened the planning, monitoring and supervisory roles of the Ministry *(15).*

Health financing indicators have worsened in comparison to the pre-conflict data. In Yemen, per capita health expenditure stands at US$ 72 compared with an average of US$ 557 for the Eastern Mediterranean Region *(16).* Between 2013 and 2016, the per capita health expenditure dropped steeply by more than half and out-of-pocket expenditure increased by one third, with predictably catastrophic effects on the increasingly impoverished population *(7).* This was due to the reduced GDP and fiscal crisis, and complicated by the departure/downsizing of many development partners *(17).* It is worth noting that Yemeni patients often travel abroad to seek specialized care (such as organ transplant or cancer treatment) and due to this, many patients incur heavy financial costs when seeking health services *(18).* In 2004–2007, treatment costs abroad formed almost 6% of the total recurrent health expenditure *(15).*

The health response remains underfunded *(7).* Competing with other needs, the health sector received 8.5% of the 2018 humanitarian assistance funds, mainly in support of primary health care and maternal and child health services. These findings illustrate the major challenge for public health service delivery in Yemen since March 2015 *(19).*

5.2 Financing and private health sector resources

Public sector professionals acknowledge that there are issues in financing the health system in Yemen. As noted previously, users pay for health care services in the public health facilities as part of the cost-sharing programme. In the private health sector, direct payments to the facilities or to clinicians at private clinics are the largest source of financing in all curative and diagnostic private health facilities. Other forms of payment, such as employer reimbursement or per capita payment in informal agreements with Government authorities, are uncommon. These modalities may account for 5–10% of the clientele in some facilities. Insurance plays a minor role and is provided solely by private insurance companies; it covers employees in private sector companies, a few Government employees and those who are self-insured. According to representatives of three insurance companies, the market is small and stagnant or even contracting. There are no exact figures, but available data indicate that insurance accounts for 1% of total health expenditure. The capacity of the contracting public authority to conduct verification,

settle claims, make payments and counter frauds is limited by the weak administrative system and a shortage of human resources.

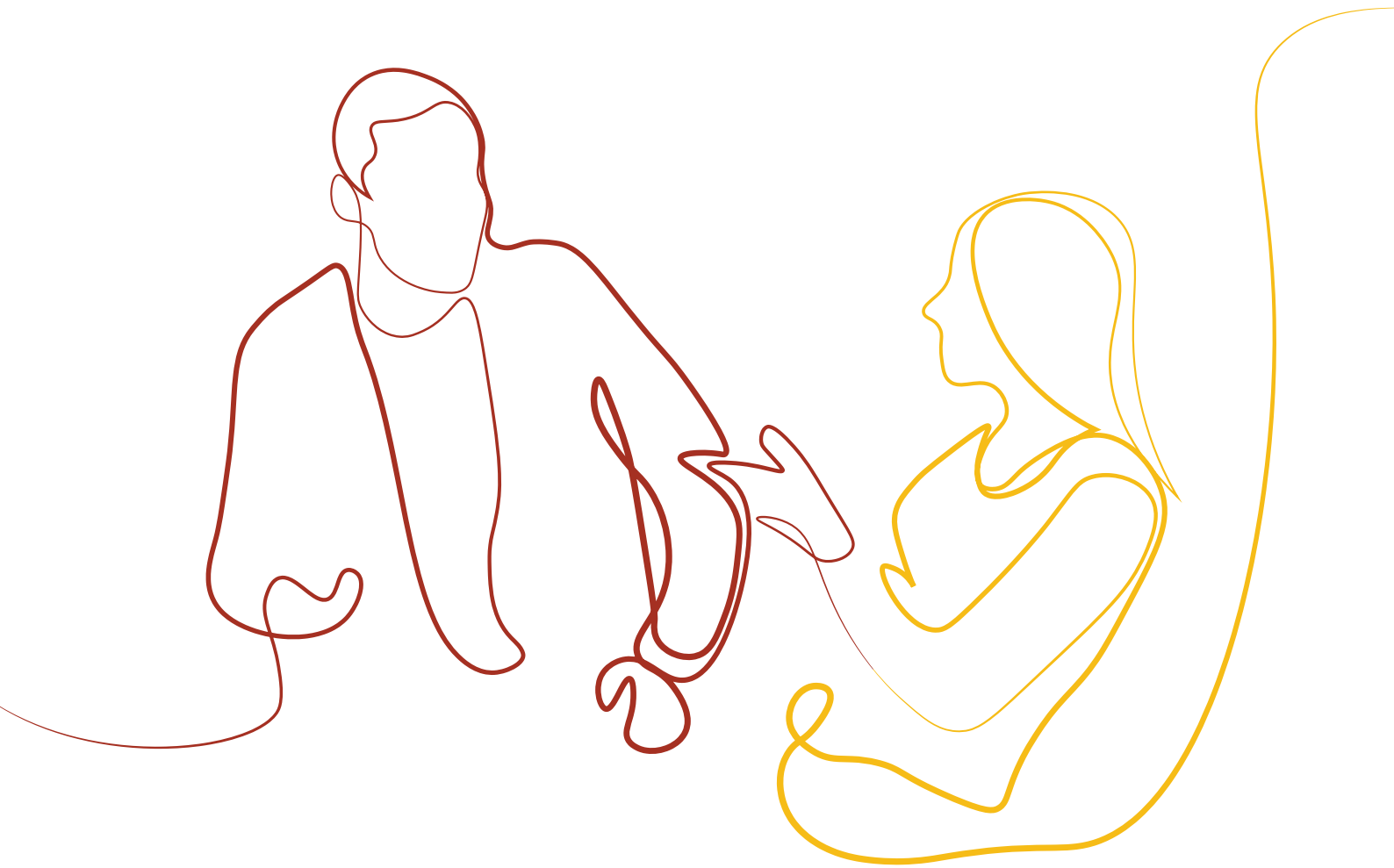
The for-profit private sector is financed through personal investment, while the not-for-profit sector depends mainly on donations. The not-for-profit sector receives financial and non-financial support from the Government or international agencies. Some for-profit private health facilities and providers are involved in insurance schemes, but on a limited scale. These schemes are usually for private insurance companies and, to a lesser extent, Government authorities. The premiums and services provided vary according to the type of agreement; such agreements are usually drawn up on a per capita basis and are service-based. Not-for-profit private health facilities are not involved in insurance schemes. Accordingly, this limits their resources leading to a shortage in the operational budget and human resources, a challenge mentioned by the health care providers interviewed. Unfortunately, there are no specific data available on private health sector resources.

