



# **GCC Health Report**

## **2018**



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## Introduction

The healthcare landscape across the Gulf Cooperation Council (GCC) continues to evolve with numerous regulatory changes in recent years impacting the healthcare markets of the two largest private insurance markets in the region, the Kingdom of Saudi Arabia and the United Arab Emirates, with further changes anticipated for the markets of Qatar, Bahrain, Kuwait and Oman. It is important for healthcare participants and other key healthcare stakeholders in the region to stay abreast of the changes, many of which could significantly impact the market.

Healthcare markets in the GCC have remained spirited despite uncertain economic headwinds and hyperbolic oil prices. As GCC markets continue to mature due to shifting regulatory requirements, mandatory lines of business are driving overall growth.

The GCC region has seen significant growth across sectors in the last two decades, and the Healthcare sector is no exception to this trend. The growth in the Healthcare sector has been driven by burgeoning population (especially the senior citizen segment), increasing life expectancies and rising prevalence of lifestyle diseases. Moreover, the GCC countries have made appreciable strides in their efforts to upgrade and equalize access to medical facilities.

There are **26 mega hospital projects** in the GCC that are in active stages of development (although many face delays) that are worth over 100 Mn USD. The majority of these projects were expected to be completed by 2020. The total investment cost of these projects is calculated as **USD 23.5 Bn** and are expected to add a total of 18,123 beds. The calculated average cost per bed is USD 1.30 Mn, which is significantly above the widely accepted international best practice benchmark of around USD 1 Mn per bed. Furthermore, in order to staff these existing mega projects in the GCC, significant additional manpower resources are required to fulfil (and maintain) the quality of healthcare services. In this vein, the GCC will require at least **21,933 doctors, 48,908 nurses, 6,065 pharmacists** and **26,736 allied health professionals** who will in turns require at least **1.8 million hours of continuing medical education (CME)**.

Although private insurance penetration has grown at an impressive double-digit rate in the last five years, regional acceptance of private health insurance schemes remains lower than in most of the world's emerging markets. Growth has primarily come from mandatory insurance coverage usually on companies with 50 employees or more or in the case of Kuwait, citizens of retirement age, i.e. the state sponsored and privately

managed Afya health insurance program. Life insurance and savings have made a negligible contribution, except for the UAE and Saudi Arabia. Commercial lines (i.e., property and engineering) have fared the worst due to poor economic conditions and receding growth in commerce and trade.

It is anticipated that economic activity in the region will revive, although at a slower rate than in the last decade. The industry has many potential opportunities to capitalize on the economic revival, specifically with large-scale government spending on infrastructure and mega projects.

Sincerely,

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## Socio-Economic Status of the GCC

We have profiled six countries in the GCC region, inhabited by approximately 54 million people, including a sizeable foreign labor force, representing around 20%<sup>[1]</sup> of the MENA population and considered by many to be the region's growth engine both in terms of population growth (from both natural birth rate and immigration) and in terms of economic development. Although the recent turmoil between neighboring GCC states has captured the media's attention, it is comforting that major infrastructure spending, specifically with regards to healthcare, is still underway in all GCC states.

Indicator	Total population (in thousands)								CAGR
	2010	2011	2012	2013	2014	2015	2016	2018	%
<b>Country</b>									
Bahrain	1,261	1,306	1,334	1,349	1,362	1,377	1,397	1,552	2.63%
Kuwait	3,059	3,239	3,420	3,594	3,753	3,892	4,007	4,180	3.98%
Oman	2,944	3,210	3,545	3,907	4,236	4,491	4,654	4,786	6.26%
Qatar	1,766	1,905	2,016	2,101	2,172	2,235	2,291	2,680	5.35%
Saudi Arabia	28,091	28,788	29,496	30,201	30,887	31,540	32,158	33,409	2.19%
UAE	8,329	8,735	8,953	9,040	9,086	9,157	9,267	9,511	1.67%
<b>GCC Total</b>	<b>45,450</b>	<b>47,183</b>	<b>48,764</b>	<b>50,192</b>	<b>51,496</b>	<b>52,692</b>	<b>53,774</b>	<b>56,118</b>	<b>2.67%</b>

Table-1, Source: UNESCO Statistics

## Population Growth (2018) and Compounded Annual Growth Rate (CAGR)% (2010-2018)

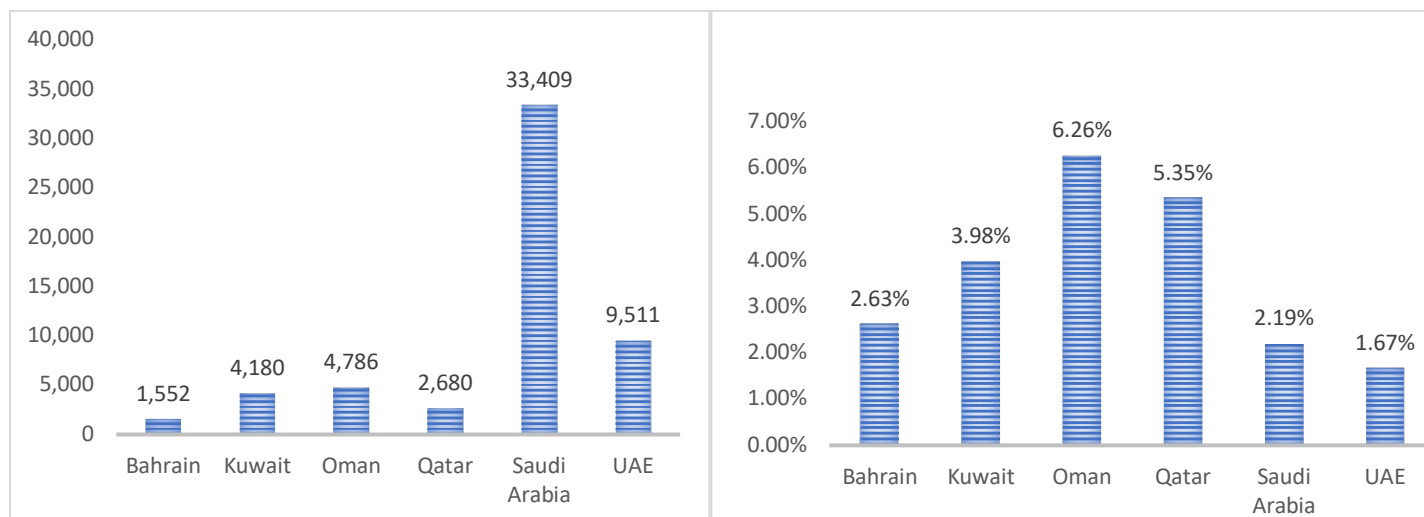


Chart-1, Source: UNESCO Statistics

The Gross Domestic Product (GDP) of GCC is calculated (Refer Table-2) at 1,350 billion USD (2016) with a Compound Annual Growth Rate (CAGR) of 3.50%, which significantly trails international best practices and regional comparisons such as the UK (3.46%) and USA (3.70%). It is important to note that the six countries with the least populace of the Gulf Cooperation Council contribute to over 50% of total MENA GDP.

Indicator	GDP (in million current US\$)							CAGR
	2010	2011	2012	2013	2014	2015	2016	%
<b>Time</b>								2010 - 2016
<b>Country</b>								
Bahrain	25,713	29,044	30,756	32,898	33,851	32,221	32,179	3.81%
Kuwait	115,419	154,028	174,070	174,161	163,612	112,812	110,876	-0.67%
Oman	58,641	67,938	76,341	78,183	81,797	70,255	66,293	2.07%
Qatar	125,122	169,805	190,290	201,885	210,109	166,908	152,452	3.35%
Saudi Arabia	526,811	669,507	733,956	744,336	753,831	646,002	646,438	3.47%
UAE	286,049	348,526	373,430	387,192	399,451	370,293	348,743	3.36%
<b>GCC</b>	<b>1,137,755</b>	<b>1,438,848</b>	<b>1,578,843</b>	<b>1,618,655</b>	<b>1,642,651</b>	<b>1,398,491</b>	<b>1,356,981</b>	<b>3.50%</b>

Table-2, Source: UNESCO Statistics

## GDP growth (2016) and Compounded Annual Growth Rate (CAGR) % (2010-2016)

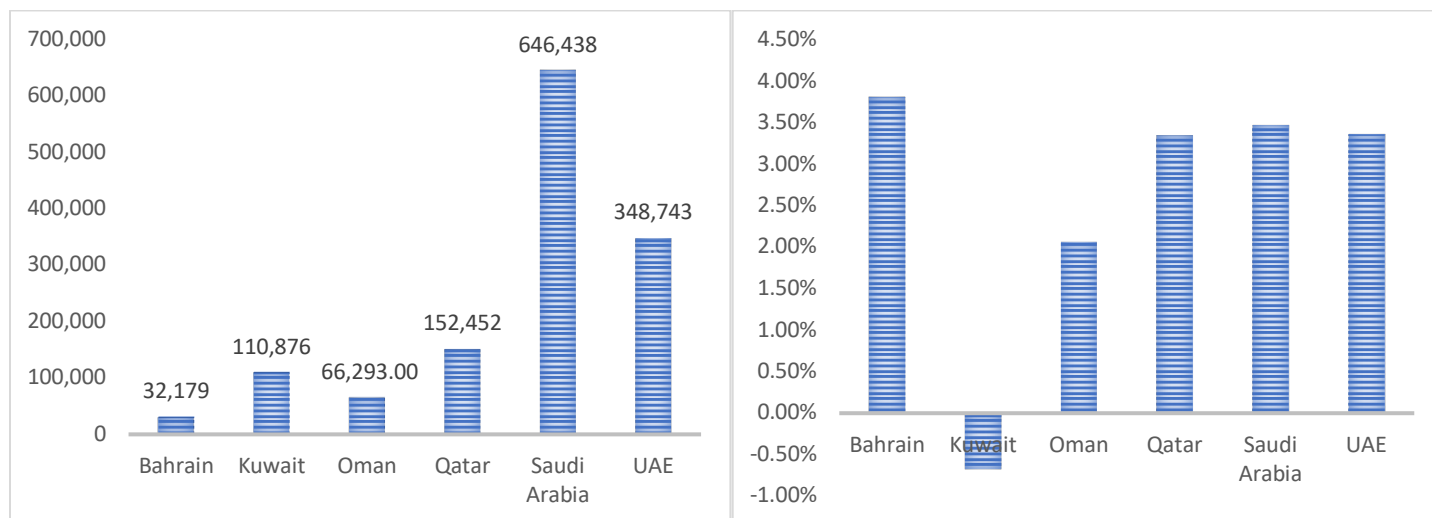


Chart-2, Source: UNESCO Statistics

## Current State of the Healthcare Sector in the GCC

The following is a compilation (Table 3) of the current number of healthcare stakeholders:

### Current Number of GCC Healthcare Stakeholders (2018)

Country Name		KSA	UAE	Kuwait	Qatar	Oman	Bahrain
<b>Healthcare regulator(s)</b>	<b>Total</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>
<b>Healthcare providers</b>	<b>Total</b>	<b>8,447</b>	<b>3,323</b>	<b>813</b>	<b>276</b>	<b>1,445</b>	<b>445</b>
<b>Hospitals</b>	<b>Total</b>	<b>470</b>	<b>126</b>	<b>30</b>	<b>12</b>	<b>74</b>	<b>26</b>
	Govt	318	38	18	8	55	8
	Pvt	152	88	12	4	19	18
<b>Primary Healthcare centers</b>	<b>Total</b>	<b>2,325</b>	<b>150</b>	<b>96</b>	<b>24</b>	<b>266</b>	<b>124</b>
	Govt	2,325	150	96	24	266	28
	Pvt	-	-	-	-	-	96
<b>Clinics</b>	<b>Total</b>	<b>2,754</b>	<b>3,047</b>	<b>687</b>	<b>240</b>	<b>1105</b>	<b>295</b>
	Govt	-	120	337	-	-	-
	Pvt	2,754	2,927	350	240	1105	295
<b>Pharmacies</b>	<b>Total</b>	<b>6,942</b>	<b>1,500</b>	<b>500</b>	<b>250</b>	<b>672</b>	<b>141</b>
<b>Payors</b>	<b>Total</b>	<b>59</b>	<b>98</b>	<b>39</b>	<b>29</b>	<b>34</b>	<b>53</b>
Health Insurance Companies	Total	49	82	34	24	29	48
Third Party Administrators	Total	10	16	5	5	5	5
<b>Medical Suppliers</b>	<b>Total</b>	<b>587</b>	<b>201</b>	<b>110</b>	<b>81</b>	<b>45</b>	<b>34</b>
Medical device distributors	Total	527	141	54	39	21	22
Pharmaceutical distributors	Total	50	52	55	41	22	11
Pharmaceutical factory	Total	10	8	1	1	2	1

Table-3



## Key Industry Indicators and Ratios for 2018

There are five important key indicators are considered as most important sources for the gap analysis of health infrastructure of a country. These key indicators include the following: number of beds, physicians, nurses, pharmacist and allied health professionals (AHP) which include assistant pharmacists, lab and imaging technicians. These health indicators or ratios have been calculated with respect to the population of the GCC countries. According to population statistics the current population (up to 2016) of GCC is 56.12 million, of which 60% population is in Saudi Arabia, 17% in UAE, 7% in Kuwait, 8% in Oman, 5% in Qatar and 3% in Bahrain.

GCC population growth has been calculated with an average and conservative Compound Annual Growth Rate (CAGR) of 2% and is expected to reach 59.41 million by 2022.

