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Kuwait Health System Review

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CONTENTS

Authors & Acknowledgments	1
Acronyms	2
Executive Summary	3
1 Introduction	6
1.1 Political context	6
1.2 Economic context	7
1.3 Geography	9
1.4 Demographics	10
2 Healthcare indicators	13
2.1 Mortality	13
2.2 Non-communicable diseases and risk factors	18
2.3 Healthcare expenditure	27
2.4 Assessment of key indicators	32
3 Healthcare organisation	34
3.1 Governance	34
3.2 Pharmaceutical sector	37
3.3 Assessment of organisational arrangements	39
4 Healthcare financing	41
4.1 Government healthcare financing	41
4.2 Private healthcare financing	41
4.3 Paying healthcare providers	43
4.4 Assessment of financing arrangements	43
5 Healthcare education and workforce	45
5.1 Workforce indicators	45
5.2 Medical education	48
5.3 Assessment of education and workforce arrangements	51
6 Healthcare information and technology	53
6.1 Health information management systems	53
6.2 Measuring and monitoring healthcare systems	54

Kuwait Health System Review

7	Healthcare service provision	57
7.1	Patient pathway	57
7.2	Primary healthcare centres	57
7.3	Hospitals	58
7.4	Emergency care	60
7.5	Pharmaceutical care	60
7.6	Overseas healthcare treatment	60
7.7	Access to and satisfaction with healthcare services	62
7.8	Assessment of service provision arrangements	62
8	Public health	64
8.1	Key public health stakeholders	64
8.2	Assessment of public health arrangements	65
9	Conclusion	66
	References	69
	Appendices	74
	Appendix A: Stakeholder interviews	74
	Appendix B: organisational structure	75
	Appendix C: Hospital accreditation standards and criteria	78

Kuwait Health System Review

LIST OF FIGURES

Figure 1	Overview of Kuwait's political structure	6
Figure 2	GDP (PPP, current international \$) in the GCC, 2015	7
Figure 3	GDP per capita in the GCC in US\$, 2017	7
Figure 4	Oil and gas dependency in the GCC	8
Figure 5	Map of Kuwait	9
Figure 6	Population by nationality status, 2016	10
Figure 7	Population by gender, 2017	10
Figure 8	Key statistics on Kuwait's expatriate population	10
Figure 9	Population by age group, 1995 and 2015	11
Figure 10	Population projections by age group, 2010–2030	11
Figure 11	Total dependency ratio, 1950–2015	12
Figure 12	Total life expectancy at birth in the GCC, 2015	13
Figure 13	Male life expectancy at birth in the GCC, 2005–2015	14
Figure 14	Female life expectancy at birth in the GCC, 2005–2015	14
Figure 15	Female and male life expectancy by nationality in Kuwait, 2015	15
Figure 16	Crude death rate per 1,000 people in the GCC, 2005–2015	15
Figure 17	Male adult mortality per 1,000 people in the GCC, 2005–2015	16
Figure 18	Female adult mortality per 1,000 people in the GCC, 2005–2015	16
Figure 19	Crude death rate by nationality per 1,000 people in Kuwait, 2011–2015	17
Figure 20	Proportion of all deaths attributable to NCDs in the GCC and OECD, 2005–15	18
Figure 21	Leading causes of premature death in Kuwait, 2005 and 2016	19
Figure 22	Leading causes of death in Kuwait, 2005 and 2016	19
Figure 23	Death rates for circulatory and respiratory disease, and neoplasms, 2015	20
Figure 24	Number of chronic conditions by nationality, 2013	21
Figure 25	What risk factors drive the most death and disability combined	22
Figure 26	Overweight and obesity rate for males in the GCC, 2013	23
Figure 27	Overweight and obesity rate for females in the GCC, 2013	23
Figure 28	Calorie intake levels in the GCC, 1990 and 2014	24
Figure 29	Proportion of Kuwaitis consuming sufficient amount of fruit and vegetables, 2013	24
Figure 30	Proportion of Kuwaiti population engaging in sufficient levels of exercise, 2013	25
Figure 31	Diabetes prevalence among adults (20–79 years) in the GCC and OECD, 2015	25
Figure 32	Deaths caused by diabetes per 100,000 by nationality and gender status in Kuwait, 2015	26
Figure 33	MoH operating budget, 2007–08 to 2015–16 (millions KD)	28
Figure 34	Pharmaceutical sales, 2016–21 (US\$ billion)	29
Figure 35	Pharmaceutical sales as % OF GDP, 2016	30
Figure 36	Pharmaceutical volume and value by country of origin in Kuwait, 2015	30

Kuwait Health System Review

Figure 37	Pharmaceutical sales as % OF GDP, 2016–21	31
Figure 38	Pharmaceutical sales as % OF health expenditure, 2016–21	31
Figure 39	Overview of key healthcare stakeholders in Kuwait	34
Figure 40	GCC-DR Committee	37
Figure 41	Regulation criteria under the KuFDA	38
Figure 42	Government healthcare workforce by profession, 2015	45
Figure 43	Change in government healthcare workforce per 1,000 people, 2011–15	45
Figure 44	Healthcare workforce by nationality (government and private), 2015	46
Figure 45	Projected number of physicians needed from 2007 to 2020	47
Figure 46	Inpatient discharge summary information	54
Figure 47	Standards for accreditation of Kuwait public hospitals (Accreditation Canada)	54
Figure 48	HIS assessment, 2015	55
Figure 49	Number of government care units and visits to care units within PHCs, 2015	57
Figure 50	MoH hospital discharges, 2015	58
Figure 51	Private and oil sector hospital outpatient visits, 2014	59
Figure 52	Overseas treatment allowances	60
Figure 53	Types of healthcare services accessed by Kuwait nationals overseas	61
Figure 54	Public health education and training	64

LIST OF TABLES

Table 1	Key economic indicators, 2008 and latest year	8
Table 2	Key healthcare expenditure statistics for Kuwait, 2014	27
Table 3	Kuwait National Development Plan: Healthcare pillar projects	35
Table 4	Remaining stakeholders in the healthcare system	36
Table 5	GCC-DR Centralised Procedure	37
Table 6	External reference pricing in Kuwait	39
Table 7	Overview of DHAMAN – expatriate private health insurance scheme	42
Table 8	Departments within KU's Faculty of Medicine	48
Table 9	Degree programs offered at KIMS	49
Table 10	Overseas treatment costs, 2012–13 to 2014–15	61
Table 11	Determinants of in- and out-patient healthcare utilisation, 2013	62

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ACRONYMS

CAGR	Compound annual growth rate
DALY	Disability-adjusted life year
DDI	Dasman Diabetes Institute
DRG	Diagnostic Related Groups
EHR	Electronic healthcare record
FDI	Foreign Direct Investment
GCC	Gulf Cooperation Council
GCC-DR	GCC-Drug Registration
GDP	Gross Domestic Product
GRF	General Reserves Fund
HAHC	Health Assurance Hospitals Company
HIM	Health Information Management
HIS	Health information system
ICD	International Classification of Diseases
IMF	International Monetary Fund
INN	International Nonproprietary Name
KAPP	Kuwait Authority for Partnership Projects
KD	Kuwaiti Dinar
KDIPA	Kuwait Direct Investment Authority
KIMS	Kuwait Institute for Medical Specialisation
KMA	Kuwait Medical Association
KuFDA	Kuwait Food and Drug Authority
LE	Life expectancy
NBAQ	National Bureau for Academic Accreditation and Education Quality Assurance
NCD	Non-communicable disease
NICE	National Institute for Health and Care Excellence
OECD	Organisation for Economic Co-operation and Development
PAFN	Public Authority for Food and Nutrition
PHC	Primary healthcare centre
PPP	Purchasing power parity OR Private public partnership
THE	Total health expenditure
UAE	United Arab Emirates
UoPH	Undersecretary of Public Health

EXECUTIVE SUMMARY

PROJECT OBJECTIVE AND METHODOLOGY

In 2017 the London School of Economics and Political Science (LSE Health) was engaged by the Kuwait Foundation for the Advancement of Sciences (KFAS) to undertake two interconnected tasks: first, a review of the Kuwait healthcare system and, second, to develop a public health strategy for the country. This report represents findings from the first task by outlining and assessing governance, financing, workforce, IT,

service provision and public health arrangements within Kuwait's healthcare system.

The report relied upon academic and grey literature, as well as feedback from key stakeholder groups. A total of 15 stakeholder groups were interviewed covering government, education, private and public providers, and the workforce. To view the full list of stakeholder interviewees, please see Appendix A.

KEY FINDINGS

The discovery of vast oil reserves allowed Kuwait to enjoy decades of economic prosperity. Strong economic activity led to significant investments in healthcare as evidenced by start-of-the-art infrastructure and a quality medical education system. Investment partnered with ease of access to healthcare services has resulted in better health outcomes, for example, since 1960 total life expectancy at birth increased from 60.4 to 74.7 years. Further, satisfaction with healthcare is high with 84% of the total population stating they are in either 'very good' or 'good health' (this figure decreases marginally for Kuwaiti nationals only – i.e. 82%) (1).

Sufficient funds to cover the cost of healthcare needs has led to complacency among key decision makers. As a result, the healthcare system has not been able to adapt to challenges arising from rising

rates of non-communicable diseases (NCDs) and falling revenues. The lack of development within Kuwait's healthcare system is also hampered by the state of flux in which the Ministry of Health (MoH) operates. Specifically, over the past 10 years, the average duration of the Health Minister has been between 9–12 months. Consequently, policies with a long-term vision are disregarded.

To ensure the continued prosperity of Kuwait's population, top political decision makers need to drive change by implementing policies relevant to the environment in which the healthcare sector now operates. To assist policy-makers in this task, this report outlines areas within the healthcare sector that require attention. Namely, healthcare governance, financing, workforce, information technology, service provision and public health.

GOVERNANCE

See Section 3.3 for further details.

- Strategic policy making decisions within Kuwait are not evidence-based. Further, health policy decisions are developed without sufficient consultation meaning their execution is not well planned. Consequently, the system has not been able to adapt to the changing needs of the population.
 - Despite a National Development Plan agreed between the Supreme Council for Planning and Development and the MoH, the overall strategic vision for the healthcare sector is neither communicated nor shared with stakeholders.
 - The MoH in Kuwait is unique in that it is the primary funder and provider, as well as sole regulator of healthcare services. This arrangement is neither efficient nor sustainable given MoH responsibilities are overwhelming and conflicting.
 - The Undersecretary for Public Health does not include all relevant departments and is therefore fragmented.
 - The private healthcare sector in Kuwait is growing, however, at present, it is not sufficiently regulated to prevent adverse outcomes, such as risk selection.
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EXECUTIVE SUMMARY

FINANCING

See Section 4.4 for further details.

- Government expenditure on health as a proportion of total health expenditure is relatively high when compared to the GCC region at 86%. Given rising rates of NCDs, advances in technology and falling oil prices, the sustainability of government funding within the healthcare sector is under pressure.
- The government has recognised the need to develop sustainable financing arrangements. Nevertheless, healthcare spending isn't necessarily efficient given: (a) HTAs are not used to assess what services the government will fund; (b) the government funds providers through block contracts instead of more sophisticated methods such as DRGs and capitation (before implementing such methods, a stronger regulatory framework is required); (c) full costing is not used meaning expenditure is not transparent; and (d) budgets for providers are not based on need.

EDUCATION

See Section 5.3 for further details.

- Healthcare education is fragmented with no one body holding responsibility for training.
- After graduation, physicians receive a one-year temporary license in order to work in a hospital. A permanent license is issued thereafter. There is no standardised license renewal process for health professionals to ensure maintenance of core professional competencies over time. Further, continued medical education lacks financial support.
- The education sector does not match training allocations/positions with the needs of the population leading to an over/under supply of certain professions.
- Primary Source Verification of degrees and certificates is done in-house at MoH without a clear process. Further, there is no information on the productivity and/or efficiency of this process.

WORKFORCE

See Section 5.3 for further details.

- Public health as a profession is undermined, therefore it is difficult to attract high-calibre individuals to the profession.
 - The healthcare workforce is reliant on expatriate workers which can be problematic given: (a) there is no national equivalence exam for healthcare workers who trained outside Kuwait; (b) expatriates have higher resignation rates than nationals; (c) Kuwait must compete with a range of other countries to attract high-quality professionals; and (d) anecdotal feedback indicates that a proportion of workers enter the system using falsified documents.
 - The process to contract highly-skilled expatriate physicians is bureaucratic and burdensome. Consequently, providers frequently hire physicians on short-term locum contracts which are expensive.
 - Healthcare management as a profession is not taken seriously within the workforce. As a result, those in management positions are generally physicians without any additional training in healthcare policy, management and/or economics.
 - Feedback from stakeholders suggests that the healthcare workforce do not operate in a safe environment. Specifically, physicians are not insured against malpractice by their provider, further, adequate controls are not in place to protect workers against violent patients.
 - Related to challenges facing governance arrangements, no overarching healthcare workforce strategy has been developed in Kuwait.
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EXECUTIVE SUMMARY

INFORMATION TECHNOLOGY

See Section 6.3 for further details.

- Overall, Kuwait's health information system can be classified as 'adequate' when assessing areas such as data management, data sources, indicators, and dissemination and use.
- The importance of sophisticated IT systems has been recognised by decision makers in Kuwait. For example, primary health care centres (PHCs) across Kuwait and three hospitals have implemented EHRs. The government also has plans to introduce personalised healthcare records and an online portal for expatriates. Nevertheless, further improvements are required given providers continue to enter data manually, further, uptake of technology among the population is insufficient (e.g. online booking for PHC appointments).
- Healthcare providers are required to report against a range of quality indicators in alignment with the National Accreditation Program. These indicators largely relate to processes and equipment (structure) as opposed to outcomes. Further, the indicators do not incentivise providers to improve their performance as there are no penalties for failing to meet accreditation standards.
- An overarching health information management strategy is needed to capitalise on existing health information systems and data infrastructure.

SERVICE PROVISION

See Section 7.8 for further details.

- Key challenges facing governance, financing, workforce and IT all have implications for service delivery within the healthcare system
- Regarding direct service provision, it is promising to see developments within the primary healthcare sector, this is particularly important in Kuwait given rising rates of chronic diseases (e.g. PHCs within Kuwait have been designed to incorporate best practice principles such as gatekeeping and interdisciplinary care). Nevertheless, policy-makers continue to focus on secondary care. For example, 99% of the 1.39 billion KD budget for the health National Development Plan is dedicated to building hospitals. Given the overcapacity of secondary and tertiary care facilities, increased efforts to reduce the number of people seeking these forms of care overseas is needed.

PUBLIC HEALTH

See Section 8.2 for further details.

- Public health is increasing in importance in Kuwait as shown by the newly created Faculty of Public Health at Kuwait University. Nonetheless, as a discipline it is not well respected. Consequently, public health is approached in a silo manner with minimal interaction within and across relevant ministries. For example, the country has not implemented a holistic Health in All Policies strategy.
 - The lack of emphasis placed on public health has led a severe shortage in the number of public health experts
-

1 INTRODUCTION

1.1 POLITICAL CONTEXT

The State of Kuwait is a constitutional monarchy, which has been governed by the Al-Sabah family since the 18th Century. The current Head of State is His Highness Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah, who has been in the position since January 2006 (2,3).

The country operates a parliamentary system of government headed by a Prime Minister. The Prime Minister and deputy prime ministers are appointed by the Amir. The current Prime Minister is His Highness Sheikh Jaber Al-Mubarak Al-Hamad Al-Sabah. It is the role of the Prime Minister to appoint a council of ministers (2,3).

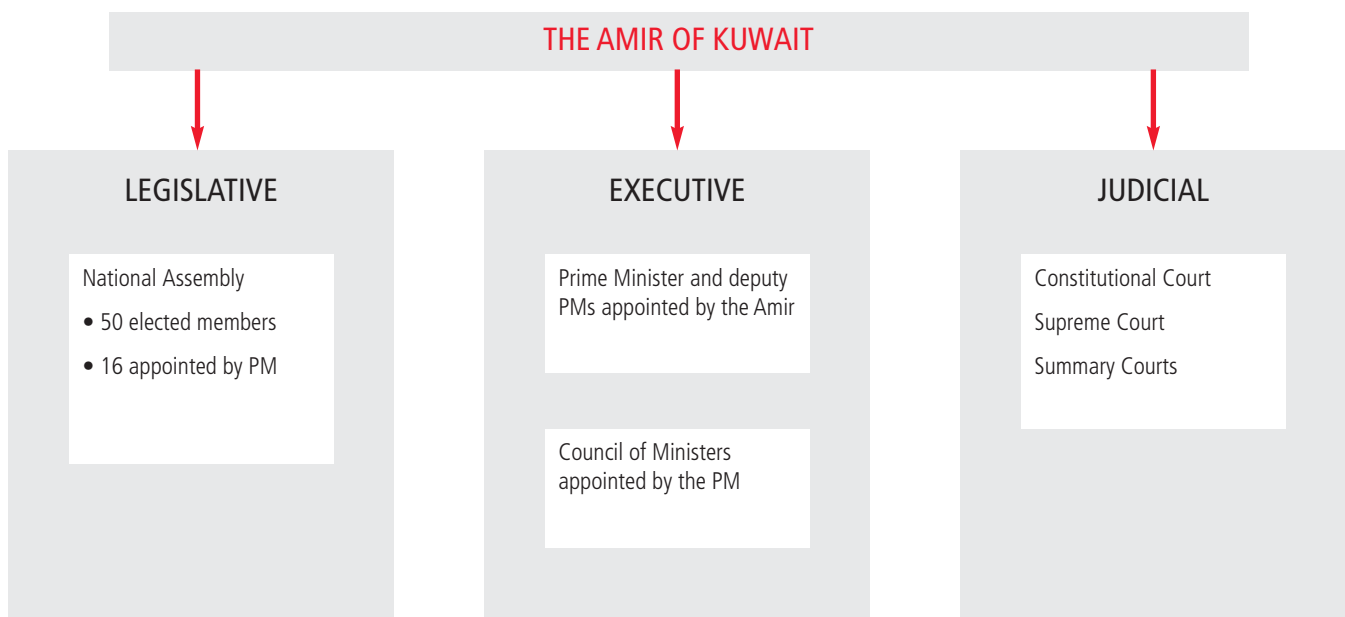
In regard to legislation, Kuwait has established a National Assembly comprising 66 seats; 50 are elected by popular vote, while the remaining 16 are appointed by the Prime Minister. There are no organised parties or any legislative majority in parliament and initiatives are based on ad-hoc coalitions. Legislative authority is vested in the Amir and the National Assembly, while executive power

lies exclusively with the Amir and his Cabinet and Ministers. Such a system is considered advanced when compared to other countries in the region (2,3).

Kuwait's judicial system is independent however the Amir appoints justices. Despite this connection, in 2014–15 the World Economic Forum Global Competitiveness Index rates their judicial independence at 4.9 out of 7. In summary, there is a Constitutional Court consisting of five judges, a Supreme Court or Court of Cassation. Further, each of the six governorates operates a summary court (2,3).¹ An overview of Kuwait's Executive, Legislative and Judicial branches is provided in Figure 1.

Since 1981, Kuwait has been a member of the Gulf Cooperation Council (GCC), a partnership developed to promote unity among member countries given their aligning political and cultural objectives. Other members include Bahrain, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

FIGURE 1
OVERVIEW OF KUWAIT'S POLITICAL STRUCTURE



1. There are six governorates in Kuwait: Al- Asimah (capital), Hawalli, Farwaniya, Mubarak Al-Kabeer, Ahmadi and Jahra.

1.2 ECONOMIC CONTEXT

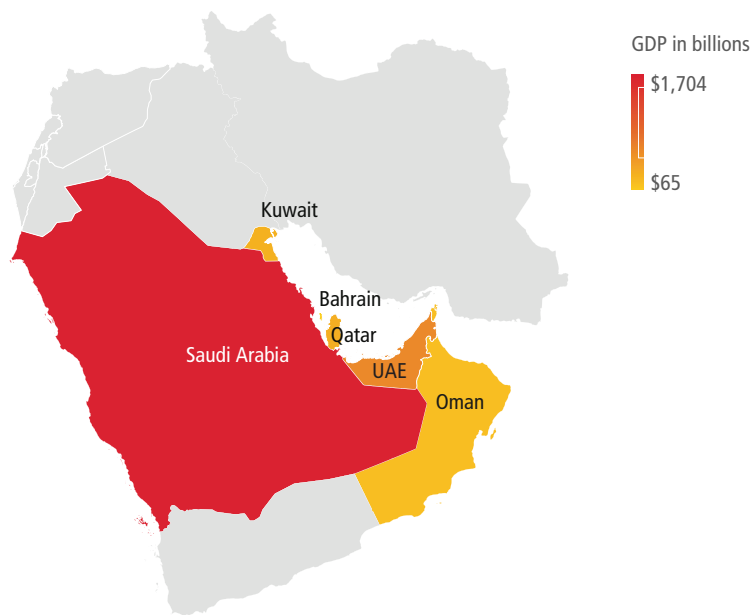
As of 2016, Kuwait's Gross Domestic Product (GDP) totaled \$290 billion in international purchasing power parity (PPP) terms (see Figure 2) or US\$114 billion (4,5).

To better understand the wealth of the country at the individual level, GDP per capita has also been examined in Figure 3. The data, which has been drawn from the World Bank, reveal that Kuwait is

the third richest country in the GCC with a GDP per capita of US\$28,975, behind Qatar (US\$66,347) and UAE (US\$39,102). In broader international terms, Kuwait's GDP per capita is lower than the OECD average of US\$36,741 (6). Despite falling oil prices, GDP per capita in Kuwait is expected to increase in PPP terms over the next five years – i.e. from \$70,259 in 2015 to \$76,970 in 2020 (using international dollars²) (7).

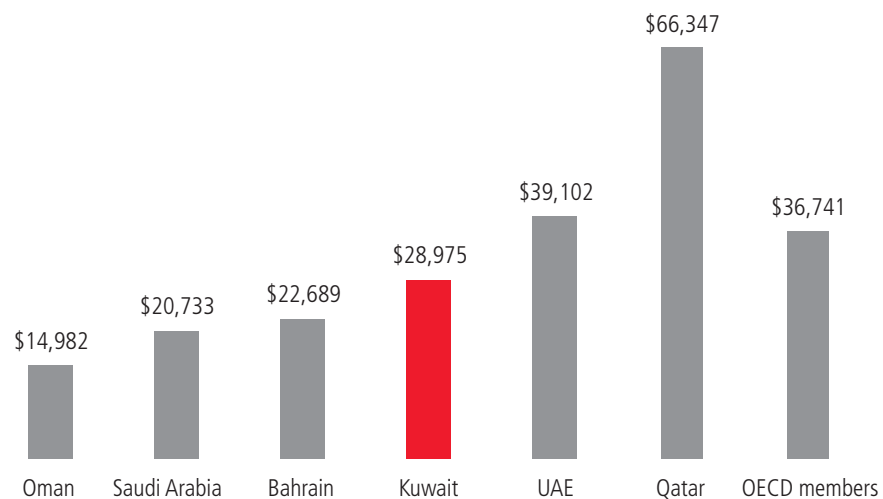
FIGURE 2
GDP (PPP, CURRENT INTERNATIONAL \$) IN THE GCC, 2015

Bahrain (\$65 billion)
Oman (\$179 billion)
Kuwait (\$291 billion)
Qatar (\$316 billion)
UAE (\$643 billion)
Saudi Arabia (\$1,704 billion)



Source: (4).

FIGURE 3
GDP PER CAPITA IN THE GCC IN US\$, 2017



Source: (6).

2. An international dollar has the same purchasing power over GDP as the US dollar has in the United States.

Kuwait Health System Review

Remaining key economic indicators are provided in Table 1. Salient findings from the indicators include:

- A 1.1 percentage point drop in the unemployment rate of women between 2008 and 2010.
- The proportion of women actively seeking or employed in the formal workforce increased by

approximately 1 percentage point between 2008 and 2016.

- A relatively low overall unemployment rate of 1.8% (unemployment in developed western countries is approximately 5% or greater), however, this figure rises markedly for the younger population (i.e. 14.6%) (8).

TABLE 1
KEY ECONOMIC
INDICATORS, 2008
AND LATEST YEAR

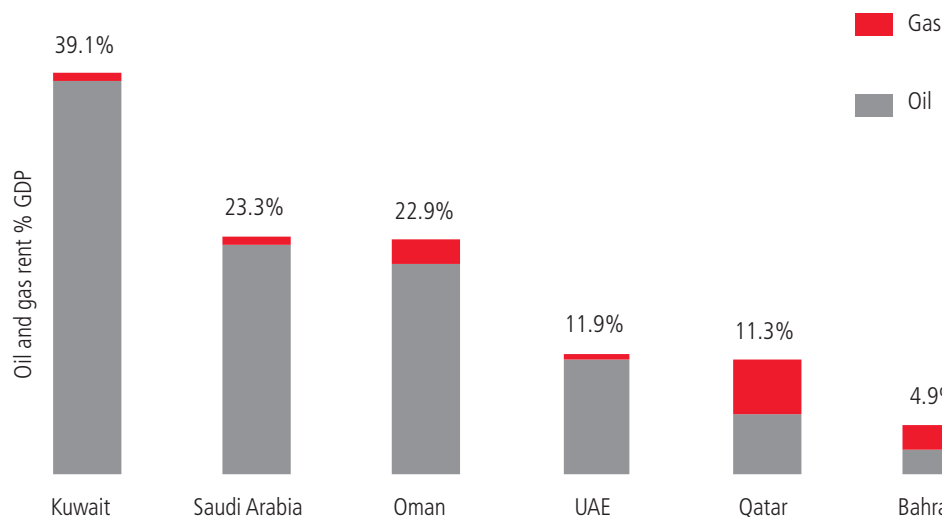
Indicator	2008	Value (latest year)
Labour force participation rate	69.3%	76.8% (2016)
Men	88.2%	87.4% (2016)
Women	56.1%	57.0% (2016)
Unemployment rate	1.8%	1.8% (2010)
Men	1.1%	1.4% (2010)
Women	3.7%	2.8% (2010)
Youth unemployment	Not available	14.6% (2011)

Source: (8)

The main sector driving economic growth in Kuwait is oil and oil related products, which is expected given the country holds 8.3% of the world's total oil reserves (9). Specifically, the oil sector comprises 46% of gross output when using constant prices

(i.e. 30,162 KD million), 94% of export revenues and 90% of government income (7). Such dependency on oil has led to economic uncertainty given falling global oil prices in recent years (see Figure 4). For example, the sustained decline in oil

FIGURE 4
OIL AND GAS DEPENDENCY
IN THE GCC



Source: (13).

prices since mid-2014 led to a budget deficit equal to approximately 18% of GDP in 2015, in stark contrast, the country ran a budget surplus of 2.4% of GDP in 2014 (10). To date, the debt has largely been financed by the General Reserves Fund (GRF)³ (worth approximately US\$65 billion as of 2015) and to a lesser extent, domestic bond issues (12). Given oil prices are likely to stay low, Kuwait's budget balance is projected to remain in deficit, thus requiring the country to explore new sources of

financial revenue (10).

Low oil prices have had a direct impact on Kuwait's health sector, with reduced revenue forcing the government to consider an 'overhaul of the health system' (14). Specifically, a Ministerial Decree (No. 233/2015) was issued which set out a mandate to develop a new 'National Strategy for Health and Health Care' (14). Further, the government recently introduced a law to increase expatriate healthcare fees (Law 293 for year 2017).

1.3 GEOGRAPHY

Kuwait, which has a total land mass of 17,818 sq km, is located within the Middle Eastern region of Asia, bordering the Persian Gulf, Iraq and Saudi Arabia.

Given the country's location, it is one of the driest and hottest in the world, with summer

temperatures ranging between 42–48 degrees Celsius (2).

Due to Kuwait's size, the majority of the population (98.3%) of the population reside in urban areas (15).

FIGURE 5
MAP OF KUWAIT



3. GRF assets and income are available for the State of Kuwait. The GRF is the primary repository for Kuwait's oil revenues and income earned from investments used by GRF funds. Each year, 10% of state revenues and 10% of net income from the GRF are transferred to the Future Generations Fund (11).

1.4 DEMOGRAPHICS

1.4.1 Population

The Kuwait population, as of 2016, totalled 4.1 million. Similar to other GCC countries, the majority (70%) of the population are expatriates (for key statistics on Kuwait's expatriate population, see Figure 8) (16). Given the high proportion of male expatriate workers, it is not surprising that men make over half (57%) of the total population (Figure 7) (17,18).

Numerous population projections for Kuwait exist. Although they differ in their estimates, all point to a significant increase in the population by 2020–2030. For example, EuroMonitor International estimates that the population will reach 5.1 million by 2030 (a 25% increase), largely driven by the expatriate community, which would comprise 75% of the population (up from 70%) (15). The IMF (International Monetary Fund) has undertaken a similar analysis with their findings predicting an expansion of the population by a compound annual growth rate (CAGR) of 3.4%, therefore reaching 4.7 million by 2020 (19).

FIGURE 8
KEY STATISTICS ON KUWAIT'S EXPATRIATE POPULATION

As of 2016, there were 2.9 million expatriates living within Kuwait, thus comprising 70% of the total population. Further statistics on the expatriate population, including gender, employment status and country of origin are outlined below.

Gender

- As of 2016, 68% of the expatriate population were men.