5.3 Out-of-pocket expenditure

The population shoulders the majority of health expenditure out of pocket: almost 76% of the total expenditure on health in 2014. The high costs of transport and the need to pay for services are major barriers to accessing health care, also in emergency situations *(1)*. At public health facilities, users pay service fees and cover the cost of medicines; the revolving resources are used towards staff incentives and operating costs. Service fees are determined by the MOPHP in consultation with the local authorities, allowing fee waivers for poorer users of health care. An assessment of the cost-sharing policy in 2002 indicated that it is implemented inequitably and is likely to hamper the access of poor users and prevent quality improvements and sustainability *(20).*

5.4 Health insurance

Health insurance is minimal in the country; a planned national insurance scheme has not been implemented. A few private insurance companies and small-scale employment-based or informal health financing schemes have emerged during the last two decades. The services and clientele are limited in scope (Section 5.2).



6

Private health sector analysis and stakeholder perspectives

The following analysis was undertaken based on a desk review and a summary of feedback from seven sets of stakeholders: public health officials and professionals (7); private sector professionals (120); private laboratories, pharmacies and diagnostic centres (117); representatives from not-for-profit organizations (4); private professional associations/ syndicates and business councils (15); health insurance companies (3); and patients (users) of both public and private health facilities (618).

6.1 Private health sector growth and expansion: determinants

The following analysis focuses on the growth, behaviour and role of the private health sector and on public–private partnership (PPP) in Yemen. Reports and studies in this field are limited; therefore, this analysis is based on desk review findings and relies largely on the perspectives of public and private health care actors and users of private health services.

In Yemen, the private health sector has grown immensely since the late 1990s and is continuing to expand *(9)*. The not-for-profit private health sector is limited; however, for-profit private health facilities form almost 70% of the total number of health facilities in the country (Section 3.2.1). In terms of human resources, the public sector has a higher number of medical and dentistry schools, whereas the private sector has more institutions training medical assistants, laboratory technicians and so on.

The investment laws (2002 and 2010) and the establishment of the General Investment Authority in 2010 created a pro-private sector environment, including in the health sector. Investors – Yemeni and non-Yemeni equally – were granted tax deductions and customs waivers, and rights to land and property ownership *(13).* Nevertheless, the public and private health professionals surveyed in this review believe that the private health sector is growing due to ineffective regulation and the low capacity of the public sector to deliver quality health care to the population. In comparison, these professionals see a weak role for development partners and international agreements in encouraging private sector growth.

In Yemen, the private health sector has grown immensely since the late 1990s and is continuing to expand

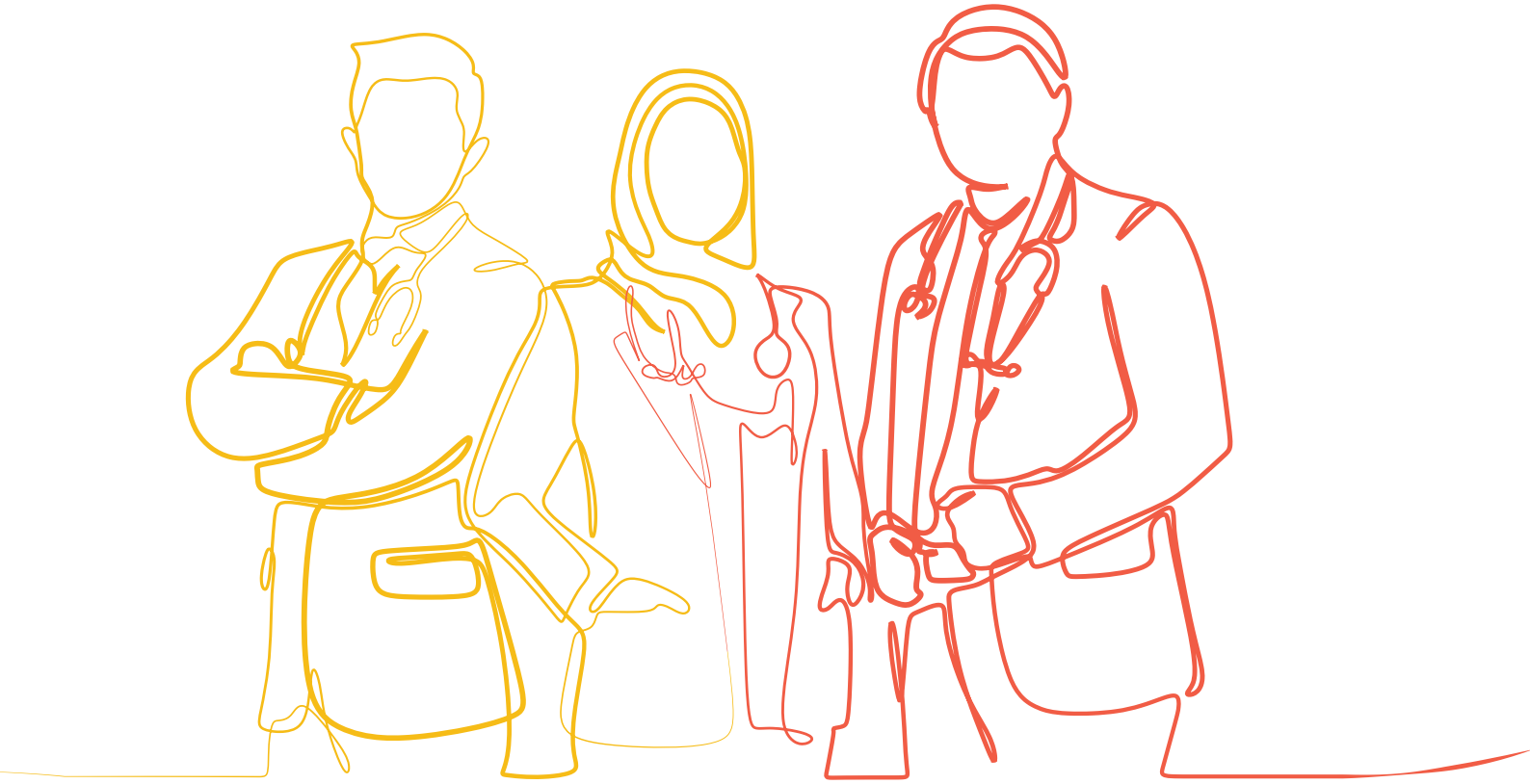
Most policy-makers and public health officials (71%) concurred that the growth of the private health sector is beneficial, as it increases the coverage of health services both geographically and in terms of providing specialized services. In addition, 43% of those surveyed thought that the public health sector may improve its quality and efficiency in competition with the private sector (43%). However, 43% also considered that risk could result from the private sector targeting of better-off users of care, deepening the inequities between different income groups. Some policy-makers and officials (43%) believed that the public sector may deteriorate further as the private health sector continues to grow.