Health indicator particulars	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
Population (in million) in 2018	33.41	9.51	4.18	4.79	2.68	1.55	56.12
Population (in million) in 2022	35.4	10.3	4.50	4.72	2.73	1.76	59.41

As a compilation, the total number of Beds 90,426, Physicians 110,039, Nurses 224,509, Pharmacist 27,502 and AHP 127,023, with a further breakdown by country as follows:

GCC Health Indicators 2018	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
Beds	70,844	12,792	8,119	6,589	2,226	2,500	103,070
Physicians	89,675	22,195	9,145	8,622	4,613	3,849	138,099
Nurses	180,821	51,777	22,234	19,760	10,615	6,612	291,819
Pharmacist	25,119	6,871	2,400	2,420	980	779	38,569
Allied Health professionals(AHP)*	107,323	21,455	10,600	9,200	6,241	3,117	157,936

Table-4

With respect to each health indicator ratio per 1000 population, the GCC ratio for beds/1000 is 1.6 compared to 5.2 beds/000 in the OECD, for physicians/000 is 2.1 compared to 3.2 in the OECD, for nurses/000s is 4.6 compared to 8.8 in the OECD, for pharmacist/000 is 0.6 and allied health professional/000 is 2.5. Among GCC countries, highest & lowest health indicator ratio for beds is KSA 2.1 and Qatar 1.0 respectively, for physicians Bahrain 2.6 and Oman 1.5, for nurses Kuwait 5.6 and UAE 3.4, for pharmacist almost equal ratio with 0.6, for AHP Qatar 3.0 and Bahrain 2.3

GCC Health indicators per 000s population in 2018	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC Average
Beds	2.2	1.2	2.0	1.5	1.0	1.9	1.6
Physicians	2.8	1.7	2.3	1.5	2.1	2.6	2.1
Nurses	5.7	3.4	5.6	4.0	4.9	4.7	4.6
Pharmacist	0.8	0.6	0.6	0.6	0.5	0.6	0.6
Allied Health professionals (AHP)*	3.4	2.3	2.7	2.5	2.9	2.0	2.5

Table-5.0, \*The Allied Health Staff include the number of Asst. pharmacists, imaging and lab technicians.

The report also calculates each health indicator with respect to the number of beds, the GCC average of bed to physician ratio is 1.4, bed to nurse ratio is 3.0, bed to pharmacist ratio is 0.4 and bed to AHP ratio is 1.7. The highest & lowest ratio for bed to physician is Qatar 2.1 and KSA 1.2 respectively, for bed to nurses is Qatar 4.8 and KSA 2.3, for bed to pharmacist is UAE 0.5 and KSA, Kuwait, Bahrain 0.3, and bed to AHP is Qatar 2.8 and Bahrain 1.1

Health indicator ratios per bed	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC Average
Physicians	1.2	1.4	1.1	0.9	2.1	1.4	1.4
Nurses	2.3	2.8	2.7	2.6	4.8	2.5	3.0
Pharmacist	0.3	0.5	0.3	0.4	0.4	0.3	0.4
Allied Health professionals(AHP)	1.3	1.9	1.3	1.6	2.8	1.1	1.7

Table-6

## Volume and Value of Planned Mega Projects

In this section, the report only included projects above 100mn USD and focused on both Healthcare Service Providers and Suppliers

### Health Service Providers:

The GCC healthcare provider subsector still trails international benchmarks even though it has been growing rapidly over the past few years. Supported by larger healthcare budgets, the GCC countries have embarked on ambitious healthcare infrastructure building programs. Such large medical cities and complexes, with billions of dollars of investments lined up, are expected to not only equip the region with much needed additional medical infrastructure but also raise the quality of healthcare services in the region. The table below includes the original projected completion year, from our analysis 11 hospital projects are significantly delayed, representing 44% of total mega projects in the GCC.

Country	Selected Hospital Project Name	No. of Beds	Value \$ Mn	Cost per bed	Original Completion Year (Est)	On Track (Y/N)
<b>KSA</b>						
	Security force medical complex (Riyadh & Medina) <sup>3</sup>	3,000	7,000	0.43	2020	Y
	King Faisal medical city <sup>5</sup>	1,350	1,200	1.13	2018	N
	Prince Mohd Bin Abdul Aziz Medical City in Al Jouf <sup>6</sup>	1,000	310	3.23	2016	N
	King Khaled <sup>8</sup>	500	1,200	0.42	2017	N
	<b>Total</b>	<b>5,850</b>	<b>9,710</b>	<b>1.66</b>		
<b>UAE</b>						
	Expansion of Al-Ain Hospital, UAE	688	720	0.96	2017	N

	Burjeel medical city (1.5\$ bn plan)	400	380	1.05	2017	N
	Fakeeh Medical University-Teaching hospital @DSO <sup>15</sup>	300	270	1.11	2019	Y
	Medanta (India) at DHCC <sup>18</sup>	250	100	2.50	2017	N
	<b>Total</b>	<b>1,638</b>	<b>1,470</b>	<b>0.90</b>		
<b>Kuwait</b>						
	Jaber Hospital	1,168	1,082	0.93	2012	N
	Jahra <sup>21</sup>	1,200	1,000	1.20	N/A	Y
	Farwaniya <sup>21</sup>	955	850	1.12	2019	Y
	Al Adan <sup>21</sup>	637	740	0.86	N/A	N
	Kuwait Cancer Center <sup>21</sup>	618	550	1.12	2018	Y
	Sabah <sup>21</sup>	617	570	1.08	2019	Y
	Kuwait University <sup>21</sup>	600	100	6.00	N/A	Y
	Amiri <sup>21</sup>	415	320	1.30	2017	N
	Infectious Diseases Hospital <sup>21</sup>	224	170	1.32	N/A	N
	Kuwait Maternity Hospital	780	817	1.05	N/A	N
		<b>7,214</b>	<b>6,199</b>	<b>0.86</b>		
<b>Oman</b>						
	Muscat General Hospital (ROP) <sup>22</sup>	600	550	1.09	2018	Y

	International Medical City (21 tertiary specialty divisions) <sup>23</sup>	530	1,000	0.53	2016	N
	Sultan Qaboos Medical City (5 tertiary specialty divisions) <sup>24</sup>	400	1,500	0.27	2020	Y
	Al Suwayq General Hospital	300	220	1.36	2018	Y
	<b>Total</b>	<b>1,830</b>	<b>3,270</b>	<b>1.79</b>		
<b>Qatar</b>						
	Sidra Medical and Research Centre <sup>28</sup>	653	2,400	0.27	2015	N
	Al Khor Hospital expansion <sup>29</sup>	500	130	3.85	2018	Y
	<b>Total</b>	<b>1,153</b>	<b>2,530</b>	<b>2.19</b>		
<b>Bahrain</b>						
	New Cardiac Center <sup>31</sup>	150	110	1.36	2018	Y
	King Abdullah Medical City	288	260	0.90	N/A	Y
	<b>Total</b>	<b>438</b>	<b>370</b>	<b>0.84</b>		

Table-7

### Medical Supply Companies:

Country Name	Pharmaceutical Industry Projects	Value USD \$ Mn
<b>Oman</b>	Felix Pharmaceutical Industries	365
	<b>Total</b>	<b>365</b>

Table-8

### Manpower Requirements for Existing Planned Mega-Projects:

There are 26 mega hospital projects in the GCC that are in active stages of development and are worth over 100 Mn USD. These projects are expected to be completed in 2020. The total investment cost of these projects is

calculated as **USD 23.5 Bn** and are expected to add a total of 18,123 beds. The calculated average cost per bed is USD 1.30 Mn.

GCC Hospital Projects Under Development	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
No. of Hospitals	4	4	10	4	2	2	26
Value of projects in \$ Mn	9,710	1,470	6,199	3,270	2,530	370	23,535
No. of Beds	5,850	1,638	7,214	1,830	1,153	438	18,123
Cost per bed in USD Mn.	1.66	0.90	0.86	1.79	2.19	0.84	1.30

Table-9

For existing mega projects in GCC, significant additional manpower resources are required for to fulfil the quality healthcare services.

The region will require at least 21,933 doctors, 48,908 nurses, 6,065 pharmacists and 26,736 Allied health professionals to staff these projects in order to maintain the similar GCC ratios calculated above.

Resources Required	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
Physician	7,020	2,294	7936	1,647	2,422	614	21,933
Nurses	13,455	4,587	19478	4,758	5,535	1,095	48,908
Pharmacist	1,755	819	2165	732	462	132	6,065
AHP	7,605	3,113	9379	2,928	3,229	482	26,736

Table-10

Furthermore, the region will require around 1.8 million hours of continuing medical education (CME) in order to maintain the basic training needs for quality healthcare services, as it is mandatory to provide healthcare related

training required for healthcare professionals such as physicians as well as nurses, pharmacist and AHP in some GCC countries. The total training hours required per country are calculated as follows:

Training hours required	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
Physician - 30hrs/year	210,600	68,820	238,080	49,410	72,660	18,420	657,990
Nurses - 15hrs/year	201,825	68,825	292,170	71,370	83,025	16,425	664,884
Pharmacist - 15hrs/year	26,325	12,285	32,475	10,980	6,930	1,980	90,975
AHP - 15hrs/year	114,075	46,695	140,685	43,920	48,435	7,230	401,040

Table-11



## Gap Analysis

Next, the report will calculate the gap analysis for all health indicators (bed, physician, nurses, pharmacist and allied health professional) for current year (2018) and future (2022) based on three standard sets of indicators including:

- Based on current OECD Average – Aggressive Case
- Based on current GCC Maximum – Improved Case
- Based on current GCC Average – Base Case

These three standards can be thought of as different scenarios for a sensitivity analysis. The base case would be for the GCC to maintain its healthcare indicators according to the current GCC Average Scenario, this scenario will have a limited impact on most of the GCC countries as the ratios are fairly close to one another however the gap would be significantly improved. The same can be expected of the GCC Maximum Scenario as there is a limited difference between the leading GCC country and the average.

However, due to the increasing disparity between the OECD and the GCC, the OECD Average Scenario is the most aggressive one and will require the most amount of financial and human resources to address the gap.

### Based on OECD Average – Aggressive Case Scenario

The gap value is derived by the difference between the health indicator ratio of the OECD average and the respective GCC country's value. This value of difference is then multiplied by current population as well as the forecasted population in 2022. The future gap in 2022 also assumes that numbers of hospital projects under construction are completed within the next five years and are staffed accordingly. We also assume the average hospital size to be 200 beds to calculate the gap in the number of hospitals.

In this scenario, the GCC will thus require a little under 1,000 new hospitals by 2022 at an estimated cost of 224 Bn USD in order to maintain the current OECD average. These hospitals will require over 57,000 physicians and 230,000 nurses to staff the 166,000 beds that need to be added in order to obtain the OECD average. According to a compilation of the current mega-projects, the 18,123 beds planned across the GCC will only meet 10.7% of the future beds that will be required by 2022 to reach the current OECD average.

Gap based on OECD Average	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
<b>Number of Beds</b>							
Current Gap 2018	83,525	33,285	11,286	15,328	9,916	4,340	157,680
Future Gap 2022	88,500	36,050	12,150	15,104	10,101	4,928	166,833
<b>Number of Physicians</b>							
Current Gap 2018	20,046	16,167	4,598	9,101	3,484	1,240	54,636
Future Gap 2022	21,240	17,510	4,950	8,968	3,549	1,408	57,625
<b>Number of Nurses</b>							
Current Gap 2018	110,253	53,256	14,212	23,950	10,988	6,665	219,324
Future Gap 2022	116,820	57,680	15,300	23,600	11,193	7,568	232,161
<b>*Total estimated cost of beds in USD Mn.</b>	131969	37944	8690	21919	20426	3081	224,029
<b>No. of Hospital Projects (200 bed) Needed by 2022</b>	<b>443</b>	<b>181</b>	<b>61</b>	<b>76</b>	<b>51</b>	<b>25</b>	<b>921</b>

Table-12.0

### Based on GCC Maximum – Improved Case Scenario

The gap value is derived by the difference between the health indicator ratio of the maximum value of GCC's countries and the respective GCC country's value. This delta is then multiplied by current population as well as the forecasted population in 2020. Since Saudi Arabia has the highest value of health indicators among the GCC countries, it's values were taken as a reference.

Gap Based on GCC's Maximum Ratio	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
<b>Number of Beds</b>							
Current Gap 2018	N/A	9,510	836	3,353	3,216	465	17,380
Future Gap 2022	N/A	10,300	900	3,304	3,276	528	18,308
<b>Number of Physicians</b>							

Current Gap 2018	N/A	10,461	2,090	6,227	1,876	310	20,964
Future Gap 2022	N/A	11,330	2,250	6,136	1,911	352	21,979
<b>Number of Nurses</b>							
Current Gap 2018	N/A	21,873	418	8,143	2,144	1,550	34,128
Future Gap 2022	N/A	23,690	450	8,024	2,184	1760	36,108
<b>Number of Pharmacists</b>							
Current Gap 2018	N/A	1,902	836	958	804	310	4,810
Future Gap 2022	N/A	10,461	2,926	4,311	1,340	2,170	21,208
<b>Number of AHPs</b>							
Current Gap 2018	N/A	10,461	2,926	4,311	1,340	2,170	21,208
Future Gap 2022	N/A	11,330	3,150	4,248	1,365	2,464	22,557
<b>*Total estimated cost of beds in USD Mn.</b>	N/A	8,289	10,842	644	4,795	6,625	31,195
<b>No. of Hospital projects (200 bed)</b>	N/A	<b>51</b>	<b>5</b>	<b>17</b>	<b>17</b>	<b>3</b>	<b>93</b>

Table-13

In this scenario, the GCC countries excluding Saudi Arabia will thus require around 93 new hospitals by 2022 at an estimated cost of 31.2 Bn USD in order to reach the current GCC Maximum level. These hospitals will require over 21,000 physicians and 36,000 nurses to staff the 18,308 beds that need to be added in order to reach the current GCC maximum level. According to a compilation of the current mega-projects, the 12,273 beds planned across UAE, Kuwait, Oman, Bahrain, and Qatar will meet 67.0% of the future beds that will be required by 2022 to maintain the current GCC Maximum level.

## Based on GCC Average – Base Case Scenario

The gap value is derived by the difference between the health indicator ratio of the GCC average and the respective GCC country's value. This delta is then multiplied by the current population as well as the forecasted population to be in 2020. Negative numbers should be interpreted as an oversupply.

