

The Pulse. 7th Edition 2017 Egypt Healthcare

GENERAL HOSPITALS

We have a number of opportunities for healthcare service providers, where the market entry is possible by way of management agreement, Joint Venture and Long-term Lease of Land and/or Property.

- Riyadh > Sharjah
- Cairo
- > Ajman

Fujairah

- Dubai
- Abu Dhabi

CLINICS

We are seeking investors to partner with a recognized healthcare operator to establish Clinics in:

- Riyadh
 - Abu Dhabi
 - Cairo

Possible modes of market entry include:

- Management Agreement
- Joint Venture
- Long-term Lease of Land and/or Property



Providers and Investors Seeking to Expand in the Middle East and North Africa

Opportunities for Healthcare Service

The opportunities are available in:



LONG TERM CARE & REHABILITATION CENTERS

We are seeking to introduce well known Longterm Care and Rehabilitation providers to known investors in Cairo, Ajman, Abu Dhabi and Riyadh.

The way of dealing is available through:

- > Management Agreement
- > Joint Venture
- > Long-term Lease of Land
- and/or Property

CENTERS OF EXCELLENCE

An established and recognized healthcare provider is seeking to setup centers of excellence through management agreement, joint venture or long term lease.

The opportunities are available in:

The Specialties are:

OphthalmologyPediatric

Maternity

IVF

- Riyadh
- > Cairo
- > Dubai
- > Abu Dhabi
- > Sharjah
- > Ajman
- > Fujairah
- > Orthopedic
- > Beauty & Cosmetics
- > Wellness

Introduction

Egypt is the most populous Arab country in the world with 94.7 million residing in Egypt and 9.5 million living abroad. With a population growth rate of 2.2% per annum, this will continue to fuel demand for infrastructure services with a direct impact on the evolving urban landscape. Greater Cairo, which includes Giza, Cairo and 6th October City, is home to almost 17.2 million population.

With 1.5 beds per 1,000 population in 2014, the healthcare sector in Egypt lags behind both quantitively and qualitatively in provision of healthcare infrastructure and services. The healthcare system faces the burden of providing healthcare services associated with poverty, which stood at 27.8% (25.5 million), the illiteracy rate stood at 15.8% (14.5 million). Concurrently, the healthcare system needs to treat emerging diseases and illnesses associated with modern and urban lifestyle, partially due to the growing middle class population.



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Shehzad Jamal Associate Director Middle East and North Africa Healthcare, Education & PPP shehzad.jamal@colliers.com The Egypt healthcare sector is required to evolve at a very fast pace and investors and operators of healthcare facilities need to make challenging decisions. In the coming years the healthcare system needs to improve both quantitively and qualitatively to meet with the existing and potential demand gap, thus it will continue to offer opportunities for investors/operators. Key factors that make Egypt's healthcare market attractive are:

- Growing Population: The country has an estimated population of 91.5 million in 2015, which is expected to reach 151 million by 2050.
- > **Demographics:** Egypt had around 24 million people over the age of 40 in 2015, this is expected to increase to almost 55 million by 2050.
- Increasing Insurance Penetration: At present approximately 57% of people are insured, mainly with two publicly administrative insurance companies. In 2016 a new law, significantly expanding insurance coverage for all Egyptian citizens, was submitted to the government for consideration. This is expected to boost the domestic healthcare market.
- > Lifestyle Diseases: Lifestyle diseases are on the rise. Some key statistics:
 - **Diabetes:** 6.5% of the total population.
 - Hypertension: 5% of the population.
 - **Obesity:** 33.1% of the population suffer from obesity; women with 45% and men with 21.4%.
 - **Hyperlipidemia:** 38.6% of the population suffer from raised cholesterol levels.
 - Accidents: number of road accidents in Cairo during 2013 was 13,957, a 24% increase from 2012.
 - **Stroke:** The volume of patient deaths from stroke has risen over the last 10 years, increasing from 28,800 in 2002 to 33,600 in 2012.