The political situation and ongoing conflict are a major challenge to growth of the private health sector. It is well known that economic collapse is mostly felt by the private sector. Business operations have become more difficult in Yemen: 49% of private sector interviewees mentioned that political instability is holding back their business, 24% mentioned unreliable electricity and 8% mentioned corruption *(21)*. The private sector is also affected by fuel shortages, high inflation rates, the depreciation of the Yemeni rial and the deteriorating purchasing power of the population.

6.2 Service provision in the private health sector

The private health sector in Yemen is heterogenous; it comprises almost all types and size of facilities and provides a range of health services, largely curative in nature. Public health professionals surveyed (60%) observed that the private sector dominates laboratory, diagnostic and radiology services, while inpatient services are still primarily sought in the public health sector. A number of health services are provided solely in the private sector, such as assisted reproductive technology and genetic karyotyping services.

A 2014 report by the WHO Regional Office for the Eastern Mediterranean *(22)* indicated that there is a lack of regulatory enforcement and limited MOPHP control on the promotion of medicines used in the private sector. Medicine smuggling is an increasing problem due to the border blockade and increased taxation on regular imports. These malpractices can lead to development of antimicrobial resistance, ineffective treatment, adverse effects of medicines and economic burden to patients. The report also showed that the use of health technologies is irrational or suboptimal due to health workers having insufficient experience and training, leading to escalation of out-of-pocket expenditure.



7

Legal and regulatory frameworks and governance of the private health sector

The Public Health Law (2009) outlines the rights of users of care and the responsibilities of the public and private health sectors. The MOPHP issued a decree in 2005 to review the regulation of the Higher Authority The Public Health Law (2009) outlines the rights of users of care and the responsibilities of the public and private health sectors. The MOPHP issued a decree in 2005 to review the regulation of the Higher Authority of Drugs and Medical Supplies. Two laws are specific to the private health sector: the law of Private Health and Medical Institutions (1999; revised and reissued in 2004) and the Bill Regulating the Work of the In-Service Health Training Centres (2009).

The MOPHP has recently applied regulatory measures to the private health sector. In December 2018, the Ministry initiated a classification and costing exercise targeting private hospitals. Representatives of the owners of private hospitals were invited to participate. In January 2019, the MOPHP issued an order of closure for all herbal and alternative medicine centres in the capital city, among them not-for-profit providers, considering them hoax practitioners.

According to the opinions of policy-makers surveyed, the legal provisions for protection of patient rights are minimal and only vaguely addressed in current laws and policies. The General Medical Council, an independent body, has the authority to investigate users' complaints; however, there is little evidence of medico-legal cases in either of the health sectors. The majority of private health professionals surveyed believed the private sector is not capable of self-regulation and that the Government should impose regulatory and quality control mechanisms; these providers were concerned about protecting the private health sector from the malpractices of some professionals within it. However, there is a common understanding among Government and private health professionals that regulatory laws and policies need further development and implementation. By-laws should be issued in a comprehensive and transparent manner.

In Yemen, the health information system is weak, which limits the planning and delivery of health care as well as an assessment of performance and impact on population health outcomes. Health management information system reporting rates are not available. However, it should be noted that the information system is hampered by the poor quality and quantity of data, and limited capacities in information management, utilization and dissemination.

The current MOPHP structure, role and functions are not compatible with the decentralized administrative system. Moreover, governance and core health system functions have deteriorated significantly since the onset of fighting. The focus and resources of the health system have gradually been redirected from system development towards emergency response *(14).* Currently, the Health Cluster, formally led by the MOPHP in partnership with the WHO Regional Office, is responsible for the coordination of the health response in Yemen.

7.1 Licensing of health facilities

The MOPHP has a formal licensing and re-licensing mechanism, which is focused on private facilities such as hospitals, polyclinics and pharmacies. Oversight of private health facilities is mandated to the Private Health Facilities Department under the Curative Medicine Sector, MOPHP. The by-laws of the MOPHP define private health facilities as follows:

- **referral hospital – a facility with a minimum of 30 beds;**
- **general hospital – a minimum of 20 beds;**
- **health centre – a minimum of 10 beds providing general and primary health care.**

7.2 Licensing of health care personnel

Regulation of health care professionals in Yemen has been delegated to the General Medical Council; previously, professional syndicates were responsible for this task. There are many categories of health worker, however, some are not recognized by the Ministry of Civil Service which prevents their employment in the public sector. The current licensing and regulating bodies are generally weak. Health practitioners are required to obtain a work permit from the Medical Council and their respective syndicates. However, these requirements are not enforced and, as noted in Section 4, health workers can be recruited by both the public and private sectors. In addition, job descriptions – where existent – are not applied, including those for medical doctors and midwives. This has led to an overlap of responsibilities and conflict among the different categories of health workers. In addition, there are no transparent or standardized performance assessment mechanisms in place *(9,13).*

7.3 Supervision, monitoring and reporting

According to stakeholders participating in this assessment, the Government controls and monitors the quality of care in the private sector by setting standards and performing onsite inspections. The MOPHP is responsible for setting quality standards for and licensing of health facilities, based on infrastructure and practice guidelines. The professional associations and syndicates are not systematically involved and do not consider their role in assuring the quality of care a priority. In contrast, these entities control market entry of the health workforce through issuing work permits and reviewing the qualifications of workers. With regards to quality monitoring, different Government entities in addition to the MOPHP are involved, such as the Ministry of Water and Environment, the Ministry of Social Affairs and Labour, and local councils; each is responsible for a certain aspect such as waste disposal, conformity of buildings and infrastructure, the number and qualification of working staff, and financial and administrative procedures. Generally speaking, quality control is focused on the inputs

and structural aspects of the health services rather than the process and standards of clinical care. In this study, 80% of participating private health facilities did not have any quality certification. The absence of clinical care protocols or guidelines is a major cause of the perceived poor quality in the private sector.