In this scenario, most GCC countries will not require any new hospitals by 2022 with the exception of the UAE, Oman and Qatar. UAE and Oman are the only countries which would require an increased number of physicians and nurses. Saudi Arabia and Kuwait have surpassed the GCC average in all categories. UAE, Oman, and Qatar would require 33 hospitals at an estimated cost of 8 Bn USD to be able to meet the GCC base scenario. These hospitals would need over 6,000 physicians and 15,000 nurses for these countries to reach the current GCC base level.

Gap Based on GCC's Average Ratio	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	GCC
<b>Number of Beds</b>							
Current Gap 2018	-20046	3804	-1672	479	1608	-465	N/A
Future Gap 2022	-21240	4120	-1800	472	1638	-528	N/A
<b>Number of Physicians</b>							
Current Gap 2018	-23387	3804	-836	2874	0	-775	N/A
Future Gap 2022	-24780	4120	-900	2832	0	-880	N/A
<b>Number of Nurses</b>							
Current Gap 2018	-38940	11412	-4180	2874	-804	-155	N/A
Future Gap 2022	-38940	12360	-4500	2832	-819	-176	N/A
<b>Number of Pharmacists</b>							
Current Gap 2018	0	0	0	0	268	0	N/A
Future Gap 2022	-7080	0	0	0	273	0	N/A
<b>Number of AHPs</b>							

Current Gap 2018	0	1902	-836	0	-1072	775	N/A
Future Gap 2022	-31860	2060	-900	0	-1092	880	N/A
<b>*Total estimated cost of beds in USD Mn.</b>	N/A	4,337	N/A	685	3,313	N/A	8,335
<b>No. of Hospital projects (200 bed)</b>	N/A	21	N/A	3	9	N/A	33

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## New Healthcare Facilities opened in 2017/18 in GCC

### Bahrain

#### New Al Hilal Multi-Specialty Center opened, 29 April, 2018

The new **Al Hilal Multi-Specialty Medical Center** Manama will be inaugurated tomorrow by **Dr. Faeqa Bint Saeed Al Saleh**, Minister of Health. The center is a part of Al-Hilal Hospital and Badr Al-Samaa Group of Hospitals and Polyclinics which has hospitals, clinics and medical centers in Oman, Qatar, Kuwait, UAE and KSA.

#### Bahrain to build new hi-tech medical city, 30 January, 2018

Bahrain is set to build a new integrated medical city complex in the north of Muharraq governorate of the kingdom which will include a maternity hospital, a sclerosis therapy center and an elderly-care facility, said a report.

Under the \$260-million first phase, a 288-bed hospital supported by on-site staff housing and other communal facilities will be developed, followed by the setting up of medical clinics, medical services building, specialized research centers in the prevailing diseases in the GCC region, including cancer, diabetes and obesity in the next phase.

### Kuwait

#### Kuwait, Badr Al Samaa Group of Hospital, 26 March, 2017

Badr Al Samaa Group of Hospitals, the number one private hospitals group in Sultanate of Oman, has opened its first venture in Kuwait — the **Badr Al Samaa Medical Centre** in Farwaniya.

Badr Al Samaa Medical Centre, Farwaniya is centrally located and provides easy access for families. Our long-term plan is to establish 5 medical institutions in prominent areas of Kuwait in the next 3 years.” Badr Al Samaa Medical Centre, Farwaniya offers specialist treatment in Urology, Internal Medicine, Gynecology, General Surgery, Pediatrics, Orthopedics, Ophthalmology, ENT, Dentistry, Laboratory, Radiology, 24-hour Accident and Emergency services, Ambulance services and a Pharmacy.

## Kuwait, Al Ahmadi Hospital

**His Highness the Emir Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah** patronized and attended the opening ceremony of **Al-Ahmadi Hospital**. The new Al Ahmadi Hospital was constructed on an area of 380,000 square meters with new facilities and areas costing around KD 94 million.

## Kuwait, Al-Farwaniya Dental Centre

The launch of '**Al-Farwaniya Dental Centre**' was part of a national development plan that aims to propel Kuwaiti healthcare to new levels, Kuwait's health minister said on Sunday.

The remarks by **Dr. Jamal Al-Harbi** came in a ceremony to open the sprawling facility in Kuwait's Farwaniya governorate, which stretches over 23,000 square meters -- at a cost of KD 15.7 million (USD 51.8 million).

On the clinic, Al-Harbi revealed that it features a basement and three floors, in addition to an operating room, a laboratory, auditorium and parking lot that accommodates 1,400 vehicles.

The minister of health pointed out that the center offers a wide array of dental procedures in a facility that boasts a 4,000-member strong workforce. Al-Harbi pointed out that the dental industry has made significant progress in Kuwait, where the number of dentists has skyrocketed to 1,971 physicians, up from 686 back at the start of the new millennium.

## Oman

### Starcare expands in Muscat with a new medical center at Bausher, March 6, 2018

**Starcare Group** opened its new medical center facility in the fast-growing part of Bausher, Muscat in a ceremony attended by **Dr. Mazen Al Khabouri**, director-general of Private Health Establishments of Ministry of Health.

Starcare Medical Centre, Bausher is a complete family medical center with all the commonly needed medical specialties like pediatrics, gynecology, orthopedics, ENT, radiology, dermatology and family medicine along with many super-specialties like cardiology, neurology, urology, psychiatry and endocrinology.

## Qatar

### Emir inaugurates three new Medical City hospitals, 17 December, 2017

**Emir H H Sheikh Tamim Bin Hamad Al Thani** officially inaugurated **Hamad Medical Corporation's (HMC)** new Medical City complex today. The new hospitals are part of the region's biggest healthcare facility expansion project and will house 500 new hospital beds and 3,000 highly trained clinical and support staff.

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## Saudi Arabia

### Bids submitted to advise on privatization of 55 Saudi healthcare centers, 02 May, 2017

Saudi Arabia's Ministry of Health is reviewing bids to act as financial adviser for the privatization of 55 primary healthcare centers in Riyadh. The privatization is part of the government's plan to ease the strain on state coffers from low oil prices by placing industries ranging from healthcare to airports in private hands.

## United Arab Emirates

### Middle East's largest health center opens in the UAE, 22 December, 2017

VPS Healthcare launches **Burjeel Day Surgery Centre** on Reem Island; includes 64 consulting suites.

VPS Healthcare has launched its flagship Burjeel Day Surgery Centre at the Arc Tower, Reem Island which it said is the largest in the Middle East. With 36 specialized physicians, 60 nurses and over 100 support staff, the center is the only medical facility at Reem Island and also provides Ayurveda treatment – an ancient system of Indian medicine, along with other specialties.

The **Burjeel Day Surgery Centre** facility has a total of 64 consulting suites, three operating theatres, three endoscopy suites, two recovery rooms, 24 daycare beds and a robotic pharmacy. It offers a wide range of services including cardiology, dentistry, dermatology and cosmetology, pediatrics, family medicine, ENT, internal medicine and physiotherapy.

### New healthcare firm launched in Abu Dhabi, 04 November, 2017

Capital Health plans to create specialized hospitals and medical centers for UAE residents and medical tourists. A new integrated healthcare group has been launched in Abu Dhabi. Capital Health said in a statement that it plans to create specialized hospitals and medical centers to serve the needs of UAE residents and medical tourists. In line with UAE Vision 2021 and Plan Abu Dhabi 2030, the company said it will "pioneer new healthcare models and offer breakthrough technologies to provide patients with best in class care".

Capital Health added that it currently has two flagship facilities in Abu Dhabi under development. The 166-bed Specialized Rehabilitation Hospital (SRH) will provide acute and long-term rehabilitation care, along with in-patient, out-patient and home care capabilities while the **Health Shield Medical Centre (HSMC)** will be a multi-specialty healthcare facility located in the Al Qurm district. The company said SRH will be the UAE's first fully



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acute, sub-acute and long-term rehabilitation facility with outpatient capabilities, which will bring the latest bionics and robotics to the region.

### **UAE launches free mobile breast cancer clinics, 02 June, 2017**

Breast cancer screening campaign for all UAE women citizens and residents started by health chiefs.

The UAE's Ministry of Health and Prevention has launched a free-of-charge early breast cancer screening campaign for all UAE women citizens and residents. The healthcare initiative, which started this week and runs across the UAE until next month, aims to increase the overall survival rate of people with the disease, a statement said. Mobile clinics equipped with mammography technology will be deployed in several shopping centers in the Northern Emirates, where a dedicated platform will also be set up to receive applications and reach out to larger number of women. The campaign is within the framework of the move to declare 2017 as the 'Year of Giving' by **Sheikh Khalifa bin Zayed Al Nahyan**, President of the UAE, the statement added.

### **Now Dubai cabbies get their own dedicated clinic, 13 July, 2017**

Dubai Taxi Corporation launches healthcare first for drivers, pharmacy to follow

The **Dubai Taxi Corporation (DTC)** has launched its first clinic dedicated to the healthcare of its drivers. The Road and Transport Authority (RTA) unit said in a statement that the clinic is located at its headquarters in Muhaisna and offers medical advice and preventive care to cab drivers. "This newly opened clinic is part of DTC's strategy to broaden the scope of its services on offer to cab drivers and meet their needs. It also adds to the series of achievements made by the DTC towards enhancing the happiness and job satisfaction of its employees including drivers," said **Dr. Yousef Mohammed Al Ali**, CEO of Dubai Taxi Corporation.

The clinic is fitted with facilities including x-ray machines and a diagnostic laboratory. It has a team of medical professionals specialized in general medicine (GPs) as well as specialists in orthopedics, ophthalmology, pulmonary and cardiac diseases, hypertension, diabetes, obesity, and venereal diseases. It also has a dedicated ward for critical injuries, said Al Ali. The clinic opens daily from Saturday to Thursday, from 7am to 11pm, and on Fridays from 8am to 8pm. A plan is in place to open an affiliated pharmacy so that cabbies can easily obtain their prescribed medicines, added Al Ali.

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## New Initiatives / Deals Signed in 2017/18 in GCC

### Bahrain

#### AGU awards contracts for mega Bahrain medical city, 07 January, 2018

The Arabian Gulf University has awarded the first of the contracts for the construction of the multi-million **King Abdullah bin Abdulaziz Medical City**, a multiple-phased development to come up on a one-million-sq-m area in Bahrain, said a report.

A mixed-use development, the project comprises academic and medical facilities, a research center, on-site accommodation and other communal facilities to create a self-sustained campus.

Under the \$260-million first phase, a 288-bed hospital supported by on-site staff housing and other communal facilities will be developed, followed by the setting up of medical clinics, medical services building, specialized research centers in the prevailing diseases in the GCC region, including cancer, diabetes and obesity in the next phase.

### Kuwait

#### DHAMAN, IBM to establish an advanced technological healthcare system in Kuwait, 23 April, 2018

In a pioneering step made in line with Kuwait's development plan and Vision 2035 "New Kuwait", **Health Assurance Hospitals Company (DHAMAN)** today signed a Strategic Partnership Agreement with multinational technology company IBM, for the development of the Digital Health System and the launch of the Kuwait Digital Health Roadmap Initiative. Through the agreement DHAMAN aims to become a regional leader in the technological healthcare sector by 2020.

Opening the doors for further cooperation and the development of the industry in Kuwait through IBM's breakthrough technology and world-renowned experience; DHAMAN will establish a Digital Health System and launch the Kuwait Digital Health Roadmap Initiative to advance and digitize the healthcare sector including the management of Electronic Medical records and providing high-quality services to all beneficiaries in a professional and efficient manner. The agreement aims to achieve a qualitative leap in the quality of services provided to the public to increase efficiency, reduce operational costs and waste, and optimize capital assets and equipment. It will also link and integrate different departments at Kuwait's Ministry of Health, which will permit the ministry to monitor health facilities and real time performance management.

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## Oman

### Italian firms ink deal to develop hospital in Oman, 13 May, 2017

Two Italian companies have signed an agreement to develop a hospital project in Oman. Oman-based **AI Medina Real Estate** said in a statement that it signed a memorandum of understanding with the **ICM Maltauro Group and F&M Ingegneria**. The terms of the agreement outline the cooperation between the companies in developing a multi-specialty hospital project in the sultanate. The statement said opportunities are to be explored across Oman and a proposal will be submitted in due course. The project is expected to be developed under a public-private partnership (PPP) model.

### Carillion Alawi awarded \$316mn Sultan Qaboos hospital contract, 16 November, 2017

The infrastructure solutions company, **Carillion Alawi**, has won an OMR121.6mn (US\$316m) contract for work on the **Sultan Qaboos Hospital project in Oman**. Carillion Alawi is a 50:50 joint venture between the Zawawi family and UK-based Carillion plc. The project will commence as soon as Oman's Ministry of Health has finalized the contract and will cover a 20-hectare area of land in Salalah. The company will develop a seven-floor building with an initial capacity for 620 beds.

### Abeer Medical Group launches first hospital in Ruwi, 25 February, 2018

**Abeer Medical Group** recently had a soft launch of its first hospital at Ruwi, marking its entry into the sultanate. Arguably the fastest growing healthcare network in the Middle East, Abeer Medical Group has established its presence in Saudi Arabia, Qatar, the UAE, Kuwait, India and Oman. Abeer Hospital in Ruwi is a multispecialty modern medical facility. Abeer Medical Group is holding and operating six hospitals and 25 medical centers across the GCC and India.

## Qatar

### Avanzcare, MMG Hospital group sign MoU for medical facility, 28 August, 2017

A Qatari-owned advanced healthcare solutions provider and a Philippine-based medical organization have recently signed a memorandum of understanding (MoU) for the establishment of a world-class medical facility in Doha.

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Under the agreement, the facility will be operated in partnership with **Avanzcare**, Al Sawari Holding's company in the medical sector, and MMG Hospital group.

Avanzcare is serving the healthcare sector through pharmaceutical distribution, manufacturing, healthcare centers, retailing, and co-marketing, while MMG Hospital group is the organization that is setting up polyclinics and a Filipino hospital in Qatar.

## United Arab Emirates

### UAE's Manazel inks deal to explore specialist autism school, 11 December, 2017

Developer signs agreement with US-based May Institute to assess need for school in the UAE

**Manazel Real Estate** has entered into an agreement with US-based **May Institute** to explore the need for a school for children with autism spectrum disorder in the UAE.