Employment type

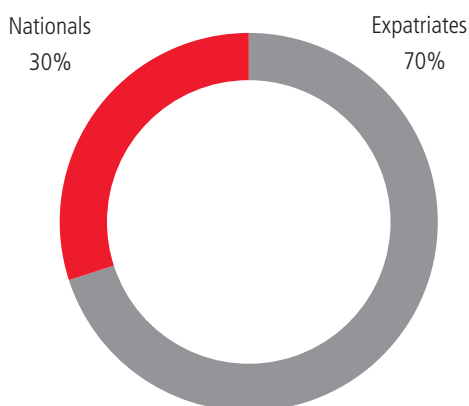
- 51% of expatriates are employed within the private sector, compared to just 4% in the government sector.
- When broken down by gender, it is clear men drive the high proportion of private sector workers (68% expatriate men work within the private sector vs 13% of women).

Country of origin

- Expatriates migrate from various countries covering Africa, Asia, Europe and America.
- As of 2016, 64% of expatriates originate from non-Arab Asian countries, followed by Arab countries (33%). All other nationalities comprise a small proportion of the expatriate population.

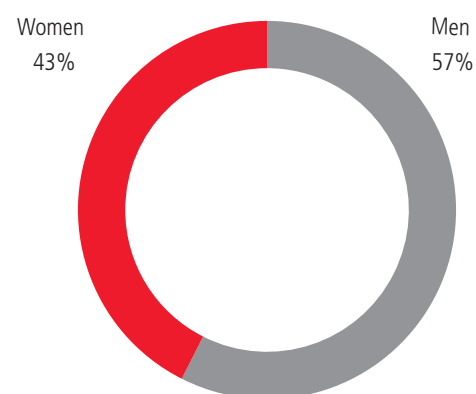
Source: (20).

FIGURE 6
POPULATION BY NATIONALITY STATUS, 2016



Source: (16).

FIGURE 7
POPULATION BY GENDER, 2017



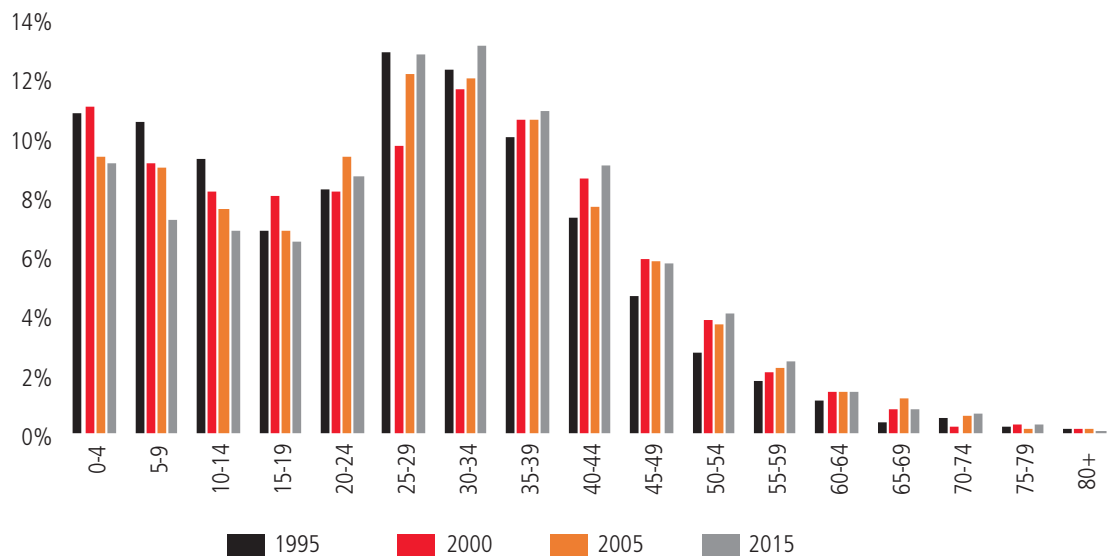
Source: (17,18).

In terms of population, relative to Western developed countries, Kuwait has a young population with 30% of the population being aged under 20 years (in comparison, in the UK, this age group make up just 23% of the population) (21). Those aged between 25 and 34 years represent the largest group in society comprising 26% of the total population, indicating a large working-age population. As a result, Kuwait, at present, has a healthy total dependency ratio (non-working population divided by the working population), which has been declining since the 1980s (Figure

11). Nevertheless, it is important to highlight the following two points:

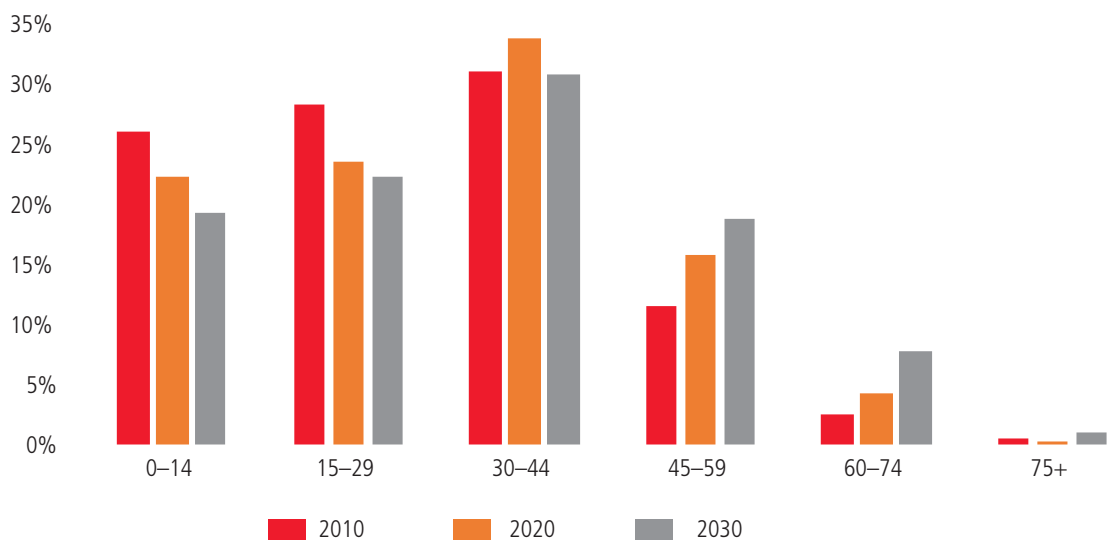
- The low dependency ratio is driven by the high number of expatriates who migrate to the country for employment reasons.
- As shown in Figure 9, the proportion of the population in older age brackets has increased since 1995. This trend is expected to continue (see Figure 10), therefore the dependency ratio will weaken.

FIGURE 9
POPULATION BY AGE GROUP, 1995 AND 2015



Source: (21).

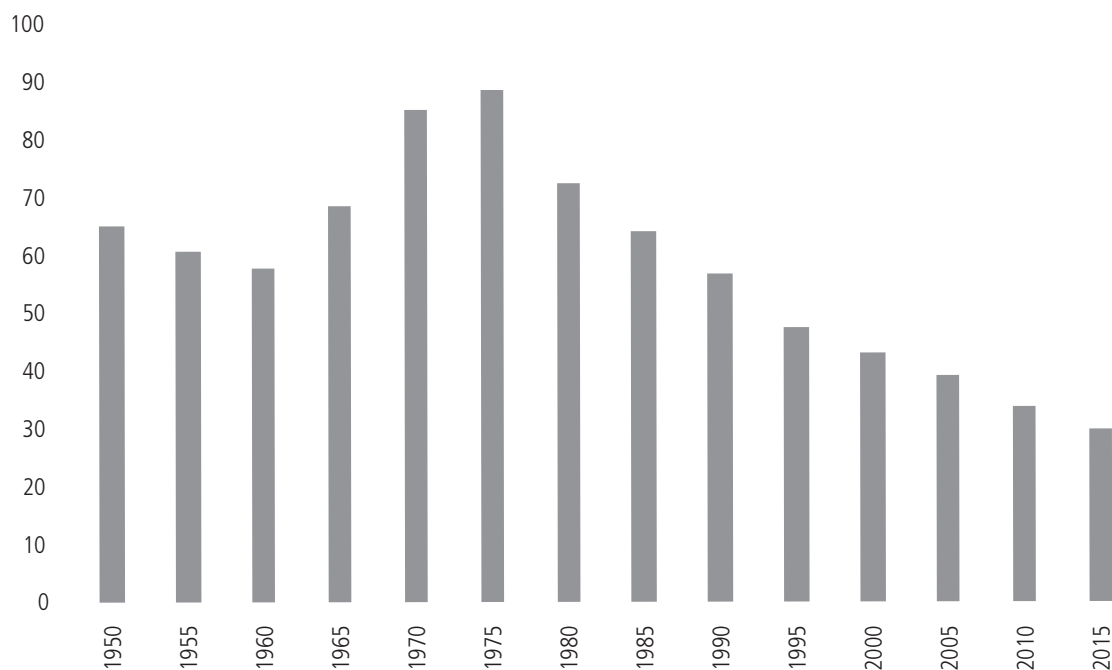
FIGURE 10
POPULATION PROJECTIONS BY AGE GROUP, 2010-2030



Source: (15).

FIGURE 11
TOTAL DEPENDENCY
RATIO, 1950–2015

The total dependency ratio is estimated by dividing the total number of people aged less than 15 years or 65 years and over by those of working age (i.e. 15–64 years).



Source: (22).

1.4.2 Language and religion

The official language in Kuwait is Arabic, however, English is widely spoken given the high proportion of migrant workers. Regarding religion, approximately 77% of the population follow a Muslim faith, followed by Christianity (17%). The remaining 6% comprise a range of religions, either specified or not (2).

2 HEALTHCARE INDICATORS

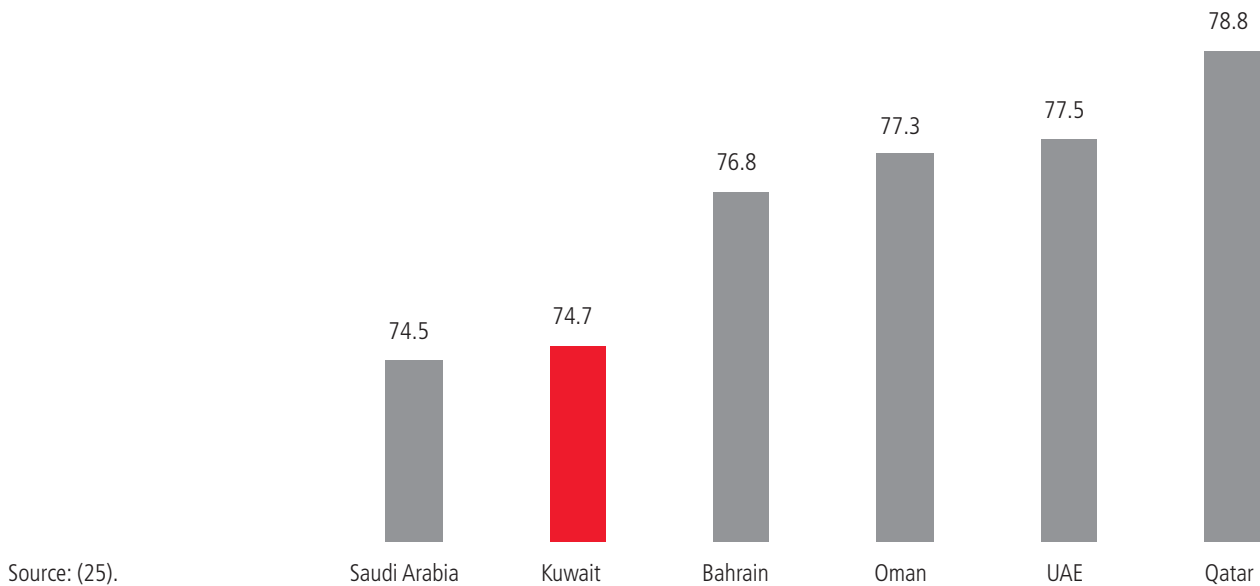
2.1 MORTALITY

Life expectancy (LE) at birth for the entire population was 74.7 years in 2015 (see Figure 12). When broken down by gender, it is clear that LE for women is higher than men in Kuwait (75.9 years vs. 73.6 years) (23,24). Although it is positive that both men and women in Kuwait have experienced increases in LE since 2005 (from 72.7 and 74.6 years, respectively), the growth rate over this period is the lowest of any GCC country (see Figure 13 and Figure 14). Specifically, the percentage growth

rate in LE for men and women in Kuwait was 1.1 and 0.6 percentage points below the GCC average, respectively (23,24).

Using estimates from Euromonitor International, LE in Kuwait is set to increase to 76.2 years by 2030. Healthy LE, however, will increase at a slower rate, specifically from 64.2 to 65.5 years between 2015 and 2030 (15).

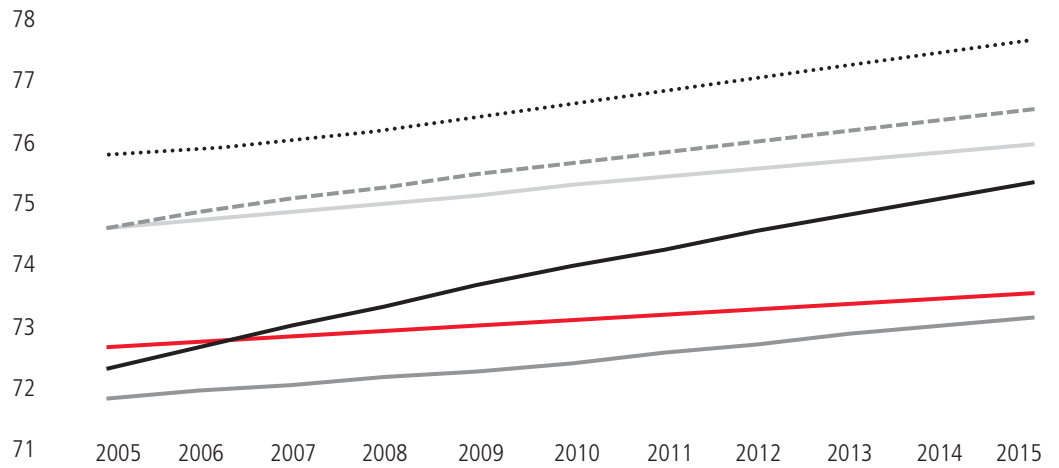
FIGURE 12
TOTAL LIFE EXPECTANCY AT
BIRTH IN THE GCC, 2015



Source: (25).

Kuwait Health System Review

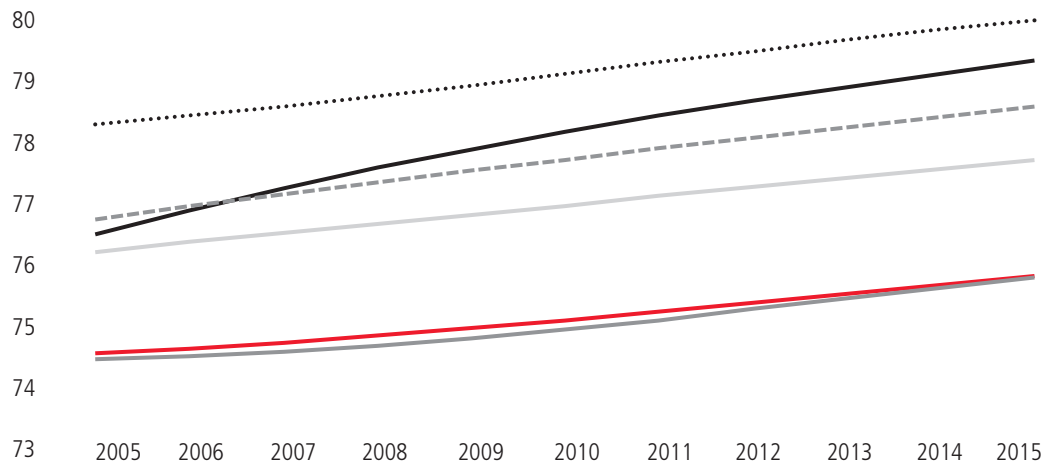
FIGURE 13
MALE LIFE EXPECTANCY AT BIRTH IN THE GCC, 2005–2015



Source: (23,24).

— Bahrain — Kuwait — Oman Qatar — Saudi Arabia - - - UAE

FIGURE 14
FEMALE LIFE EXPECTANCY AT BIRTH IN THE GCC, 2005–2015



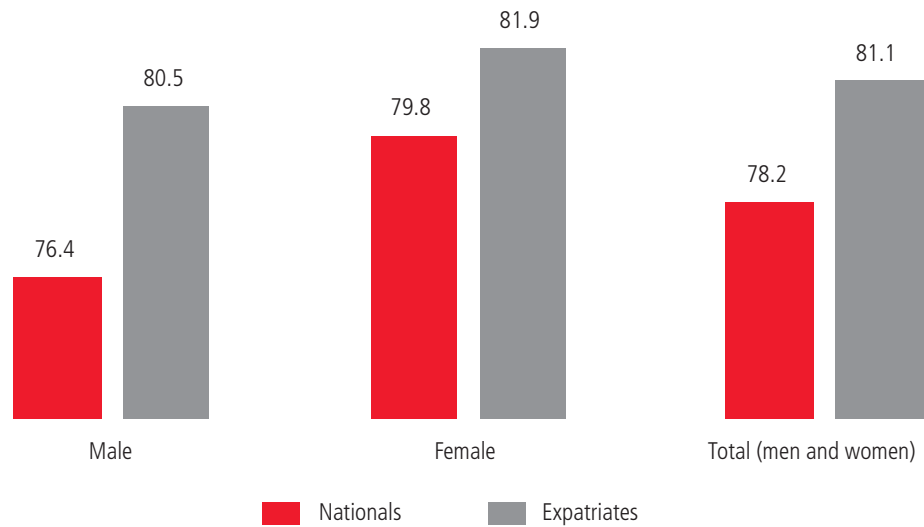
Source: (23,24).

— Bahrain — Kuwait — Oman Qatar — Saudi Arabia - - - UAE

Kuwait Health System Review

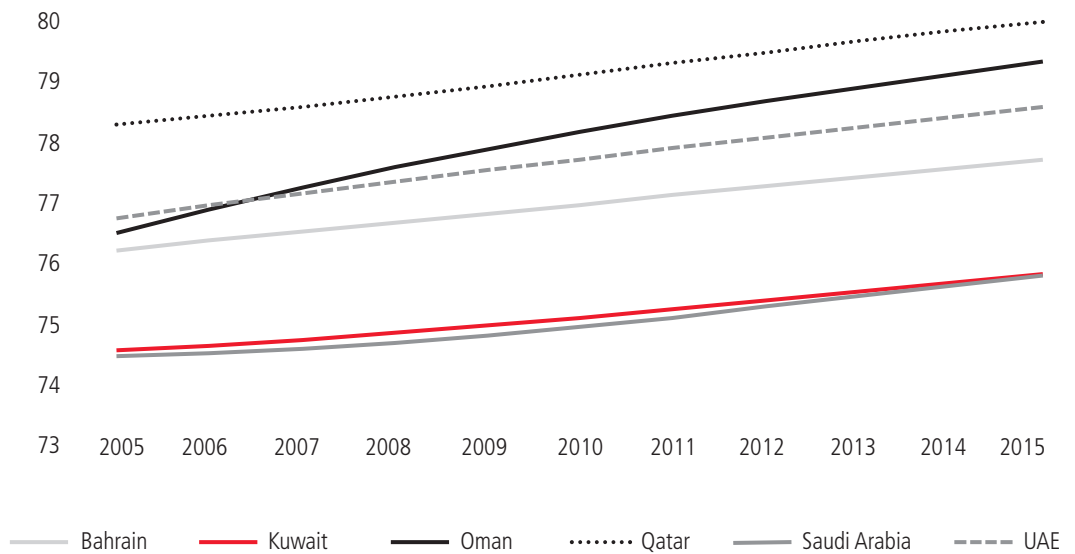
Life expectancy by nationality status has also been explored with results presented in Figure 15. It is clear that for both genders, expatriates live significantly longer, particularly expatriate men (26).

FIGURE 15
FEMALE AND MALE LIFE EXPECTANCY BY NATIONALITY IN KUWAIT, 2015



Source: (26)

FIGURE 16
CRUDE DEATH RATE PER 1,000 PEOPLE IN THE GCC, 2005–2015



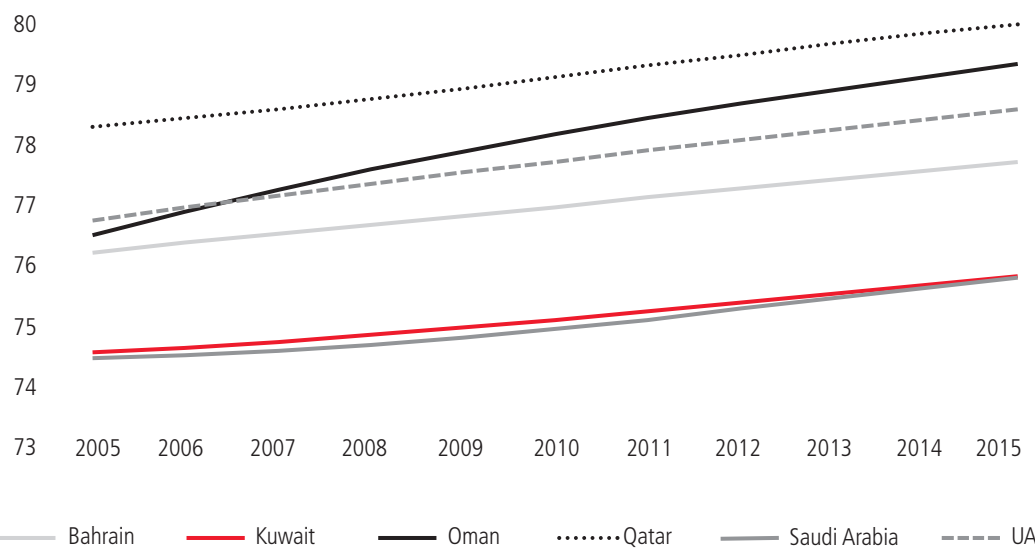
Source: (27)

Kuwait Health System Review

Data on adult male and female mortality in the GCC is presented in Figure 17 and Figure 18. The mortality rate, as of 2015, for men was 97.4 per 1,000 men, which was the second highest rate in the GCC behind Oman at 108.8 (27). The mortality rate of women, when compared to the GCC region, performed better than men. Specifically, women in Kuwait had a mortality rate of 57.7

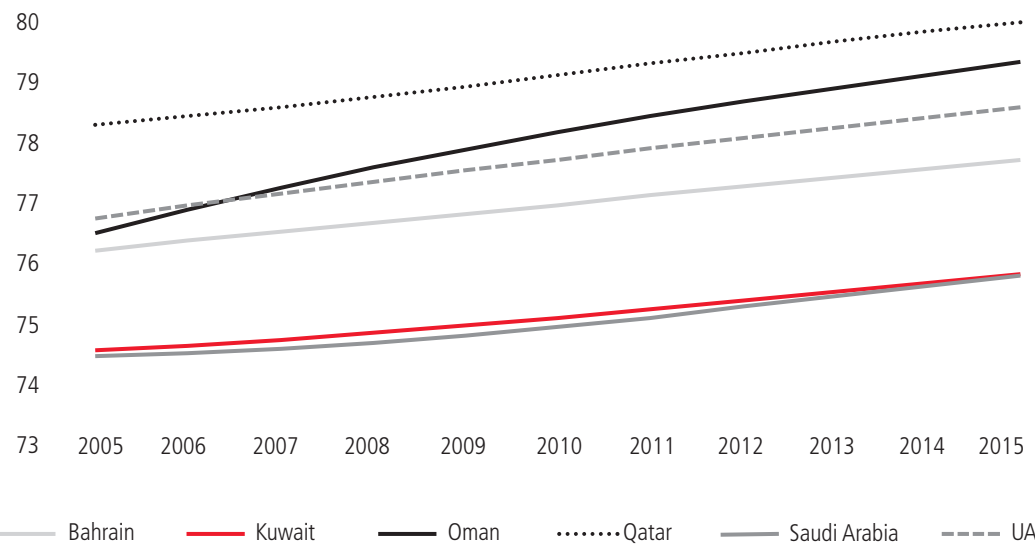
deaths per 1,000 women, which was the third lowest of the six countries (28). Similar to life expectancy, Kuwait experienced the lowest percentage decline in mortality rates between 2005 and 2015 (Men: -8% in Kuwait vs. -15% for GCC, Women: -12% in Kuwait vs. -16% for GCC) (27,28).

FIGURE 17
MALE ADULT MORTALITY
PER 1,000 PEOPLE IN THE
GCC, 2005–2015



Source: (27).

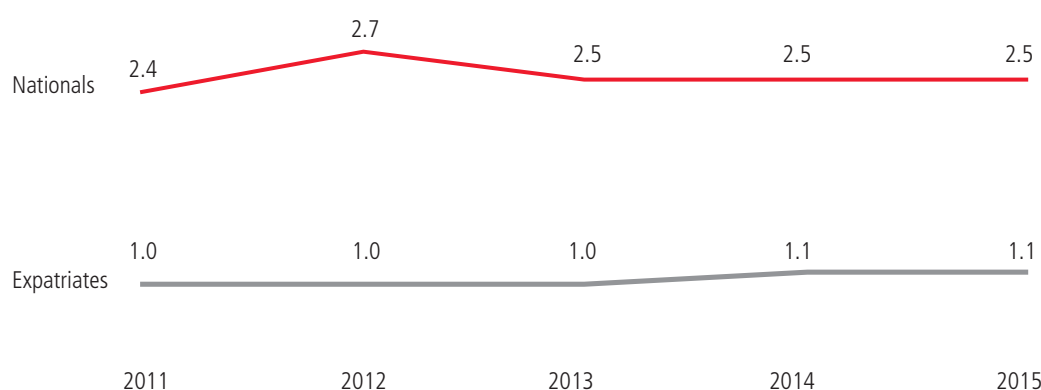
FIGURE 18
FEMALE ADULT MORTALITY
PER 1,000 PEOPLE IN THE
GCC, 2005–2015



Source: (28).

The crude death rate for both genders by nationality status is presented in Figure 19. Given expatriates live for longer, it is not surprising that their crude death rate is lower than the Kuwait national population. No marked trends in death rates for nationals or expatriates are evident over the period 2011–2015 (26).

FIGURE 19
CRUDE DEATH RATE BY NATIONALITY PER 1,000 PEOPLE IN KUWAIT, 2011–2015



Source: (26).

Rates of child (under five years) and maternal mortality are also important indicators to examine as they act as an indicator of health system effectiveness.

The under-five mortality rate per 1,000 live births was, on average, 8.8 in 2014 (9.6 for expatriates and 8.3 for nationals) (this figure is relatively low within the GCC context).⁴ This figure represents a decline from 10.3 deaths per 1,000 live births in 2010 (26).

In 2014, the maternal mortality rate was recorded at 11.4 per 100,000 live births, all of which can be attributed to expatriates (26 deaths per 100,000 live births) (this figure is relatively high within the GCC context). This figure represents a marked increase from a rate of 5.2 in 2010; however, this may be due to data related issues given no deaths were recorded for nationals in that year (26).

No data is available on avoidable mortality rates within the State of Kuwait.

4. When using the population under five as the denominator, as opposed to live births, the figure falls to 1.7 deaths (1.6 for expatriates and 1.7 for nationals) (26).

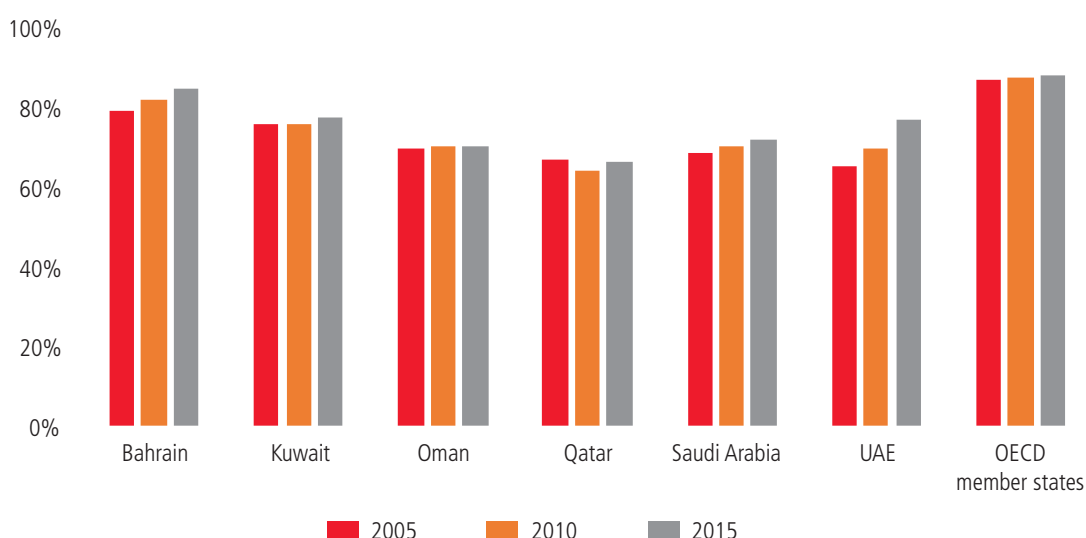
2.2 NON-COMMUNICABLE DISEASES AND RISK FACTORS

2.2.1 Leading non-communicable diseases

The primary cause of death in developed countries, including Kuwait, are related to non-communicable diseases (NCDs) (29). In 2015, 77.2% of deaths in Kuwait were attributed to NCDs, up from 75.3% in

2005. These figures are on par with the GCC average, but lower than those found among OECD member states where 87.6% of deaths are attributed to such diseases (29).