- Medical Tourism: Egypt has earned a strong reputation within the region of having quality doctors and infrastructure at a cost effective fees and with easier visa access when compared to some of the regional competitors which has helped the country to earn a reputation of a medical tourism hub in the region. Medical tourists, coming to Egypt, are mainly from North, East and West Africa & GCC.
- Clinical & Beauty Related Treatment: The growth in the middle and upper class income have resulted in a growing demand for beauty and cosmetic related treatments, such as body contouring, anti-aging, lipoplasty (liposuction), eyelid surgery, breast implants, rhinoplasty, facelifts, Botox, medical spas, hair transplant etc.
- Increase in Private Sector Share: The government is expected to encourage the private sector to take a leading role in providing healthcare services, as the public sector struggles to keep pace with the burgeoning population's healthcare demand.

Colliers International Egypt Healthcare Overview provides a brief snapshot of the key factors impacting the Egyptian Healthcare sector and its future outlook.

2

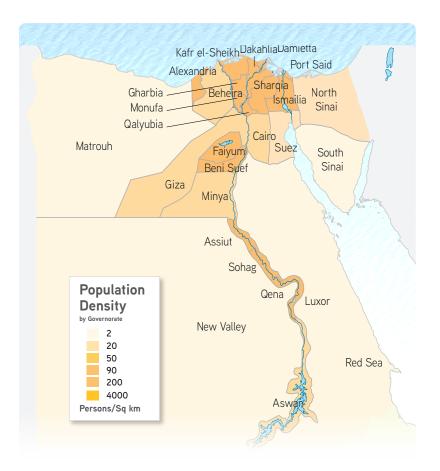
Colliers International Healthcare Advisory & Valuation Services team is solely focused on healthcare related business (OpCo) and real estate (PropCo), from complex medical business related operational advisory to real estate related advisory.

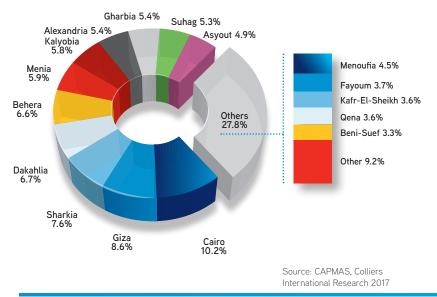
Our group has the experience and knowledge essential to providing forward thinking solutions to any challenging healthcare related decisions where success is measured in high quality care delivered in a cost effective way.



Market Research | Market Entry & Expansion | Equity & Debt Fund Raising Highest & Best Use Study | Market & Financial Feasibility Study Operator Search and Selection | Land, Property & Business Valuations

Population and Healthcare Analysis





Demographic Overview

At 91.5 million, Egypt is North Africa's largest country ranked 15th in the world in terms of largest population, equivalent to 1.2% of the world's population. The population, growing at an average rate of 2.2% per annum, will continue to fuel demand for infrastructure and services, including healthcare, having a direct impact on the evolving urban landscape.

For administrative purposes, Egypt is divided into twenty-seven governorates: Cairo with 9.3 million people has the highest population in the country, representing 10.2% of the total, followed by Giza (7.9 million) and Sharkia (6.8 million), 8.6% and 7.4% respectively.

About 95% of the country's population live along the banks of the Nile and in the Nile Delta, which is located at north of Cairo, and along the Suez Canal. These regions are among the world's most densely populated, containing an average of over 3,820 persons per square mile (1,540 per km²).

The major governates/cities Cairo (100%) and Alexandria (98.8%) have very high urbanization, while Giza is mixed of both urban and rural population, having 58.6% of urban population.

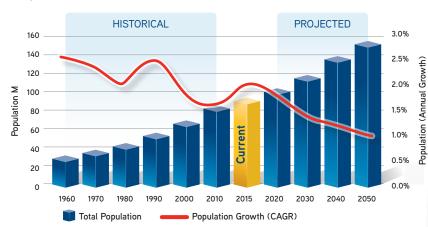
Egypt's large and growing population will continue to fuel demand for Healthcare Projects

The changing population profile

Historical & Projected Population

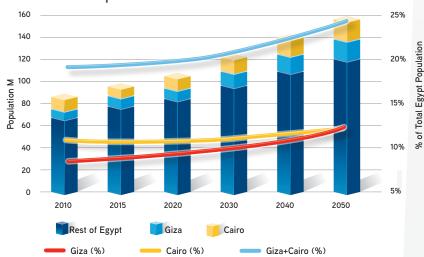
The population of Egypt has increased from 27.1 million in 1960 to 91.5 million in 2015, an increase of 3.4 times in the last 55 years, with a CAGR of 2.2% per annum.