The memorandum of understanding reflects the shared goals of Manazel and May Institute to support children on the autism spectrum, a statement said.

May Institute is one of the largest providers of special education schools and services for children, adolescents, and adults with autism and other special needs in the US. The non-profit organization will deliver due diligence services to Manazel to explore this project.

Manazel's chairman **Mohamed M Al Qubaisi** said: "I am delighted to announce this strategic alliance with May Institute, which reflects our constant search for opportunities that lead towards growth momentum and the company's commitment to its on-going expansion strategy to enter new growth and niche markets.

"We continue to work towards achieving the Abu Dhabi Economic Vision 2030 by taking sound steps and studying endeavors which deliver unique and creative real estate projects for the greater community.

"In the pursuit of delivering optimal shareholder value, Manazel remains focused on pursuing opportunities that complements its overall business strategy while also fulfilling the UAE's efforts to support individuals with disabilities in order for them to be active members of society."

**Dr. Lauren C Solotar**, president and CEO of May Institute, added: “We look forward to collaborating with Manazel on this assessment and are pleased to share our expertise with the UAE.

“As the number of individuals diagnosed with autism increases across the globe, the need for effective, research-based interventions is more critical than ever.”

### **Sharjah plans new \$270m healthcare hub in deal with Canada, Sat 16 September, 2017**

Agreement includes hospital specializing in pediatrics, obstetrics and gynecology and a research center dedicated to childhood illnesses

A hospital specializing in pediatrics, obstetrics and gynecology and a research center dedicated to childhood illnesses costing AED1 billion (\$270 million) are to be built in Sharjah. The healthcare plan is part of a memorandum of understanding (MoU) signed with the Canadian Trade Commissioner Service to strengthen cooperation to improve the emirate’s medical services. The five-year renewable agreement comes as part of joint efforts by Sharjah and Canada to open up channels of investment in medical projects, exchange expertise and further advance the quality of healthcare in compliance with international standards, a statement said.

Under the MoU, the Canadian government and emirate of Sharjah will set out a range of action plans and strategies for healthcare related investment projects, it added. **Sheikha Jawaher Al Qasimi**, wife of the Sharjah ruler, said: “The MoU truly reflects the UAE’s approach to activate international relations in terms of the health sectors. Sharjah regards medical excellence as one of its primary priorities and is committed to achieving an unrivalled healthcare environment, from infrastructure and health facilities to management strategies and elite medical staff.” Sharjah recently announced plans for Sharjah Healthcare City which will cover an area of 2.4 million square meters. The first phase of the project is valued at AED600 million, and the city is expected to be completed by 2020.

### **UAE approves funding for new \$330m projects, 26 September, 2017**

Main funding package approved is for the Sheikh Khalifa Central Hospital in Fujairah

The UAE has approved funding for projects worth AED1.2 billion (\$330 million) across the country including a new hospital for Fujairah. According to state news agency WAM, the Follow-up Committee of the Initiatives of the UAE President, **Sheikh Khalifa bin Zayed Al Nahyan**, has approved the funding.

The main funding package approved was for the Sheikh Khalifa Central Hospital in Fujairah which will be built at a total cost of AED865.9 million (\$235.7 million). With a capacity of up to 300 beds, the hospital will provide 24-hour services to patients. It consists of 11 specialized departments, outpatient clinics and a 32-bed emergency ward. The hospital will also have a three-storey rehabilitation center housed in a separate building and 673 parking spots, WAM reported. The committee also adopted a number of infrastructure and road projects, which include the awarding of a new road project linking the Sheikh Khalifa Road from Maliha passing through Madam up to Al Shuwaib, valued at AED323 million. The initiative also includes funding for a number of internal roads and parking works in the residential complexes of Ras Al Khaimah and Fujairah to the tune of AED12.4 million.

### **Dubai says 12 new private hospitals to open by 2020, 03 July, 2017**

Dubai Health Authority also says another seven hospitals will undergo expansion to add 750 beds. Twelve new private hospitals will open in Dubai by 2020, taking the total number of private hospitals in the emirate to 38, **Dubai Health Authority (DHA)** has announced.

The authority's Health Regulation Department said in a statement that there will be 12 new private hospitals in the next three years adding 875 beds. Another seven hospitals are undergoing expansion to include an extra 750 beds, the statement added.

Earlier this week, the authority said that the number of private medical health facilities in Dubai grew by four percent to more than 3,000 in the second quarter of this year compared to the first quarter.

They include hospitals, fertility centers, one-day-surgery centers, specialized and general medical complexes, dental treatment centers and laboratories, pharmacies and health examination and house nursing facilities.

The Health Regulation Department also said that there are more than 36,055 licensed physicians in the medical private sector of Dubai, out of which 13,594 are new licenses.

**Dr. Marwan Al Mulla**, director of the Health Regulation Department, said these figures prove that Dubai has succeeded in attracting investment in the healthcare sector.

Al Mulla added that to meet these growing developments, the authority is developing its regulatory standards to ensure the delivery of high medical standards that exceed expectations, and to provide the emirate with skilled and highly qualified health professionals.

### **Dubai medical tourism receipts rise to \$390m, 09 June, 2017**

Dubai Health Authority also says number of medical tourists increase by 9.5% to over 326,000

Medical tourism in Dubai yielded revenues of around AED1.42 billion (\$390 million) in 2016, up marginally from AED1.40 billion in the previous year, according to new figures.

**Dubai Health Authority (DHA)** said in a statement cited by state news agency WAM that the number of incoming wellness tourist arrivals amounted to 326,640 in 2016, a 9.5 percent growth over the previous year.

The emirate is now "a sought-after destination for recuperative tourism", said **Dr. Layla Al Marzouqi**, director of the DHA Medical Tourism Council.

Ages of wellness tourists who visited medical facilities in Dubai from outside the country ranged from 25 to 45 years, she said, noting that the medical specialties that were in heavy demand were orthopedics, dermatology and ophthalmology.

"The DHA's strategy is premised to boost the emirate's competitiveness and enhance its position on the global medical tourism scene," she said. Dubai aims to attract more than 500,000 medical tourists by 2020.

### **UAE sets out plan to become major global pharma hub, 09 June, 2017**

Country aims to double number of drugs manufacturing factories by 2021, attract more pharma firms

The UAE has unveiled plans to establish itself as a global hub for international pharmaceutical companies, with the number of manufacturing factories set to double by 2021.

The UAE Ministry of Health and Prevention and **Jafza**, a DP World company, have signed a memorandum of understanding for the development of the healthcare and pharmaceutical sector in the country.

Under the agreement, the UAE aims to attract more than 75 major pharmaceutical firms by 2021 up from the current 54 today, with investments of up to AED2 billion annually.

The number of drugs manufacturing factories is expected to grow from 17 to 34 in the same period.

The agreement is part of Jafza's efforts to enhance the healthcare sector by providing the environment for companies to grow and establish Made in Dubai pharmaceutical products, a statement said.



It added that Jafza will develop details for the licensing of pharmaceutical factories within the Free Zone and help them promote public health.

Both organizations said they will exchange knowledge and remove any barriers to the development of the pharmaceutical sector in the Free Zone. They will also review the process of obtaining approvals and permits from the Ministry, enabling Jafza to attract more foreign investment in the sector.

DP World Group chairman and CEO, **Sultan Ahmed bin Sulayem**, said: “This is a major step forward in efforts to raise the competitiveness of the pharmaceutical industry in the country.

“The ultimate aim is to manufacture high quality medicines and healthcare products in Dubai comparable to those around the world with our focus on boosting investment in research and development, and attracting qualified professionals.”

In 2016, the market value of drugs in the UAE amounted to AED9.61 billion. By 2020, spending on medicine is expected to reach AED13.13 billion and by 2025 AED21.74 billion, driven by population growth, changing morbidity and the use of modern medicines such as biotechnology drugs, the statement said.

Multinational companies in the healthcare and pharmaceutical sector are currently based in Jafza, such as Johnson & Johnson, Colgate, Roche, Sanofi, GlaxoSmithKline and Quest Vitamins.

## Kuwait

### Hospital contract worth \$817mln awarded in Kuwait 19 March, 2017

New facility intended to bring together all aspects of maternity care into single complex

A joint venture (JV) between **SSH** and **Studio Altieri** has been appointed as the main design consultancy for the **Kuwait New Maternity Hospital (KNMH)**.

The JV company will work in conjunction with the appointed design-and-build (D&B) contractor, Impresa Pizzarotti.



The total contract value is \$817m (KWD250m) and is to be delivered within a 54-month timeframe. Site work commenced in January 2017. KNMH is to be developed as part of a national hospital regeneration program, headed by Kuwait's Ministry of Health (MOH). The hospital is located west of Kuwait City within the Al Sabah Specialty Medical Area. It has been planned by the Ministry of Public Works (MPW), in association with the MOH as the end user.

The new facility is intended to bring together all aspects of maternity care into a single complex to form a specialist hospital. The project will comprise a main hospital building, which will include a basement, ground, and podium over six levels, plus 11 levels of inpatient accommodation.

The complex will also house an annex building, consisting of outpatient clinics, an auditorium, and administrative facilities. A multi-story car park with two basements, a ground floor, five podium levels, and shaded roof parking is also being constructed. In addition, the development will include a central utility plant on a separate plot with an underground service tunnel. The D&B contract will cover the supply of all medical equipment and interior furnishings, as well as operational maintenance after handover. KNMH will boast 27 operating rooms and accommodate 780 inpatients, while the car park will hold up to 1,300 vehicles. The project will stand 18 stories tall upon completion. The consultant team will be utilizing Revit building information modelling (BIM) software throughout the design development.

### **New health service charges increase by 500% for expats in Kuwait, 09 Jan, 2017**

Health minister says fees of the services and medical examination provided by the MoH will be 20% less than that prevailed in the private sector. New health charges for expats and visitors in Kuwait are set to increase by almost 500 percent by mid-February, according to the new price list prepared by the health minister **Dr. Jamal Al-Harby**.

Fees of the services and medical examination provided by the MoH will be 20% less than that prevailed in the private sector, according to the ministry. The price hike aims to reduce the number of visitors who seek to take advantage of low healthcare charges in the country, reported *Al-Rai* daily.

Al-Harby said medical service costs are now a burden on the state's general budget due to rising prices of medical equipment and medication. He said advanced medical examinations and nuclear tests that are not currently available in the private sector will be charged 50% of the cost.

The new charges for the treatment of tumors with TheraSphere will increase from \$330 (KD100) to \$1,635 (KD500) for expats and \$16,350 (KD5,000) for visitors. Treatment of bone cancer with isotopes will increase from \$165 (KD50) to \$1,635 (KD500) for expats and \$3,270 (KD1,000) for visitors while charges for x-rays and laboratory tests such as thyroid gland testing will rise from \$50 (KD15) to \$130 (KD40) for expats and \$295 (KD90) for visitors.

Cardiac test fees will also increase from \$33 (KD10) to \$165 (KD50) for expats and \$330 (KD100) for visitors while ischemic heart testing charges will rise from \$100 (KD30) to \$165 (KD50) for expats and \$330 (KD100) for visitors. Blood plasma test charges will go up from \$65 (KD20) to \$820 (KD250) for expats and \$1,540 (KD470) for visitors.

Additionally, pregnancy ultrasound charges will increase from \$33 (KD10) to \$100 (KD30) and CT scans will now cost \$260 (KD80) and MRI scans \$390 (KD120).

The health minister revealed that the effects of the decision on limited income expat labor will be studied further on and that the increase in prices will only apply to expats who represent two-thirds of the total population of the country.

## United Arab Emirates

### Foundation Holdings eyes \$540m GCC, India investments, 05 May, 2017

Investment firm announces hire of five new senior executives to help drive expansion plans

Foundation Holdings, a healthcare, education and consumer focused investment firm, has announced plans to invest more than \$500 million in the Gulf and India over the next five years.

The company said in a statement that the appointment of five new senior executives would help to drive the expansion which will include investments of AED2 billion (\$540 million).

The new appointments include **Tharshan Wijey** as chief financial officer, **Karan Yadav** as chief strategy officer, **Aakash Sachdev** as managing director (India), **Parvati Banati** as managing director - Asset Management and Phil Garrison as managing director - Operations.

In February, the firm launched a joint venture with **Bloom Holding**, an Abu Dhabi headquartered group, aimed at investing over AED1 billion in innovative workforce solutions, targeting the sectors of healthcare, education and services within the UAE. **Abhishek Sharma**, Foundation Holdings CEO, said: "Our vision is to build sustainable, industry defining companies and we believe that actualizing this is a team sport.

"The new appointments will not only add depth and bring a wealth of knowledge and expertise to our business, but together with the existing board of directors and advisory board, will help redefine the industry."

### **UAE pharma giant eyes expansion into over 30 countries, 04 April 2017**

**Julphar Gulf Pharmaceutical Industries** says it plans to enter new markets, open a factory in Saudi Arabia  
UAE-based pharmaceutical manufacturer Julphar is eyeing expansion into more than 30 countries around the world.

Julphar Gulf Pharmaceutical Industries said it plans to enter a number of new markets, including the opening of a factory in Saudi Arabia soon. Factories are also planned in Bangladesh and Ethiopia, in addition to projects in Morocco, Algeria and Egypt, where medicines are being manufactured locally, **Dr. Hosam Badr**, marketing director at Julphar told state news agency WAM.

The company's expansion plans include 34 countries around the world, and it plans to export more than 90 percent of its products, he added. Saudi Arabia is the biggest market for the company in the region, while Kuwait, Omar, Yemen, Iraq and Lebanon are also important, he told WAM. He said the company is now focusing on the development of a factory to manufacture raw insulin, which will be one of only a few in the world with this capability.