FIGURE 20
PROPORTION OF ALL DEATHS ATTRIBUTABLE TO NCDs IN THE GCC AND OECD, 2005–15

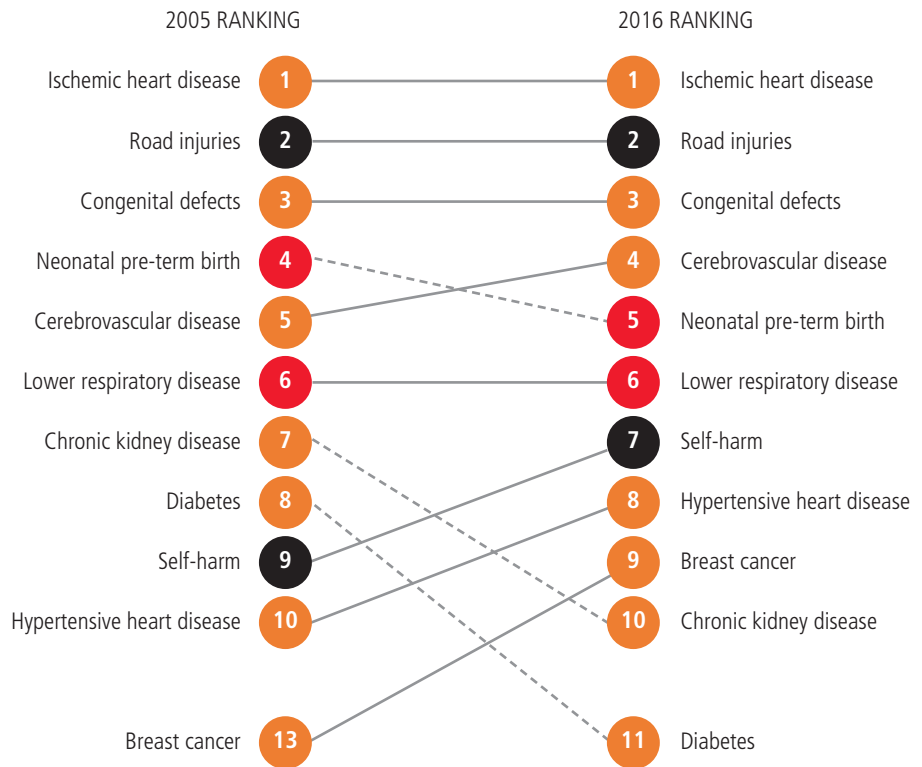


Source: (29).

Leading causes of premature death and all deaths have been published by the Institute for Health Metrics and Evaluation (IHME) between 2005 and 2016 (see Figures 21 and 22). For both types of data, the leading causes of death are primarily non-communicable. In regard to premature deaths, ischemic heart disease and congenital defects (i.e.

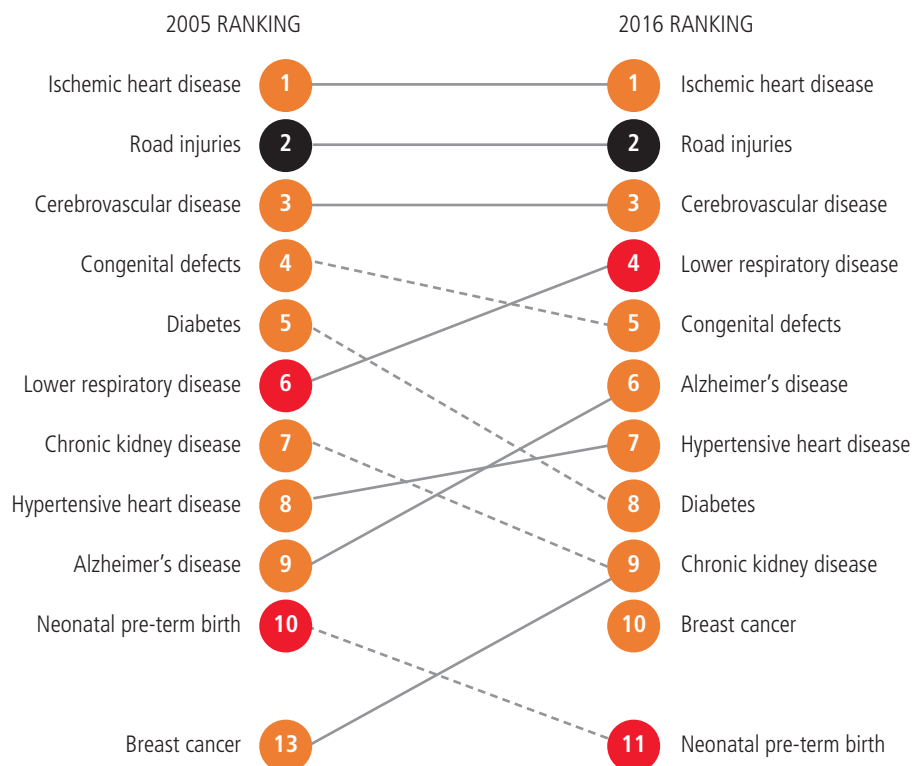
birth defects) have been the two leading causes since 2005 (30). For total deaths, ischemic heart disease is again the leading cause, followed by cerebrovascular disease and lower respiratory tract infections (30). Road injuries represents a significant cause of death in Kuwait, particularly among the younger population.

FIGURE 21
LEADING CAUSES OF
PREMATURE DEATH IN
KUWAIT, 2005 AND 2016



Source: (30).

FIGURE 22
LEADING CAUSES OF DEATH
IN KUWAIT, 2005 AND 2016

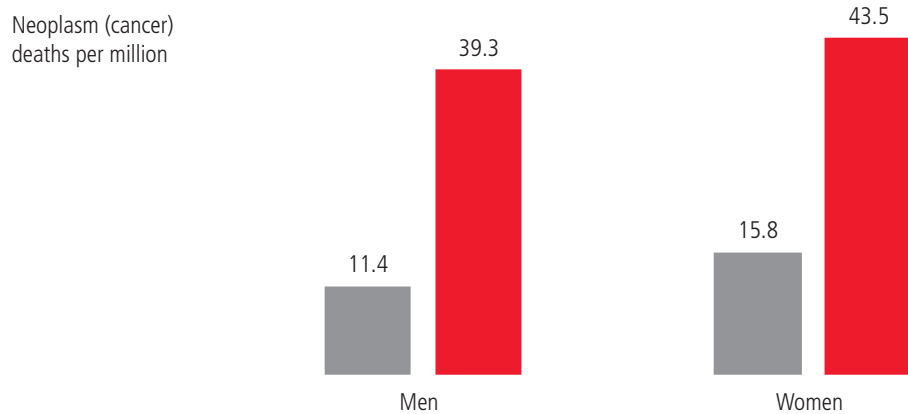
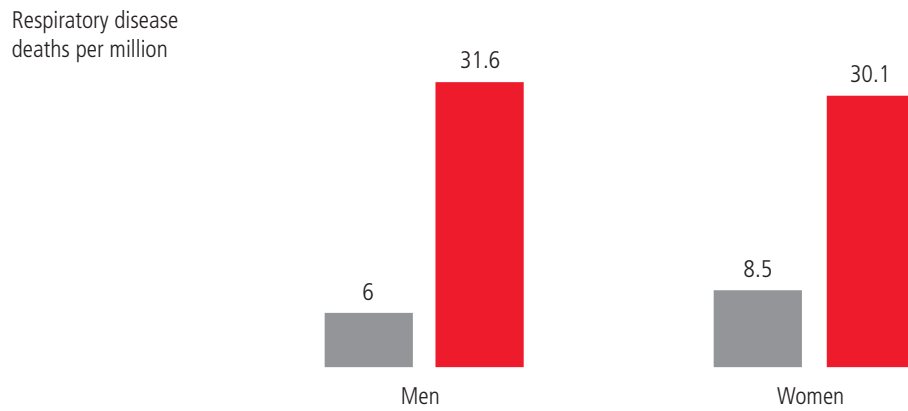
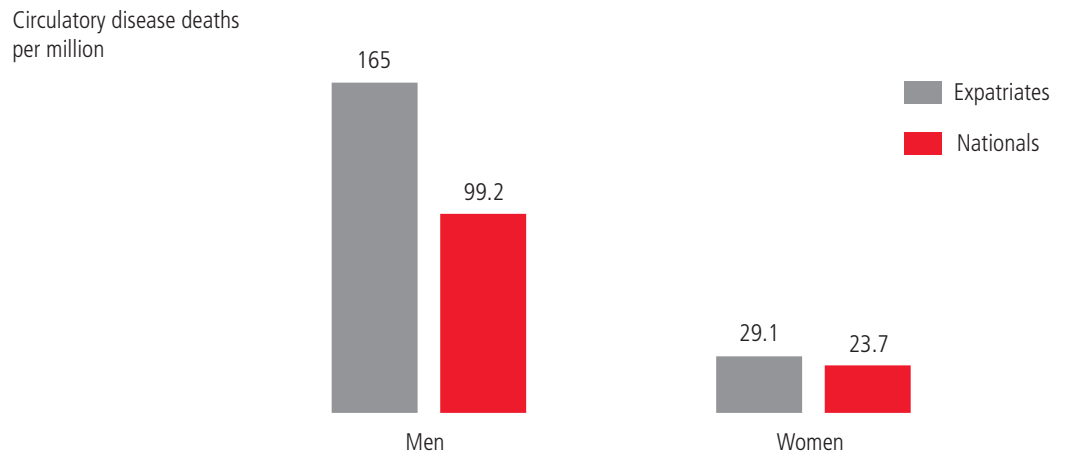


Source: (30).

Specific details on prominent NCD death rates by both gender and nationality status are explored below. Specifically, death rates per 1,000,000 people for circulatory and respiratory diseases, and neoplasms have been examined. For circulatory

diseases, expatriates experience higher death rates for both men and women. For respiratory diseases, nationals experience higher death rates for both men and women. For neoplasms, national men and expatriate women experience higher death rates.

FIGURE 23
DEATH RATES FOR
CIRCULATORY AND
RESPIRATORY DISEASE, AND
NEOPLASMS, 2015

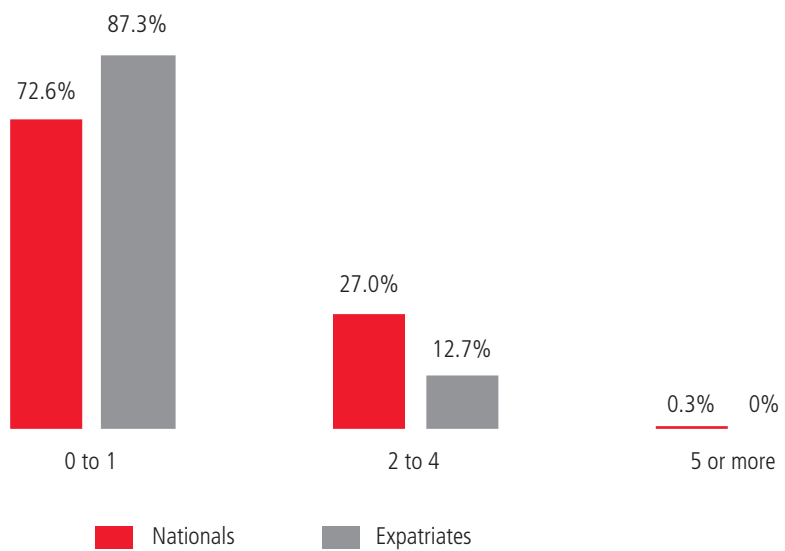


Source: (26).

Several countries within the Gulf Coast region have implemented health programs to control for high local rates of NCDs (31). Kuwait's MoH has recognised the need to improve prevention and management of chronic diseases through nutrition in its development agenda set for 2035 (32). Certain steps have been taken to achieve this goal such as restricting the amount of salt used in all bread products by the Kuwait Flour Mills and Bakeries Company (initiated by the Public Authority for Food and Nutrition) (33). More recently, the UN Interagency Task Force on the Prevention and Control of NCDs carried out a mission to assist the Government of Kuwait in developing a more rigorous strategy to reduce the prevalence of NCDs (34).

To ensure success in reducing the rate of NCDs in Kuwait, it is important to address the significant knowledge gaps regarding chronic diseases among the Kuwaiti population (this is particularly important in Kuwait given just under one-quarter of the population have two or more chronic conditions, see Figure 24) (35). In response, a number of public health training opportunities have been developed in order to improve existing knowledge on chronic diseases and prevention methods among professionals (see Section 5.2). However, few education programs and campaigns have been made to specifically target the general population.

FIGURE 24
NUMBER OF CHRONIC
CONDITIONS BY
NATIONALITY, 2013



Source: (1)

2.2.2 Risk factors

Understanding risk factors causing NCD deaths are of high importance to policy-makers as addressing these factors can increase life expectancy, reduce disability rates and improve quality of life. In Kuwait, leading risk factors causing NCDs are closely linked with diet and exercise as shown in Figure 25 (i.e. high-body mass index, dietary risks and high blood pressure). Such risk factors have arisen in Kuwait and neighbouring countries due to various reasons, including:

- Availability of fast-food restaurants, cars, mechanic appliances and cheap labour
- High temperatures
- Social stigma associated with walking outdoors
- Inadequately designed pedestrian walkways and bicycle routes
- Limited parks and facilities to cater to sporting events
- Social norms to spend time with family and extended social networks (which are usually inactive and include meals)
- Sedentary work environment

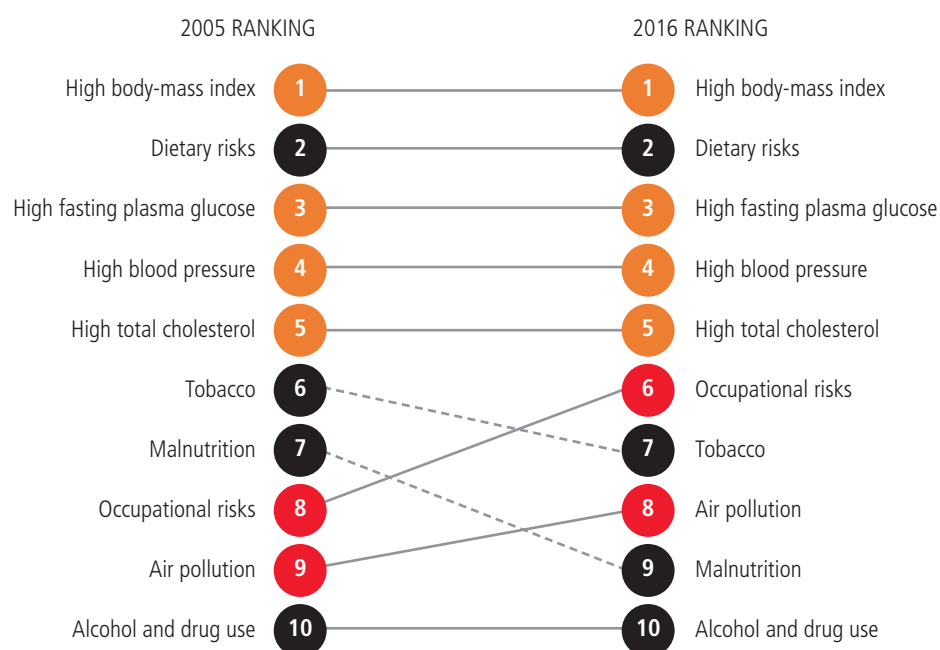
- Sedentary school environment (physical education is often optional and not viewed as important as other classes)
- No regulation on the amount of sugar and salt in foods and beverages⁵ (36,37).

The findings outlined in the Figure 25 are not surprising and have been a cause for concern for many years in Kuwait. An article published by The Lancet in 2013 provided an overview of obesity rates for boys, girls, men and women across the world (38). The results show that:

- The rate of being overweight or obese among boys (24.6%) and men (74.5%) in Kuwait aligns with other countries in the GCC, with the exception of men in Oman who are significantly less likely to be obese.
- Girls and women in Kuwait have higher rates of being overweight or obese than in other GCC countries, specifically, 11.2 and 9.9 percentage points greater than the GCC average, respectively.
- Finally, unlike developed Western nations, women in the GCC, including Kuwait, experience higher rates of obesity than men.

FIGURE 25
WHAT RISK FACTORS
DRIVE THE MOST DEATH
AND DISABILITY
COMBINED

- Metabolic risks
- Behavioral risks
- Environmental/occupational risks

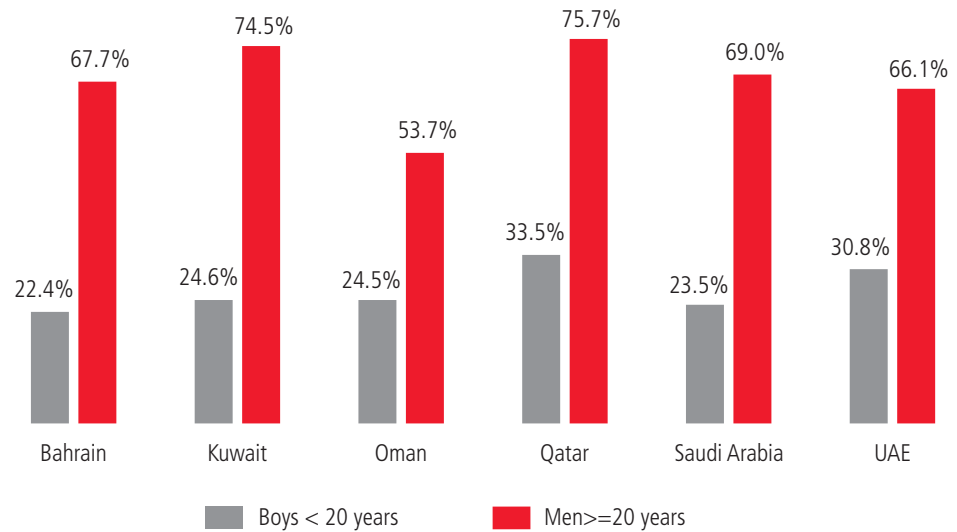


Source: Taken directly from IHME (30).

5. In November 2016, a sugar excise tax on carbonated drinks was applied at the GCC level, with responsibility for implementation falling to individual countries. Kuwait decided only to tax carbonated water as opposed to sugar drinks.

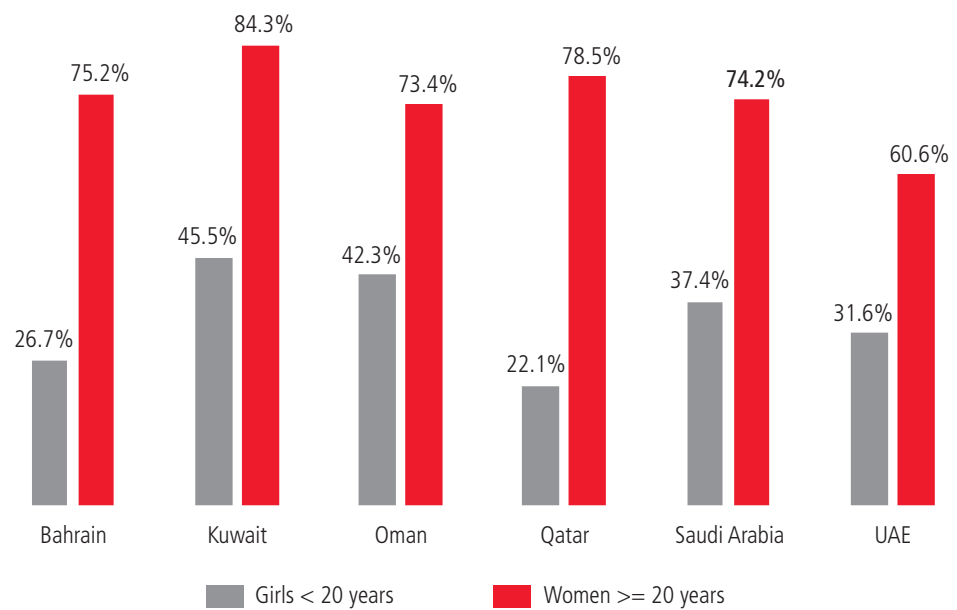
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FIGURE 26
OVERWEIGHT AND OBESITY
RATE FOR MALES IN THE
GCC, 2013



Source: (38).

FIGURE 27
OVERWEIGHT AND OBESITY
RATE FOR FEMALES IN THE
GCC, 2013



Source: (38)

Kuwait Health System Review

Obesity rates published by The Lancet are supported by data from the Kuwait World Health Survey (2013), which involved 3,828 participants. Specifically, 79.23% of respondents were considered overweight or obese. When analysing results by gender, it is clear that obesity is more prevalent among women than men (i.e. 59.77% vs. 40.23%, respectively).

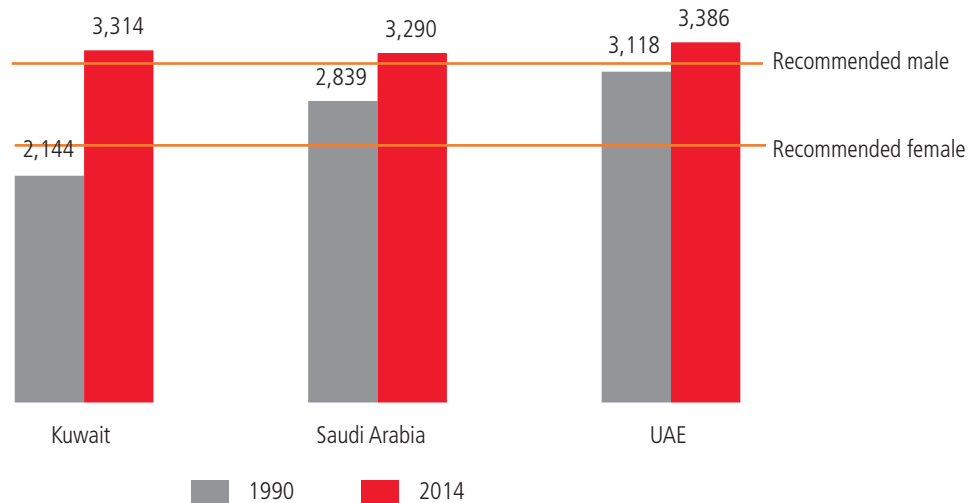
High rates of obesity are not surprising given Kuwaitis consume, on average, 3,314 calories per day (as of 2014), which is greater than the recommended intake for both men (2,400) and

women (2,000). These figures represent a 55% increase since 1990, where citizens on average consumed 2,144 calories per day (39).

Poor lifestyle habits are also demonstrated by low levels of fruit and vegetable consumption, and participation in exercise. Specifically, only 24.9% of men and 24.1% of women consume a 'sufficient' amount of fruits and vegetables (see Figure 29). Further, just 38.5% and 26% of men and women in Kuwait engage in enough physical exercise, respectively (see Figure 30).

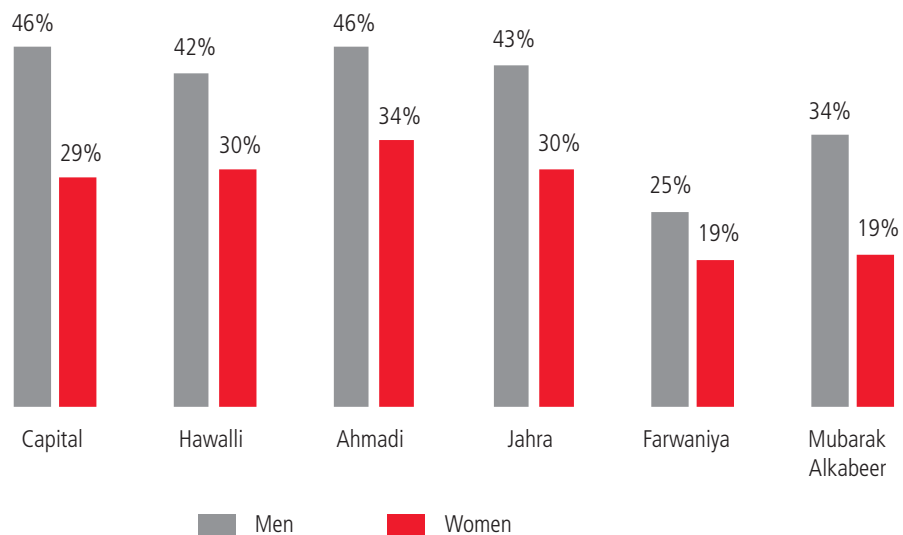
FIGURE 28
CALORIE INTAKE LEVELS IN
THE GCC, 1990 AND 2014

Data for Bahrain, Oman
and Qatar are not
available.



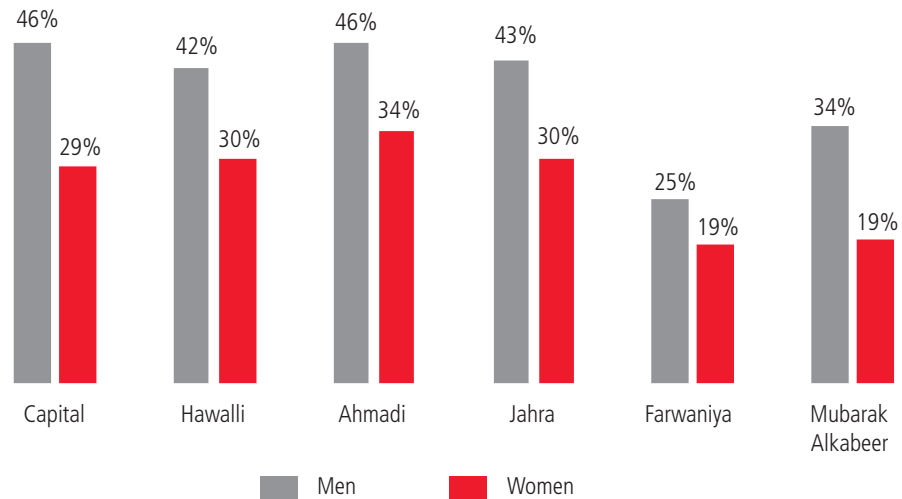
Source: (39).

FIGURE 29
PROPORTION OF KUWAITIS
CONSUMING SUFFICIENT
AMOUNT OF FRUIT AND
VEGETABLES, 2013



Source: (1)

FIGURE 30
PROPORTION OF KUWAITI
POPULATION ENGAGING IN
SUFFICIENT LEVELS OF
EXERCISE, 2013



Source: (1).

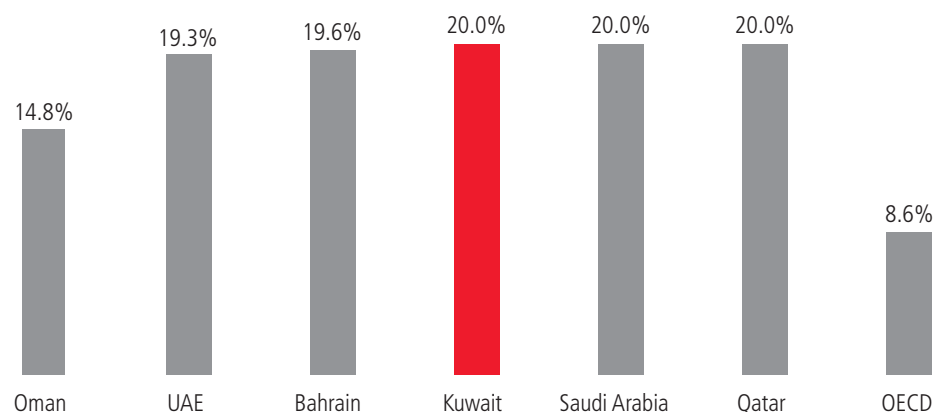
Given the high rates of obesity in Kuwait, a national program (i.e. Kuwait National Program for Healthy Living, 2013–17) regarding prevention and treatment of weight related issues was developed. Goals of the program included:

- Increasing the prevalence of sustained physical activity among the population by 20%
- Reducing BMI by 2% among overweight and obese children, youths and adults
- Reducing the mean waist-hip ratio by 5% among overweight and obese children, youths and adults
- Reducing the prevalence of overweight adults by 10%

- Reducing the prevalence of overweight children and youths aged 6–18 years by 15%
- Reducing the prevalence of overweight babies by 20%
- Reducing the mean energy intake among the population by 10% (37).

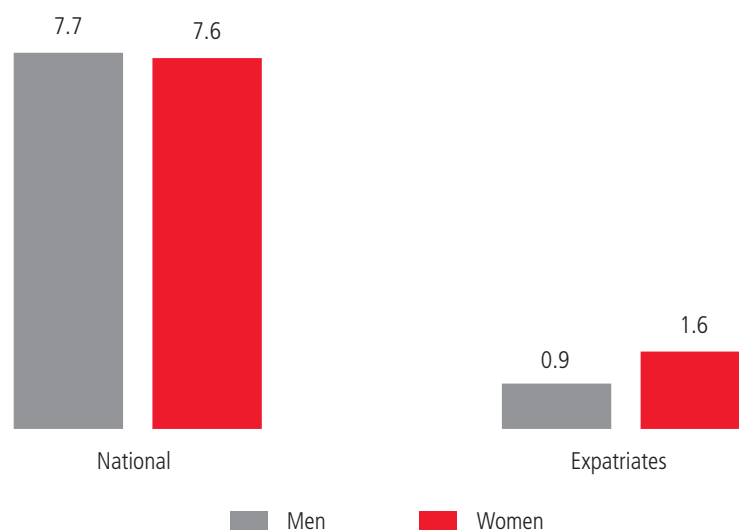
High levels of obesity cause numerous healthcare related issues including Type 2 Diabetes. The GCC, as a region, suffers from one of the highest rates of adult diabetes in the world with Kuwait, Qatar and Saudi Arabia ranking sixth in this regard (each country has an adult diabetes prevalence rate of 20%) (40). In contrast, the diabetes prevalence rates among OECD member states, on average, is 8.6% (e.g. US – 10.8%, UK – 4.7%) (40).