Based on World Bank projections, the population is expected to increase to just over 151 million by 2050.



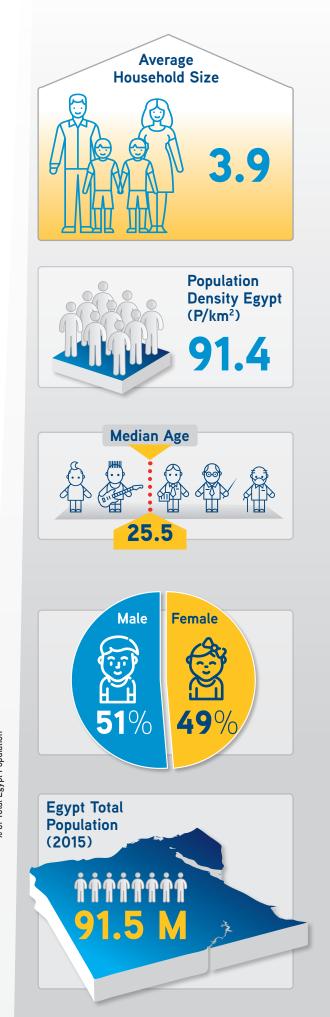
Population Growth (1960 –2050)

In 2015, the total population in Greater Cairo stood at 17.2 million; accounting for 18.7% of the total Egypt's population. Growing at a CAGR of 2.0% per annum, Greater Cairo's population is estimated to reach 19.4 million by 2020 and 35.5 million by 2050. This represents a 19.3% and 23.5% of the total Egypt's population respectively.



Cairo & Giza Population (2010 – 2050)

Expanding population, coupled with a rising average income, will continue to feed demand for healthcare, as well as for infrastructure, energy, water, telecoms, technology, housing, education and financial services.



Source: CAPMAS, Colliers International Research 2017

Lifestyle diseases

The Raise of Generation X, Y & Z and its Impact on Healthcare Demand

Lifestyle diseases (also sometimes called diseases of longevity or diseases of civilization) are diseases that appear to increase in frequency, as countries become more industrialised and life expectancy increases.

As a result of urbanisation and the rise of disposable income, there has been an increase in chronic diseases such as diabetes, coronary problems and other obesity-related illnesses. Recently the rate of diabetes related illnesses has witnessed an unprecedented increase in the MENA Region.

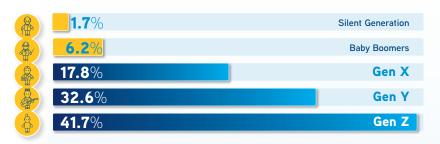
In 2015, there were 415 million people with diabetes in the world, out of which more than 35.4 million were in the MENA Region. By 2040 this number will rise to 72.1 million. According to the WHO, in Egypt in 2015 the diabetes prevalence rate was 16.7% among the country's population between the ages of 20-79 years, a total of 7.8 million cases of diabetes. As shown in the chart, the Egypt's diabetes prevalence rate is significantly higher than in some of the developed countries.

In Egypt obesity prevalence rate among adults is 33.1%, higher than in some developed countries, and also one of the highest in the MENA region.

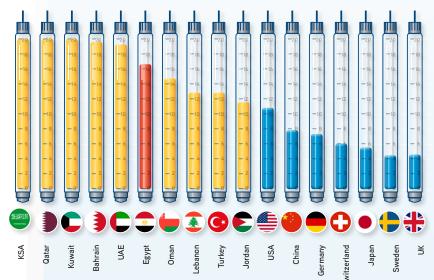
The prevalence of hypertension among adults in Egypt stands at 24.9%, which is one of highest in the world.