The private health sector is overseen by a number of public entities such as the MOPHP, the General Medical Council, constituencies, local councils, the Central Organization for Control and Auditing, and the Ministry of Construction, Housing and Urban Planning. Mainly, the Department of Private Health Facilities at the MOPHP is responsible for MOPHP oversight. In addition, the Departments of Quality, Control and Inspection have oversight responsibilities.

Of the private pharmacies and diagnostic centres participating in this study, the majority (83%) are supervised by the MOPHP. Only around 20% of these pharmacies and diagnostic facilities submit regular reports to the MOPHP. In not-for-profit facilities, reports are communicated to the Government or funding agencies on regular basis, which might be a requirement of the supporting institutions. Reports from the different private sector actors are usually administrative with a focus on service output indicators, such as the number of patients/services or the disease diagnosis.

Of the syndicates and professional associations, approximately one third share reports with the Government regarding the professional information of the members. In addition, the pharmaceutical associations and societies share information on drug smuggling. Syndicates criticized the poor Government response, including: poor feedback; Government failure to use information (27%); and poor coordination.

7.4 Quality assurance and quality of services

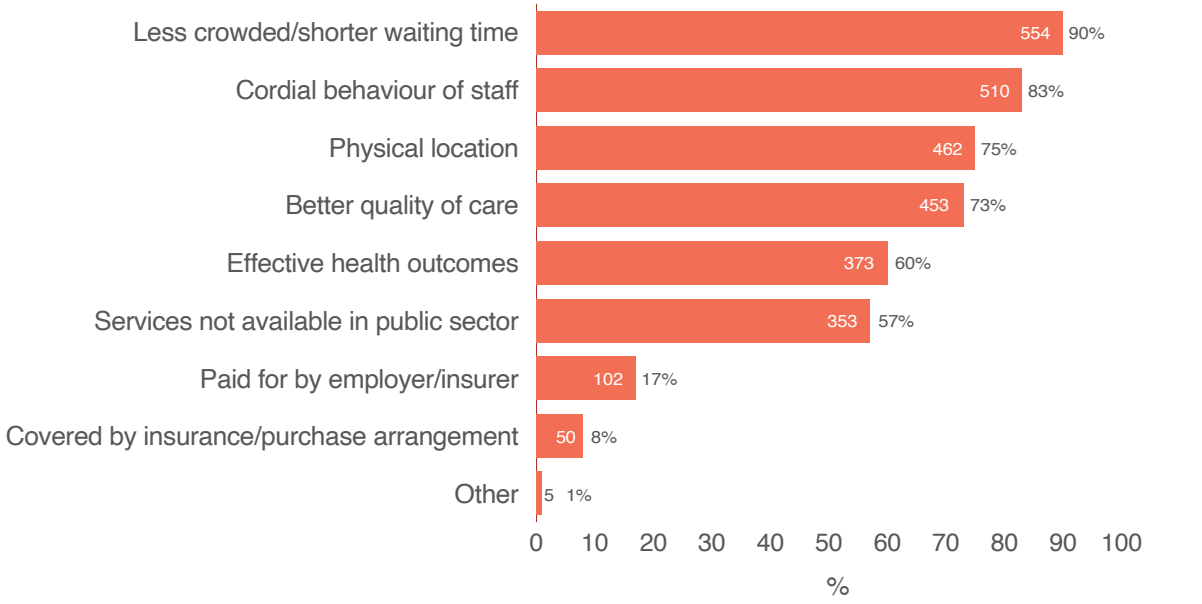
The country lacks national quality assurance programmes, and data on quality of care are sparse. In an assessment of private health sector regulation *(13),* interviews with MOPHP and private sector professionals and focus group discussions with users of care (female and male) showed a low level of satisfaction with health services. Among the main points raised was the wide variation in quality among hospitals in both the public and private sectors, i.e. hospitals of varying levels of quality exist in both sectors.

The common perception is that staff in public hospitals are more experienced, but that public health services are not patient-focused and have long waiting times and it is hard to access more senior physicians. The private health sector is perceived to be focused on non-clinical aspects, although the clinical care it offers is still perceived as being more acceptable to some participants. The notion that the quality of care in a hospital is likely to reflect the performance of individual practitioners rather than the facility's policy may be explained by the absence of

quality standards and control measures. In addition, participants in general had little trust in the application of the institutional policies where they exist, especially the effectiveness of the complaint management system. The poor perception of quality of care was an important barrier to utilization of health services in the 2013 Yemen Demographic and Health Survey, as well as one of the reasons given for seeking care abroad when services are available locally *(18).*

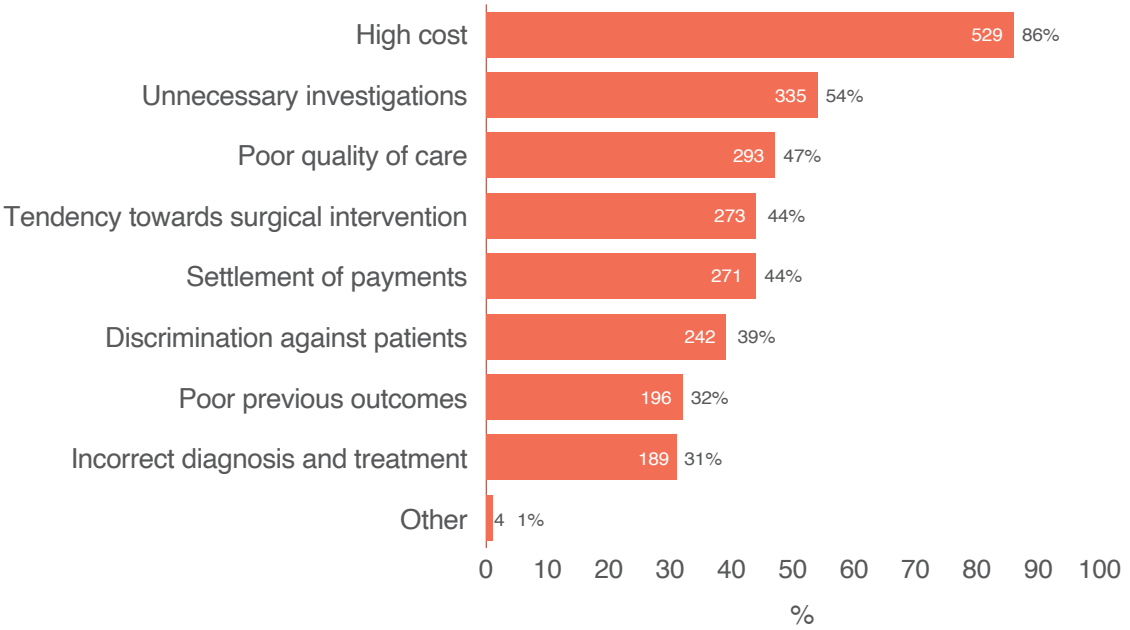
There is no conclusive evidence on the quality of clinical practice, clinical outcomes or adverse events in the private health sector. Previous reports indicate that the quality of private health care varies among hospitals and within each hospital, according to individual practitioner's knowledge and experience *(13, 23)*. In this assessment, the majority of private sector professionals surveyed believed that their sector provides better quality of care than the public sector. However, Government officials believed that the health care provided by the private health sector is substandard and expressed concern about malpractice in the sector, such as provider-driven demand for care and application of unnecessary tests and procedures. In addition, case skimming was mentioned as a practice to avoid complicated conditions, with private providers preferring simple and low-risk cases. Users of health care, in this review and in a previous report *(13),* corroborated these concerns. The users surveyed also mentioned the high tendency of private professionals to recommend surgical operations. The findings of the exit interviews in this study show that non-clinical aspects of care were a reason for clients to seek private health services; for example, shorter waiting times and friendly staff (Fig. 4).