### **GE, AMC partner for new pulmonary & chronic care hospital in Riyadh, 11 October 2017**

Saudi Arabia's **Anfas Medical Care (AMC)** and **GE Healthcare** have signed a SR113 million (\$30 million) agreement supporting AMC's new 120-bed specialty facility. It will cater to chronic pulmonary patients requiring long-term rehabilitation and intensive care. The performance-based partnership with GE is expected to drive

significant value for patients, Anfas Medical Care and the Saudi health care sector at large. The hospital, powered by GE, will be based in Riyadh and is set to open in 2018 in collaboration with **Houston Methodist Hospitals**. The comprehensive GE solution is a new approach for both the Kingdom and the region's health sector, combining technology provision, equipment servicing and management under a "Managed Equipment Services" (MES) framework. **Dr. Mamdouh Al-Baqumi**, founder and CEO of AMC, said: "This partnership model presents an entirely new framework to accelerate the development of private sector health care services in the Kingdom, allowing us to scale up our operational and technical levels to world-class standards. It will enable us to facilitate better diagnosis and patient monitoring for our physicians, and enable us to always be at the forefront of cutting-edge medical technology for the benefit our patients." Jalil Juha, president & CEO, GE Healthcare Saudi Arabia, said: "Through this new model of health care delivery for Saudi Arabia, we are providing comprehensive, long-term support to our partner in building a robust and sustainable health care infrastructure. The MES model brings many core strengths that improves quality, reduces cost and increases access to health care delivery. With this agreement, GE and AMC can further contribute to the goals of Saudi Vision 2030 to drive quality and efficient health care services, as well as supporting the ministry's focus on nurturing a buoyant private health care sector." The partnership follows the recent formation of a new consortium led by AMC for the development of a new Healthcare Village in Jeddah, set to include a rehabilitation, neurology and sports injury center, and long-term pediatric hospital. The consortium includes Dallah Al-Baraka as the strategic partner, Aldukheil Financial Group as the financial adviser and AMI Saudi Arabia Ltd. as the local operations partner on the development. GE has been selected as the consortium's key technology and solutions partner.

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## GCC Funding Healthcare Expansion Abroad in 2017/18

The GCC countries are expected to spend over \$300 million in the next few years in healthcare projects abroad – the investment comes from UAE, Kuwait, and Qatar. UAE leads the way in healthcare expansion with investments worth \$227 million.

### Kuwait

#### Kuwait signs \$80m contracts for five healthcare projects in Tunisia, 19 November, 2017

**Kuwait Fund for Arab Economic Development (KFAED)** has signed a loan agreement worth \$79.4m (KWD24m) to build four hospitals across Tunisia. Funding for the four hospitals will be provided at an interest rate of 1.5%, to be repaid within 20 years, with a four-year grace period. Construction, as well as equipment sourcing, for the four hospitals will be completed through the sum. Each hospital will be constructed with a capacity for 105 beds, with the projects – which also include service buildings – due for completion in 2021.

### Qatar

#### Qatar pays \$1m to Gaza healthcare sector 02 April, 2018

The **Qatar Red Crescent** announced that it is funding a full healthcare program worth \$1m in the Gaza Strip. “The program is going to be carried out over two years and is aimed at improving the quality of healthcare services,” the organization explained.

The core of the aid program is based on promoting the abilities of Palestinian physicians and contracting with highly qualified foreign doctors with specialisms not found in Gaza’s hospitals. It also includes sending Palestinian doctors from Gaza specializing in urinary tract disorders to study in Qatar as part of the Emir’s scholarship scheme. Doctors who are unable to travel abroad to develop their professional skills or study further will also be funded for training within the besieged territory. The Qatar Red Crescent has been carrying out programs in the healthcare sector in Gaza since 2008, on which more than \$110 million has been spent.

#### Qatar to venture more in healthcare and hospitality industry in Malaysia, 16 October, 2017

Qatar is seeking to boost investment in two areas in Malaysia- healthcare services and hospitality. Qatari **Emir Sheikh Tamim Hamad al-Thani** and the Malaysian Prime Minister had deliberated on the prospect of ramping up Qatar's investment in Malaysia in these two fields.

"The Emir has told me that there is a possibility of Doha to raise its investment in the healthcare services by looking at how Qatar can cooperate with Malaysia through Khazanah IHH Healthcare to venture into the healthcare industry here and explore investment opportunities in other countries.

## United Arab Emirates

### UAE pharma firm invests \$27m in Japanese factory, 27 May 2017

A UAE-based pharmaceutical manufacturing company has invested a total of AED100 million (\$27 million) in a new factory in Japan. Neopharma also said in a statement that it has invested AED265 million in the acquisition of patents and licenses and an additional investment in clinical studies amounting to AED515 million. The factory in Japan will manufacture supplements for patients in the pre-diabetic stage and also Type II diabetic patients, the statement said. Neopharma Japan said it has acquired a 65 percent stake in the Japanese pharmaceutical company, Cosmo ALA (now known as Neo ALA), to manufacture this dietary supplement.

More than one million people in the UAE have diabetes and nearly 450,000 are estimated to be undiagnosed cases, the company said. Dr BR Shetty, chairman and managing director, Neopharma, said: "Obesity is a growing concern in many nations in the Middle East as approximately a third of adults are now obese and diabetes and other weight-related diseases are becoming serious public health issues.

"The diabetes epidemic is largely focused on massively increased rates of obesity in the region. Obesity when left unchallenged, leads to pre-diabetes or metabolic syndrome. Either of these conditions, if not swiftly acted against, can lead to the development of full-blown Type 2 diabetes."

The World Health Organization (WHO) predicts that diabetes will become the seventh major cause of death around the world by 2030. Nearly 422 million people are diabetic worldwide with this figure expected to spiral to 642 million by 2040.

In the Middle East, 35.4 million suffer from diabetes and by 2040, the number is estimated to surge to 72.1 million. Neopharma said its factory in Japan has started the production to meet the ever-growing needs of the Type 2 diabetes patients in the GCC region and across the globe.

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## Abu Dhabi fund to provide \$200m for Jordanian Medical City, 11 January, 2017

Abu Dhabi Fund for Development to help fund the expansion of King Hussein Medical City in Jordan

Abu Dhabi Fund for Development (ADFD) has announced it will provide a AED735 million (\$200 million) grant to help fund the expansion of King Hussein Medical City in Jordan.

The contribution is in line with the 2013 UAE government grant contribution of AED4.6 billion to the Gulf Development Fund, a five-year grant programme to finance development projects in Jordan.

The grant will fund the first phase of the expansionary works which includes the construction of a 940-bed hospital, ADFD said in a statement.

**Mohammed Saif Al Suwaidi**, director-general of ADFD, said: "Over the past four decades, ADFD has maintained strategic and close friendly ties with the Kingdom of Jordan. This new contribution reflects the UAE leadership's wise directives and keenness to continuously build on bilateral ties with brotherly states.

"The expansionary project at the King Hussein Medical City is a clear action by the Jordanian government to always provide only the best to its citizens. Moreover, this initiative is in line with ADFD's goals to drive socio-economic growth, invest in infrastructure and create new job opportunities," he added.

Major General Muin Al Habashneh, director-general of the Royal Medical Services (RMS) in Jordan, praised ADFD's significant role in supporting the healthcare sector in Jordan.

## Healthcare Mergers & Acquisitions in 2017/18 in GCC countries

### Bahrain

#### Bahraini-consortium acquires Abu Dhabi's NAS United Healthcare, 11 October, 2017

Abu Dhabi's **NAS United Healthcare Services** has become the latest acquisition in the Arabian Gulf's rapidly growing healthcare sector, in a buyout by Bahraini alternative investment firm **Arcapita** and the country's sovereign wealth fund Mumtalakat Holding Company.

The two entities are partnering to acquire a 90 per cent stake in NAS, which provides third-party administrator services to more than 40 health insurance and takaful companies in the Arabian Gulf region, for an undisclosed sum.

## United Arab Emirates

### Pharma giant buys further 26% stake in Saudi operations, 18 December 2017

**GlaxoSmithKline** ups its interest to 75% in Glaxo Saudi Arabia Limited; plans expansion of manufacturing in kingdom

Global pharmaceutical giant GlaxoSmithKline (GSK), announced on Monday the acquisition of an additional 26 percent of stake in Glaxo Saudi Arabia Limited (GSAL).

Through this transaction, GSK now owns 75 percent of GSAL, which reinforces its footprint in the kingdom and reiterates its commitment to support the Government's plans to diversify the economy and increase local manufacturing of pharmaceutical products, the company said in a statement.

The acquisition follows more than SR900 million that GSK is investing in its operation in Saudi Arabia over the next 3 years.

The intention is also to expand the production of Jeddah manufacturing site by 30 percent in the next 3 years with more investments planned by 2020.

Andrew Miles, vice president and general manager of GSK in the GCC, said: "GSK is a strong supporter of Saudi Arabia's 2030 vision to increase local manufacturing of products and diversify the economy. The acquisition represents a step forward towards the strengthening of our operations in the Kingdom. Today, 80 percent of our portfolio is locally manufactured in Jeddah."

"Building on 20 years of presence in the Kingdom, the acquisition will give us the flexibility to invest in areas where there are opportunities to further drive access and business performance in the country. GSK is also committed to develop local talent and to increase Saudization and diversity among our workforce in the kingdom," added Luciano Andrade, country manager of GSK in Saudi Arabia.



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## Abu Dhabi's Mubadala raises \$1.5bn ahead of IPIC merger, 12 April, 2017

The merged entity, which will be known as **Mubadala Investment Co**, will have combined assets of \$125 billion. Mubadala Development Co, the Abu Dhabi sovereign wealth fund merging with International Petroleum Investment Co, raised \$1.5 billion through a dual-tranche bond after receiving almost four times that amount in bids, this includes many of Abu Dhabi's top healthcare facilities such as the **Cleveland Clinic Abu Dhabi**, **Healthpoint** and **Imperial College of London Diabetes Center (ICLDC) Abu Dhabi**.

The company sold \$850 million in seven-year debt at 100 basis points over mid-swaps and \$650 million in the 12-year tranche at 140 basis points over mid-swaps, the people said, asking not to be identified because the information is private. The sale received orders of about \$5.7 billion, they said.

Mubadala, which is tasked with making investments that will help diversify Abu Dhabi's economy away from oil, is merging with IPIC to cut costs as crude continues to trade at half the price in mid-2014. Abu Dhabi holds about 6 percent of the world's oil reserves.

The merged entity, which will be known as Mubadala Investment Co, will have combined assets of \$125 billion. It will start operations in May with four divisions focusing on the emirate's interests in energy, infrastructure, technology and aerospace.

Mubadala said in March that its 2016 net income almost tripled to 3.32 billion dirhams (\$900 million), boosted by investments in "strategic sectors."

Barclays Plc, HSBC Bank Plc, Natixis SA, National Bank of Abu Dhabi, SMBC Nikko

## Unit of UAE's KBBO acquires 60% of 24-7 healthcare provider, 18 Jul, 2017

Emirates Hospital, a member of the Abu Dhabi-based **KBBO Group**, has acquired 60 percent of Mobile Doctors 24-7, a round-the-clock health management provider.

The acquisition makes KBBO Group the majority shareholder in MD 24-7, it said in a statement. Mobile Doctors 24-7 is contracted with both public and private sectors and has over 230 multinational corporate clients including employers, insurance carriers, brokerage firms, as well as telecom carriers such as **Etisalat**.

It offers 24-hour medical and wellness concierge services to its 145,000 plus registered members. **Yazen Abu Gulal**, KBBO Group CEO, said: “Mobile Doctors 24-7 is a valuable asset that is a natural fit for KBBO’s numerous healthcare assets such as **Emirates Hospitals** and **CosmeSurge**. We look forward to strengthening our relationship with MD 24-7’s Management team and moving forward with its worldwide growth.”

**Raouf Khalil**, founder and CEO of Mobile Doctors 24-7, added: “This is a critically important step forward in scaling our true healthcare solution that aligns both consumers and payers. The combination of our one of a kind delivery system with the support of KBBO Group and its strong presence in the healthcare sector assures MD 24-7 future is in good hands.” Established in Abu Dhabi in 2004, KBBO Group is an investment group with a diverse portfolio of interests, operating in the UAE and across the Middle East.

### **UAE's NMC Health buys Sharjah hospital for \$560m, 14 December, 2016**

Deal has been finalized and the takeover of the privately owned Al Zahra hospital will take place in Q1 2017 UAE-based healthcare provider NMC Health is buying Al Zahra Hospital in Sharjah for \$560 million, NMC's deputy chief executive told Reuters on Wednesday.

The deal has been finalized and the takeover of the privately-owned Sharjah-based hospital will be in the first quarter of 2017, **Prasanth Manghat** said. The Al Zahra Hospital is one of the largest private hospitals in the UAE, operating 137 active inpatient beds, serving approximately 400,000 outpatients and 23,000 inpatient bed days per year.

It provides services of an international standard, supported by state-of-the-art facilities including cutting edge radiology and laboratory practices, as well as seven operating theatres, recovery room beds, more than 80 individual clinics, a maternity complex and emergency room beds, including triage.

The Al Zahra Hospital last year achieved revenues of \$130.4 million, and net profit of \$38.8 million respectively. NMC has identified approximately AED23.7 million (\$6.5 million) of annual cost synergy benefits expected to be derived from the acquisition from the second year post completion onwards.

**Dr. BR Shetty**, CEO of NMC, said: “Our expansion into the Sharjah healthcare market represents another major advance towards our objective of developing a leading integrated private healthcare operator in the UAE. We

remain committed to further develop the local healthcare market by offering best in class services and facilities to our patients.

“The acquisition of Al Zahra Hospital is fully in line with our strategy and demonstrates our focus on delivering long-term growth of our strategic and competitive capabilities to expand sustainable shareholder returns.”

In August, NMC Health reported a 48 percent year-on-year increase in adjusted net profit for the first six months of 2016, to \$67.8 million. It also reported its highest revenue growth on record, it said. Revenues increased by 46.9 percent year-on-year to reach \$578.3 million in H1 2016, while earnings before interest, tax, depreciation and amortization (EBITDA) rose 68.2 percent to \$115.9 million over the same period, resulting in a group EBITDA margin of 20 percent.