FIGURE 31
DIABETES PREVALENCE
AMONG ADULTS (20–79
YEARS) IN THE GCC AND
OECD, 2015



Source: (40).

FIGURE 32
DEATHS CAUSED BY
DIABETES PER 100,000 BY
NATIONALITY AND GENDER
STATUS IN KUWAIT, 2015



Source: (26).

Diabetes related deaths have been recorded for 2015 (Figure 32). The results show that nationals are more likely to die from diabetes than expatriates (26). Examining differences in gender reveal that expatriate females are more likely to die from diabetes than males, which is opposite to that experienced by nationals (26).

These results are supported by a recent analysis of Kuwait World Health Survey data (2013). Key findings from the data are outlined below⁶:

- 12.59% of women are diabetic compared to 9.42% of men.
- 13.42% of Kuwaiti nationals have diabetes compared to 6.69% of expatriates.
- Diabetes prevalence increases with age.
- Those with higher levels of education are less likely to have diabetes (e.g. 33.33% of those with no education have diabetes compared to 4.10% of those with a university or post-graduate degree).
- 15.77% of men and women who are obese have diabetes compared to 5.28% who are of normal weight.
- 12.27% of those who are insufficiently active are diabetic compared to 8.53% of those who are sufficiently active (41).

There have been a series of positive initiatives to reduce the prevalence of diabetes such as the development of the Dasman Diabetes Institute (DDI). This is a not-for-profit organisation funded by both government (i.e. MoH) and the private sector (with KFAS being the largest private contributor). The primary objective of DDI is to undertake research to inform policies that reduce the prevalence of diabetes. To achieve this objective, DDI engages in a range of activities, including:

Research: research is the primary activity undertaken at DDI. In 2016, the institute published over 80 journal articles. To ensure research within this area is of high-quality, the DDI have developed several relationships with key academic institutions, including Kuwait University, Harvard University, Oxford University, University College London, University of Dundee and the University of Florida. The focus, to date, has been on securing international relationships, however, it is envisaged that in the near future the DDI will place greater emphasis on securing regional relationships.

Healthcare awareness and preventative campaigns: DDI undertake awareness programs which are targeted at the community level.

Education: DDI provides a range of scholarships to their employees and MoH officials to enhance the skills of the local workforce. This is a key area of

6. The results were obtained using a subjective measures of diabetes. That is, whether the person had indicated that they had previously been diagnosed with diabetes or not. Given people are often unaware that they have diabetes, these figures are likely to be conservative.

focus given the institute has difficulty recruiting competent, local workers. Example educational activities financed by the DDI include workshops, clinical skills courses⁷ and scholarships for Masters level programs.

Healthcare provision: the DDI offer outpatient healthcare services to approximately 5,000 patients (or 150 patients a day). No secondary care services are undertaken at DDI (see Section 7.1 for further

details). Patients who access services at DDI have an electronic health record set up for them. Lastly, DDI have their own pharmacy, which patients can receive medication from with a valid prescription.

Despite a national institute dedicated to diabetes, policies related to diabetes are not coordinated (i.e. between government, public sector and NGOs). For example, unlike countries such as Qatar, Kuwait does not have a national diabetes strategy.

2.3 HEALTHCARE EXPENDITURE

2.3.1 Key expenditure statistics

Key statistics related to healthcare expenditure in Kuwait and the GCC region, as a whole (from 2014), can be found in Table 2 (red (green) text

indicates that the figure in Kuwait is higher (lower) than the GCC average – it is not an indication of performance).

TABLE 2
KEY HEALTHCARE
EXPENDITURE STATISTICS
FOR KUWAIT, 2014

Red text = figure in
Kuwait is above the
GCC average.

Green text = figure in
Kuwait is below the
GCC average.

Expenditure item	Kuwait	GCC average
Total Health Expenditure (THE) as % Gross Domestic Product (GDP)	3%	4%
General Government Health Expenditure (GGHE) as % of THE	85.9%	79%
Private Health Expenditure (PvtHE) as % of THE	14.1%	21%
GGHE as % of General government expenditure (GGE)	5.8%	8%
Out of Pocket Expenditure as % of THE	12.7%	13%
Out of Pocket Expenditure as % of PvtHE	90.5%	63%
THE per capita in US\$	US\$1,386	US\$1,361
THE per capita in Int\$ (Purchasing Power Parity)	\$2,320	\$2,330
GGHE per capita in US\$	US\$1,191	US\$1,068
GGHE per capita in Int\$ (Purchasing Power Parity)	\$1,993	\$1,823
Out of Pocket Expenditure per capita in US\$	\$176	\$184
GGHE as % of GDP	2.6%	2.8%
Private Insurance as % of PvtHE	9.5%	26%

Source: (42).

7. For example, within DDI, the Clinical Skills Centre provides education to medical professionals and the general public. The course offers participants with education regarding cardiopulmonary resuscitation and emergency cardiovascular care and is run in partnership with the American Heart Association. The course is internationally recognised for two years upon completion.

Key findings from the analysis reveal that:

- Kuwait spends less on healthcare as a proportion of GDP when compared to the GCC region. Further, the GCC region spends significantly less on healthcare than other western developed healthcare systems (which average around 9-10%).
- The Kuwait government spends less on healthcare as a proportion of general government expenditure when compared to the GCC region, yet more than as a percentage of total health expenditure.
- Out-of-pocket expenditure as a proportion of private health expenditure is markedly higher than the GCC average, given levels of private health insurance are relatively low (42).

Healthcare expenditure in Kuwait is expected to grow at a compound annual growth rate (CAGR) of 7.5% between now and 2020. Given these figures are realised, healthcare expenditure will increase from US\$5.2 billion to US\$8 billion (19). Finally, it is clear from expenditure data that the public healthcare system is heavily reliant on treatment as

opposed to preventative services with 85% of expenditure allocated to curative care (43).

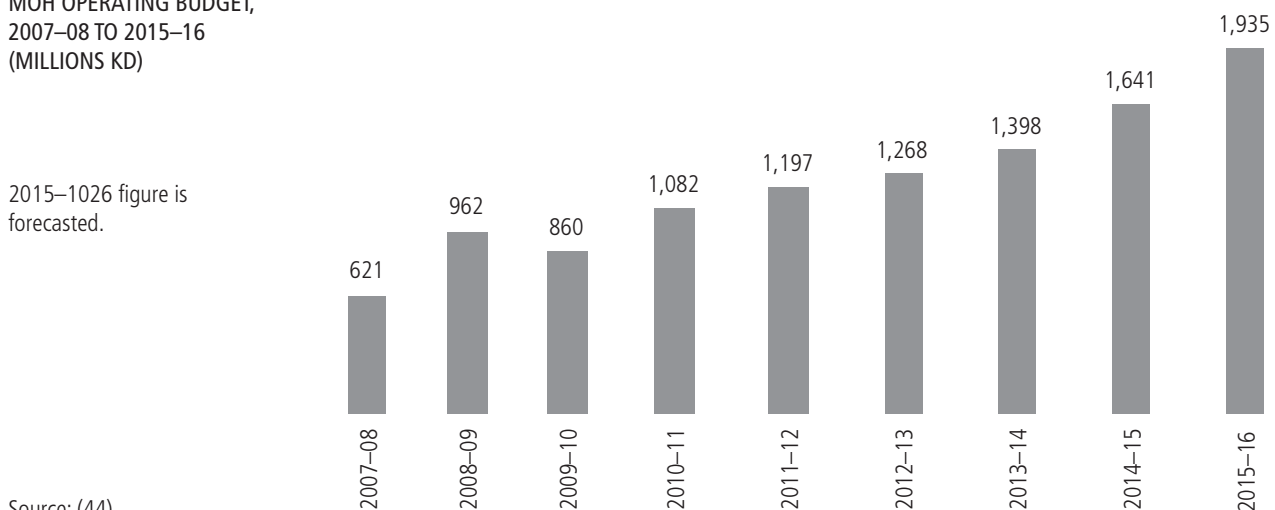
2.3.2 Government expenditure

The majority of healthcare is funded by the government. Due to factors such as high NCD prevalence, sending patients abroad, growing hospital infrastructure and use of branded over generic drugs, the MoH's budget has markedly increased (43). For example, between 2007–08 and 2015–16, the MoH's operating budget grew from 621 million KD to 1.9 billion KD (forecasted). This represents a CAGR of 13.46% (see Figure 33) (7).

Forecasts undertaken by the US International Trade Administration predict that CAGR will stabilise at approximately 7% indicating that the MoH operating budget will increase to US\$18 billion by 2030 (44).

It is important to note that the operating budget of the MoH does not represent total government spending on health given other ministries such as the Ministry of Defence, Ministry of Interior and the Kuwait Oil Company also provide healthcare services.

FIGURE 33
MOH OPERATING BUDGET,
2007–08 TO 2015–16
(MILLIONS KD)



Source: (44).

2.3.3 Private expenditure

Private health expenditure as a proportion of GDP equated to 0.43% in 2014, which represents an increase from 0.36% in 2011. In terms of health expenditure, it is clear that the private sector is markedly smaller comprising 14.1% of THE. Since 2005 there has not been a clear trend regarding the size of the private healthcare market in Kuwait. For example, in 2005, the private healthcare market comprised 20.1% of THE, 12.9% in 2009 and 15.4% in 2010 (45).

Economic pressures on the government have meant policy-makers are increasingly interested in reducing their role in the provision and financing of healthcare. As a result, the private healthcare market is expected to grow, for example, through a higher number of PPP projects (new PPP law⁸) and foreign direct investment. Specifically, estimates from IMS Health forecast that the private healthcare market will once again comprise 20% of the total healthcare market (7).

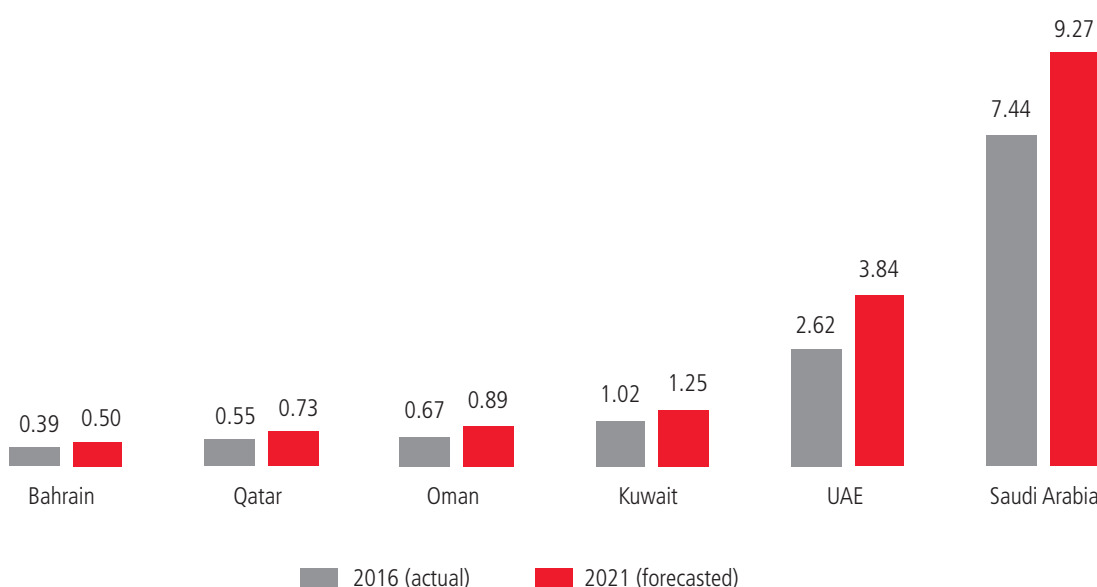
2.3.4 Pharmaceutical expenditure

In 2016, pharmaceutical expenditure in Kuwait totaled US\$1.018 billion. This figure, as forecasted by BMI, is expected to increase to US\$1.253 billion by 2021 (47).

Pharmaceutical expenditure in Kuwait is considered high when compared to countries within the GCC region. For example, pharmaceutical expenditure comprises 0.93% of GDP in Kuwait, which is 0.06 percentage points greater than the GCC average of 0.87% (see Figure 35) (47–52). Relatively high pharmaceutical expenditure may be partly explained by the following factors:

- Under-developed local pharmaceutical market, which has meant Kuwait is highly reliant on importing drugs. Specifically, foreign multi-national manufacturers account for 89.6% of the total pharmaceutical market in terms of value (7,53)^{9,10},

FIGURE 34
PHARMACEUTICAL SALES,
2016–21 (US\$ BILLION)



Source: (47–52).

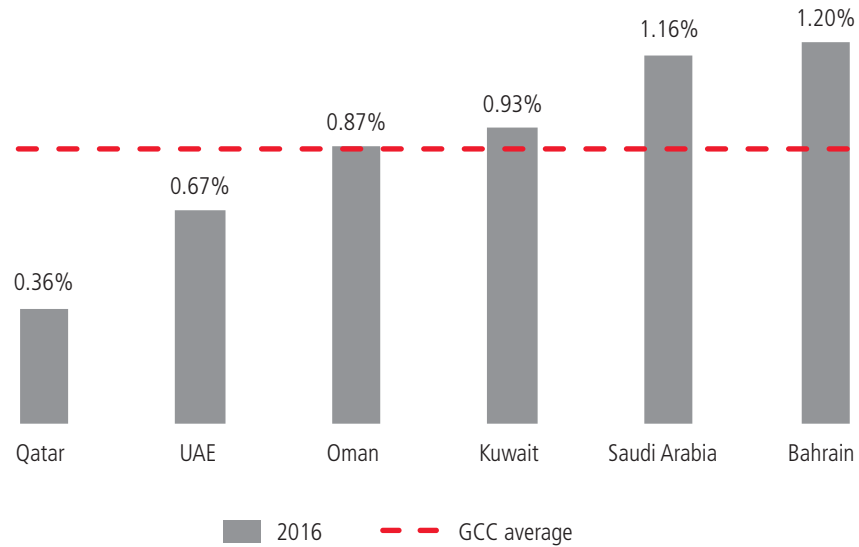
8. The new PPP law (Law No. 16) was passed in mid-2014. Under the law, the Kuwait Authority for Partnerships Project (KAPP) was main the main body responsible for PPPs. KAPP is meant to have greater autonomy than its predecessor (the Partnerships Technical Bureau), and will be overseen by the MoF and the PPP Higher Committee. The new law is meant to increase procurement, development and implementation of PPP Projects.

9. The top three international manufacturers, Pfizer, GSK and Novartis, together comprise 28.6% of the market. Locally, Julphar is the largest manufacturer capturing 17.7% of local pharmaceutical sales (or 1.7% of the total market value) (7).

10. Law No. 4 pf 1962 states that 'a patent of invention shall not be granted... to pharmaceutical compositions unless such products are produced by special chemical methods or processes, in which case the patent shall not be in respect of the products per se, but of the process of manufacture' (7).

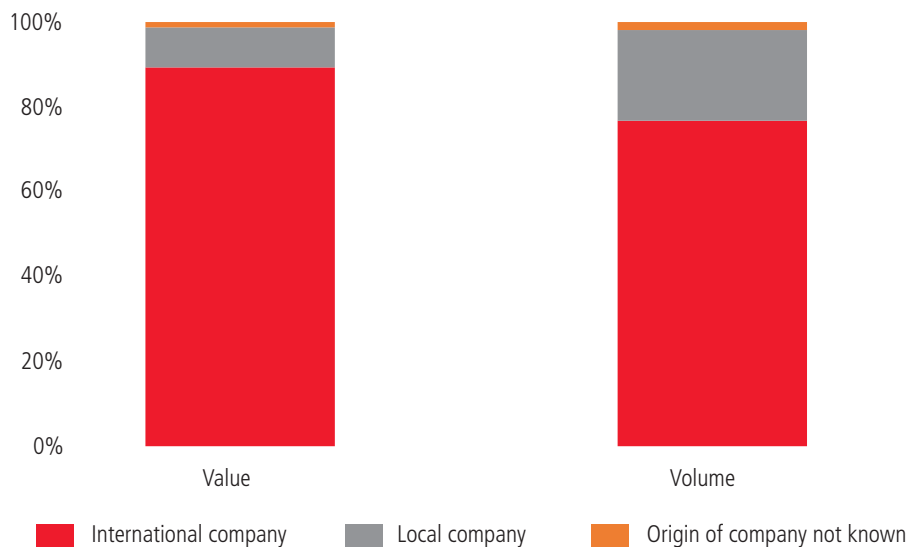
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FIGURE 35
PHARMACEUTICAL SALES
AS % OF GDP, 2016



Source: (47–52).

FIGURE 36
PHARMACEUTICAL VOLUME
AND VALUE BY COUNTRY
OF ORIGIN IN KUWAIT, 2015



Source: (7).

- The market is dominated by branded drugs, with generics comprising just 12.3% of sales or 21.6% of the volume of drugs (7,53). The preference of Kuwaitis to consume branded drugs has allowed manufacturers to continue to profit from branded drugs well after their patent has expired (7,53). Further, Kuwait does not have

in place policies to encourage generic consumption (e.g. INN prescribing, generic substitution, incentives of prescribers). This trend may change with private health insurers increasingly encouraging prescribers to prescribe rationally.

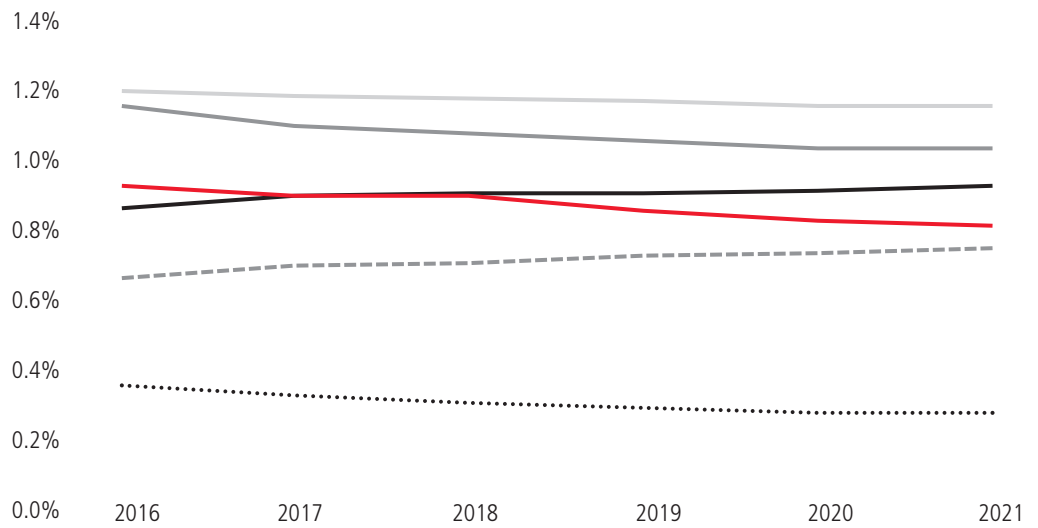
Kuwait Health System Review

Figure 37 depicts changes in pharmaceutical expenditure as a proportion of GDP and health expenditure between 2016 and 2021, respectively. The results indicate that over the next five years, the burden placed on healthcare budgets by

pharmaceuticals products will be reduced, albeit marginally. As stated by BMI, this may be achieved by pursuing nationalistic policies that lessen the country's reliance on imported goods and services in light of economic pressures.

FIGURE 37
PHARMACEUTICAL SALES
AS % OF GDP, 2016–21

Data from 2016
onwards is forecasted

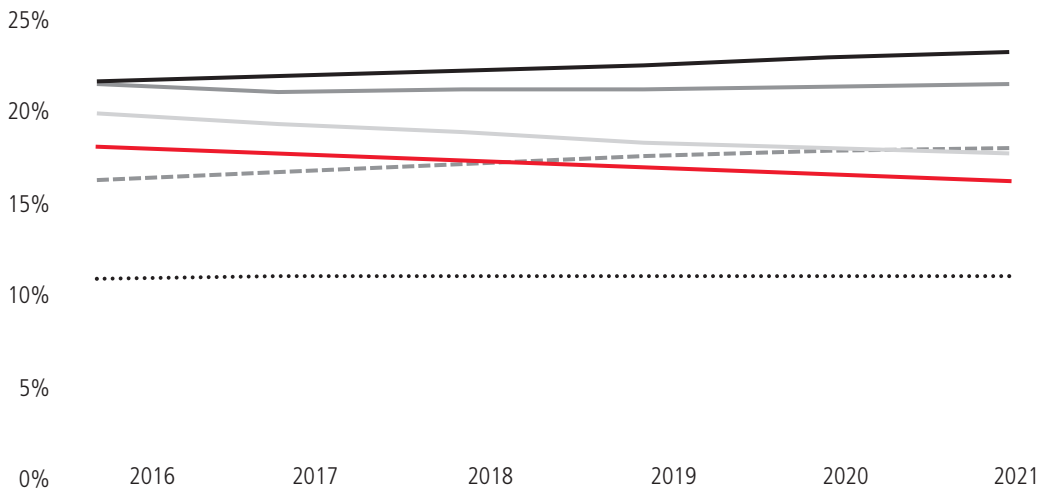


Source: (47–52).

— Bahrain — Kuwait — Oman Qatar — Saudi Arabia - - - - UAE

FIGURE 38
PHARMACEUTICAL SALES
AS % OF HEALTH
EXPENDITURE, 2016–21

Data from 2016
onwards is forecasted



Source: (47–52).

— Bahrain — Kuwait — Oman Qatar — Saudi Arabia - - - - UAE

2.4 ASSESSMENT OF KEY INDICATORS

KEY FINDINGS: HEALTHCARE INDICATORS

MORTALITY

- Male and female life expectancy in Kuwait is relatively low when compared to other GCC countries.
- Life expectancy is higher for expatriates, particularly male expatriates.
- Improvements to mortality rates between 2005–15 in Kuwait are lower than the GCC average.

TYPES OF DISEASES AND RISK FACTORS

- The NCD death rate in Kuwait is similar to those found in GCC countries, yet lower than OECD member states (on average).
- The NCD death rate is significantly greater for nationals when compared to expatriates.
- Leading risk factors causing NCDs are closely related to diet and exercise.
- Females in Kuwait are markedly more overweight and obese than males; such results differ to those found in developed Western nations.
- At present, a national strategy to improve lifestyle habits and thus reduce avoidable NCD-related deaths have not been implemented.
- Road injuries comprise a significant proportion of deaths, particularly among the country's younger population.

EXPENDITURE

- Kuwait spends relatively less on healthcare than the GCC region.
- Levels of private health insurance in Kuwait are markedly lower than the GCC region.

At present the Kuwait healthcare system has sufficient resources and funding to function effectively. That is, the healthcare system provides appropriate and timely healthcare for those who fall ill. The effectiveness of the system is reflected by the Kuwait World Health Survey (2013) whereby 82% of Kuwaitis and 88% of non-Kuwaitis rated their overall health status as either 'very good' or 'good' (1).

Further, since 2005, LE has increased from 73.7 years to 74.7 years in 2015 (total population at birth). However, when compared to other countries in the region, life expectancy is relatively low (i.e. 74.7 years versus 76.7 year average within the GCC region). It is also significantly lower than developed countries such as Canada, Germany and Australia, all of whom have life expectancies (at birth) above 80 years of age.

The majority (77.2%) of deaths in Kuwait are caused by NCDs, which is common in the region and among other developed countries. Leading risk factors causing NCD deaths in Kuwait are strongly linked to dietary and physical exercise habits, both of which contribute to high rates of obesity,

diabetes and cardiovascular disease. Smoking (e.g. tobacco cigarettes or shisha) also contributes to NCD deaths, albeit to a lesser extent. Despite increasing rates of avoidable NCD deaths, national strategies targeted at improving lifestyle habits (e.g. diet and exercise) have not been implemented.

Factors explaining high rates of obesity have been well documented and are outlined in Section 2.2.2. In addition, stakeholders in Kuwait noted that the current school curriculum does not encourage physical activity given children are able to skip physical education classes or choose not to enroll in such classes in high school (as it is not compulsory). Further, there are no subjects or compulsory education sessions on diet and nutrition.

Injuries, specifically road injuries, represent a significant cause of mortality, particularly among the country's younger population. Feedback from stakeholders suggest deaths on the road are the result of several factors such as: (1) a lax system to obtain a license – i.e. driver license tests are carried out in a controlled environment, further, anecdotal feedback suggests people can obtain a license without undertaking a test; (2) road signs are of

poor quality and are often blocked by billboards; and (3) the laws to ensure safe roads are rarely enforced, therefore there is little to no incentive to abide by them.

The public sector in Kuwait accounts for 86% of total health expenditure in Kuwait, a figure considered high within the GCC region. Reliance on the government to fund healthcare services is problematic given falling oil prices partnered with growing costs (e.g. caused by rising rates of NCDs and technology advancements). Attempts to reduce the healthcare sector's reliance on the government have already been implemented, for example, with the introduction of Afya (private insurance coverage for Kuwait retirees) and compulsory private insurance for employed expatriates (to begin in 2018).

3 HEALTHCARE ORGANISATION

3.1 GOVERNANCE

3.1.1 Key stakeholders

The healthcare sector in Kuwait is governed at two levels. At the national level, the Ministry of Health (MOH), located in the Capital region, holds ultimate responsibility for various aspects of healthcare:

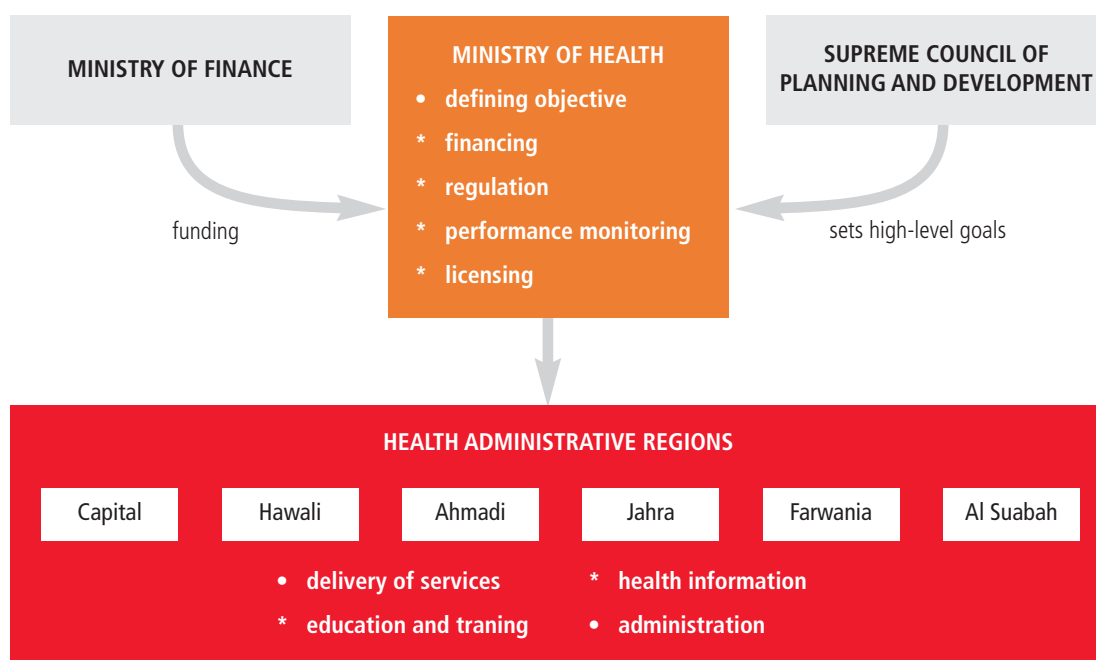
- Defining the objectives, priorities, vision and direction for the healthcare sector
- Deciding how healthcare is financed
- Guaranteeing assistance to citizens in their old age, in sickness or in disability (Article 11 of Kuwait's Constitution, 1962)
- Ensuring the provision of social insurance services, social help and medical care (Article 11 of Kuwait's Constitution, 1962)
- Ensuring healthcare coverage to the national population through measures of precaution and cure of diseases and epidemics (Article 15 of Kuwait's Constitution, 1962)
- Coordinating sub-sectors related to health
- Monitoring and evaluating the performance of the healthcare sector
- Regulating the public healthcare sector

- Coordinating public and private stakeholders
- Licensing healthcare providers (the current MoH structure can be found in Appendix B).

At the local level, the healthcare system is divided into six health regions – Capital, Hawali, Ahmadi, Jahra, Farwania and Al Suabah. A health region is a decentralised administrative unit with significant autonomy related to tasks within the following areas: financing, administration, workforce training, health information, management and service delivery (54). It is also responsible for supervising the private healthcare sector (55). Each health region is headed by a Director of Health.

Although not directly involved in the healthcare sector, the remaining two key stakeholders include the Ministry of Finance and the Supreme Council of Planning and Development. The former is responsible for distributing public funds to the MoH and other public bodies undertaking tasks within the healthcare sector. The latter is tasked with developing five-year national plans outlining high-level frameworks which are then distributed across government ministries, including the MoH.