Fig. 4. Reasons for using private health services (*n* = 618)



A 2010 study of users' satisfaction with private health services in Yemen revealed a low level of satisfaction (34%). Low satisfaction was reported across all components of care, but more commonly regarding costs (57.8%) and empathy (59.1%), which includes individual care, equity and priority given to patients *(24)*. This assessment had similar findings: when asked about the reasons for dissatisfaction with private health services, 86% of users mentioned the high cost, 47% cited the poor quality of care and 44% indicated a tendency towards unnecessary tests and surgical procedures (Fig. 5).

Fig. 5. Reasons of dissatisfaction with the private health services



According to policy-makers, the private not-for-profit sector is affordable and provides user-friendly services. However, the not-for-profit sector is concentrated in urban areas and is not included in insurance schemes, and therefore is unlikely to be sought by insured users of care.

8

Stakeholder views on private sector responsiveness to the country's health needs

Government professionals consider the private health sector response to the ongoing conflict to be moderate

The private health sector is monitored by the MOPHP and other relevant Government entities, as discussed previously. The Government and most of the public professionals surveyed believed that the private health sector is not consistently conforming with the legal and regulatory provisions in the country. However, private providers noted an increasing tendency towards compliance, driven by a growing awareness and willingness to maintain a good reputation among health professionals and users. According to the public sector professionals, non-compliance by the private sector can be explained by reasons including the leniency of the Government in enforcing laws and regulations, the weak structure and inadequate resources that limit the Government oversight of the private sector. Meanwhile, the private sector providers complained of the multiplicity of and lack of coordination between the executing Government entities.

Government professionals consider the private health sector response to the ongoing conflict to be moderate; its participation in national health planning and emergency response is not built into the system. Representatives of the Private Health Sector Association have attended emergency response planning and expressed willingness to participate in humanitarian efforts. Private health care providers mentioned that they participate in various Government initiatives, such as routine disease control and cholera outbreak response; and a number of private hospitals conduct surgeries free of charge for those injured in the war. They expressed their willingness to play a role in national strategies and plans in a systematic manner. However, one expert claimed that this participation was financially driven, and that the quality of cholera management was substandard. Information sharing with the MOPHP was also considered inadequate in quantity and quality.

The general understanding is that the private health sector is more efficient and has better managerial capacity than the public sector; however, there are no precise data to support this understanding. The Government professionals surveyed in this review acknowledge that private sector management has many strengths, such as efficiency in resource utilization, supervision, monitoring and controlling the costs of services, and in applying results-based management. The private sector has the ability to attract and retain well-qualified staff. Government officials acknowledged that health workers are attracted to the private sector for the higher compensation, recognition and better working conditions compared with the public sector. On the other hand, they expressed concerns about commercial motives and behaviour of private health sector workers, and their lack of interest in public health programmes.

9

Public–private partnership (PPP)

No significant PPPs have been entered into in Yemen, as shown by the stakeholder responses. Moreover, the conflict in the country has further reduced the prospect of PPPs. However, all participants in both sectors believe that the PPP model is inevitable in view of the growing demand for health care and the debilitation of public health services. Private health facilities outnumber public facilities, as mentioned above. According to public officials, the private health sector has an important share of the market and already dominates outpatient and diagnostic health care services.

9.1 Legal environment for PPP

The majority of the private health providers expressed their willingness to have formal agreements/contracts with the Government to collaborate in areas of public health interest. Government officials acknowledge private sector willingness to forge a PPP, on the one hand, and also believe in a political and institutional commitment on the other hand. More than half of the participants from diagnostic centres and laboratories believed that Government incentives are not adequate to attract the private sector. Government officials, nevertheless, admit that the Government's commitment is not adequately reflected in the national plans and that the ecosystem requires further development in the form of policy, guidelines and managerial capacities. There is as yet no organizational unit (PPP cell), policy or financial allocation to develop PPPs. All respondents recognized the importance of having a forum for public and private health care providers to allow interaction and exploration of joint areas of work.

Trust between the sectors is critical to the success of PPPs. The majority of public professionals reporting having the impression that commercial gain and tax concessions are the main interest of the private sector. However, they believed that the private sector's motives and areas of collaboration can be harmonized with the public health system's priorities. Diagnostic centres and pharmacy representatives expressed motives for collaboration, including expansion of their range of services and increasing facility revenue. On their part, the for-profit private sector is apprehensive of Government control, delay of payment, administrative bureaucracy and corruption in the public sector.