### **Kuwait firm plans complex to focus on cancer drugs, 29 March, 2017**

Kuwait-based Gulf Investment Corporation announces plan after taking stake in Saudi pharma firm

Kuwait-based Gulf Investment Corporation (GIC) has announced plans to establish a pharmaceuticals complex focusing on high-end generic drugs for cancer treatment.

The plan follows the company's acquisition of a significant minority stake in **Sudair Pharmaceuticals Company**, the owner and the developer of Sudair Specialized Pharmaceuticals Complex in Saudi Arabia. The company said in a statement that the plant will be the first of its kind in the Middle East.

**Mohammad Abdulaziz Al-Fares**, head of Diversified Projects Division – GIC, said: “The corporation has entered as a major investor with a stake of 35 percent of the share capital of Sudair Pharmaceuticals Company, which will enhance the role of the corporation in the development of the specialized pharmaceutical industries sector in the region.

**Dr. Yasser Al-Obaida**, CEO of Sudair Pharmaceuticals Company added: “This investment is part of the company's plan to build and attract partnerships of a strategic nature that will open new horizons for further nationalization.”

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## New Technologies and Medical Innovation Transferred /Implemented in GCC in 2017/18

### Kuwait

#### **Kuwait-based platform is empowering women to prioritize their health, 20 April, 2018**

The Kuwait-based digital platform provides a number of services to empower women in the MENA region to manage their health, as well as the health of their families, more effectively.

StepFeed spoke to Sophie Smith, the co-founder and CEO of Nabta Health, which recently won the STEP 2018 Pitch Competition at the annual STEP Conference, about the story behind the initiative, its achievements, and future plans. This follows Nabta Health's previous achievements at Arabnet Kuwait where they won People's choice Award, and the best scientific paper at Innovation Arabia Forum. Most recently, Nabta Health came second in the MENA wide Arabnet beating five finalists and 18 semi-finalists from over 300 startup applications from across the MENA.

Nabta offers a comprehensive set of digital health services pertaining to the challenges and concerns that accompany every major health event in women's lives - from birth through puberty, to pregnancy and parenting, to perimenopause and beyond. The platform consists of a website and five separate mobile applications, each dedicated to a specific stage in a woman's life: Nabta Fertility, Nabta Pregnancy, Nabta Baby, Nabta Care, along with Nabta Midlife.

Featuring proprietary technology, Nabta's services include clinical advice, personalized health recommendations, consumer product reviews, and virtual consultations.

### Oman

#### **Badr al Samaa Hospital launches advanced radiology solutions, 13 March, 2018**

**Badr al Samaa Hospital**, Ruwi introduced advanced imaging solutions and they include state-of-the-art latest 16 slice CT scanner, Digital Mammography, Oral pantomography and Bone marrow densitometry units. Board of directors **Abdul Latheef**, P A Mohammed and T Vinod formally inaugurated the advanced imaging center recently. The new CT scanner allows high resolution scans in a much shorter time. This translates to faster turnaround time for patients resulting in quicker diagnosis and treatment. Bone marrow densitometry helps in evaluation of bone strength. The bone density status of postmenopausal women is assessed at regular intervals

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for the prevention and management of osteoporosis. In order to serve patients better, Badr al Samaa realized the need for Bone Density studies and launched the facility.

## United Arab Emirates

### Abu Dhabi hospital conducts UAE's first full heart transplant, 14 December, 2017

Health authority chairman hails 'historic accomplishment' at **Cleveland Clinic Abu Dhabi**

Physicians at Cleveland Clinic Abu Dhabi, part of Mubadala's network of healthcare providers, have successfully conducted the UAE's first full heart transplant.

The surgery was performed by **Dr. Rakesh Suri**, acting CEO of Cleveland Clinic Abu Dhabi, **Dr. Johannes Bonatti**, chief of the Heart and Vascular Institute, **Dr. Stefan Sanger**, clinical associate, and **Dr. Jehad Al Ramahi**, clinical associate.

**Sheikh Abdullah bin Mohammed Al Hamed**, chairman of the Health Authority, said in comments published by state news agency WAM: "What we have accomplished today is a historic accomplishment that adds to the long list of UAE achievements. It is a clear indication of the qualitative shift in Abu Dhabi's healthcare under our wise leadership, who have invested the time and effort to provide the country's population with such distinguished services.

Dr. Rakesh Suri, acting CEO of Cleveland Clinic Abu Dhabi, said: "It is a significant achievement for Cleveland Clinic Abu Dhabi and our transplant team, who have accomplished a historic medical milestone in the UAE. This operation underlines the incredible social impact that our transplant services are having, thanks to one donor, we have transformed the lives of multiple patients and their families."

The operation received strong support from the UAE National Organ Transplant Committee, who was heavily involved in the preparations for the transplant, WAM added.

### More than 1.4m Dubai medical records go digital, 01 Dec 2017

Health chiefs announce launch of third and final phase of the Salama electronic system

More than 1.4 million **Dubai Health Authority (DHA)** patient medical records and more than 112 million transactions have been transferred to the new unified electronic system.

DHA has announced that it has launched the third and final phase of the Salama system in Latifa Hospital, Hatta Hospital, Thalassaemia Centre, Dubai Gynecology and Fertility Centre and all DHA Medical Fitness Centers.

Salama, which was launched in February 2016, is a DHA-wide project that aims to provide patients and doctors access to medical records through a patient portal and ensure that the electronic patient medical record is available across the DHA health facilities.

The first phase was launched in April in Rashid Hospital, Barsha Health Centre, Airport Medical Centre, Dermatology Centre and Dubai Physiotherapy and Rehabilitation Centre while phase two included Dubai Hospital, Dubai Diabetes Centre, the Family Gathering Centre and all Primary Health Care Centers.

**Humaid Al Qutami**, chairman and director general of the DHA said the Salama project has been completed in record time as it was initially expected to launch in 2018.

Salama allows vital patient information to be accessed by DHA doctors across all DHA facilities, reducing the patient's waiting time and reducing costs. More than 11,000 DHA employees have been trained to use Salama.

### **Dubai works on plan to help doctors monitor patients remotely, 06 October, 2017**

Dubai Health Authority studies idea for tight-fitting shirt which will show vital signs of patients

Health chiefs in Dubai are studying plans to create a tight fitting shirt which will allow the vital signs of patients to be monitored remotely by doctors. The shirt technology would also alert doctors and family members of the patient of any emergency via a smartphone app, Dubai Health Authority said in a statement. The idea is one of a number being studied as part of the authority's involvement in the Dubai Future Accelerators' third cohort. **Dr. Mohammad Al Redha**, director of organizational transformation at the DHA, said the new phase will see notable collaboration with the leading companies in the field of innovation and health from all over the world to find the ideal solution to the challenges the health field is facing. He said the third cohort includes four paths that the authority is taking part in, including the shirt. Another path aims to adopt the latest technology for rehabilitation and treating patients who are suffering from different neurological problems and brain strokes, the statement said. It added that the authority also aims to establish a smart platform to deal with health emergencies in collaboration with concerned parties and a smart system to exchange x-ray pictures between public and private hospitals.

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## UAE unveils new tech to detect counterfeit drugs, 15 July, 2017

UAE's Ministry of Health and Prevention says TruScan device will be rolled out across airports, ports

The UAE's Ministry of Health and Prevention has unveiled new technology to detect counterfeit or low-quality drugs posing great health threats to the community.

The TruScan RM Analyzer is especially helpful to patients suffering from chronic diseases, heart ailment and cancer, and is part of the ministry's commitment to protect patients in need of medicine.

A statement said that the TruScan RM analyzer also enables drug inspection teams in the country to make informed and timely decisions concerning the release of all drug shipments entering the UAE.

The **World Customs Organization** has placed the value of counterfeit medicines at \$200 billion a year globally.

**Dr. Amin Hussein Al Amiri**, the Ministry's Assistant Undersecretary for Public Policy and Licensing, said the country has been fighting the spread of counterfeit medicines in the local market by implementing preventive measures, building a quality control laboratory, and conducting research on medical and other health products.

Many international organizations are currently using TruScan RM Analyzer including the **US Food and Drug Administration (FDA)**, the **Saudi Food and Drug Administration (SFDA)** and the **UK Medicines and Health Care Products Agency (MHRA)**, in addition to pharmaceutical companies Sanofi, Novartis, Merck, and Pfizer.

## Dubai doctors save woman's life with 3D printed technology, 15 July, 2017

Omani woman who suffered from a cerebral aneurysm is saved with the help of a custom 3D-printed model

Dubai-based doctors have succeeded in saving the life of a 60-year-old Omani woman who suffered from a cerebral aneurysm with the help of a custom 3D-printed model of the patient's brain dilated arteries.

The patient was admitted to **Rashid Hospital** after suffering from severe bleeding in the brain due a cerebrovascular disorder in which the weakness in the wall of a cerebral artery causes a ballooning of the blood vessel.

**Dr. Abdullah Qasim**, consultant and head of Neurosurgery at Rashid Hospital, said that an X-ray found that the



patient suffered from cerebral aneurysm in not one but four veins. “Due to the complexity and rarity of the patient’s case we needed a 3D model that will allow us to understand exactly how we can reach the arteries in a safe way. This helps us reduce risk because we can’t imagine the problem without the 3D model,” said Qasim.

After studying the model, **Dr. Ayman Al Sibaei**, interventional radiologist at Rashid Hospital conducted a six-hour surgery. The patient was transferred to the ICU where she is recovering. Qasim said: “Without the 3D model the surgery would have taken longer and the risk would have been higher because it would have meant conducting the surgery with limited understanding of the abnormality. The patient is recovering well.” **Dr. Mohammad Al Redha**, director of the Department of Organizational Transformation, said this is not the first time that the Dubai Health Authority (DHA) has conducted a complex surgery with the aid of 3D printing. Doctors have previously succeeded in removing a tumor from a patient’s kidney with the help of a cutting-edge aid — a custom 3D-printed organ to help plan the complex surgery last December. Al Redha said the DHA is planning to further use 3D printing in medical care in Dubai.

### **Dubai's DHA to start using 3D tech to print teeth later in 2017, 30 January, 2017**

Dubai Health Authority announces that dental department will roll out first phase of 3D technology drive  
Dubai Health Authority has announced that its dental services department will begin using 3D technology to print teeth later this year.

A senior official said the use of the technology is the beginning of the authority’s ambitious plans to use 3D printing in all fields of healthcare.

The authority's announcement comes as the government aims to make Dubai and the UAE a global hub for 3D printing technology by the year 2030. Research is already taking place into the mass production of hearing aids prosthetics and implants.

**Humaid Al Qatami**, chairman and director-general of the DHA, said: “The DHA spares no effort in incorporating the latest technology to better patient outcomes. 3D technology allows doctors to better plan their surgery or procedure and use minimally invasive procedures.



"Using 3D technology for surgeries and other medical purposes is the future and we are currently working on developing regulations for 3D printing for patients and the medical sector in Dubai."

**Dr. Mohammed Al Redha**, director of the Office of Organizational Transformation at the DHA added: "At the DHA, we are keen to be part of the innovation and research process as well as understand ways in which we can bring and regulate the use of this technology in Dubai to benefit our population and medical tourists."

In the first phase, the Dental Services Department will begin implementation of 3D Technology in 2017, said **Dr. Hamda Mesmar**, director of Dental Services Department.

"Using this technology, a dentist will simply scan the teeth using an intra-oral scanner, which will create a digital impression. This image is then sent across to the 3D printing machine through the intranet from different Dental Clinics within DHA, which then replicates the image as a 3D model," said Mesmar.

"The 3D image helps us with accurate planning and precision especially for complicated dental procedures and surgeries. Patients will greatly benefit from the use of this technology as it helps in better patient outcomes as well as substantially reduces waiting time and cost of care."

### **Dubai hospitals to use tracking devices to protect babies, 29 May, 2017**

DHA introduces another smart device to monitor oxygen level of newborns

The Dubai Health Authority (DHA) will use smart technologies to protect newborns at hospitals across the emirate. Hospitals will put electronic tags on ankles of babies that will alert their mothers and the hospital staff if someone attempts to move the baby without authorization.

They will also use another smart technology that will help monitor oxygen levels in the baby's blood and will alert the mother and staff if it drops below normal.

"Mothers and childcare are pivotal targets of the authority's 2016-2017 strategy. We plan to implement a number of programs, with the goal of benefitting mothers and children in all DHA facilities," said Humaid Al Qatami, director general, DHA.

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## The region's only digital healthcare marketing agency has been launched in the UAE, 29

November, 2017

Brand View: AAAGENCY Healthcare currently serves entities across the medical spectrum

The region's only digital healthcare marketing agency has been launched in the UAE.

**AAAGENCY Healthcare** announced that it plans to develop digital communication tools in areas pertaining to public health, health literacy, health care delivery, and patient compliance.

In line with the healthcare industry's dynamic, AAAGENCY Healthcare currently serves entities across the medical spectrum: manufacturers, their suppliers and distributors, pharmaceuticals and nutraceuticals, hospitals and medical centers, service providers, and wellness associations.

**Ramzi Aweidah**, Co-founder and Vice President of AAAGENCY Healthcare, said "When it comes to marketing for healthcare in particular, we noticed a huge gap that existed in the market - whether due to a marketer's inadequate understanding of the healthcare product at hand, or the difficulty that physicians have when navigating the digital arena, so we made it our business to bridge that gap, literally."

The company said that they expect to see a rise in demand for their services and expertise, which will enable them to become the go-to organization in establishing new digital healthcare communication models.