FIGURE 39
OVERVIEW OF KEY
HEALTHCARE
STAKEHOLDERS IN
KUWAIT



3.1.2 Strategic vision for the healthcare sector

Given falling oil prices, the National Development Plan (2035), as agreed by Parliament, is focused on transforming Kuwait into an financial and trade hub led by the private sector (56). To achieve this goal, the MoH in collaboration with the Supreme Council have agreed upon the following four strategic goals for 2015/16–2019/20:

- Strengthening the healthy life of the population drawing on participation from all sectors
- Focusing on preventative activities and the increasing the role of the private sector
- Expanding service provision to match population growth and urban expansion
- Improving healthcare quality and efficiency, in particular, regarding management (57).

To achieve these goals, 13 projects have been

initiated, which together cost approximately 1.39 billion KD (see Table 3) (56). For each project, the MoH and Supreme Council have outlined project goals and indicators that the project should achieve.

The Supreme Council monitors progress every quarter (i.e. three-monthly) by monitoring the amount of money spent on each project. At the end of the year, the Supreme Council map each project's progress against the level of funds expended.

Although not outlined with the National Development Plan, the MoH hopes to reduce its role within the healthcare sector by splitting the role of the regulator and provider of healthcare services (both of which fall under its responsibility at present). This goal has not been formally communicated to stakeholders.

Other key players in the healthcare system and their roles and responsibilities are provided in Table 4.

TABLE 3
KUWAIT NATIONAL
DEVELOPMENT PLAN:
HEALTHCARE PILLAR
PROJECTS

Project	Estimated total cost (million KD)	Expected completion (% completed)
Infectious diseases hospital	56.7	2017 (18%)
Amiri hospital	101.3	2017 (51%)
Sabah hospital	185	2017 (24%)
Police hospital	280	2020 (15%)
Development of occupational health services	0.07	2020 (80%)
Prevention of NCDs	1.02	2020 (23%)
Health services for students	0.53	2020 (48%)
Exercise and sport in society	4.5	2020 (36%)
Maternity hospital	207	2020 (20%)
Sport in schools, institutes and universities	4.6	2020 (20%)
Ibn Sina hospital	100	2021 (45%)
Physical medicine hospital	250	2023 (0%)
Children's hospital	200	2023 (32%)

Source: (58).

Kuwait Health System Review

TABLE 4
REMAINING
STAKEHOLDERS IN THE
HEALTHCARE SYSTEM

Stakeholder	Role
Ministry of Defence and Kuwait Oil Company	In addition to the Ministry of Health, both the Ministry of Defence and the Kuwait Oil Company provide healthcare services to their employees through the Ahmadi Hospital, Texaco Hospital, and Kuwait National Petroleum Company (KNPC) hospital.
Health Committee within the General Assembly	The Health Committee is responsible for legislation and oversight of the executive branch, which covers the MoH.
Public Authority for Food and Nutrition (PAFN)	<p>PAFN was established under Law 112 in 2013, and began operating in 2015. PAFN is comprised of four departments, namely: technical affairs, public health, inspection and control, and finance and management.</p> <p>PAFN is responsible for developing a national food and nutrition policy, and advocate legislation and appropriate implementation of laws related to food and nutrition.</p> <p>PAFN is not accountable to the MoH, but to the Council of Ministers.</p>
Healthcare professional associations	<p>These bodies represent healthcare professional interests. Examples include the Kuwait Medical Association (KMA), Kuwait Pharmaceutical Association, Kuwait Dental Association, and the Kuwait Nursing Association.</p> <p>The purpose of these institutions is to support and represent their healthcare profession. The KMA, for instance, hosts conferences, communicates with the public and engages in weekly meetings with the Health Committee chair in Parliament. KMA, to date, has approximately 11,000 members.</p>
Academic institutions	<p>At the undergraduate level, Kuwait University provides training in public health, medicine, pharmacy, and dentistry.</p> <p>Nursing education, however, falls under the remit of the College of Nursing, which is part of Public Authority for Applied Education & Training (further details provided in Section 5.2.1).</p> <p>The Kuwait Institute for Medical Specialisation is responsible for providing post-graduate education for physicians and dentists, as well as promotions/privileges (further details provided in Section 5.2.3).</p>
Private healthcare providers	Healthcare is also provided through a number of privately-owned clinics, polyclinics, medical centers, and hospitals. Examples include the Dar Al-Shifa Hospital, Al Salam International Hospital, Al Omooma Hospital, New Mowasat Hospital, Hadi Clinic, and International Health Services (IHS).

3.2 PHARMACEUTICAL SECTOR

3.2.1 Regulation

The GCC-Drug Registration (GCC-DR) committee was formed in May 1999 as a way to harmonise drug prices and standardise regulatory procedures in the Gulf region (member states include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE and

Yemen). An overview of members within the GCC drug registration committee (GCC-DR) is available in Figure 40. Members of the GCC-DR committee meet four to five times a year to jointly approve or reject each drug under review (59).

FIGURE 40
GCC-DR COMMITTEE

GCC-DR Committee members
<ul style="list-style-type: none"> • Two members from each member country • Two consultants/advisors nominated by Executive Office (non-voting) • Committee chairman nominated for one year • Permanent, full-time secretariat

Source: (59).

There are two regulatory processes within each member state: a centralised registration procedure (at GCC level) and a decentralised registration procedure (at country level).

The centralised procedure outlines five key steps required for a new pharmaceutical product to be

registered within the GCC. A product that is registered via the centralised procedure is automatically registered within each GCC member state (60). Decentralised regulatory procedures for all countries closely mirror the centralised procedure, which is described in Table 5 (61).

TABLE 5
GCC-DR CENTRALISED PROCEDURE

Step	Description
Step 1	The GCC-DR Executive Office receives registration files from pharmaceutical companies and are responsible for ensuring that all registration requirements have been met.
Step 2	Eight complete files and 17 samples must be submitted to the executive office in the GCC-DR. Two samples are then dispatched to each member country.
Step 3	Each country must study the registration files and provide a recommendation to the committee.
Step 4	The pharmaceutical companies must then provide the laboratory for the analysis of standard materials, methods etc.
Step 5	The GCC-DR Executive Office dispatches the samples of chemical entity to reference-accredited laboratory for analysis.

Source: (59,60).

In Kuwait, the responsible agency for drug registration is the Kuwait Food and Drug Authority (KuFDA) (ministerial decree 302/80). Decisions by KuFDA, which take between 6–24 months, are made based on quality, safety and efficacy criteria (as outlined in Figure 41) (7).

For a drug to be authorised in Kuwait, the following three regulatory phases must be completed:

Submission phase: the local agent or sponsor must submit a registration dossier together with a covering letter to the KuFDA.

Evaluation phase: The reviewer will then evaluate the Chemical and Manufacturing Control data to ensure it meets quality and safety standards.

Authorisation phase: once assessed, the Drug Registration and Release Superintendent will make a final approval decision (7,61).

FIGURE 41
REGULATION CRITERIA
UNDER THE KUFDA

Quality, safety and efficacy criteria
1. The drug must be registered and marketed in countries that have recognised and competent regulatory authorities (for at least one year).
2. The drug meets internationally desired and recognised quality standards that ensure the product was manufactured for its intended use.
3. The drug is stable for its entire shelf life and for six months under stressed conditions.
4. The product must be reasonably priced and affordable.

Source: (7,61).

3.2.2 Pricing

GCC pricing

Despite the formation of the GCC-DR, drug prices in the GCC region are significantly greater than the rest of the world. For example, the WHO estimated that prices in the GCC were 13 times higher than the international standard, with the exception of Saudi Arabia (53,62,63). Further, there exist marked differences in drug prices across GCC countries due to the small market size and increasing privatisation in the sector (e.g. differences in drug prices were as high as 50–70%) (62).

In response, in 2012, the GCC Executive Ministers' Council introduced a drug price standardisation mechanism for imported products (which includes shipment and insurance) (64). The process was agreed on in November 2013 and may take a number of years to finalise. The pricing of imported medicines will be based on three criterion, namely: the import price, the agents' pricing policy and the company price of the drug (65).

A staged-approach has been implemented to review drug prices in the GCC, with one single therapeutic class of medicine being reviewed at a time. The first-round of price reductions began in September 2014.

Country-level pricing

In Kuwait, competition pricing for drugs is not allowed, rather, the MoH is responsible for pricing pharmaceutical products by applying national as well as GCC policies. Pharmaceutical companies wishing to sell their product within Kuwait must provide the following:

- Ex-factory price in the currency of the country of origin.
- Wholesale price in the currency of the country of origin.
- Public price in the currency of the country of origin.
- Proposed cost, insurance and freight price in the currency of the country of origin.¹¹

The company also has to provide the above-mentioned prices of the product in a number of countries.¹² According to the WHO, the private wholesale mark-up was 29% and the private retail mark-up was 20% in 2005 (66).

Kuwait has an external reference pricing (ERP) system in place to price pharmaceutical products. Details of the system are provided in Table 6.

11. There is different pricing for different pharmaceutical forms (solids, oral liquids, topical applications, injectable).

12. GCC countries, Algeria, Australia, Argentina, Belgium, Canada, Cyprus, Denmark, Egypt, France, Germany, Greece, Holland, Ireland, Italy, Japan, Jordan, New Zealand, Portugal, Lebanon, South Korea, Spain, Sweden, Switzerland, Turkey and the UK.

TABLE 6
EXTERNAL REFERENCE
PRICING IN KUWAIT

ERP feature	Kuwait
Basket of countries	Country of origin
Lowest price mandate for ERP	No
Price used for ERP	Cost, insurance and freight price
Timing of ERP	After regulatory approval, before concluding pricing decisions

Source: (67).

3.3 ASSESSMENT OF ORGANISATIONAL ARRANGEMENTS

KEY FINDINGS

GOVERNANCE

- Strategic policy making decisions within Kuwait are not evidence-based, rather they are politically motivated.
- The Ministry of Health's strategic vision for the system is neither communicated nor shared among stakeholders and the public.
- Key leaders and policy-makers within the Ministry of Health are continually changing, which prevents continuity of policies.
- The Ministry of Health's numerous responsibilities fosters inefficiency within the healthcare sector.
- Policies within the healthcare sector are developed without consulting key stakeholder groups, therefore their execution is not well planned.
- Governance of public health in Kuwait is fragmented and needs to be consolidated.
- The private healthcare sector is not sufficiently regulated to prevent adverse outcomes.

The strategic vision for the Kuwait healthcare sector is set out within five-yearly national development plans, which are agreed upon by the MoH and the Supreme Council for Planning and Development. Subsequent projects (as outlined in Table 3) within the healthcare sector have been initiated to achieve four strategic goals for years 2015/16–2019/20. These projects have not been developed based on evidence, rather, they are politically motivated. For example, despite rising rates of NCDs, which are best addressed through preventative healthcare activities, nearly all (99%) of the National Development Plan budget for healthcare (i.e. 1.38 billion KD) is dedicated to building hospitals. A mere 10.72 million KD is dedicated to preventative healthcare initiatives such as 'prevention of NCDs' (1.02 million KD), and 'sports in schools, institutes and universities' (4.6 million KD). Lack of evidence-

based policy making in the healthcare sector has hampered the country's ability to adapt to new challenges caused by rising rates of NCDs, falling revenues and changes in technology.

Despite a National Development Plan for health, stakeholders expressed frustration that the vision for the healthcare sector is neither effectively communicated nor shared by the MoH. As a result, healthcare stakeholders have 'no mission, vision or goal to follow'. It is important to note that stakeholders recognised that a 'strategy itself is not enough'. Specifically, any strategy must have support from stakeholder groups, be well communicated (not only to stakeholders, but also the public), and ensure accountability by frequently measuring and reporting salient metrics/indicators/outcomes.

In addition to not using evidence to develop policies, other reasons explaining minimal development in the healthcare sector include:

- Regular changes to MoH Ministers who are responsible for developing and implementing policy (on average, health ministers are in the position for 9–12 months). Consequently, Ministers are less interested in long-term strategic change.
- Key governmental decision-makers (and/or their advisers) do not always have the experience in health policy, health management, health economics and/or public health, which is desirable when implementing appropriate policies.

Nearly all stakeholders engaged during the first round of discussions expressed concern over the far-reaching responsibilities held by the MoH. Unlike most GCC and developed Western countries, the MoH in Kuwait is the primary funder and provider, and sole regulator of healthcare. This arrangement is neither efficient nor sustainable. For example, one stakeholder noted that the MoH is 'overwhelmed' and therefore unable to execute its various roles effectively. Others, for instance, highlighted the 'major conflict' this represents as the MoH is not held accountable for its performance. This conflict of interest has been recognised by the MoH, however, changes to the role of the Ministry have been hampered by the frequent change in Ministers.

In regard to governance of public health, stakeholders expressed concern that the Undersecretary for Public Health does not cover all relevant departments (e.g. Public Authority for Food

and Nutrition, School Health Services Department, Health Promotion Department). Further, the Undersecretary for Public Health has little to no interaction with other important ministries, such as Education as well as the Public Authority for Environment.

Policies developed and implemented by the MoH are often 'made on a whim', with limited assessment as to their wider impact. A notable example includes the recently completed Jaber hospital (which has over 1,000 hospital beds). Despite completion of construction works, the hospital is not operating given the MoH is unable to manage it.¹³ Another example includes recent increases in expatriate fees for accessing primary and secondary healthcare services.¹⁴ Since its implementation, various groups have been exempted given it has prevented access to necessary healthcare services (which could lead to greater government expenditures in the long-term).

Finally, as has been mentioned in previous reports (43), the private sector (payers and providers) are not sufficiently regulated. Should Kuwait continue expanding the role of the private sector in the healthcare market, proper regulatory controls are required to mitigate risk selection (e.g. insurers may divert funds into advertising to encourage those with good risks to join, instead of investing in front-line services). Robust regulatory frameworks within the private healthcare sector do exist. For example, since the implementation of the 2006 Dutch Health Insurance Act, the government has been responsible for regulating private health insurers. Under the Act, privately managed health insurers must accept all applicants and offer enrollees a minimum package of services (68).

13. Given the MoH is unable to manage Jahra hospital, responsibility for this hospital has been shifted to the Kuwait Investment Authority.

14. Law 293 for year 2017 (main healthcare out-of-pocket costs): 5KD for emergency visit, 10KD for secondary OPD, 10KD per night for admission to secondary care, 30KD per night for intensive care unit, 50KD per night for a private room in a secondary healthcare facility, and 200KD for a refundable deposit for admission.

4 HEALTHCARE FINANCING

4.1 GOVERNMENT HEALTHCARE FINANCING

To describe government financing arrangements in Kuwait, the WHO framework for health financing has been used. The framework identified three central financing functions, namely:

- Revenue collection
- Pooling of funds
- Purchasing (69).

4.1.1 Revenue collection

The process of raising money to fund healthcare is referred to as revenue collection within WHO's framework (69). Sources of revenue are typically classified as either public or private. Within Kuwait, it is the responsibility of the Ministry of Finance to collect taxes from the public to pay for government funded services. However, healthcare in Kuwait is largely financed through oil revenue, which is then distributed to the MoH.

4.1.2 Pooling of funds

Pooling refers to the transfer of revenue to purchasers of healthcare. Ideally, funds would be distributed equitably across the population to

minimise financial barriers to accessing care.

The MoH each year provides the MoF with an estimate of the budget required to deliver government-funded healthcare services. It is then up to the MoF and the Budget Committee within the Parliament to determine if this amount is feasible.

4.1.3 Purchasing

Once funds have been pooled, healthcare purchases must use funds to purchase services to meet the healthcare needs of their specific population. Many Western European countries have in place sophisticated methods for assessing the cost-effectiveness of healthcare services funded by government to minimise unnecessary expenditure without adversely impacting health outcomes (70). For example, the UK has established the National Institute for Health and Care Excellence (NICE).

The basket of goods and services offered by the Kuwait government are not subject to health technology assessments, therefore, as stated by WHO, the country's purchasing function is characterised by an 'open-ended package' (57).

4.2 PRIVATE HEALTHCARE FINANCING

Going forward, the Kuwait Government hopes to privatise healthcare insurance for all national citizens, expatriates and retirees. Healthcare for national citizens will be covered through the Private Health Insurance Company for Kuwaiti Nationals (PHICKN) (71). The PHICKN will be formed as PPP with half being owned by a private-sector consortium and half by the public. Premiums for nationals are expected to be heavily subsidised by the government (71).¹⁵

The Government also has plans to partly privatise insurance for expatriates via the Health Assurance Hospitals Company (HAHC) (also referred to as DHAMAN), a private health management company jointly owned by the Kuwait Investment Authority, the Public Institution for Social Security and Arabi

Holding Group (72,73). Non-nationals will be obliged pay a 'health assurance fee' in order to receive their work permit, which will be collected by HAHC. Therefore, HAHC will be the first point of contact for non-nationals wishing to access healthcare treatments (further details are provided in Table 7) (72). Since 2006, expatriates have been required to join a public insurance scheme and provide evidence of this when renewing their residency permits (74).

Although not financed by the private sector, details regarding the private insurance scheme for retirees has been included in this Section given it is operated by a private insurance company. Specifically, in 2016, the Minister of Health signed a one-year social insurance contract for retirees¹⁶

15. PHICKN is still in the pipeline, however, after significant discussions, the government chose to implement Afya as a pilot before generalizing private health insurance to the entire national population.

16. Discussions with stakeholders revealed that Afya may be extended to include other groups within the population.

TABLE 7
OVERVIEW OF DHAMAN –
EXPATRIATE PRIVATE
HEALTH INSURANCE
SCHEME

* KIA (19%), PIFFS (5%)

** Arabia Group
Consortium

Line of enquiry	Details
Purpose/mandate	To develop a fully integrated, for-profit, world-class health system.
Ownership	Partnership between the government of Kuwait* (24%), the Kuwait population (IPO) (50%) and the private sector** (26%).
Service delivery model	<p>Private-sector employers in Kuwait will be legally obliged to purchase healthcare insurance with DHAMAN for expatriate workers. The annual premium is expected to cost 130KD and increase to 190KD within nine years.</p> <p>By purchasing healthcare insurance with DHAMAN, expatriates will have access to primary healthcare centres, once these centers are ready to receive patients. PHCs will act as the gatekeeper, that is, patients will only be able to access hospitals once they have attended a PHC appointment (either pre-booked or walk-in).</p> <p>When accessing a PHC, patients will be required to pay approximately 2.5KD. In emergency cases, patients will be able to go directly to hospitals where the copayment will be approximately 4KD.</p> <p>DHAMAN will not operate tertiary healthcare services, instead patients will be referred onto selected MoH hospitals and clinics for specialty care.</p> <p>In 2018, the expected number of insurees is 1.97 million, with forecasts reaching 2.77 million by 2028.</p>
Timeline	By 2018, DHAMAN hope to begin operating PHCs, while hospitals will not operate until 2020.
Expected outcomes	The insurance scheme, in addition to improving healthcare services available to expatriates, is expected to reduce the government's financial burden.

Source: (75).

(and those with special needs since early 2017) called 'Afyā', to be provided by the private insurance company, Gulf Insurance Group.¹⁷

The total cost of insurance plan was estimated at US\$272 million in order to cover 107,000 eligible beneficiaries (the actual number of people accessing services was 114,952, with this figure expected to increase to 125,000 in its second year) (76). The introduction of health insurance for this group is aimed at: (a) reducing waiting times in public hospitals and centres by offering retirees complimentary services in the private sector; (b) encouraging participation in the private health sector; and (c) boosting the national economy by developing a private health insurance market (77). Under Afya, retirees are entitled to up to 17,000KD

worth of primary, secondary and tertiary healthcare services (non-cosmetic) free of charge each year (7). It is unclear how the figure of 17,000KD was developed (e.g. projected, actual or actuarial estimates). Implementing a spending cap that is not based on robust evidence can lead to either or both of the following problems: first, healthy retirees who do not require 17,000KD worth of services each year, may choose to reach this limit to ensure they are getting the most out of the system; and second, the cap may not be sufficient to meet the needs of retirees with complex health problems who seek ongoing care from a range of healthcare professionals. Finally, it is important to note that retirees continue to have access to the public system.

17. A tender for the new contract hasn't been developed. Therefore, at the time of writing this paper, the current contract was extended for three months.

The role of the MoH within Afya is to provide block funding to the insurance company who has been awarded the contract. Unlike in the public system, the MoH does not play a regulatory role. The role of the private insurance company (at present, the

Gulf Insurance Group) is to negotiate prices and services (which are outlined in the tender) with providers. To date, retirees have access to 120 private health providers offering inpatient, outpatient, dental and obstetric services.

4.3 PAYING HEALTHCARE PROVIDERS

There exist two different budgets for Kuwait's healthcare system. The first is a central budget which includes salaries and tenders for instruments and consumables within the public healthcare sector. The second budget is an area budget for each of the health regions in Kuwait. Each region is distributed a budget based on the previous year's fiscal plan from the MoH and includes specific items that align with the strategic plan for the health region. A structured plan for each separate healthcare provider does not exist; financial transfers from the MoH, therefore, do not reflect the risk profile of the patients the provider is treating.

With the exception of the armed forces, the entire

labour force falls under the regulations of the Council of Civil Service. Therefore, all healthcare providers, in different specialties, which are at a certain professional level according to civil service law, are paid similarly. As an exception, there is an incentive in the law of civil service, which is not exclusive to the labour force in the health sector, but is applicable to all workers in the public sector in different fields. This incentive is called 'work of excellence', and is paid annually to those who perform well in their fields including doctors, dentists, nurses, and technicians. Other than this incentive, there does not exist any variation in funding based on performance in the public health sector.

4.4 ASSESSMENT OF FINANCING ARRANGEMENTS

KEY FINDINGS

FINANCING

- Growing rates of NCDs and falling oil prices will continue to strain government finances.
- Sophisticated methods of financing healthcare are not utilised in Kuwait.
- Funds provided to finance healthcare is often based on personal relationships as opposed to need.
- Annual tracking of expenditures and flow of funds are not captured and reported according to standards

The government's role in healthcare is inefficient given it is the sole regulator, as well as primary funder and provider of healthcare services. Therefore, relative to other GCC countries, government expenditure on health as a proportion of THE is high at 86% (see Section 2.3.1). Given factors such as rising rates of NCDs, advances in technology and falling oil prices, the sustainability of government funding within the healthcare sector is under pressure. This issue has been recognised by policy-makers as evidenced by the push to enhance the private sector, for example, by privatising health insurance for retirees and expatriates. Nevertheless, efforts to privatise have had limited impact on public finances as they have been poorly implemented. For example, essentially Afya pools bad risk, further, recipients can continue to access the public system.

Efforts to create sustainable healthcare financing arrangements are positive, nevertheless, further changes are necessary to ensure scarce resources are being used efficiently. As an example, at present, Kuwait employs budgets to finance healthcare providers, as opposed to more sophisticated methods such as capitated payments or Diagnostic-Related Groups (DRGs). These payment methods offer various benefits, specifically, the former ensures funds reflect the risk profile of patients being treated, while the latter enforces transparency and promotes productivity. These payment systems, however, only succeed when partnered with a strong regulatory framework that prevents adverse outcomes such as skimming on services, upcoding and readmissions.

Other areas within Kuwait's healthcare financing system that must be addressed are outlined briefly below:

- Goods and services funded by the government don't necessarily represent an efficient use of resources as they are not subject to a health technology assessment. Stakeholders felt that a 'health technology assessment body' within the MoH is needed to ensure goods and services funded by government are clinically- and cost-effective.
- Requests for funds to purchase goods needed to run hospitals/PHCs, for example, take a significant amount of time to be approved as decisions are made centrally at the MoH (which does not have the capacity to take on this responsibility).
- Full costing of service provision is not undertaken, therefore it is not possible to determine how healthcare funding is being used.
- Budgets for healthcare providers are not based on need, anecdotal feedback from stakeholders indicate that personal relationship continue to play a significant role in determining funding levels.
- The government continues to spend a significant proportion of its budget (15%) on overseas treatment costs, which are available to Kuwaiti nationals.
- Tracking of expenditure and flow of funds is not being annually classified and reported as per SHA 2011 (System of Health Accounts) National Health Accounts Report.

5 HEALTHCARE EDUCATION AND WORKFORCE

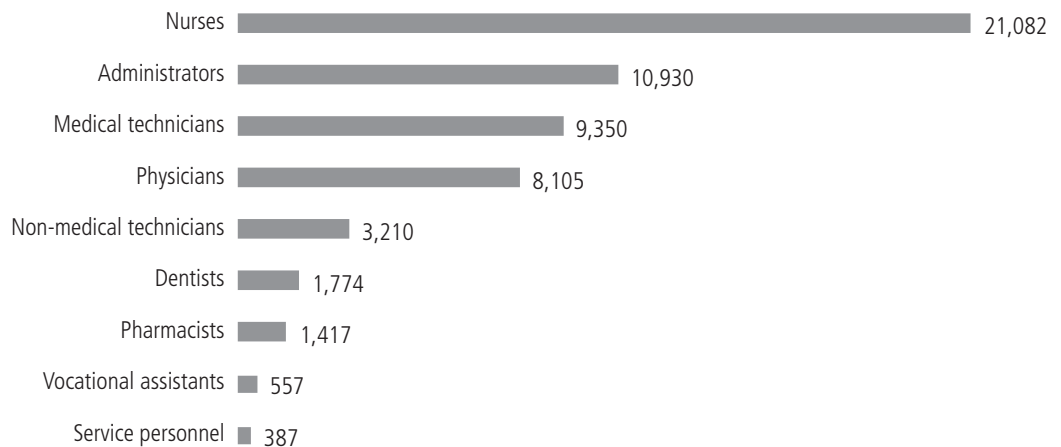
5.1 WORKFORCE INDICATORS

5.1.1 Government workforce

As of 2014, there were 56,812 MoH healthcare workers, of which 37% are nurses, 19% are administrators, 16% are medical technicians, 14% are physicians, 6% are non-medical technicians, 3% are dentists, 2% are pharmacists, and 2% are either vocational assistance or service personnel (78).

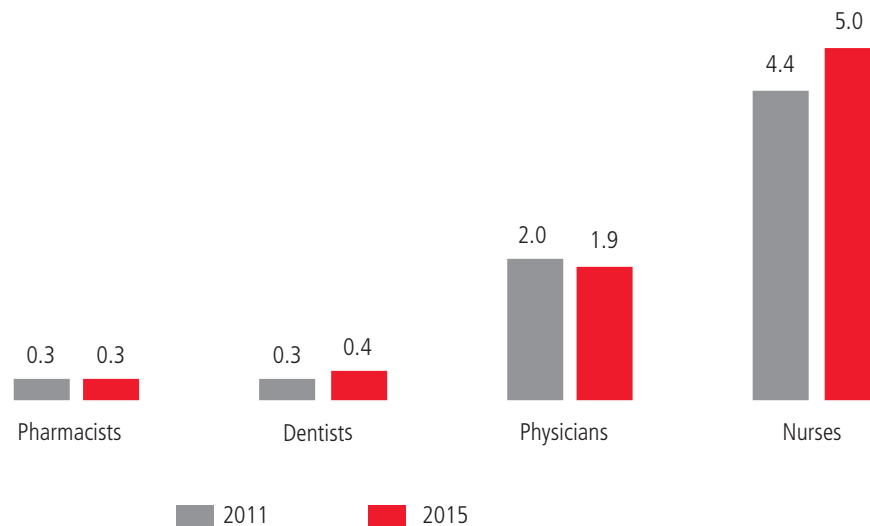
In terms of population, these figures translate into 1.9 physicians, 0.4 dentists, 0.3 pharmacists and 5 nurses per 1,000 people. The change in the proportion of key healthcare workforce groups within the population between 2011 and 2015 are outlined in Figure 43.

FIGURE 42
GOVERNMENT HEALTHCARE WORKFORCE BY PROFESSION, 2015



Source: (78).

FIGURE 43
CHANGE IN GOVERNMENT HEALTHCARE WORKFORCE PER 1,000 PEOPLE, 2011–15



Source: (78).