9.2 Contractual agreement between the public and private sectors

PPP was placed on the agenda of the development programme in the transitional period 2012–2014. There is collaboration between the public and private health sectors but in a limited and sporadic manner that is reactive to immediate needs; for example, in relation to the treatment of war casualties, vaccination campaigns, outbreak control and treatment of outbreaks such as cholera. As mentioned above, private hospitals provide free-of-charge health services for those injured by war and for MOPHP-nominated patients. This collaboration is not formalized by a contract and there are no clear criteria of selection of the cases nor the hospitals. Similarly, only a minority of laboratories and radiology centres provides services in collaboration with the Government and slightly over a quarter of the laboratories act as referral centres within the health system. A few private pharmacies, laboratories and radiology centres (eight facilities, i.e. 7%) have a formal contract with the Government. This is usually a bilateral agreement between the service provider

and a revenue-generating public authority such as the Ministry of Oil to provide services for their employees and dependents. A number of the not-for-profit health centres have contracts with the Government to provide primary health care and limited specialized care for people with disabilities and other vulnerable population groups. The private health providers found the Government quality control measures a positive aspect of collaboration with the Government. The main difficulties in collaboration with the Government are due to the prolonged and complicated Government administrative procedures in licensing and reimbursement. Additionally, there is not really a system or structured channels between the MOPHP and the private health system to provide health services. Contracts are merely for buying services for employees or equipping hospitals and do not specify any quality control, third party checks or other checks.

9.3 Proposed PPP models

Most of the Government professionals surveyed thought that the Government should contract the private sector to deliver the EHSP. The package can be standalone or in addition to other health services, for example, dentistry or investigations. None of the respondents mentioned a specific mechanism for the quality assurance of the purchasing arrangement. The majority of private health sector professionals mentioned purchasing services through co-financing, subsidizing or risk pooling strategies such as insurance, followed by purchasing or subsidizing specific sets of services through demand-side financing instruments (e.g. vouchers or health cards).

Government professionals considered all levels of care important and mentioned vouchers and insurance schemes as possible financing options. In contrast, the majority of the private health professionals prioritized the specialized care and diagnostic services rather than primary health care. The fact that the private sector is concentrated only in urban areas suggests that it is less amenable to providing services in unreachable and underserved areas. Within these areas, the Government professionals surveyed believed that the focus should be on expanding the health infrastructure in hospitals, medical colleges and specialty centres, followed by provision of care and creating financing options through insurance and voucher schemes. The private sector view is that its contribution in the non-clinical support services (housekeeping, laundry, kitchen, etc.) in hospitals is a high priority. The delivery of services through purchase or insurance modalities, drug research and development, and technology development are other areas of high and medium priority.

The not-for-profit private sector is interested in providing a package of integrated primary health care and specialized health services

The not-for-profit private sector is interested in providing a package of integrated primary health care and specialized health services and engaging in the different aspects of the humanitarian response, e.g. protection and food and nutrition. The diagnostic facilities stated their willingness to participate in disease control, while pharmacies mentioned liaising with the disease control programmes and collaborating with the Government to obtain medications for noncommunicable diseases. Professional associations are interested in advocating for policies on control of drug smuggling, health insurance and universal health coverage.

9.4 Expected support from the Government

The respondents working in the for-profit private health sector expected support from the Government in the form of provision of free drugs and supplies, followed by facilitation of licensing procedures, tax concessions and access to training. In addition to the above, not-for-profit providers mentioned budgetary grants, obtaining land/space and upgrading infrastructure. They demanded the development of policies differentiating them from for-profit private providers and the easing of administrative and tax requirements.

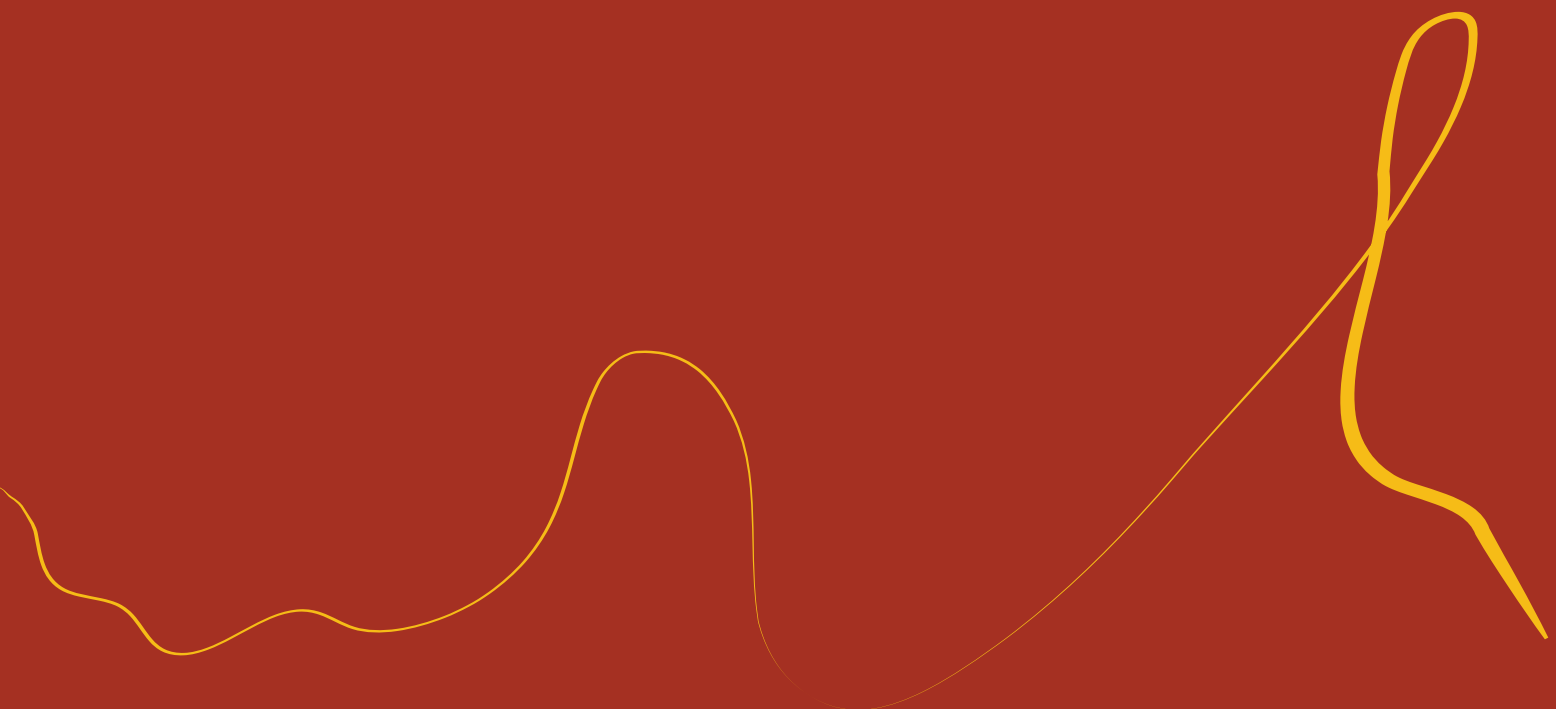
9.5 Perceived benefits and risks of PPP/private sector engagement

The Government officials surveyed reported hoping to expand health service coverage to underserved areas. In addition, they stated that PPPs can help to improve quality of care, efficiency and other management functions of the public health sector. The private sector respondents believed that the most common and high-priority benefits of PPP are improvements in access to and quality of health services; however, they see less impact on the management and application of best practices in the public health sector.