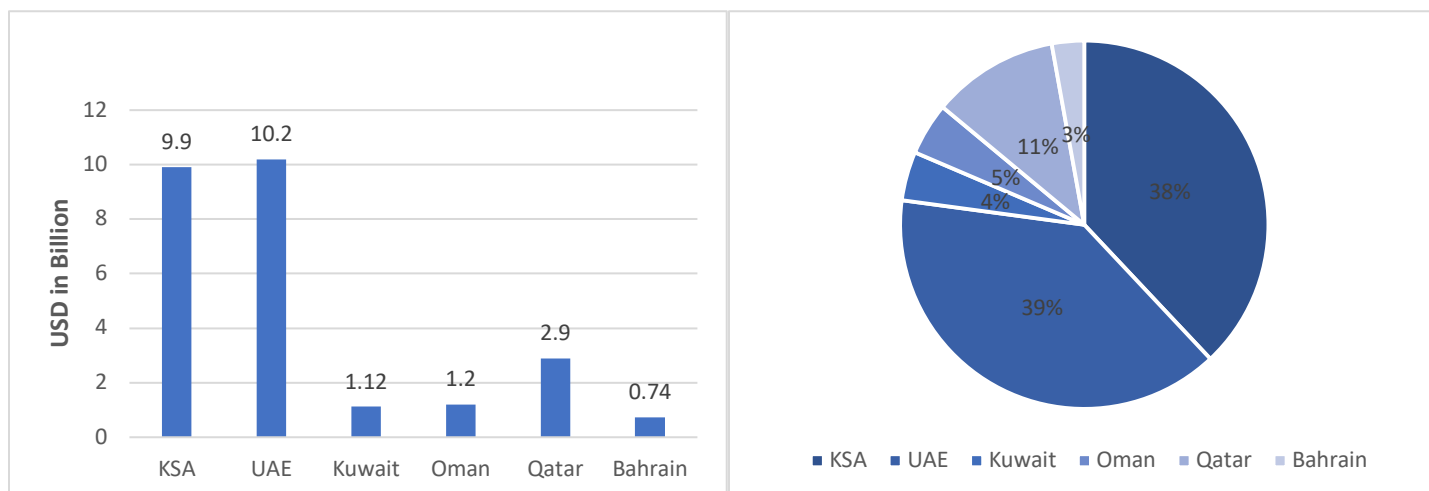
**Maha Ayyash**, Co-founder and Division Head of AAAGENCY Healthcare, said "Things have changed, technology nowadays exists at *every* stage of the healthcare continuum, and people are becoming more empowered and more capable in making decisions regarding the quality of care they would like to receive. The question is no longer whether a company should have a digital presence or not, the question is what kind of digital presence it should have."

Ramzi Aweidah added that "Marketing a healthcare organization can be challenging – even painful if you don't approach it with the right knowledge, tools, and guidance." That's why they have put together a team of specialists whose expertise in healthcare cover research and academics, consulting, value creation, digital and experiential marketing.

## GCC Insurance Industry

The market size of the GCC insurance industry is estimated as 26.2 USD billion <sup>[2][3]</sup>. Saudi Arabia and the UAE account for 77% of total market share with 20.1 billion USD. The rest of the GCC countries account for a mere 23% of total market share with 6.1 billion USD.

### Market Size of GCC Insurance Industry in \$USD Billion (2017)



Source: Alpen Capital Report, SAMA Report, KLSC Analysis

### Market Size of GCC Health Insurance Industry in \$USD Billion

The market size of the GCC Health insurance industry is estimated to be 9.88 USD billion or roughly 38% of the entire regional insurance industry. Saudi Arabia and the UAE account for 88% of the market share with 7.48 billion USD. The rest of the GCC countries account for a mere 12 % in total with ~1.00 billion USD.

The health insurance sector in Saudi Arabia registered an increase of 2.1% in gross written premiums in 2017. Total health premiums reached SAR19.1 billion (\$5.1 billion) and accounted for 52.9% of the overall market size. The increase was attained in spite of a significant fall in the number of insurance policies to 936,000 policies in 2017 from 2.67 million in 2016, primarily as a result of the introduction of the unified health insurance policy for employers in the private sector, according to a report on the Saudi insurance market by the investment house **Albilad Capital**.

Despite the low reliance on reinsurance markets by insurers in 2017, net earned premium stabilized at SAR18.3 billion and the retention ratio stood at the same level of 97% as in 2016. Net claims incurred grew by 13.5% to SAR16.06 billion in 2017. These factors contributed to pushing the loss ratio to 87.7%.

Last year, the largest insurers continued to dominate the health insurance sector in which 27 insurers operated. Bupa Arabia, Tawuniya and Medgulf continued to dominate the sector. Ten other insurers had a combined 14.5% of the market while the remaining 14 insurers scrambled for the remaining 5.7%.

## Compulsory Health Insurance in Saudi Arabia

The **Health Insurance Council** is considered as the main driver of the increasing demand for health insurance. It began enforcing the compulsory health insurance system for non-Saudi workers in the private sector in late 2006, and then for Saudi employees in the private sector in 2010. Two years ago, the council enforced the compulsory health insurance for the families of residents working in the private sector.

In addition, the Council started requiring visitors to the kingdom to purchase compulsory health insurance at the end of 2015, excluding, the pilgrims, international organizations, diplomats and guests of the kingdom.

The number of insured in health insurance stood at 12.06 million at the end of 2017. The number of Saudis insured reached 2.74 million, representing 22.7% of the total insured, while the number of foreigners hit nearly 9.32 million, or 77.3% of the total number of the insured.

In addition, the total population in the Kingdom rose to 32.55 million at the end of 2017, up 2.5% from the end of the previous year. According to the **National Transformation Program (NTP) 2020**, the Ministry of Health aims to expand the privatization of government health services. This is likely to lead to the expansion of insurance coverage, as well as improving the performance and effectiveness of health services.

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## A New Health Insurance Regulator in Dubai

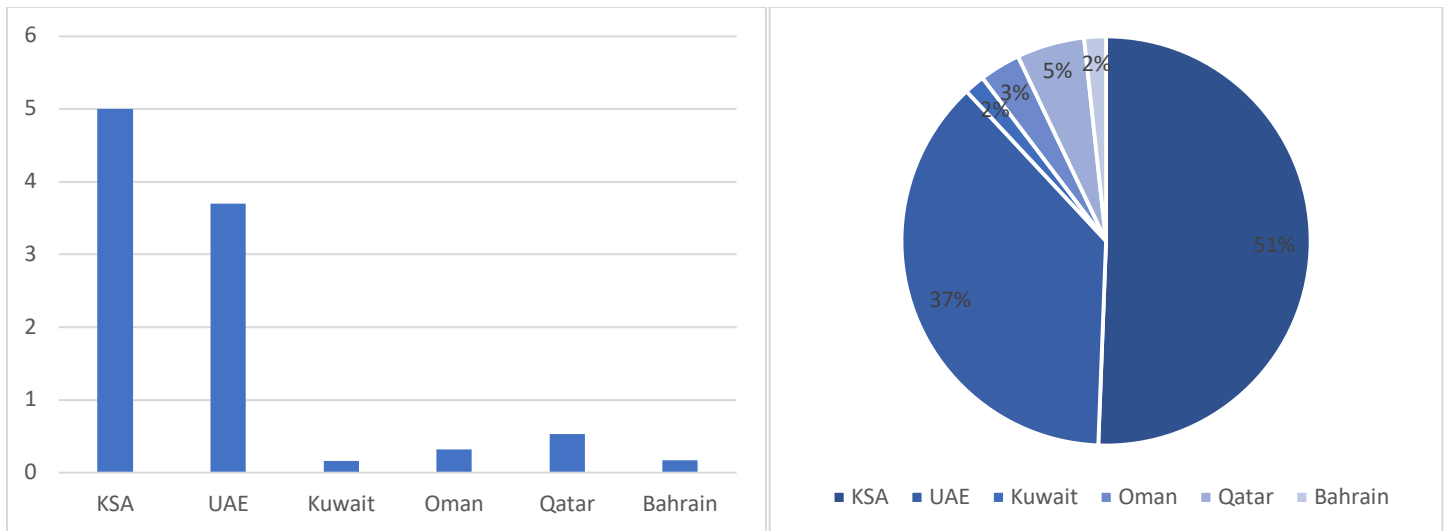
The **Dubai Health Authority (DHA)**, in May 2018, announced a new organizational structure that included two new entities, the **Dubai Healthcare Corporation** and **Dubai Health Insurance Corporation**. It also includes three new strategic sectors: Strategy and Corporate Development, Health Regulation, and Joint Corporate Support Services, reports Gulf News.

The Dubai Health Insurance Corporation ensures quality health insurance for Dubai's citizens, residents and visitors, protects the rights of policyholders, and designs health insurance packages.

The UAE health insurance sector has an estimated AED7-billion (\$1.9 billion) market value with more than 50 health insurance companies. Plans are underway to extend health insurance coverage to include visitors to Dubai.

According to **Mr. Humaid Al Qutami**, Director General of the DHA, the Dubai Health Insurance Corporation will help regulate the insurance market, create a conducive environment for growth and help maximize benefits to customers as well as protect their interest. At the same time, it will also keep the interests of the insurance companies and third party administrators. The corporation will also license and regulate health insurance companies, claims management companies, insurance brokers and service providers. It is responsible for managing the Dubai Government's health insurance program and issuing reports and recommendations related to health insurance and health economics.

## Market Size of GCC Health Insurance Industry in \$USD Billion (2017)

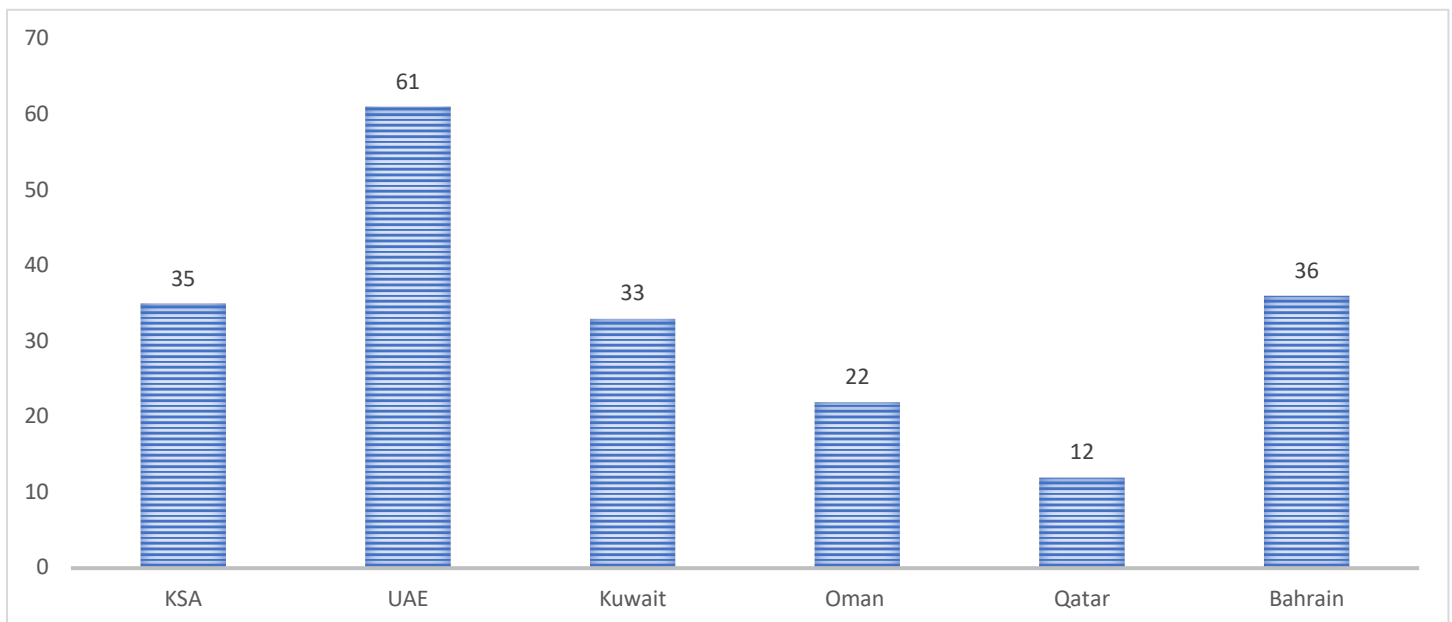


Source: KLSC Analysis

## Number of Insurance Companies in the GCC

There are around 199 insurance companies domiciled and operating in the GCC region<sup>[3][4][5][6]</sup>. The vast majority (61) are based in UAE followed by Bahrain (36), KSA (35), Kuwait (30), Oman (22), and Qatar (12).

## Number of Insurance Companies in the GCC in 2017



Source: SAMA Report, Insurance Authority Report UAE (2015), CBB Report (2015), MENA Insurance Review News

## Number of Health (Only) Insurance Companies in the GCC

In comparison, there are only two health insurance companies presented in GCC region; Bupa in Saudi Arabia and Daman in Abu Dhabi, meaning that only 0.95% of all insurance companies are focused on health alone.



## Conclusion – An Emphasis on New Models of Care and Prevention

The healthcare industry in the GCC is expected to grow in the upcoming years as outlined in the report above. In the current scenario of increased prevalence in chronic diseases, rise in lifestyle risk factors as well as a growth in the elderly demographic, there is an increased demand on the healthcare sector in the GCC. While there is considerable investment in the healthcare sector with regard to specialized centers of excellence, there are many other avenues where the return on investment would be positive.

- Adopting newer styles of delivering health care: traditional primary health care systems have not had a favorable outcome in providing cohesive care. There have been a number of alternatives to the traditional PHC in the US. Basic health services are being offered in a retail environment like pharmacies and supermarkets, with lower costs and reduced waiting times. Digital health is of particular significance in this field as telehealth services, online patient forums, and early detection devices paired with technology are able to provide a broader range of treatment, including preventive healthcare to a wider population.
- Celebrating the 10th Annual MIT Arab Enterprise Forum in Bahrain on Thursday the 27th of May, the MIT Enterprise Forum (MITEF) is a global organization of dedicated professionals with local chapters, affiliated with the Massachusetts Institute of Technology (MIT) through MIT Technology Review. The MIT Enterprise Forum Arab Startup Competition which included three different tracks: Ideas, Startups, and Social Entrepreneurship, with total prize money on offer totaling USD \$160,000. In total, there were over 18,000 applications from across the Arab world with only 74 ventures making it to the semifinal round, representing a very competitive acceptance rate of 0.4% (4 out of every 1000 applicants).