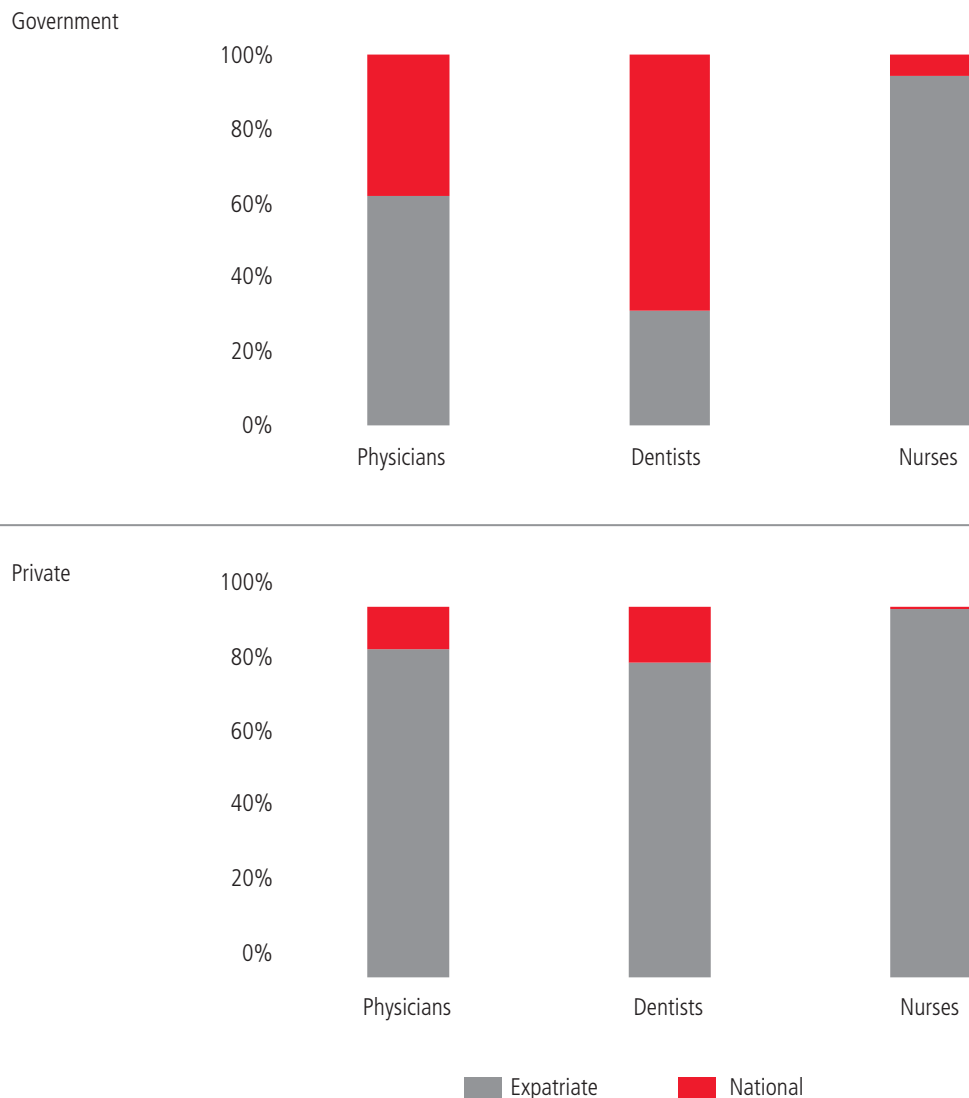
5.1.2 Private workforce

As of 2015, there are 2,045 physicians, 813 dentists and 6,348 nurses working within the private healthcare sector. In terms of the total health workforce private physicians make up 20.1% of all workers, which is lower than dentists (31.4%) and nurses (23.1%) (78). The trend in the proportion of healthcare workers within the population is similar to the government sector.

5.1.3 Workforce by nationality

In both public and private healthcare facilities, the majority of healthcare workers are expatriates except for dentists within public healthcare, where the majority are Kuwaiti nationals (Figure 44). There is significantly fewer nationals working within private healthcare, for example, the total number of Kuwaiti physicians in the public sector is 2,910 compared to 212 in the private sector.

FIGURE 44
HEALTHCARE
WORKFORCE BY
NATIONALITY
(GOVERNMENT AND
PRIVATE), 2015



Source: (78).

5.1.4 Workforce projections

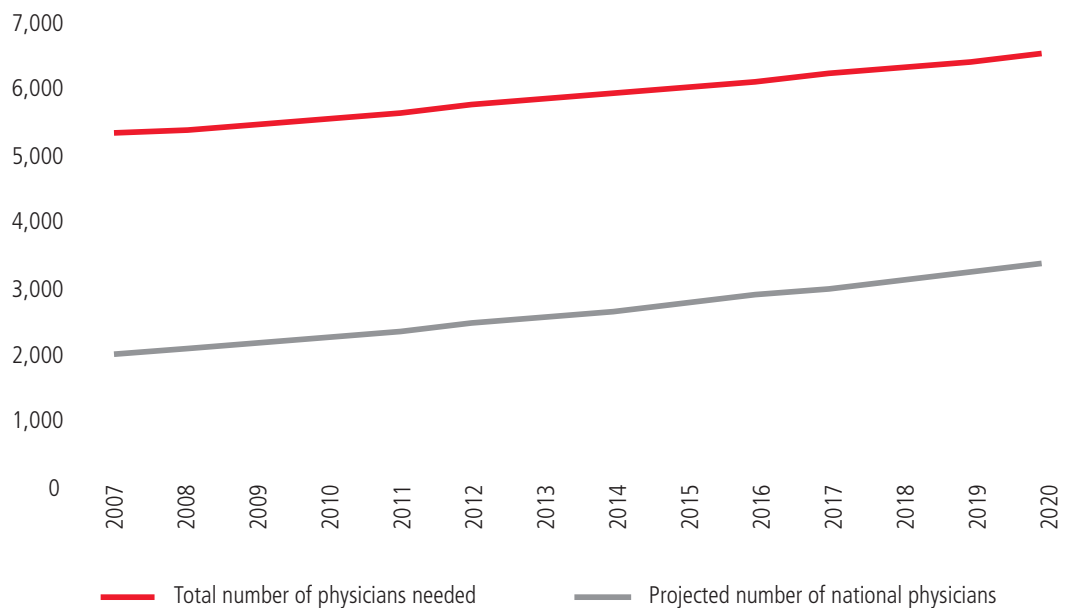
Over the past three decades, the positive economic impact of urbanisation, improvements in educational structure, and investments into healthcare development have led to an increase in the total number of physicians within Kuwait. This trend is expected to continue with the predicted number of physicians needed increasing from 6,235 in 2017 to 6,543 in 2020. By 2020, native physicians are expected to fill 52% of these jobs, indicating the remaining 48% (or 3,141 physicians) will be sourced internationally. This figure represents a decrease from 62% in 2007 (79).

Nevertheless, Kuwait still relies on expatriate workers to cover the acute need for highly skilled surgeons (currently expatriates can obtain three-month locum contracts annually).

A significant disparity in the number of native physicians may fragment quality of care given professionals would have received different training (31). Cultural differences may also contribute to communication barriers between a health professionals and patients (79).

As outlined by Chun and Siddiqui (2017), forecasts suggest there will also be a gap within the nurse and pharmacist workforce market (43).

FIGURE 45
PROJECTED NUMBER OF
PHYSICIANS NEEDED
FROM 2007 TO 2020



Source: (79).

5.2 MEDICAL EDUCATION

5.2.1 Student pathway

An outline of key steps involved in becoming a specialised physician in Kuwait are briefly outlined below. Further details are provided in subsequent Sections.

1. A student wishing to study in Kuwait will enroll in a seven-year program within Kuwait University's Faculty of Medicine, which can be segmented into three phases:
 - Phase I: two semesters of a pre-professional program.
 - Phase II: at the end of phase II students will be awarded a MMedSc. Degree.
 - Phase III: this phase, which lasts for three years, is clinically based.
2. Upon graduating, students will undertake a one-year internship within an accredited hospital. During this time, students are provided with a temporary license so that they are able to legally work. During this internship, students will rotate between general surgery, medicine, pediatrics, obstetrics and one elective subject.
3. After the one-year internship, students receive a certificate of completion, which is sent to the MoH. This certificate allows students to officially practice as a doctor.
4. Should physicians choose to specialise, they can enroll in a specialisation program offered by KIMS (either locally or internationally).

5.2.2 Undergraduate medical education

Medical education in Kuwait is solely provided by Kuwait University (KU). The Faculty of Medicine is comprised of several departments (see Table 8). Depending on the degree program, the University awards either a Bachelor of Medical Sciences (BMedSc) or a Doctor of Medicine (MD). To become a practising physician, students are enrolled in a seven-year medical program which provides training in the field of medicine, delivery of medical services, and biomedical, psychosocial, and research in other allied fields (80).

Using the latest figures, the total number of students enrolled in the program is 748, which is a significant increase since the program's establishment in 1973 (81). Thus far, 1,524 graduates have been awarded degrees in MBBS or MD. The Faculty employs 199 academic staff and 332 technical and administrative staff to support medical education and research initiatives within the university.

Karim et al. 2015 assessed the quality of KU's educational environment within the Faculty of Medicine. The study used the Dundee Ready Education Environment Measure (DREEM) which measures student's perception of teaching, teachers, academic self-participation, atmosphere, and social self-perception. Despite expansion of medical education in Kuwait, the study found the educational environment to be sub-optimal based on students perspective (82). Further, the University does not have its own hospital to teach its students, which may act as a barrier towards achieving 'quality education and knowledge development' (43).

TABLE 8
DEPARTMENTS WITHIN
KU'S FACULTY OF
MEDICINE

Faculties		
• Anatomy	• Nuclear Medicine	• Physiology
• Biochemistry	• Obstetrics & Gynaecology	• Primary Care
• Community Medicine & Behavioural Science	• Pediatrics	• Psychiatry
• Medicine	• Pathology	• Radiology
• Microbiology	• Pharmacology & Toxicology	• Surgery

5.2.3 Postgraduate medical education

Following undergraduate medical training, postgraduate training is provided as a specialisation (residency) and sub-specialisation (fellowship) by the Kuwait Institute for Medical Specialization (KIMS) (for medicine and dentistry only). KIMS was established in 1984 under Amiri decree, with the aim of ensuring high quality training in medicine and dentistry through education, training, and continued professional development (CPD). KIMS operates within the MoH and is comprised of several departments, namely: postgraduate education; faculty development; examinations; scholarships; CPD; and accreditation and quality.

To practice as a specialised physician, students must successfully complete a five-year structured training program consisting of clinical rotations across Kuwaiti hospitals (83).¹⁸ Nineteen specialisation and five sub-specialisation programs are offered by KIMS (Table 9), each involving examinations which students are expected to pass (84).^{19,20} Following

examination, the Faculty Development Office within KIMS provides ongoing support to all KIMS certified medical specialists through continuing education and professional development activities (85). For newly graduated dentist students, KIMS offers a three-year residency program (Advanced General Dentistry).

In addition to postgraduate education and CPD, KIMS is responsible for promotions/privileges of medical physicians and dentists.

In 2016, KIMS signed an agreement with the Royal College of Physicians and Surgeons of Canada. The partnership, which will last for three years, intends to transform KIMS into an internationally renowned provider of postgraduate medical education. To uphold the standards set by the Royal College, twice a year, personnel from the Royal College visit KIMS to audit the program and ensure it meets their standards. To date, two of the programs run by KIMS have been identified as eligible for accreditation.

TABLE 9
DEGREE PROGRAMS
OFFERED AT KIMS

Specialisations offered	
<ul style="list-style-type: none"> Anaesthesia Clinical biochemistry Clinical microbiology Clinical virology Dermatology Diagnostic investigative immunology Emergency medicine Family medicine Haematology Urology 	<ul style="list-style-type: none"> Internal medicine Neurology Neurosurgery Nuclear medicine Ophthalmology Orthopaedic surgery Otorhinolaryngology Paediatrics Physical medicine Advanced general dentistry
Sub-specialisations offered	
<ul style="list-style-type: none"> Adult cardiology Clinical immunology and allergy Nephrology 	<ul style="list-style-type: none"> Obstetric medicine Paediatric cardiology

Source: (86).

18. Hospitals must be accredited and meet certain criteria – e.g. they must operate inpatient, outpatient, critical and emergency care services.

19. Kuwait nationals receive first preference for training specialisations. Remaining spots are provided to expatriate students.

20. Not all Kuwaiti medical students undertake specialist training within Kuwait. KIMS must inform the Civil Service Commission where the student will receive their training.

5.2.4 Non-medical health-related education

In addition to medical school, KU also offers professional training in dentistry, pharmacy, physical therapy, speech therapy, occupational therapy, and public health (87). Education in nursing was previously provided by KU, but has now been transferred to the Public Authority for Applied Education and Training (87,88).

In a positive move, public health has been added to the higher-education curriculum at KU. The Faculty of Public Health was formally established under Amiri decree in 2013. Today, the Faculty offers a four-year BSc. Program in Health and Community Sciences (with four streams: public health practice, healthcare management, health research and community health development) and a professional Masters of Public Health offering specialised training in community health, policy development, epidemiology, and public health practice (further details are provided in chapter 8) (89).

All students and staff involved in any health-related training programs share faculty resources within Kuwait University's Health Sciences Center (HSC). The goal of the HSC is to promote an interdisciplinary approach to health education and develop a community between all fields of study (81). The HSC also offers continuing professional education for a number of topics, such as health promotion, research methods, and public health surveillance.

5.2.5 Accreditation

The body responsible for accrediting medical education in Kuwait is the National Bureau for Academic Accreditation and Education Quality Assurance (NBAQ). This body is responsible for

accrediting all higher education programs, not just those related to health.

The Bureau was established by Amiri Decree in 2010 in order to create a centralised body responsible for ensuring the quality of Kuwait's higher education system (90).

5.2.6 Study abroad

Students can apply for scholarships to undertake postgraduate study in thirteen approved countries. These scholarships are funded by the Ministry of Higher Education for an approved list of majors, including dentistry, dietetics/nutrition, medicine, pharmacy, and radiology (91). This program began in the early 1950s as a way of providing higher education opportunities in specialties that are not available to local Kuwaitis. The majority of the funding for scholarships is allocated for study in the USA, UK, Australia, New Zealand, and Japan (92).

5.2.7 International education developments

Certain institutions in Kuwait have developed international partnerships with leading research bodies in order to create opportunities for professionals to learn the most up-to-date knowledge and practices in modern healthcare. The Dasman Diabetes Institute currently offers a postgraduate diploma and Masters of Science in Diabetes Care, Education, and Management with the University of Dundee in the UK (93). Future developments include the American University for Medical Sciences, whose program is developed in consultation with staff from American-based universities, and joint medical program offered by King's College London and the Kuwait Life Sciences Company (94,95).

5.3 ASSESSMENT OF EDUCATION AND WORKFORCE ARRANGEMENTS

KEY FINDINGS

EDUCATION & WORKFORCE

- The healthcare sector is reliant on expatriate workers who come from different training backgrounds.
- Required steps to employ expatriate healthcare workers is bureaucratic, which causes significantly delays.
- Public health and healthcare management as a career is not taken seriously, therefore it is difficult to attract high-caliber individuals to these professions.
- Primary Source Verification of degrees and certificates is done in house at MoH and there is no clear process or information on the productivity and/or efficiency of this process.
- Those in healthcare management positions do not necessarily have the appropriate expertise and skills.
- Physicians are not adequately protected financially (in terms of malpractice) or physically (in terms of violence).
- Once doctors receive their permanent license to practice, they are not required to renew it based on evaluation criteria which ensure their skills are up-to-date. Further, the current licensing regime is cumbersome and time-consuming.
- There is no overarching healthcare workforce plan, which is problematic given the likely shortages the workforce will experience in coming years.
- The industry and education providers do not systematically match training allocations/positions with the needs of the population.
- Governance of education in healthcare is fragmented with no one body holding responsibility for training.

Healthcare workers in the public and private sector are overwhelmingly international (see Figure 44). A high proportion of expatriate workers can be problematic given:

- Resignation rates are greater among expatriates which is costly²¹ and inhibits continuity of care. For example, in 2015, the resignation rate for expatriates was 5% compared to 0.6% among Kuwaiti healthcare professionals.
- Significant cultural differences may arise, which may negatively (or positively) impact patient experiences.
- Healthcare professionals receive different training which may result in non-uniform treatment (at present, the government has not introduced a national equivalence exam) (78)
- Anecdotal evidence suggests international workers enter the healthcare system using falsified degrees/certificates.

The reliance on international healthcare workers has been recognised by policy-makers, subsequently, Kuwait University has been increasing the number of its graduates. Feedback from the University indicates that in approximately 10 years' time the local workforce shortage will be significantly reduced.

In the meantime, the country will continue to rely on international healthcare workers, many of which are on short-term locum contracts²² due to the bureaucratic process involved in employing workers full-time. These contracts are expensive given the employer will generally pay a high salary as well as living expenses (e.g. accommodation, food and transport).

Two key healthcare professions in Kuwait are currently undermined, namely, careers in public health and healthcare management. As a result, both professions struggle to recruit high-caliber individuals into these roles thus adversely impacting

21. It is costly as expatriates take longer to hire, additional examinations/test as well as time/effort put into integrated international employees.

22. Three-month contracts eligible each year.

overall population health. In regard to healthcare management, it is common for healthcare professionals (in particular, family physicians) to take on these positions without relevant training and education regarding 'health systems, health policy or public health'. Consequently, hospitals and other healthcare providers may not be run efficiently.

Healthcare workers in Kuwait operate in an environment in which they may not be adequately protected financially or physically. Regarding the former, unlike most developed healthcare systems, physicians are not insured by their employer against malpractice. Regarding the latter, anecdotal feedback indicates that proper security to protect workers against abusive patients is not sufficient. Efforts have been implemented to improve security, for example, the penalty for abusing healthcare workers was recently increased (i.e. three years imprisonment and/or 5,000 KD fine, up from a six-month imprisonment and/or 500 KD fine).

As outlined in Section 5.2.1, students obtain a permanent license after their one-year internship. Once doctors have received this license, there is no formal renewal process which ensures the doctor's skills are up-to-date. Further, anecdotal feedback suggests that the current process for obtaining a permanent medical license is cumbersome and time-consuming, and lacks clear business procedures.

Responsibility for the healthcare workforce is distributed across various departments within the MoH. This arrangement may explain why the MoH have not developed or shared an overarching healthcare workforce strategy in Kuwait (which is pivotal given current and future workforce challenges). In addition, fragmented governance in this area may also shed light on why the number of training allocations available per profession/specialty do not reflect the needs of the population (e.g. Kuwait has a surplus of ear, nose and throat specialists). Stakeholders also expressed concern regarding the fragmented nature of healthcare education and training.

6 HEALTHCARE INFORMATION AND TECHNOLOGY

6.1 HEALTH INFORMATION MANAGEMENT SYSTEMS

Health Information Management (HIM) is an allied health discipline responsible for ensuring the availability, accuracy and protection of clinical information required to deliver healthcare services and decision making. HIM is increasingly becoming a top priority for health systems and healthcare institutions. Originally known as medical record science and present for the last 85 years, it is gaining greater recognition and importance with the beginning of managed care in the 1980s (96).

6.1.1 Primary care

Within the primary healthcare sector, each patient has an electronic healthcare record (EHR). EHRs within were established in-house at the MoH, as a result, EHRs across all PHCs are consistent. At a high-level, EHRs set out a list of diseases according to the WHO's International Classification of Diseases (ICD) (version 10).²³ Information within EHRs are sent to the MoH (Department of Information Systems) who is responsible for storing this information centrally. PHCs must also submit summary data to the MoH Directorate of Primary Healthcare Centres, as well as statistics on number of visits (and characteristics) to the National Centre for Health Information (within the MoH) (97).

Physicians accessing EHRs have access to a list of chronic conditions the patient suffers from, medications he/she takes (with the ability to retrieve medication over the last six months and last prescription), allergies, and vaccinations. The system is not linked to a drug-to-drug interaction system.

It is the responsibility of each region to provide education, training and maintenance of primary healthcare centre technologies.

Finally, according to the MoH Department of Information Systems, EHRs within the primary sector are linked to certain secondary hospitals using the patient's civil ID number.

6.1.2 Secondary care

At the secondary care level, three hospitals have implemented EHRs. Unlike the primary healthcare sector, each hospital has outsourced responsibility for developing EHRs to the private sector (each have opted for a different provider). It is unclear whether data standards (e.g. data dictionary) were specified in tenders for private contractors.

Similar to the primary healthcare sector, hospitals also rely upon the WHO's ICD system to classify diagnoses (version 10, with plans to move to version 11 once available). For procedures, hospitals utilise the Condensed Classification of Health Interventions (with plans to switch to ICD-10 procedure codes). Coding of diagnosis and procedures should be completed within each hospital by a professional coding team.

EHRs include information specified within the standard inpatient discharge summary (see Figure 46). Inpatient discharge summaries are then sent to the National Centre for Health Information (Health & Vital Statistics Department) within the MoH. This department is responsible for manually auditing discharge summaries to ensure they are correct (to do this, the department will flag any data inaccuracies with the discharging hospital before making appropriate changes). Once corrected, the data is sent back to the hospitals (97).

The National Centre of Health and Information also collects data on births and deaths within Kuwait, in addition to demographic information, such as details on the child's mother (97). Regarding data on deaths, the cause of death is shared with the WHO for their mortality database (97). Data on deaths is not of high-quality given approximately one-quarter of deaths are attributed to ill-defined causes (to be of high-quality, these figure needs to be 10% or less) (97).

23 .ICD is a diagnostic classification system used across the world.

FIGURE 46
INPATIENT DISCHARGE
SUMMARY INFORMATION

Information included within inpatient discharge summary (all of which are coded)	
• Civil ID number	• Occupation
• Hospital and file number	• Marital status
• Name of patient	• Date of admission (and associated department)
• Sex	• Date of discharge (and associated department)
• Date of birth	• Source of admission
• Age (to the day)	• Discharge status
• Nationality	• Diagnosis (principal, other, and diagnosis related to accidents or poisonings)
• Place of residence	• Surgical and diagnostic procedures.

6.1.3 Future developments

The primary objective of the Department of Information Systems is to develop one EHR used across primary, secondary and tertiary levels of care. Other future healthcare developments include:

- Allowing patients online access to their healthcare record to update/alter as necessary (i.e. personalised healthcare record)
- Creating an expatriate online portal for purposes such as medical licensing, pre-marital appointments, and insurance payments.

6.2 MEASURING AND MONITORING HEALTHCARE SYSTEMS

In 2003, the MoH introduced a National Accreditation Program, jointly run with Accreditation Canada, a not-for-profit organisation which specialises in surveying all levels of healthcare services to ensure they operate at a high standard. As part of this agreement, Accreditation Canada send surveyors twice a year to assess the performance of healthcare providers in Kuwait against a range of quality indicators (98). Results

from these assessments are sent to the Quality & Accreditation Directorate within the MoH. The Department is responsible for reviewing and analysing these data and sharing results with providers. The data is not made publically available, further, there is no penalty for providers who fail to meet accreditation standards. Further details on the accreditation process of Kuwait public hospitals is provided in the Figure 47.

FIGURE 47
STANDARDS FOR
ACCREDITATION OF
KUWAIT PUBLIC
HOSPITALS
(ACCREDITATION
CANADA)

Standards
<p>Accreditation Canada specify 13 standard sections within public hospitals; patient care (generic), emergency care, maternal/child care, medical care, specialized/intensive care, surgical care, diagnostic imaging services, laboratory services, pharmacy services, human resources, information management, environment, and leadership.</p> <p>The standards can then be divided into four broad categories: patient care standards, clinical support service standards, non-clinical support service standards, and leadership.</p>
Criteria and rating
<p>Against each standard, a number of criteria have been developed to assess the performance of the hospital. Criteria against each standard are aggregated to determine the overall rating for that standard. Whether or not a hospital is accredited is based on the combined overall ratings of the 13 standards.</p> <p>Ratings against each criteria are performed twice: first by the hospital (self-assessment supported by appropriate documentation), and second by external evaluators who also review the hospital's self-assessment.</p> <p>For a full list of criteria for each standard, please see Appendix C.</p>

Source: (99).

6.3 ASSESSMENT OF INFORMATION AND TECHNOLOGY ARRANGEMENTS

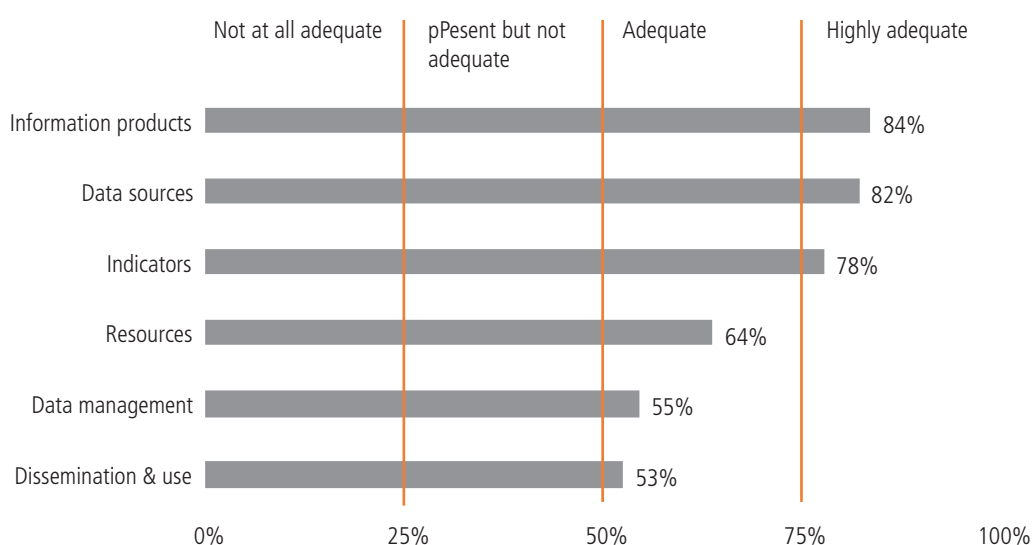
KEY FINDINGS: HEALTHCARE IT AND QUALITY

- IT**
- The overall HIS system in Kuwait is considered 'adequate', indicating further improvements could be made.
 - Advancing healthcare IT has been an area of focus among the MoH in recent years as evidenced by current and future developments. However, collection of data to inform policy has not been exploited.
 - The utilisation of healthcare IT is not clear, with evidence that significant improvement is required.
 - The healthcare workforce is inhibiting advances in healthcare IT due to skill shortages and resistance from workers who do not want change
-
- QUALITY**
- Quality indicators used to measure and monitor performance are rudimentary and process orientated.
 - It is unclear how data on quality is used to improve health system performance.
 - An overarching health information management strategy is needed to capitalise on existing health information systems and data infrastructure.
-

An assessment of the quality of Kuwait's health information system (HIS) was undertaken in January 2015 by the National Centre of Health Information (MoH). The assessment covered HIS: resources; indicators; data sources; data management;

information products; and dissemination and use. Overall, the Kuwait HIS is considered 'adequate' indicating further improvement is required (100). An overview of scores for each HIS area are outlined in Figure 48.

FIGURE 48
HIS ASSESSMENT, 2015



Source: (100).

Numerous initiatives have been introduced to advance healthcare IT in Kuwait. One significant achievement is the introduction of EHRs among all primary healthcare centres in Kuwait. The MoH plans to continue advancing IT systems by integrating EHRs across all levels of care, as well as implementing personalised healthcare records.

These initiatives are promising, however, anecdotal feedback from stakeholders suggest further improvement is needed. For example:

- Despite three hospitals introducing EHRs, patient records (discharge summaries) are frequently completed manually.
- Healthcare initiatives are not adequately advertised to the public leading to low rates of uptake, as evidenced by the recently introduced PHC online booking system.²⁴
- It is unclear how the MoH utilises data collected through PHC EHRs to develop evidence-based policies (e.g. MoH do not provide routine reports/analyses).
- Stakeholders expressed concern regarding the difficulty in obtaining data from the MoH to undertake clinical research, which is important as MoH personnel within the Department of Information Systems don't necessarily have the required analytical skills. Further, if data is retrieved, it is often of poor quality.

The healthcare workforce instead of enabling healthcare IT, often acts as a barrier. This can be demonstrated by the proportion of mistakes made by professional coders working within hospitals. Specifically, it is not uncommon for the National

Centre for Health Information (Health & Vital Statistics Department) to receive discharge summaries from hospitals requiring 50% of the data to be fixed due to mistakes.²⁵ Shortages within the workforce also act a barrier given there is insufficient personnel with appropriate skills to analyse data being collecting. This shortage is exacerbated by the fact that health informatics is not recognised as a legitimate career path, as defined by the Civil Service Commission.

Regarding quality, PHCs and hospitals are required to report on a range of quality indicators as part of the National Accreditation Program. These indicators are considered 'rudimentary', process orientated and focused on the organisation, as opposed to the patient (e.g. patient experiences are not measured). It is also not evident how data on these indicators is utilised by the MoH to enhance quality given: (a) results from the data are not used to develop quality enhancing policies; (b) there are no penalties for failing to meet quality standards; and (c) information is not publically shared, therefore providers are not held accountable.

Overall, the health information system in Kuwait needs to be strengthened with greater focus placed on standardising and improving the quality of medical records reported to the MoH. To achieve this, a contemporary, sophisticated clinical coding and patient classification system needs to be introduced, as this will enable the health system to better understand patient case-mix and provider performance. To introduce these changes, a national health information management strategy is needed in order to capitalise on existing health information system and data infrastructure.

24. Feedback from stakeholders also suggest this service is not functioning properly among all PHCs.

25. Anecdotal evidence from stakeholders noted that certain coding departments do not have a copy of the ICD-10 codebook, instead relying on their memory. Further, it is not uncommon for physicians, as opposed to coders, to fill out discharge summaries.

7 HEALTHCARE SERVICE PROVISION

7.1 PATIENT PATHWAY

For non-emergency cases, patients must first access care from a family physician or GP within a primary healthcare centre. The primary healthcare centre visited must be located within the patient's catchment area, as identified by their civil ID card. Should the centre within the region be closed, the MoH will specify another primary healthcare centre that the individual is eligible to visit. If further medical treatment is required, the family physician or GP must refer the patient to a secondary hospital, also located within the catchment area. Alternatively, a patient with private health insurance may directly receive services from a private provider.

Unlike many other developed healthcare systems, in Kuwait people do not 'stick' with a family physician making it difficult to track an individual's health over time. Family physicians play a relatively limited role in Kuwait given the public perception is that they do not have the appropriate skills to treat their ailments (typically people seek care from family

physicians to obtain sick leave). Family physicians should play an increasing role in treating NCDs, however, most do not have specific training in the management of diabetes and CVDs.