Regarding the risks of engaging the private sector, Government officials mentioned the deterioration of public health services and deepening inequity among users of care. According to private professionals, the most commonly anticipated risk was weak alignment with national health goals and preventive health care services, although this risk was of low or medium importance, followed by the increased cost of services and loss of the public health system's capacity to provide services, aspects which are deemed to have an important impact. In contrast, the commercial behaviour of case skimming and unnecessary clinical practices were infrequently raised and were assigned only minor significance.

10

SWOT analysis for PPP in the health sector



The existing legislation is control-based, imprecise and not operationalized into by-laws and policies

The main strengths include the expressed political commitment and willingness of the private sector to formalize the existing public–private collaboration into a partnership. The existence of legislation favouring private investment in health and the presence of a legislative and regulatory framework is similarly an asset. Besides, the fact that the private sector is established, expanding and sought by a significant number of the population is a point of strength.

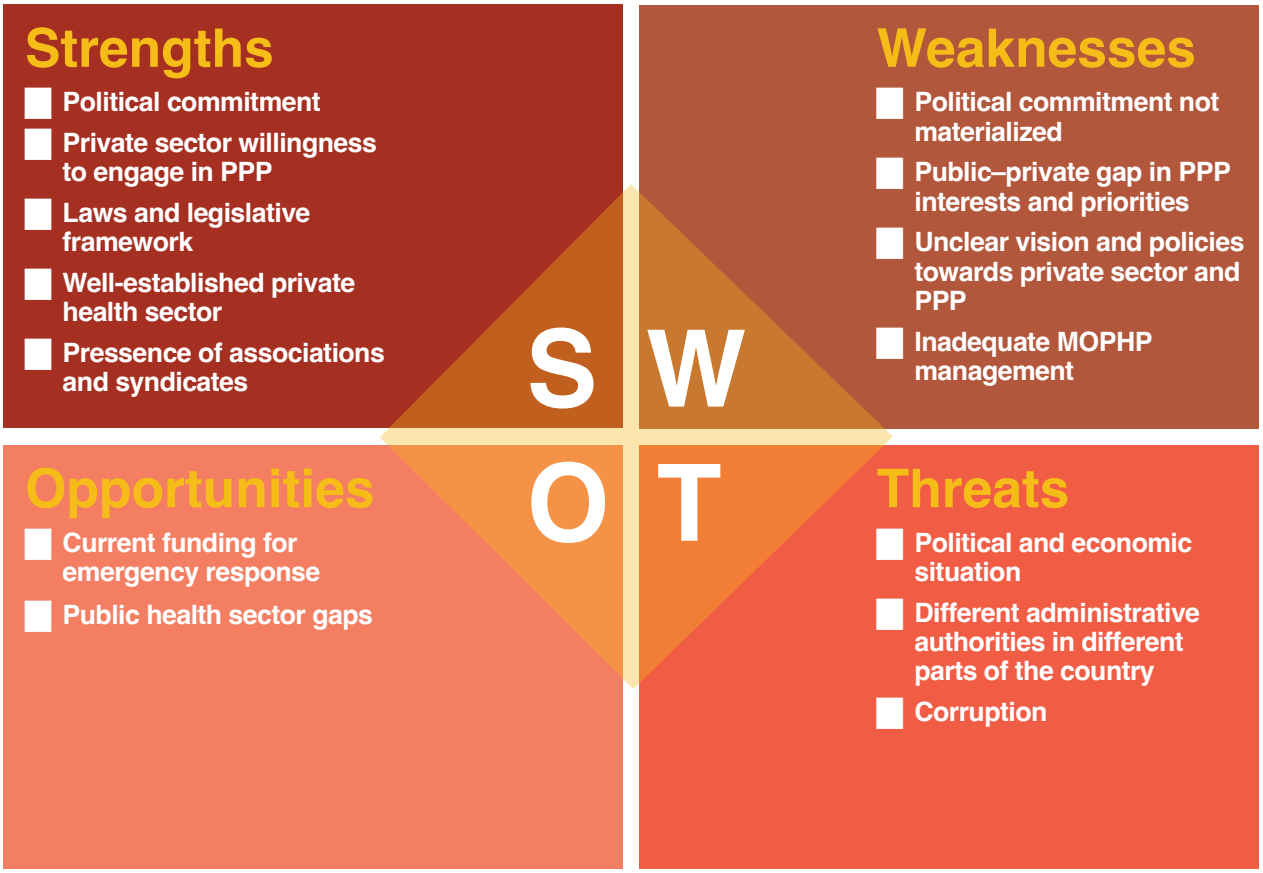
The points of strength are undermined by significant inadequacies. Political will, without visible steps on the ground, remains rhetorical. The existing legislation is control-based, imprecise and not operationalized into by-laws and policies. The PPP vision is not clear, there is a lack of Government policy on the private health sector, limited knowledge on PPP and low trust between the Government and private sector, all of which are considered major barriers to forging PPPs. The absence of good practice standards and protocols also undermines efforts to reach a common understanding about the acceptable package and optimal quality of PPP care. The MOPHP's human and financial capacity is low, limiting its contracting, management and oversight functions.