The competition highlighted the success and importance of the challenges facing the Life Science and Healthcare industry across the Arab world. In total, 29 out of the total 74 semifinal ideas, startups and social enterprises presented were focused on the Life Sciences and Digital Health space, including those focused on addressing chronic diseases in the Arab world, especially diabetes, market places that aim to bring different stakeholders in the healthcare industry closer together, and businesses focused on food and clean water security/sustainability. Most impressively, 48% (12 out of 25) of all Idea phase semifinalists were Life Science and Digital Health focused, with the majority (three ideas each) aimed at both Agritech and Clean Water. The startup semifinalist scene saw 10 out of 30 startups (30%) focused on digital health



and the life sciences, again with Agritech as the most popular challenge (three startups) followed by Wound Care (two) and P2P Marketplaces (two).

Finally, a total of seven out of 19 social enterprises focused primarily on the life sciences, with a total of four enterprises each focusing on both Agritech (two) and Clean Water (two) initiatives. All in all, life sciences and digital health made up over 39% of all ideas, startups and social enterprises presented in 2017

In the 2018 edition of the MITEF, life sciences and digital health were again out in full force, this time winning the entire competition courtesy of Tunis-based ProvenMed who was declared the winner of the startups track, winning the biggest prize, \$50,000. Founded by Souheil Guessoum, an Algerian, it is a medical devices company having patented products for incontinence (lack of voluntary control over urination) care. Their wearable device, ActivGo™ provides solution for male urine incontinence care, with the aim restore patients' grace and dignity, facilitate nursing care, prevent urinary tract infections and reduce healthcare costs. The discreet wearable device provides has use cases for different pathologies and situations affecting men, including, “short-term or intractable post-prostatectomy urinary incontinence, post-irradiation urinary incontinence, non-ambulatory patients with urinary incontinence, central nervous system lesions” and the people who cannot access toilets for long-hours due to nature of their work; miners, pilots, taxi drivers, etc.

The 2018 competition was again divided into three main categories; startups track, ideas track and social entrepreneurship track. The winners were selected from the 84 semi-finalists that MITEF had selected earlier this year, with 20 of them from Lebanon, 14 from Egypt, 10 from United Arab Emirates, 9 from Saudi Arabia, 7 from Jordan, 6 from Palestine & Tunisia, 4 from Morocco, 2 from Bahrain and Sudan, and 1 from each of Kuwait, Qatar, Algeria, and Oman.

- New digital models of healthcare were also out in full force at the 500 Falcons Distro Dojo Demo Day Held in Kuwait City on 10th of April 2018. Four out of the 12 shortlisted startups from across the GCC were passionate about disrupting traditional models of healthcare including: Eyewa, a Dubai-based online glasses and contact lenses retailer; Kuwait City based GymNadz, a fitness app for millennials; Cairo based Nawah, an outsourcing service for scientific laboratories; and At-Home-Doc, an app for doctor home visits

in Qatar. Also all startups had impressive revenue growth (20% MoM) and were seeking between 500k to \$1.5 Mn dollars in Series A financing. 500 Startups organized the edition of the MENA Dojo Series A Program in collaboration with Sirdab Lab in Kuwait. The VC held the program's first edition last year, with assistance from the Qatar Science and Technology Park which continued on as an important sponsor of the 2018 edition.

### **About the Authors: Dr. Mussaad M. Al-Razouki**

[Dr. Razouki](#) has over 15 years of experience in venture capital and private equity investment with a focus on healthcare and technology, shifting from an excellence in clinical practice and research to the management and financing of healthcare and education systems. A graduate of **Columbia Business School**, Dr. Razouki is the first ever Arab national to receive an MBA with a focus on Healthcare Management and Finance. Dr. Razouki is a member of the **Hermes Honors Society** of Columbia Business School, an honor bestowed on the top 1000 global alumni of the university. An Oral and Maxillofacial surgeon by training, Dr. Razouki has completed clinical rotations at New York Presbyterian Hospital of **Columbia University Medical Center**, Harlem Hospital, **Cleveland University Hospital** of Case Western Reserve University and Mass General Hospital of **Harvard University**. Dr. Razouki graduated with Cum Laude Honors from **Creighton University** with a Bachelors in Biology (Ethology) and TPP (Theology, Philosophy and Political Science).

In 2007, Dr. Razouki joined the world's largest and oldest strategic consulting firms, **Booz Allen Hamilton**, which at the time was operating in over 100 countries across six continents with four billion dollars in revenue. Dr Razouki had the honor of working with all six GCC Ministers of health and completed health and public sector projects across the GCC, Lebanon and Egypt.

In 2009, Dr. Razouki was selected to join the Office of Tony Blair to lead the development of the Kuwait 2030 Vision for Health, Education and Entrepreneurship together with the Council of Minister of Kuwait. Dr. Razouki was also selected to head the Prime Minister's Early Warning System Committee on Health and played an integral part in the establishment of the Kuwait Talent Bank, which would go on to form the backbone of the Kuwait Youth Parliament and the future Ministry of State for Youth Affairs.

In 2011, Dr. Razouki and his partners completed the purchase of a Kuwait based healthcare development company, which was rebranded as [Kleos Healthcare](#). Today, Kleos is widely recognized as a regional thought leader on Middle East healthcare, with a variety of projects in its pipeline ranging from developing a Medical Takaful Insurance company to working on a 750 mn USD government PPP.

In 2012, Dr. Razouki co-founded Dubai based [Glambox.me](#), one of the region's leading e-commerce platforms that later on completed a [~1.4mn USD Series A](#) funding round (which at the time was the largest Series A round in the history of Middle East entrepreneurship) with notable MENA VC firms including STC Ventures, MBC Ventures and R&R ventures.

Dr. Razouki has also invested in multiple digital platforms in New York and Silicon Valley, including most notably, [Instavest.com](#), a global leader in personalized FinTech [valued at 12 mn USD](#) that manages over \$250 mn worth of assets, and [ShiftSmart](#), a leading San Francisco start up focusing on improving employee development and retention for the growing Sharing Economy valued at 5mn USD.

In 2015, Dr. Razouki was the first ever Kuwaiti doctor to complete the “*Reforming of Public Systems: Health, Higher Education and Finance*” Executive Education course at the prestigious Grande École, **Paris Institute of Political Studies** (“Sciences Po”).

Dr. Razouki believes that the future of healthcare is approaching the singularity of coalescing the physical world with the digital. As a result, Dr. Razouki has incubated, funded and developed multiple local, regional and international digital health platforms including the [2014 LTE MENA winner](#) for best mobile application - [AbiDoc](#) - the region's first online appointment booking platform and call center and Kuwait's largest network of private hospitals, clinics and doctors, [MEDtrip](#) – the world's top medical tourism platform with offices in Denver, Colorado and Cebu, Philippines, [Sihatech](#) – Saudi Arabia's largest digital health application company, Nabta Health, the MENA region's first women's health application, and [Cera Care](#), a London based digital health company focused on excellence in elder care across Europe, which was [awarded](#) the Healthcare Startup of the Year 2016 at the Healthcare Startup Awards, from over 1000 entries.

In 2015, Dr. Razouki was presented with the **Kuwait e-Award** for best eHealth application by His Highness Sheikh Sabah Al Ahmed Al Sabah, the Emir of Kuwait. Dr. Razouki was also selected by **Stanford Medicine** as part of a group of 20 global authors to write a chapter on digital health investing in the upcoming Springer published book: [Digital Health: Scaling Healthcare to the World](#). He is the only author from the Arab World.



During 2015, Dr. Razouki was also an **Industry Expert Board Member** at Al Ayadi Al Baytha Health Company, a 50 mn USD fully owned company of [Al Khabeer Capital](#), which is one of Saudi Arabia's largest and most active private equity investors with over **three billion dollars of assets under management**. Dr. Razouki worked together with the turnaround team at Al Khabeer and the asset's management to unlock unrealized value in one of Saudi Arabia's fastest growing medical services companies.

In 2016, Dr. Razouki was selected by the Abdul Rahman Al Sumait Award Executive Committee to represent the science community in Kuwait and present at the first ever meeting of the committee. The Committee is co-chaired by His Excellency Sheikh Sabah Khalid Al Hamad Al Sabah, Kuwait's Minister of Foreign Affairs and Mr. Bill Gates. At one million USD it is the largest science prize awarded in for scientific achievement in Africa. Dr. Razouki was also nominated as one of the [top five venture capital investors](#) in the Middle East and North Africa by Arabian Business. Dr. Razouki also [won two awards](#) at the seventh annual **Middle East Healthcare Leadership Awards** for both **Middle East Public Private Partnership of the Year** for the Jaber Hospital PPP Sustainable Hospital Project as well as **Healthcare Entrepreneur of the Year**.

In 2016, Dr. Razouki was also selected to participate in the prestigious [World Economic Forum Global Health and Healthcare Community](#) Meeting as part of the [Future Trends in Health Task Force](#) which was Chaired by Dr. Melanie Walker, Advisor to the President of the World Bank, Dr. Jim Young Kim. Dr. Razouki was the only participant from Kuwait and had the honor of having **seven out the 10 final key technological trends and themes** accepted in the final outcome report of the forum. Dr. Razouki was also selected by the World Economic Forum and the International Finance Corporation (IFC) as one of the [100 top entrepreneurs](#) shaping the 4<sup>th</sup> Industrial Revolution in the MENA region.

In 2017, Dr. Razouki was appointed to the Advisory Board of [Popular Science Magazine](#). An outlet for eminent scientists such as Charles Darwin and Thomas Edison's writings and ideas in the 19th century, Popular Science is the most prestigious science magazine in the world and was first launched in 1872.

Dr. Razouki was also appointed by the Kuwait Foundation for the Advancement of Sciences to the Board of Trustees of the [Jaber Al Ahmed Center for Molecular Imaging and Nuclear Medicine](#) (JAC), the MENA region's first center of excellence and Type II facility dedicated to the production of common radiopharmaceuticals for applications in positron emission tomography. Dr. Razouki is also Chairman of the Executive Committee.

Dr. Razouki is also the Principal Author of the annual **Middle East Science Report**, the region's premiere publication on the state of science in the MENA region capturing the progress of scientific thought and research across 50 of the region's top universities and research institutions as well as interviewing over 100 of the region's top scientific minds.

Dr. Razouki has also been invited to lecture at top universities and events including Cambridge University, Columbia University, Harvard University and the Cleveland Clinic. Dr. Razouki has also spoken at the World Economic Forum on the Middle East (Dead Sea, 2017) and the World Bank: Youth, Technology and Finance Conference in Algiers during 2018.

[Dr. Razouki](#) is the current Chief Business Development Officer of [Kuwait Life Sciences Company](#) (KLSC) where he is part of a team that manages over 100 million dollars in assets under management including local, regional and international investments on behalf of the Kuwait Investment Authority (KIA), the sovereign wealth fund of the State of Kuwait. Dr. Razouki is the youngest ever chief executive at a KIA owned company. Dr. Razouki is also considered regional thought leader within the Middle East life sciences industry and has championed the building of strong pillars of the local life sciences ecosystem including the region's premiere pharmaceutical licensing and distribution platform; [NewBridge](#) - a 50 mn USD revenue company operating across all 22 MENA countries including Iraq, Iran and Turkey as well as South Africa, [Clinart](#) – the region's top Clinical Research Organization (CRO) and host of the first ever Phase II Clinical Trial in the history of Kuwait at the Dasman Diabetes Institute, [eCore](#) – the region's top active pharmaceutical ingredients licensor and distributor, the [Life Sciences Academy](#) – the region's first ever training and development company focused on the healthcare and life sciences industry as well as [Innomedics](#) – one of Kuwait's top medical device distribution companies that pioneered the distribution of personalized digital health products in the region.

At KLSC, Dr. Razouki and his team have invested and co-invested with some of the world's top life science venture capital funds including, [New Leaf Venture Partners](#) in New York, [Wellington Partners](#) in Munich and [Kearny Venture Partners](#) and [Presidio Partners](#) both of which are based in San Francisco. Notable investment direct and indirect investment include: [CRISPR Therapeutics](#) - a leading personalized genomic medicine company based in Cambridge, Massachusetts (NASDAQ: [CRSP](#)), [iRhythm Technologies](#), based in San Francisco, which closed 56% above its listed stock price on the first day of its IPO (NASDAQ: [IRTC](#)), [Quanta Fluid Solutions](#) – one of the world's first home hemodialysis manufacturers, [Median Technologies](#) – a leading

global provider of medical imaging solutions, especially in the field of oncology based in France (EPA: [ALMDT](#)) and SuperSonic Imagine – a leading global provider of medical ultrasound solutions also based in France (EPA: [SSI](#))

Dr. Razouki is also a former advisor to the central Kuwaiti government where he worked with senior government leaders during the administration of **HE the Prime Minister, Sheikh Naser Al Mohammad Al Sabah** and **Deputy Prime Minister for Economic Affairs, Sheikh Ahmed Al Fahad Al Sabah** on Healthcare, Education and Entrepreneurial reforms as part of Kuwait's 100 billion dollar **Development Plan**. Dr. Razouki continues to work closely with the **Council of Ministers of Kuwait** and is currently advising the government on the development of the Sabah Al Ahmad National Genome Center together with the Kuwait Foundation for the Advancement of Sciences, a National Pharmaceutical Quality Control Laboratory, and the 1 bn USD Jaber Hospital project, a 1,168 facility which will be the largest single healthcare structure in the Middle East.

#### **About the Authors: Dr. Merina Pradhan**

Dr. Merina is a Business Development Associate at Kuwait Life Sciences Company. Dr. Merina is a public health professional with experience in clinical medicine and the North American pharmaceutical industry. After completing her medical studies in India she spent time practicing medicine with corporate hospitals as well as Mediciens sans Frontieres (Doctors without Borders). She completed her Masters in Public Health from Harvard University in Healthcare Management and Policy with a concentration in Women and Gender Studies. Most recently she was a Pharmacovigilance Scientist with Johnson & Johnson pharmaceuticals.

Dr. Merina aims to be able to bring her diverse background in NGOs, corporate healthcare, and pharmaceutical industry together in public health, especially being able to focus on the healthcare of marginalized groups.