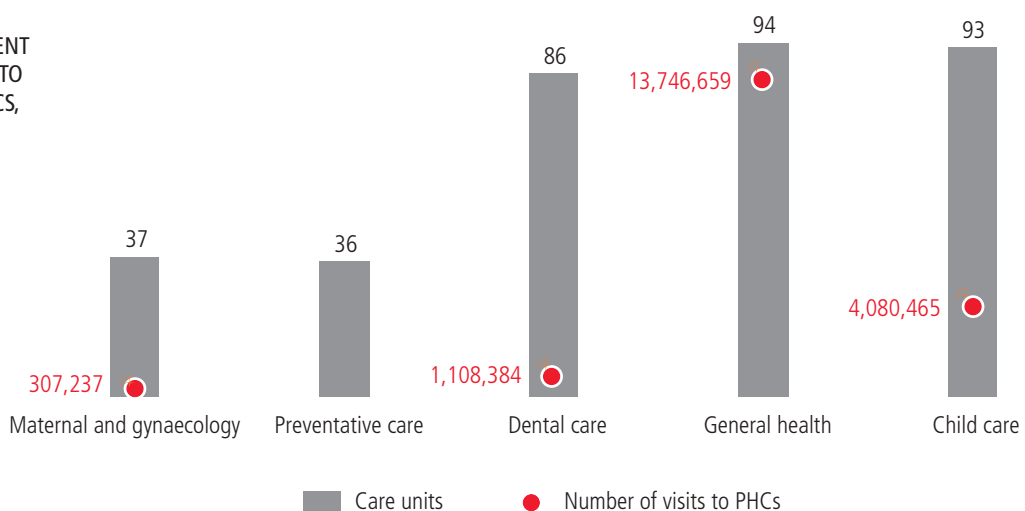
Complex diabetic patients who are accessing healthcare services at the tertiary level may be referred to the Dasman Diabetes Institute. Once referred, the patient will: (1) attend a pharmacotherapy appointment to determine what drugs they currently consume; (2) partake in a retinal and foot screen; and, (3) receive nutritional advice and other relevant education material. Only after successfully engaging in these three steps will the patient meet a physician. This system is designed to ensure patients access the full range of services required. To access these services, patients must book an appointment; should the patient not show up for two or more appointments, he/she will be blocked from obtaining drugs from their pharmacy, even with a valid prescription.²⁶

7.2 PRIMARY HEALTHCARE CENTRES

There are 94 government-run primary healthcare centres in Kuwait. Primary healthcare centres are comprised of local clinics, which are made available in all regions. The clinics cover several healthcare services including preventative care, dental care,

maternal health care, general health and child care and diabetes (43). According to the most recent National Development Plan, the number of primary healthcare clinics will increase to 125 by the year 2020 (43).²⁷

FIGURE 49
NUMBER OF GOVERNMENT CARE UNITS AND VISITS TO CARE UNITS WITHIN PHCS, 2015



Source: (26).

26. Information received directly from DDI.

27. The total number of centers exceeds 96 as centers are likely to offer more than one type of specialty service.

There are eight PHCs in the private sector. This figure will increase to 20 by 2019 with the introduction of 12 new facilities which are being

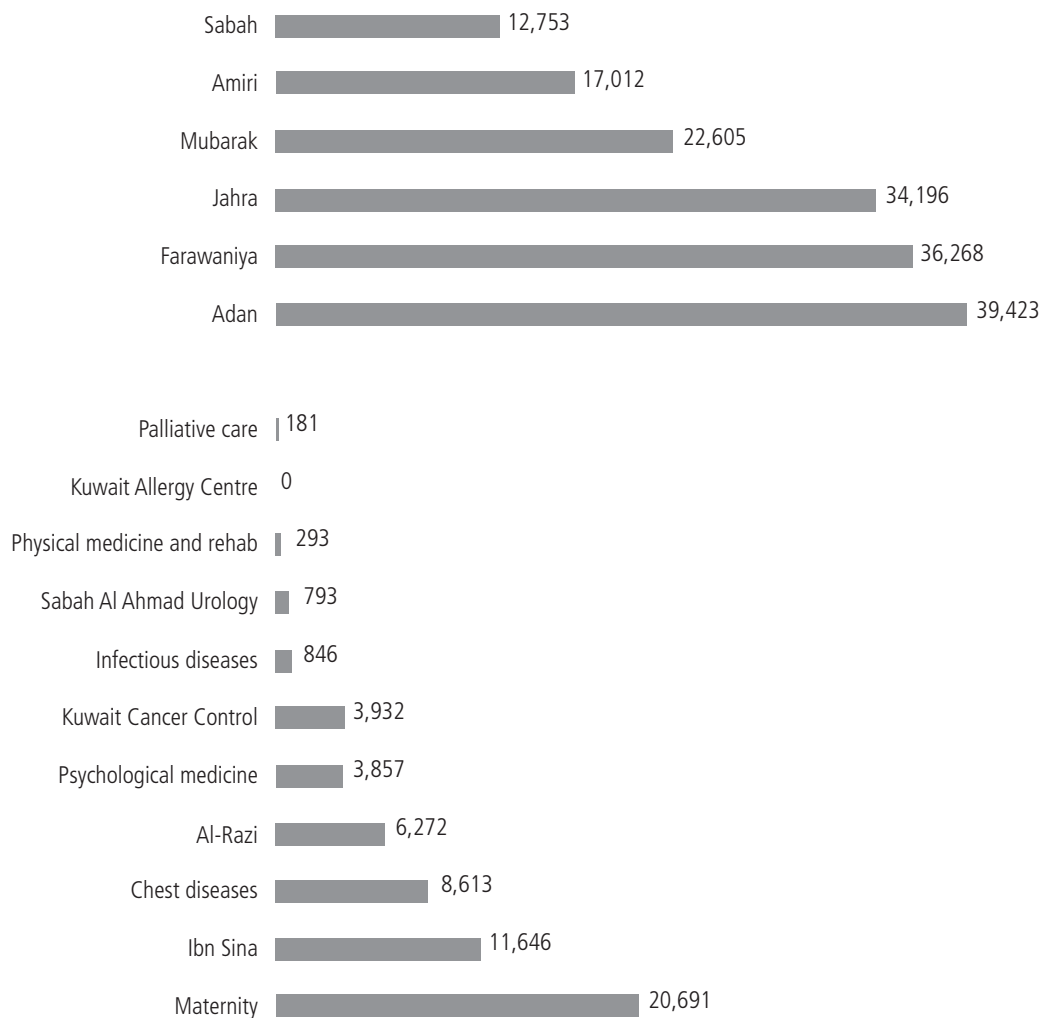
developed by DHAMAN (specifically, three by the end of 2017, eight by end of 2018 and 12 by end of 2019) (75).

7.3 HOSPITALS

The MoH operates a total of six general hospitals (for secondary care) and 11 specialised hospitals (for tertiary care). The majority of patients visit one

of the six general hospitals, with these hospitals accounting for 72.4% of all discharges (26).

FIGURE 50
MOH HOSPITAL
DISCHARGES, 2015



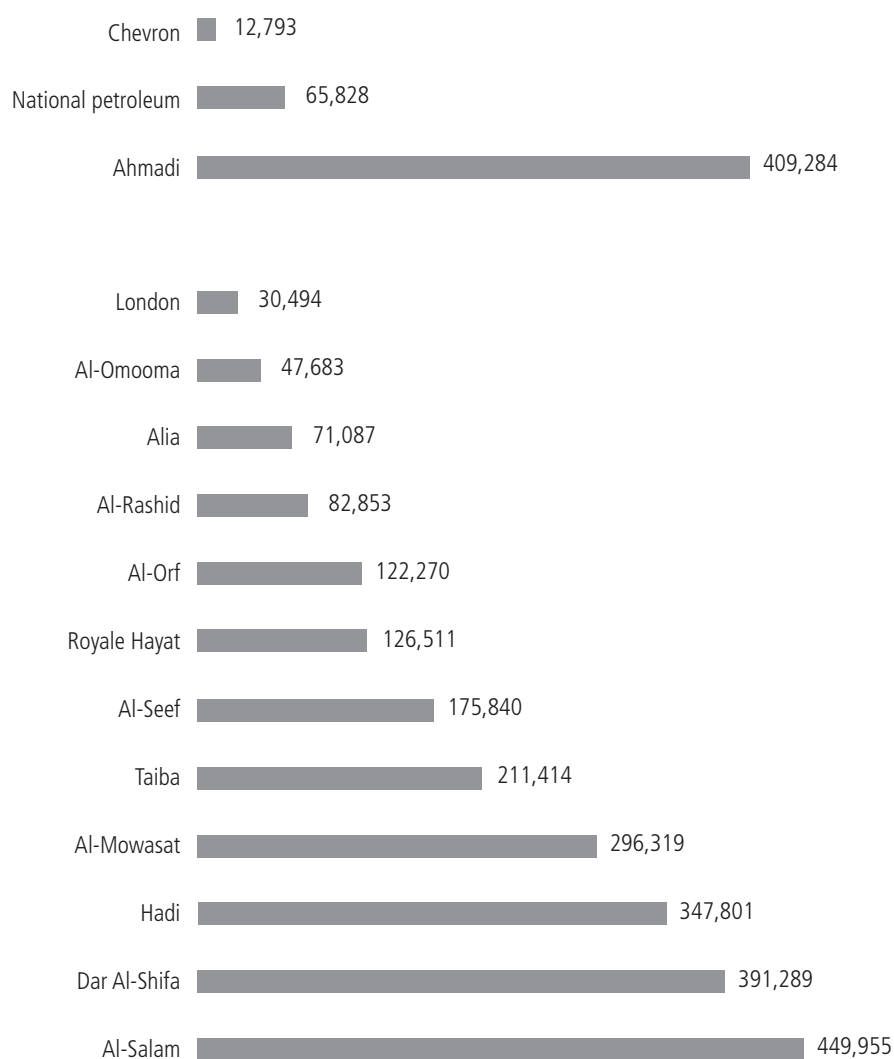
Source: (78).

Kuwait Health System Review

The private sector and oil companies operate a further 15 hospitals (12 in the private sector and three in the oil sector) (26). Together these hospitals, in 2014, provided 2.4 million episodes of care in an outpatient setting (26).

An additional three private sector hospitals will be built by 2019 which will cater to the expatriate population only (none will offer tertiary services) (75).

FIGURE 51
PRIVATE AND OIL SECTOR
HOSPITAL OUTPATIENT
VISITS, 2014



Source: (78).

The number of hospital beds in Kuwait totaled 6,962 in 2014, which included 5,694 government beds (82%), 1,058 private beds and 210 beds owned by the oil company sector. In that year there were 2.1 beds for every 1,000 people in Kuwait,

which is made up of 1.7 government and 0.4 private beds (78).

The estimated number of beds required to meet Kuwait's healthcare needs in 2020 is 9,844, which represents a CAGR of 2.8% from 2015 (53).²⁸

28. This assumes there are 8,579 beds in 2015.

7.4 EMERGENCY CARE

Responsibility for emergency care falls under the MoH, specifically, to the Medical Emergencies department. The Medical Emergencies department is responsible for coordinating emergency care across all relevant entities including hospitals, laboratories and the national blood bank. On a day-to-day basis, the department provides ambulance services as well as training programs for providers as well as the public (e.g. cardiopulmonary resuscitation).

The department operates a fleet of emergency vehicles including ambulance cars, quad bikes (for

cases in the desert), buggies, helicopters and a plane. To operate this service, the department hires approximately 1,200 people (60% of which are expatriates).

Paramedics who attend cases are not legally required to transport patients to a nearby hospital should there be no issues with the patient's vital signs. The goal set out by Medical Emergencies is to reach 75% of all patients within eight minutes (feedback from this stakeholder group suggest this goal has not been achieved).

7.5 PHARMACEUTICAL CARE

Kuwaiti nationals have free access to pharmaceutical products on the 'Circular 365' list, which is determined by the MoH and Central Medical Stores²⁹ (with plans for the Therapeutic Committee to become more involved). Expatriates

pay a fee for state-subsidised drugs from a limited list, as a result, the majority purchase drugs from the private sector as it allows them access to an extended list of drugs (7).

7.6 OVERSEAS HEALTHCARE TREATMENT

For Kuwait nationals, the majority of healthcare services are provided in the country. If the treatment is complicated or not locally available, the government³⁰ will fund treatment for patients at an international hospital. This service is exclusive to Kuwaiti nationals. In such a case, the

government will not only pay for treatment, but also costs associated with living and travel for their attendants. Given economic pressures, the stipend provided to nationals and their companions was reduced in a Ministerial degree in September 2014 (see Figure 52 for further details).

FIGURE 52
OVERSEAS TREATMENT
ALLOWANCES

Before September 2014
<ul style="list-style-type: none"> • Patients: 100KD per day • Chaperone (one allowed for adults, or two for those under 18 or over 65 years): 100KD per day.
Post September 2014
<ul style="list-style-type: none"> • Patients: 75KD per day • Chaperone: 50KD for one chaperone only.

Source: (7).

29. Medical Stores Administration was established in 1983 for the purpose of storing Ministry of Health goods. Central medical Stores receive procurement requests from clinic and hospitals regarding instruments, consumables, machines and medications.

30. Government entities who provide overseas treatment include the Amiri Diwan, the Diwan of the Crown Prince, the Diwan of the Prime minister, the MoH, the Kuwait Oil Company, the Ministry of Defence, and the Ministry of Interior (Police) (7).

Kuwait Health System Review

The costs of sending patients abroad to receive healthcare is a significant expense within the MoH. Further, it is also a cost that has been increasing as shown in the Table 10. Specifically, between 2012–13 and 2014–15, the cost of overseas treatment increased by 187% (i.e. from US\$379.7 million to US\$1,088 million).

Approximately 2,300 patients seek overseas treatment for various reasons each year. Patients typically travel to the UK (30.6%), USA (23.5%) and Germany (21.2%), and to a lesser extent France (7.8%), Spain (3.2%), Czech Republic (6.2%) and Slovakia (2.1%). In 2014–15, the cost of treatment abroad cost US\$1.5 billion, which was largely financed by the MoH (see Table 10).

The significant cost of overseas medical treatment is a cause for concern for the Government given the pressure it places on the MoH's budget (approximately 15% of the MoH's budget is spent on overseas treatment) (57). The budget for

overseas treatment is set at 120 million KD per year, a figure significantly lower than the 400 million KD spent (on average) (103). In response, the government has implemented various initiatives to curb international medical treatment. For example, by improving local healthcare facilities and reducing daily allowances for the patient and their companions. Such measures have led to a 50% reduction in the number of overseas treatment cases since 2014 (104).

At the end of 2016, the MoH endorsed a policy whereby hospitals, as opposed to the department responsible for overseas treatment, are responsible for approving international treatment applications (which are later approved or rejected by the Supreme Commission for Overseas Treatment) (105–107). In addition, the MoH will soon no longer reimburse patients who access international treatment at their own expense (108). It is envisaged that such measures, over time, will minimise outbound medical tourism.

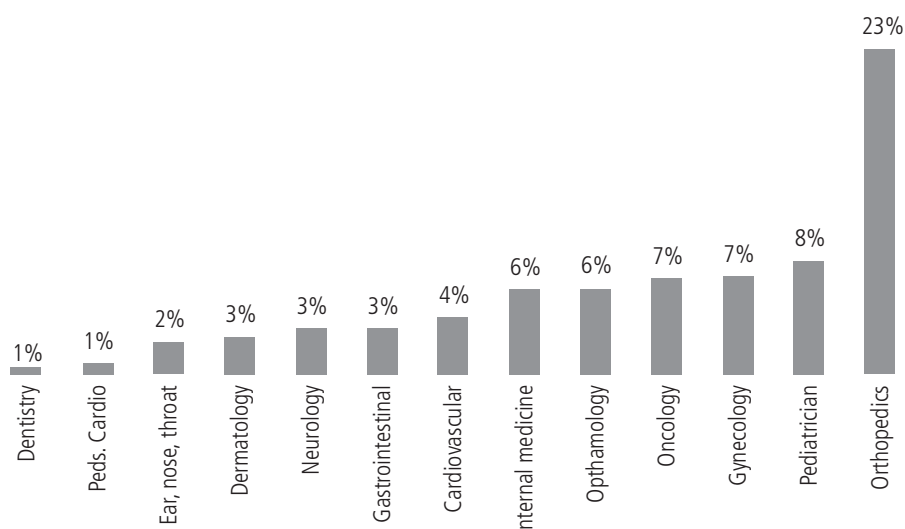
TABLE 10
OVERSEAS TREATMENT COSTS, 2012–13 TO 2014–15

	2012/13 (US\$ millions)	2013/14 (US\$ millions)	2014/15 (US\$ millions)
Ministry of Health	379.7	393.8	1,088.0
Ministry of Defense	132.3	149.0	263.9
Ministry of Interior	65.6	65.6	98.5
Royal Court	71.2	45.3	69.9
Total	649.2	652.8	1,520.2

Source: (101).

FIGURE 53
TYPES OF HEALTHCARE SERVICES ACCESSED BY KUWAIT NATIONALS OVERSEAS

The remaining 25% of services is made of various 'other' treatments.



Source: (102).

7.7 ACCESS TO AND SATISFACTION WITH HEALTHCARE SERVICES

Given Kuwaitis have access to universal healthcare coverage, the country experiences low rates of unmet medical need. For example, data from the 2013 Kuwait World Health Survey revealed just 3.9% of the national population could not access care the last time they needed it.³¹ This figure was even lower (i.e. 2.93%) for expatriates (41).

Another indicator used to measure access to care is the rate of inpatient and outpatient utilisation. Key

findings on both these indicators using the Kuwait World Health Survey are provided in Table 11.

Rates of satisfaction with overall healthcare was also examined using Kuwait World Health Survey data (2013). Results from the analysis find that 85.58% of respondents are satisfied with the healthcare they receive in Kuwait. However, Kuwaitis and females are less likely to be satisfied than expatriates and males, respectively (41).

TABLE 11
DETERMINANTS OF IN- AND OUT-PATIENT HEALTHCARE UTILISATION, 2013

Source: (41).

Inpatient utilisation	Outpatient utilisation
<ul style="list-style-type: none"> Females are more likely to access this type of care, which is not surprising given pregnancy and childbirth. 	<ul style="list-style-type: none"> Kuwait nationals are more likely to seek outpatient care than expatriates. Those who are employed are more likely to seek outpatient care.

7.8 ASSESSMENT OF SERVICE PROVISION ARRANGEMENTS

KEY FINDINGS

SERVICE PROVISION

- The primary healthcare sector in Kuwait has advanced reflecting a pivot to preventative healthcare. Nevertheless, the political and community mindset continues to largely focus on secondary care within hospitals.
- Healthcare services made available within government funded services are not subject to cost-effectiveness analyses.

This report has explored key governance, financing, workforce, IT and quality challenges facing the Kuwait healthcare system. Each of these identified challenges impact primary, secondary, tertiary and emergency healthcare services. For example, scarce data to inform evidence-based policy prevents resources being allocated in a manner that maximises patient experiences and outcomes.

Regarding direct service provision, it is promising to see significant developments within the primary healthcare sector in Kuwait. At present, nationals and expatriates have access to PHCs which include clinics covering general practice, gynecology, antenatal care, child care, dental care and diabetic care. PHCs within Kuwait have been designed to incorporate best practice principles such as gatekeeping and interdisciplinary care.

Nevertheless, anecdotal feedback from stakeholders indicate further improvements to the PHC system are needed. For example, waiting times at PHCs are lengthy, which may be due to the significant proportion of patients using the service to obtain sick leave approvals. Further, PHCs do not operate community outreach programs (e.g. community education on diets, exercise, breastfeeding etc.).

Despite advances within the primary healthcare sector, policy-makers and the community continue to focus on care provided within hospitals. The focus on secondary care is reflected by the growing number of hospitals and hospital beds (e.g. as previously outlined, 99% of the National Development Plan budget is dedicated to building hospitals). This suggests the benefits of preventive care to both policy-makers and the public need to

31. The results are based on 2,391 observations.

be promoted. Further, given the overcapacity of secondary and tertiary care facilities, efforts should be targeted at reducing overseas treatment for these forms of care (which at present comprise approximately 15% of the MoH budget). Encouraging patients to seek care in Kuwait is important as: quality cannot be assured by overseas providers; further, it will lessen the burden on MoH finances with savings being used, for example, to invest in front-line services.

Finally, unlike countries with developed healthcare systems, such as Australia and the UK, healthcare services funded by the government are not subject to health technology assessments. That is, healthcare services funded by the government do not undergo clinical or cost-effectiveness analyses, suggesting government resources may not be used efficiently (i.e. in a way that maximises patient outcomes).

8 PUBLIC HEALTH

8.1 KEY PUBLIC HEALTH STAKEHOLDERS

Public health in Kuwait involves various actors, with no one body responsible for the country's overall public health strategy. Key actors within this area are outlined below:

MoH: Within the MoH, responsibility for public health sits with the Undersecretary for Public Health (UoPH). Specific departments include: public health, social health, nutrition and feeding, infection control and radiation protection. As outlined in Chapter 3, all relevant public health bodies do not sit within this Undersecretary causing fragmentation. For example, the UoPH does not cover areas such as primary healthcare and school health³². Further information on the role of the UoPH in training and education within public health is provided in Figure 54.

Health governates: Each health governate has a public health team and office which covers areas such as vaccinations, health intelligence surveys and infectious disease control.

Public Authority for Food and Nutrition: PAFN, which began operating in 2015, comprises four key departments, namely, technical affairs, public health, inspection and control, and finance and management.

Kuwait University: In 2013, the Faculty of Public Health was created under Amiri decree. The Faculty is responsible for educating students in public health specialities who will then go on to work in positions of management within the country's healthcare sector.

FIGURE 54
PUBLIC HEALTH
EDUCATION AND
TRAINING

Undersecretary of Public Health (UoPH): Public health education and training responsibilities

- The UoPH coordinates training programs and workshops with KIMS which are approved for CME points (covers physicians, nurses and other healthcare workers employed by the MoH). In addition, they are engaged in conferences and lectures regarding topics such as infectious diseases.
- The UoPH works with the Faculty of Medicine regarding post-graduated education in public health. Specifically, the UoPH offer placements for those enrolled in the program (who are typically physicians). Placements last for four months with a two-day commitment per week required.
- Undergraduate training in public health falls under the responsibility of the Faculty of Public Health. Similar to post-graduate education, the UoPH offers undergraduates with placement opportunities (which is compulsory).
- The UoPH every year hosts a 'public health day' (within the Community Medicine Department) to provide information of what a career in public health entails, and what impact an individual can have on the healthcare system.
- Finally, the UoPH coordinates with WHO EMRO by funding training programs (however, most is paid by the WHO Kuwait allowance).

Various screening programs operate across the country, for example, the Cancer Awareness Nation, which is funded by the Government, operates mobile mammography and bowel screening services. Data on uptake and outcomes from screening activities is not available. Drawing upon feedback from stakeholders, participation in

screening is low (e.g. due to limited advertisement and cultural issues), further, the methods used to screen individuals are often out of date. Finally, stakeholders also highlighted that at the primary care level, no community outreach programs exist, for example, to promote had educate individuals on their diet and breastfeeding.

32. An example of the impact of the limited coordination of public health activities within the MoH includes the Undersecretary of Public Health's campaign to change perceptions of swine flu. Their approach was to inform people that it is not different from other flus, yet pamphlets from other departments were all dedicated to swine flu specifically.

8.2 ASSESSMENT OF PUBLIC HEALTH ARRANGEMENTS

KEY FINDINGS

PUBLIC HEALTH

- The important role public health plays within the healthcare sector, and society more generally, isn't well recognised. This is reflected by limited screening activities (as well as low participation rates) and the absence of community outreach programs.
- The lack of importance placed on public health is evidenced by disjointed efforts to address public health, a continued focus on secondary sources of care, as well as a major shortage in the number of public health experts.

Across the world, public health is playing an increasing role in society reflecting the benefits of addressing potential healthcare problems early on. In Kuwait, public health is increasing in importance as evidenced by the recently developed Faculty of Public Health within Kuwait University.

Nevertheless, public health 'is not well respected as a specialty', which is reflected by:

- A siloed approach to public health. Specifically, several departments within the MoH initiate and operate their own public health activities, further, there is limited interaction between MoH and other relevant ministries such as education and environment (e.g. no 'Health in All Policies' strategy has been developed).
- The continued emphasis on curative care despite rising rates of NCDs, which are best addressed through preventative measures. A key reason explaining the focus on secondary forms of care is the length of time it takes to see the benefits from additional public health activities. Specifically, it can take decades for the impact of public health initiatives to be felt, thus there is limited support from the National Assembly and/or the Parliament in this area of the health sector.
- The limited resources diverted to public health within the MoH, which may be a result of the narrow definition of public health in Kuwait. Currently, there is no specific budget for public health, even in an emergency (e.g. an outbreak), the MoH must put in a request for funds.³³

33. In regard to public health budgets, a request for a specific health promotion budget was made, however, it was rejected. Funds for vaccinations fall under the pharmaceutical budget.

9 CONCLUSION

In 2017 the London School of Economics and Political Science (LSE Health) was engaged by KFAS to undertake two interconnected tasks: first, a review of the Kuwait healthcare system, and second, to develop a public health strategy for the country. This report represents findings from the first task by outlining and assessing governance, financing, workforce, IT, service provision and public health arrangements within Kuwait's healthcare system.

The report relied upon academic and grey literature, as well as feedback from key stakeholder groups. A total of 15 stakeholder groups were interviewed covering government, education, private and public providers, and the workforce. To view the full list of stakeholder interviewees, please see Appendix A.

The discovery of vast oil reserves allowed Kuwait to enjoy decades of economic prosperity. Strong economic activity led to significant investments in healthcare as evidenced by start-of-the-art infrastructure and a quality medical education system. Investment partnered with ease of access to healthcare services has resulted in better health outcomes, for example, since 1960 total life

expectancy at birth increased from 60.4 to 74.7 years. Further, satisfaction with healthcare is high with 84% of the total population stating they are in either 'very good' or 'good health' (1).

Sufficient funds to cover the cost of healthcare needs has led to complacency among key decision makers. As a result, the healthcare system has not been able to adapt to challenges arising from rising rates of NCDs and falling revenues. The lack of development is also hampered by the state of flux in which the Ministry of Health (MoH) operates. Specifically, over the past 10 years, the average duration of the Health Minister has been between 9–12 months. Consequently, policies with a long-term vision are frequently disregarded.

To ensure the continued prosperity of Kuwait's population, top political decision makers need to drive change by implementing policies relevant to the environment in which the healthcare sector now operates. To assist policy-makers in this task, this report outlines areas within the healthcare sector that require attention. Namely, healthcare governance, financing, workforce, information technology, service provision, and public health.

GOVERNANCE

See Section 3.3 for further details.

- Strategic policy making decisions within Kuwait are not evidence-based. Further, health policy decisions are developed without sufficient consultation meaning their execution is not well planned. Consequently, the system has not been able to adapt to the changing needs of the population.
- Despite a National Development Plan agreed between the Supreme Council and the MoH, the overall strategic vision for the healthcare sector is neither communicated nor shared with stakeholders.
- The MoH in Kuwait is unique in that it is the primary funder and provider, as well as sole regulator of healthcare services. This arrangement is neither efficient nor sustainable given MoH responsibilities are overwhelming and conflicting.
- The Undersecretary for Public Health does not include all relevant departments and is therefore fragmented.
- The private healthcare sector in Kuwait is growing, however, at present, it is not sufficiently regulated to prevent adverse outcomes, such as risk selection.

FINANCING

See Section 4.4 for further details.

- Government expenditure on health as a proportion of total health expenditure is relatively high when compared to the GCC region at 86%. Given rising rates of NCDs, advances in technology and falling oil prices, the sustainability of government funding within the healthcare sector is under pressure.
 - The government has recognised the need to develop sustainable financing arrangements. Nevertheless, healthcare spending isn't necessarily efficient given: (a) HTAs are not used to assess what services the government will fund; (b) the government funds providers through block contracts instead of more sophisticated methods such as DRGs and capitation (before implementing such methods, a stronger regulatory framework is required); (c) full costing is not used meaning expenditure is not transparent; and (d) budgets for providers are not based on need.
-

EDUCATION

See Section 5.3 for further details.

- Healthcare education is fragmented with no one body holding responsibility for training.
- After graduation, physicians receive a one-year temporary license in order to work in a hospital. A permanent license is issued thereafter. There is no standardised license renewal process for health professionals to ensure maintenance of core professional competencies over time. Further, continued medical education lacks financial support.
- The education sector does not match training allocations/positions with the needs of the population leading to an over/under supply of certain professions.
- Primary Source Verification of degrees and certificates is done in-house at MoH without a clear process. Further, there is no information on the productivity and/or efficiency of this process.

WORKFORCE

See Section 5.3 for further details.

- Public health as a profession is undermined, therefore it is difficult to attract high-calibre individuals to the profession.
- The healthcare workforce is reliant on expatriate workers which can be problematic given: (a) there is no national equivalence exam for healthcare workers who trained outside Kuwait; (b) expatriates have higher resignation rates than nationals; (c) Kuwait must compete with a range of other countries to attract high-quality professionals; and (d) anecdotal feedback indicates that a proportion of workers enter the system using falsified documents.
- The process to contract highly-skilled expatriate physicians is bureaucratic and burdensome. Consequently, providers frequently hire physicians on short-term locum contracts which are expensive.
- Healthcare management as a profession is not taken seriously within the workforce. As a result, those in management positions are generally physicians without any additional training in healthcare policy, management and/or economics.
- Feedback from stakeholders suggests that the healthcare workforce do not operate in a safe environment. Specifically, physicians are not insured against malpractice by their provider, further, adequate controls are not in place to protect workers against violent patients.
- Related to challenges facing governance arrangements, no overarching healthcare workforce strategy has been developed in Kuwait.