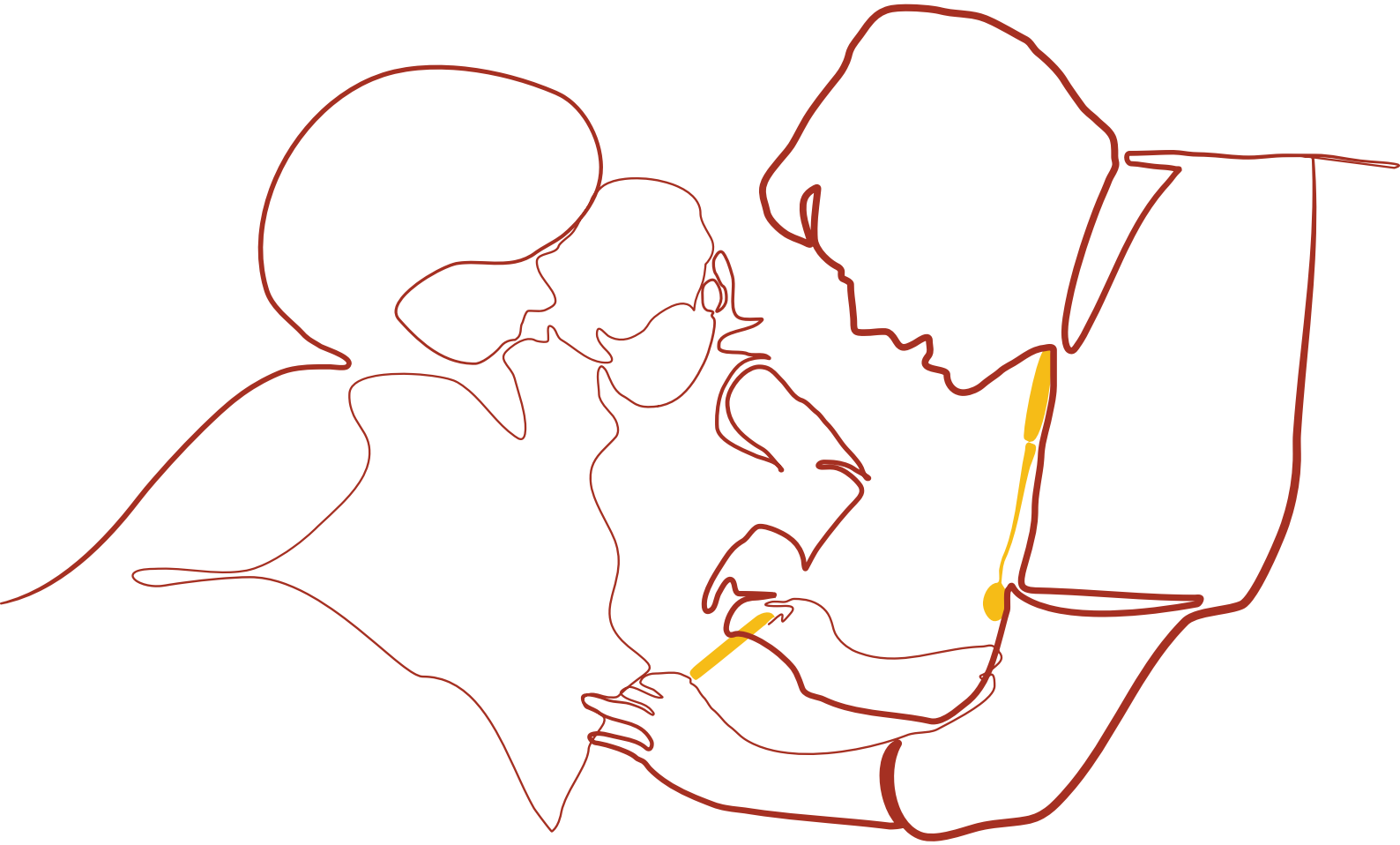
Another important layer is the poor trust and current gap between the public and private sectors' perspectives and priorities in relation to PPPs. Government officials believe that the private sector is financially driven, a belief corroborated by the urban distribution of private health facilities and their focus on lucrative services. In contrast, the private sector has concerns regarding Government control and perceived inadequacies in management. The mistrust between the two sectors is aggravated by a lack of transparency in the private sector's information exchange, especially in the aspects of financial and administrative information. Ensuring the equitable availability of the EHSP is a priority for the Government in a PPP but is not a priority for the private sector.

The current conflict and economic downturn – and associated interacting factors – are probably the major determinants affecting the forging of PPPs in the country. This context poses a challenge to the private sector due to the unreliable security, electricity and other basic infrastructure, in addition to an unstable currency, corruption and divided administrative regulations. As in other conflict-affected areas, the private sector may grow during the early stages of conflict because of declining public health capacity; however, as conflict continues, the protracted impact on the economy reduces the population's ability and willingness to seek health care. This situation threatens the growth of the private health sector and its contribution to public health.

Fig. 6 illustrates the strengths, weaknesses, opportunities and threats (SWOT) analysis for PPP in Yemen.

Fig. 6. SWOT analysis for PPP





11
Recommendations and policy directions

The following recommendations are based on analysis of the information and perspectives provided by the health care professionals and users of private health care. The future political and economic policy directions in the country are unpredictable, which limits proposed actions towards effective PPP. These recommendations are within the first step of the WHO Framework for action on effective engagement with the private health sector to expand service coverage for universal health coverage *(25)*. Further steps should be determined in the light of the situation at the time of implementation.

- **Develop a policy framework, organizational systems and financing strategies for engaging private health sector providers in the health system.**
- **WHO should initiate advocacy aimed at decision-makers on the importance of formalizing public–private collaboration into an effective partnership towards universal health coverage.**
- **MOPHP and WHO should build the capacity of stakeholders on the concepts, mechanisms and management of PPP in health; this should include public officials in the MOPHP and relevant Government authorities at national and subnational levels, as well as key actors from professional associations and the private health sector including the not-for-profit sector.**
- **MOPHP should set up an executive PPP unit that includes public and private sector stakeholders and consumer representatives; the unit can oversee the public–private dialogue and act as an information exchange and decision-making forum on PPP options, arrangements and bottlenecks.**
- **MOPHP, through its PPP unit, should work to build trust and bridge the differences between the public and private sectors; a dialogue can be launched to discuss the interests, wants, concerns and vision of each sector in PPP.**
- **The current political situation may not be conductive to apply major legislative changes; however, the MOPHP or relevant Government authority should have the ability, in consultation with stakeholders at the PPP unit, to issue decrees to overcome bottlenecks.**
- **Explore insurance options, including community-based schemes, to ensure availability of resources within the PPP.**
- **Involve the private for-profit and not-for-profit health sector in humanitarian response planning and activities for health through:**
    - WHO initiating advocacy at the national decision-making level and with development partners for private sector engagement in the humanitarian response and recovery stages;
    - MOPHP and the Health Cluster inviting and engaging the private health sector in needs assessment and in availing the EHSP, diagnostic facilities and medications in the least-served areas and among vulnerable populations;
    - WHO providing technical support and guiding initial private sector engagement in health priorities and ensuring the consideration of PPP/private sector engagement in health recovery plans.

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