INFORMATION TECHNOLOGY

See Section 6.3 for further details.

- Overall, Kuwait's health information system can be classified as 'adequate' when assessing areas such as data management, data sources, indicators, and dissemination and use.
 - The importance of sophisticated IT systems has been recognised by decision makers in Kuwait. For example, primary health care centres (PHCs) across Kuwait and three hospitals have implemented EHRs. The government also has plans to introduce personalised healthcare records and an online portal for expatriates. Nevertheless, further improvements are required given providers continue to enter data manually, further, uptake of technology among the population is insufficient (e.g. online booking for PHC appointments).
 - Healthcare providers are required to report against a range of quality indicators in alignment with the National Accreditation Program. These indicators largely relate to processes and equipment (structure) as opposed to outcomes. Further, the indicators do not incentivise providers to improve their performance as there are no penalties for failing to meet accreditation standards.
 - An overarching health information management strategy is needed to capitalise on existing health information systems and data infrastructure.
-

SERVICE PROVISION

See Section 7.8 for further details.

- Key challenges facing governance, financing, workforce and IT all have implications for service delivery within the healthcare system.
- Regarding direct service provision, it is promising to see developments within the primary healthcare sector, this is particularly important in Kuwait given rising rates of chronic diseases (e.g. PHCs within Kuwait have been designed to incorporate best practice principles such as gatekeeping and interdisciplinary care). Nevertheless, policy-makers continue to focus on secondary care. For example, 99% of the 1.39 billion KD budget for the health National Development Plan is dedicated to building hospitals. Given the overcapacity of secondary and tertiary care facilities, increased efforts to reduce the number of people seeking these forms of care overseas is needed.

PUBLIC HEALTH

See Section 8.2 for further details.

- Public health is increasing in importance in Kuwait as shown by the newly created Faculty of Public Health at Kuwait University. Nonetheless, as a discipline it is not well respected. Consequently, public health is approached in a silo manner with minimal interaction within and across relevant ministries. For example, the country has not implemented a holistic Health in All Policies strategy.
 - The lack of emphasis placed on public health has led a severe shortage in the number of public health experts.
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REFERENCES

1. State of Kuwait Ministry of Health, WHO. World Health Survey in Kuwait. 2013.
2. The World Factbook — Central Intelligence Agency [Internet]. [cited 2017 Sep 12]. Available from: www.cia.gov/library/publications/the-world-factbook/geos/ku.html
3. Helen Zeigler&Associates. The political system of Kuwait [Internet]. 2017. Available from: www.hziegler.com/articles/political-system-of-kuwait.html
4. World Bank. World Development Indicator: GDP, PPP (current international \$). 2017.
5. World Bank. World Development Indicators: GDP (current US\$). 2017.
6. World Bank. World Development Indicators: GDP per capita (current US\$). 2017.
7. IMS Health. Market Overview 2016: Kuwait [Internet]. 2016. Available from: www.tfhc.nl/wp-content/uploads/2017/08/KLSC-IMS-Kuwait-Health-Industry-Report-2016-vF2.pdf
8. International Labour Organization. Labour statistics: Kuwait [Internet]. 2017. Available from: www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page21.jspx
9. OPEC : OPEC Share of World Crude Oil Reserves [Internet]. [cited 2017 Oct 2]. Available from: www.opec.org/opec_web/en/data_graphs/330.htm
10. International Monetary Fund. IMF Country Report No. 17/16: Kuwait [Internet]. 2016 Dec. Available from: <file:///C:/Users/Jane%20Heatley/Downloads/cr1716.pdf>
11. GRF [Internet]. [cited 2017 Sep 19]. Available from: www.kia.gov.kw/en/ABOUTKIA/Pages/GRF.aspx
12. Euromonitor International. Kuwait: Country Profile. 2016 Apr.
13. Kuwait Central Statistical Bureau. National Accounts (at constant prices): Revised and Provisional 2014–16. 2016.
14. World Health Organisation. Development of a New National Health Sector Strategy for the State of Kuwait. 2017 Apr.
15. Euromonitor International. Kuwait in 2030: The future demographic. 2016 Mar.
16. Kuwait Central Statistical Bureau. Kuwait Population Statistics – mid year 2016.
17. United Nations, Population Division, Department of Economic and Social Affairs. World Population Prospects: The 2017 Revision (Female). 2017 Jun.
18. United Nations, Population Division, Department of Economic and Social Affairs. World Population Prospects: The 2017 Revision (Male). 2017 Jun.
19. Global. Kuwait Healthcare Sector: Diminutive private contribution points at greater growth opportunity [Internet]. 2017 Jan. Available from: <file:///H:/2017-01-23%20-%20Kuwait%20Healthcare%20Sector%20Report.pdf>
20. Kuwait Central Statistical Bureau. Migration Statistics Bulletin 2016. 2016.
21. United Nations, Population Division, Department of Economic and Social Affairs. World Population Prospects: The 2017 Revision (total population, both sexes, by age group). 2017 Jun.
22. United Nations, Population Division, Department of Economic and Social Affairs. World Population Prospects: The 2017 Revision (total dependency ratio). 2017 Jun.
23. World Bank. World Development Indicators: Life expectancy at birth, male years. 2017.
24. World Bank. World Development Indicators: Life expectancy at birth, female years. 2017.
25. World Bank. World Development Indicators: Life expectancy at birth, total (years). 2017.
26. Kuwait Ministry of Health (Health & Vital Statistics Division). Annual Health Report 2014: 51st Edition. 2014.
27. World Bank. World Development Indicators: Mortality rate, adult, male (per 1,000 male adults). 2017.
28. World Bank. World Development Indicators: Mortality rate, adult, female (per 1,000 female adults). 2017.
29. World Bank. World Development Indicators: Cause of death, by non-communicable diseases (% of total). 2017.
30. Institute for Health Metrics and Evaluation. Kuwait: Country Profile [Internet]. 2017. Available from: www.healthdata.org/kuwait

31. Khoja T, Rawaf S, Qidwai W, Rawaf D, Nanji K, Hamad A. Health Care in Gulf Cooperation Council Countries: A Review of Challenges and Opportunities. *Cureus* [Internet]. 9(8). Available from: www.ncbi.nlm.nih.gov/pmc/articles/PMC5650259
32. Nutrition features strongly in Kuwait's development agenda: MoH. *Kuwait Times*. 2017 May 11.
33. World Health Organization. Kuwaitis lower blood pressure by reducing salt in bread. *WHO Features*. 2014 Sep.
34. World Health Organization. UN Task Force on NCDs: scaling-up its efforts to reduce the catastrophic number of premature deaths. Kuwait City; 2017 May. (Noncommunicable diseases and their risk factors).
35. Awad A, Hala A-N. Public knowledge of cardiovascular disease and its risk factors in Kuwait: a cross-sectional survey. *BMC public health*. 2014;14(1):1131.
36. Klautzer L, Becker J, Mattke S. The curse of wealth—Middle Eastern countries need to address the rapidly rising burden of diabetes. *Int J Health Policy Manag*. 2014;2:109–114.
37. Behbehani K. Kuwait National Programme for Healthy Living: first 5-year plan (2013–2017). *Med Princ Pract*. 2014;23(Suppl. 1):32–42.
38. Ng M, Fleming T, Robinson M, Thomson B, Graetz N, Margono C, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*. 2014 Aug 30;384(9945):766–81.
39. Food and Agriculture Organisation of the UN. Country indicators. 2014.
40. World Bank. World Development Indicators: Diabetes prevalence (% of population ages 20 to 79). 2017.
41. Nikoloski Z, Cheatley J, Mossialos J. Determinants of diabetes in Kuwait: evidence from the World Health Survey, Mimeo. 2017.
42. World Health Organisation. Global health expenditure database. 2014.
43. Chun S, Siddiqui T. Kuwait National Development Plan and Health Policies: Transforming from good to excellent. UNDP; 2017 Oct.
44. International Trade Administration (Department of Commerce). State of Kuwait: Overview of the healthcare sector. 2013
45. World Bank. World Development Indicators: Health expenditure, public (% THE). 2014.
46. Dikos A. Public-Private Partnerships Projects in Kuwait [Internet]. Al Tamimi & Co; 2016. Available from: www.tamimi.com/en/magazine/law-update/section-14/december-january-3/public-private-partnership-projects-in-kuwait.html
47. BMI. Kuwait Pharmaceutical & Healthcare Report. 2017.
48. BMI. UAE Pharmaceutical & Healthcare Report. 2017.
49. BMI. Saudi Arabia Pharmaceutical & Healthcare Report. 2017.
50. BMI. Qatar Pharmaceutical & Healthcare Report. 2017.
51. BMI. Oman Pharmaceutical & Healthcare Report. 2017.
52. BMI. Bahrain Pharmaceutical & Healthcare Report. 2017.
53. Alpen Capital. GCC Healthcare Industry Report [Internet]. 2016 Feb. Available from: www.alpencapital.com/downloads/GCC_Healthcare_Industry_Report_February_2016.pdf
54. World Health Organisation. Country Cooperation Strategy: At a glance [Internet]. 2017 May. Available from: http://apps.who.int/iris/bitstream/10665/136906/1/ccsbrief_kwt_en.pdf
55. World Health Organisation - Regional Health Systems Observatory. Health System Profile: Kuwait [Internet]. 2006. Available from: <http://apps.who.int/medicinedocs/documents/s17297e/s17297e.pdf>
56. New Kuwait. Kuwait National Development Plan [Internet]. 2017. Available from: www.newkuwait.gov.kw/en
57. World Health Organisation. Development of a New National Health Sector Strategy for the State of Kuwait. 2017 Apr.
58. New Kuwait. Kuwait National Development Plan: Healthcare [Internet]. [cited 2017 Oct 2]. Available from: www.newkuwait.gov.kw/en/pillars-cpt/healthcare-en
59. Al-Rubaie MH, Salek S, Walker S. An Evaluation of the Efficiency of the Gulf Cooperation Council's Centralized Procedure by the Gulf Regulatory Authorities and Pharmaceutical Companies: Recommendations for an Improved Model. *Ther Innov Regul Sci*. 2015;49(4):560–568.

60. Pateriya S, Janodia MD, Deshpande PB, Ligade VS, Talole KB, Kulshrestha T, et al. Regulatory aspects of pharmaceuticals' exports in Gulf Cooperation Council countries. *J Young Pharm.* 2011;3(2):155–162.
61. Chandra KD, Prabahr AE, Rao NR. A brief analysis of regulatory structure and approval process of pharmaceuticals in GCC. *World J Pharm Pharm Sci.* 2015;Section 4(7):1596–611.
62. Salcanin S. Medicines in the GCC 13-times more expensive than the international standard [Internet]. *BQ Magazine*; Available from: www.bq-magazine.com/industries/healthcare/2014/07/medicines-gcc-13-times-global-price
63. Frost & Sullivan. Strategic analysis of GCC pharmaceutical market overview and outlook. 2012.
64. Hasan RS, Lessing C. Pharmaceutical Pricing Policies in the Gulf Countries' Council (GCC) and the United Arab Emirates in Pharmaceutical Prices. 21st Century. Springer International Publishing; 2014.
65. Al-Mutairi M. GCC countries to standardize medication pricing next year. *Arab News*; 2013.
66. World Health Organisation. WHO Guideline on Country Pharmaceutical Pricing Policies [Internet]. 2015. Available from: <http://apps.who.int/medicinedocs/documents/s21016en/s21016en.pdf>
67. ISPOR. Implications of external price referencing of pharmaceuticals in Middle East countries. In Amsterdam, The Netherlands; 2014.
68. Authority for Consumers & Markets. Competition in the Dutch health insurance market [Internet]. 2016 Feb. Available from: www.acm.nl/sites/default/files/old_publication/publicaties/16129_competition-in-the-dutch-health-insurance-market.pdf
69. World Health Organisation. Health systems financing [Internet]. 2017 Nov. Available from: www.who.int/healthsystems/topics/financing/en
70. Velasco-Garrdio M, Busse R. Health technology assessment: An introduction to objectives, role of evidence, and structure in Europe [Internet]. European Observatory on Health Systems and Policies; 2005. Available from: www.euro.who.int/__data/assets/pdf_file/0018/90432/E87866.pdf?ua=1
71. Mattke S, Hunter LE, Magnuson M, Arifkhanova A. Population Health Management and the Second Golden Age of Arab Medicine [Internet]. 2015 [cited 2017 Oct 20]. Available from: www.rand.org/pubs/research_reports/RR889.html
72. Oxford Business Group. Kuwaiti government gives healthcare a sustainable future. In: *The Report: Kuwait 2015.* 2015.
73. Middle East Forbes. Investor Confidence Grows As Kuwait Embraces PPPs In Healthcare [Internet]. 2016 Oct. Available from: www.forbesmiddleeast.com/en/investor-confidence-grows-as-kuwait-embraces-ppps-in-healthcare
74. Younis M, Al-Hajeri M, Celik Y, Kisa A, Richard P, Parkash J. Healthcare of aging population of Kuwait. *Ageing Int.* 2015;40(1):36–43.
75. Dr Ahmad M. AlSaleh. DHAMAN. 2017 Dec 6.
76. Middle East Insurance Review. US\$272 million health insurance scheme launched for retirees [Internet]. 2016 Aug. Available from: www.meinsurancereview.com/News/View-Newsletter-Article?id=36791&Type=middleeast
77. Kuwait News Agency (KUNA). Kuwait launches retirees' health insurance. 2016 Sep.
78. Kuwait Ministry of Health (Health & Vital Statistics Division). Annual Health Report 2015: 51st Edition. 2015.
79. Khaled Al-Jarallah, Mohamed M, Khadija Figen A-K. The physician workforce in Kuwait to the year 2020. *The International Journal of Health Planning and Management.* 2010;25(1):49–62.
80. HSC Health Science Center. Faculty of Medicine: Mission & Objectives [Internet]. 2017 [cited 2017 Mar 11]. Available from: www.hsc.edu.kw/fom/mission.aspx
81. Al-Ansari H, Al-Mulla A, Al-Awadhi A. FOM Handbook and Program [Internet]. 2017 [cited 2017 Mar 11]. Available from: www.hsc.edu.kw/fom/resources/HandBook%202017-2018.pdf
82. Karim J, Yousef Marwan Becher A-H, Hussain S, Ahmed D, Dalia A-A. The educational environment of the undergraduate medical curriculum at Kuwait University. *Advances in medical education and practice.* 2015;6:297.

83. KIMS. Strategic Plan 2017–2020 [Internet]. 2017 Jan [cited 2017 Nov 3]. Available from: <http://kims.org.kw/uploads/content/content-1145727376.pdf>
84. Kuwait Institute for Medical Specializations Examinations Office. About us [Internet]. 2017 Sep [cited 2017 Nov 3]. Available from: <http://kimsexamsoffice.com>
85. Kuwait Institute for Medical Specializations. Faculty Development [Internet]. Kuwait City; [cited 2017 Nov 2]. Available from: <https://sites.google.com/view/facultydevelopment/home>
86. Kuwait Institute for Medical Specializations. Program Manuals [Internet]. 2017. Available from: <http://kims.org.kw/pgc>
87. HSC Health Science Center. Faculty of Allied Health Sciences [Internet]. Kuwait: Kuwait University; 2017 [cited 2017 Nov 3]. Available from: www.hsc.edu.kw/FAHS
88. Public Authority for Applied Education & Training [Internet]. Kuwait; 2017 [cited 2017 Nov 3]. Available from: www.paaet.edu.kw/mysite/Default.aspx?tabid=4229&language=ar-KW
89. HSC Health Science Center. BSc Program in Health and Community Studies: Mission [Internet]. Kuwait: Kuwait University; 2017 [cited 2017 Mar 11]. Available from: www.hsc.edu.kw/foph/Educational_Programs/BSc_Degree_Program.aspx
90. National Bureau for Academic Accreditation And Education Quality Assurance [Internet]. [cited 2017 Dec 18]. Available from: <https://nbaq.edu.kw/en>
91. Embassy of the State of Kuwait Cultural Division. Ministry of Higher Education 2015–2016 Scholarship Majors in the United States [Internet]. 2015 [cited 2017 Mar 11]. Available from: www.kuwaitculture.com/sites/default/files/articledocs/2015-2016%20Scholarship%20Majors-1.pdf
92. Ministry of Higher Education. Financial allocations to foreign missions [Internet]. Kuwait; [cited 2017 Mar 11]. Available from: www.mohe.edu.kw/site/ar/services/financials.aspx
93. Dasman Diabetes Institute. Postgraduate Certificate/Diploma/MSc Diabetes Care, Education, and Management [Internet]. [cited 2017 Mar 11]. Available from: www.dasmaninstitute.org/?page_id=12905
94. King's College London. Kuwait medical education agreement. KCL News [Internet]. 2013 Mar 5 [cited 2017 Nov 3]; Available from: www.kcl.ac.uk/newsevents/news/newsrecords/2013/03-March/Kings-signs-agreement-to-deliver-elite-medical-education-in-Kuwait.aspx
95. American University for Medical Sciences. About Us [Internet]. Kuwait: American University for Medical Sciences; 2014 [cited 2017 Mar 11]. Available from: www.aums.edu.kw/Web/English/DiscoverAUMS/AboutUs.aspx
96. LaTour KM, Eichenwald S, Oachs P. Health information management: Concepts, principles, and practice. Ahima; 2013.
97. National Centre for Health Information (Ministry of Health, Kuwait) & WHO (EMRO). Health Information System in Kuwait: Current functioning and future strengthening. 2015 Oct.
98. Standards - Accreditation Canada's Programs and HSO's Standards [Internet]. Accreditation Canada. [cited 2017 Dec 14]. Available from: <https://accreditation.ca/intl-en/standards>
99. State of Kuwait Ministry of Health, Accreditation Canada. Standards for accreditation of hospitals.
100. National Centre of Health Information (MoH, Kuwait). National Health Information System in Kuwait: Situational Analysis and Assessment. 2015 Jan.
101. Ministry of Finance. Parliamentary Question by MP Raman Alnsif. 2015 Dec.
102. International Trade Administration (Department of Commerce). State of Kuwait: Overview of the healthcare sector. 2013
103. Jouhar H. Cost of overseas treatment. Kuwait Times. 2017 Jun 21.
104. Oxford Business Group. Kuwait moves to overhaul healthcare system [Internet]. 2016 Jun. Available from: www.oxfordbusinessgroup.com/news/kuwait-moves-overhaul-health-care-system
105. Health Minister affirms commitment to rules of overseas medical treatment. Kuwait Times. 2016 Nov 27.
106. Overseas treatment regulations amended – Bid to end patients' difficulties. Arab Times. 2017 Aug 22.

107. NEW MEASURES WILL REDUCE KUWAITI MEDICAL TOURISM. International Medical Travel Journal. 2016 Dec 14.
108. New measures will reduce Kuwaiti medical tourism. Int Med Travel J [Internet]. 2016 Dec 14; Available from: www.imtj.com/news/new-measures-will-reduce-kuwaiti-medical-tourism
109. Kuwait Healthcare Quality and accreditation standards for tertiary and secondary care in collaboration with Accreditation Canada.

APPENDICES

APPENDIX A: STAKEHOLDER INTERVIEWS

A list of stakeholder organisations interviewed as part of LSE's review of the Kuwait healthcare system are outlined below.

Ministry of Health

- Department of Information Systems
- Health and Vital Statistics
- Department of Planning
- Medical Emergencies
- Blood Bank
- Kuwait Institute of Medical Specialisation
- Public Authority for Food and Nutrition

Kuwait University

- Faculty of Medicine
- Faculty of Public Health

Kuwait Medical Association

Al Adan Hospital

Amiri Hospital

Dasman Diabetes Institute

Kuwait National Blood Bank

- Post graduate office
- Accreditation and quality office

Kuwait Health Assurance Company (DHAMAN)

APPENDIX B: ORGANISATIONAL STRUCTURE



Kuwait Health System Review

Assistant Undersecretary	Departments
Engineering Affairs and Projects	<ul style="list-style-type: none"> Central Department for Engineering Affairs Medical infrastructures Projects Department Transportation Department
Supportive Medical Services	<ul style="list-style-type: none"> Department of Nursing Services Department of Medical Laboratories Department of Medical Emergency services Department of Physiotherapy Services Department of Blood Transfusions Services
Technical Affairs	<ul style="list-style-type: none"> Department of Technical affairs Department of Elderly Care Services Central Department for Primary Health Care services School Health Services Department Health Regions / provinces departments
Civil and Private Medical Services	<ul style="list-style-type: none"> Health Licensure Department Police Health Affairs Department Department of Health Promotion Occupational Health Department General Medical Council
Public Health	<ul style="list-style-type: none"> Department of Public Health Department of Social Health Department of Nutrition and Feeding Infection Control Department Radiation Protection Department
Dentistry	<ul style="list-style-type: none"> Dentistry Services Administration
Pharmaceutical and Nutritional Regulation	<ul style="list-style-type: none"> Department of Pharmaceutical Inquisition Department of Pharmaceutical and Herbal Regulation and Registration Department of Illicit Drugs and Narcotics Regulation and Registration

Kuwait Health System Review

Assistant Undersecretary	Departments
Medicines and Medical Equipment	Department of Medical Stores Department of Pharmaceutical Services Department of Medical Engineering
Legal Affairs	Department of Legal Affairs and Investigations Department of Central Registry of Mortalities and Fertility Department of Public employees Records Department of Health Insurance
Administrative Affairs	Department of Public Occupations General Contracts Department Human Development Department Appraisals Department
Financial Affairs	Accounting Department Department of Budget and Control Department of Purchases Department of Contracts Accounting and Management
Quality and Planning	General Training and Development Department Department of Quality & Accreditation National Center for Health Information Health Development Office The Regional Center for Ensuring Patient Safety Department of Planning and Follow-up Information Technology Department
Supportive Services	Department of Public supportive Service Department of Hostel Services MOH Headquarters Hosting Bureau Services

APPENDIX C: HOSPITAL ACCREDITATION STANDARDS AND CRITERIA

STANDARD	CRITERIA
LEADERSHIP	<ul style="list-style-type: none">• A public healthcare delivery organization should have a vision and mission statement compatible with the Ministry' vision and mission.• A public healthcare delivery organization should have a strategic plan.• A public healthcare delivery organization should have an annual operating plan for the hospital.• The public healthcare delivery organization should comply with the legal, regulatory and policy requirements.• A public healthcare delivery organization should have an organization-wide risk management plan.• A public healthcare delivery organization should have an organization-wide process to identify, report, analyze and manage adverse events and incidents.• A public healthcare delivery organization should have an organization-wide quality improvement and safety plan.• A public healthcare delivery organization should have an established system of performance evaluation for the hospital.• Any research activity within the public healthcare delivery organization should be reviewed periodically for its appropriateness.
HUMAN RESOURCES	<ul style="list-style-type: none">• The healthcare delivery organization governance develops a human resources plan that ensure the retention of health workforce to maintain the sustainability of service provision.• The healthcare delivery organization governance develops a clear job descriptions for the organization's workforce.• An employee record is maintained for each worker in the organization.• There is a formal orientation program and an on-going education program for each worker in the organization.• The healthcare delivery organization governance develops an organization-wide appraisal system for all staff across all services.• The healthcare delivery organization governance develops an occupational and safety program.
INFORMATION MANAGEMENT	<ul style="list-style-type: none">• The healthcare delivery organization governance works in collaboration with clinical and non-clinical department heads to identify key data trends that is used to support decision-making process.• The healthcare delivery organization governance develops and implements an information management plan, in collaboration with the relevant clinical and non-clinical departments, to meet the organizational needs to sustain and improve service provision.• The healthcare delivery organization governance ensures the security, safety and confidentiality of data and information collected, analyzed and used in decision making, prioritization and strategic planning.• The healthcare delivery organization governance ensures effective and efficient data collection, transfer and use across departments and systems outside the organization in compliance with legal rules and regulations, with proper integration between clinical and non-clinical data.

Kuwait Health System Review

STANDARD	CRITERIA
ENVIRONMENT	<ul style="list-style-type: none">• Infections and diseases are prevented through evidence based isolation and precaution techniques, sterilization and disinfection of spaces, medical supplies and devices used in healthcare delivery.• Evidence based management of medical wastes and hazardous materials with the availability of written policies, procedures and protocols, in addition to follow up of evidence based segregation, storage and disposal techniques.• A medical waste management team oversees waste management and follows up on the implementation of related policies and procedures.• Evidence based management and control of nosocomial infections with the availability of written policies, procedures, protocols and surveillance systems integrated the local, regional and national levels of care.• An intra-healthcare delivery organization infection control committee oversees infection control, manage intra-organization incidents and follow up the implementation of related policies and procedures.• The health workforce receives an appropriate and ongoing training in methods and practices related to infection control within healthcare delivery organizations.• The healthcare delivery organization develops a public emergency or disaster management plan which is able to identify the event, assign and distribute responsibilities, coordinate efforts, and notify related authorities and personnel in case of the event occurrence.
MEDICAL CARE	<ul style="list-style-type: none">• There is a defined process for admitting patients to medical care.• The patient is assessed prior to admission with a multidisciplinary plan is prepared.• Care is delivered to ambulatory and inpatients according to the written plan of care.• Physical facilities and medical equipment for ambulatory and inpatients meet the patient's needs.• The multidisciplinary plan of care is reviewed and modified as required.• A defined process of discharge, transfer and follow up is agreed and set in the medical department.• Quality and safety of care are monitored in the service.
SURGICAL CARE	<ul style="list-style-type: none">• There is a defined process for admitting patients to surgical care.• The patient is assessed prior to admission with a multidisciplinary plan is prepared.• Care is delivered to ambulatory and inpatients according to the written plan of care.• Physical facilities and medical equipment for ambulatory and inpatients meet the patient's needs.• The multidisciplinary plan of care is reviewed and modified as required.• A defined process of discharge, transfer and follow up is agreed and set in the surgical department.• Quality and safety of care are monitored in the service.

Kuwait Health System Review

STANDARD	CRITERIA
MATERNAL AND CHILD CARE	<ul style="list-style-type: none">• There is a defined process for admitting patients to maternal and child care.• The patient is assessed prior to admission with a multidisciplinary plan is prepared.• Care is delivered to ambulatory and inpatients according to the written plan of care.• Physical facilities and medical equipment for ambulatory and inpatients meet the patient's needs.• The multidisciplinary plan of care is reviewed and modified as required.• A defined process of discharge, transfer and follow up is agreed and set in the maternal and child care department.• Quality and safety of care are monitored in the service.
EMERGENCY SERVICES	<ul style="list-style-type: none">• There is a defined process for admitting patients to emergency care.• The patient is assessed prior to admission with a multidisciplinary plan is prepared.• Care is delivered to emergency patients according to the written plan of care.• Physical facilities and medical equipment for emergency patients to meet their needs.• The multidisciplinary plan of care is reviewed and modified as required.• A defined process of discharge, transfer and follow up is agreed and set in the emergency department.• Quality and safety of care are monitored in the service.
SPECIALISED AND INTENSIVE CARE	<ul style="list-style-type: none">• There is a defined process for admitting patients to Specialized and intensive care.• The patient is assessed prior to admission with a multidisciplinary plan is prepared.• Care is delivered according to the written plan of care.• Physical facilities and medical equipment for ambulatory and inpatients meet the patient's needs.• The multidisciplinary plan of care is reviewed and modified as required.• A defined process of discharge, transfer and follow up is agreed and set in the department.• Quality and safety of care are monitored in the service.
DIAGNOSTIC IMAGING SERVICES	<ul style="list-style-type: none">• The principal functions of diagnostic imaging service are clearly defined.• The patient receives diagnostic imaging which is required.• Physical facilities and medical equipment are appropriate for delivery of Diagnostic imaging services.• Information systems support the delivery of Diagnostic imaging services.• Staff of Diagnostic imaging services review the services which are provided.• Diagnostic imaging services staff participate in the process of discharge, transfer and follow up of patients if required.• Quality and safety are monitored in Diagnostic imaging services.

Kuwait Health System Review

STANDARD	CRITERIA
LABORATORY SERVICES	<ul style="list-style-type: none">• The principal functions of Laboratory services are clearly defined.• The patient receives Laboratory services which are required.• Physical facilities and medical equipment are appropriate for delivery of Laboratory services.• Information systems support the delivery of Laboratory services.• Staff of Laboratory services review the services which are provided.• Laboratory services staff participate in the process of discharge, transfer and follow up of patients if required.• Quality and safety are monitored in Laboratory services.
PHARMACY SERVICES	<ul style="list-style-type: none">• The principal functions of Pharmacy services are clearly defined.• The patient receives Pharmacy services which are required.• Physical facilities and medical equipment are appropriate for delivery of Pharmacy services.• Information systems support the delivery of Pharmacy services.• Staff of Pharmacy services review the services which are provided.• Pharmacy services staff participate in the process of discharge, transfer and follow up of patients if required.• Quality and safety are monitored in Pharmacy services.
PATIENT CARE	<ul style="list-style-type: none">• There is a defined process for admitting the patient to the service.• The patient is assessed prior to admission with a multidisciplinary plan is prepared.• Care is delivered to ambulatory and inpatients according to the written plan of care.• Physical facilities and medical equipment for ambulatory and inpatients meet the patient's needs.• The multidisciplinary plan of care is reviewed and modified as required.• A defined process of discharge, transfer and follow up is agreed and set in the medical department.• Quality and safety of care are monitored in the service.

Source: (109).