Common diseases of longevity

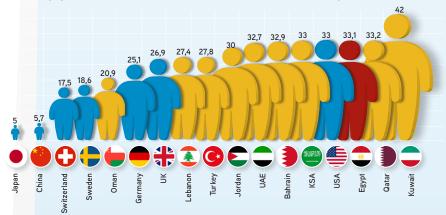
- > Alzheimer's disease,
- > Atherosclerosis,
- > Asthma,
- > Some kinds of cancer,
- > Chronic liver disease or cirrhosis,
- > Type 2 diabetes,
- > Chronic Obstructive Pulmonary Disease,
- > Heart disease,
- > Metabolic syndrome,
- > Chronic renal failure,
- > Osteoporosis,
- > Stroke



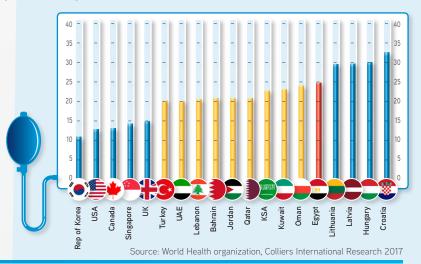
Diabetes prevalence (% of population ages 20 to 79) in 2015



Obesity prevalence rate among adults as of 1 January 2014

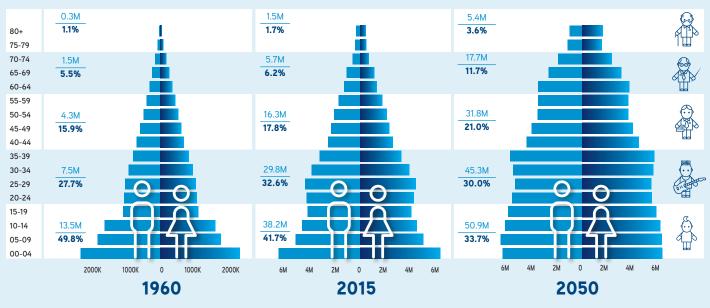


Hipertension prevalence rates (above 18+), 2015



Changing Population Profile

10



A changing age profile will have significant impact on demand for healthcare services and expenditure.

Analysing the demographic trends, it is estimated that Egypt's population will change from Baby Boomers to Generation X, Y & Z. This shift would impact disease patterns as well as the type of healthcare services required.

As can be seen in the above exhibit, there is significant change in the Egypt's population between 1960 and 2015 and it is expected to change further between 2016 and 2050.

The Percentage of Population between **0 to 19** during 1960 and 2015 has decreased from 49.8% to 41.7%, and is expected to decrease further to 33.7% by 2050. However, as a result of an increase in the total population, those between 0 to 19 years have increased further from 13.5 million in 1960 to 38.2 million in 2015, which is expected to increase to 50.9 million in 2050, the accumulative effect creates demand for healthcare facilities and services relating to mother and childcare (obstetrics, gynaecology, paediatrics, etc.), alongside the common prevailing communicable and some non-communicable diseases.

By 2050, around 85 million will be born in Egypt, increasing demand for mother and childcare related services and facilities.

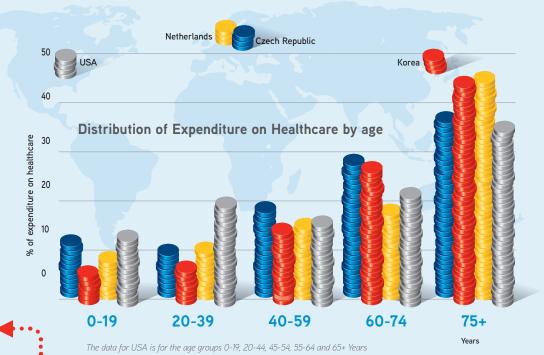
The Percentage of Population between **20 to 39** has increased from 27.7% in 1960 to 32.6% in 2015, which is expected to decline slightly to 30.0% by 2050. In real terms, the increase in total population from 91.5 million to 151 million, which will change the age profile with those between 20 to 39 years will be even more significant, totalling to around 45.3 million in 2050 comparing to 29.8 million in 2015.

This age group is very critical for the existing and future disease pattern and health expenditure.

Non-communicable diseases (NCDs), including cardiovascular diseases, diabetes, cancer and chronic respiratory diseases, normally take shape within this age group and are currently the leading national causes of death in Egypt, estimated to account for 82% of all deaths and 67% of premature deaths in the country.

These diseases result in the development of chronic diseases, specifically heart disease, irritable bowel syndrome, chronic obstructive pulmonary disease and some types of cancer.

Source: World Health Organization, Colliers International Research 2017



The graph represents a percentage of healthcare expenditure's distribution by age for four different developed countries – Czech republic, Korea, Netherlands and USA.

In 2014 in Egypt the per capita expenditure was US\$ 178, with a total estimated expense of US\$ 16 billion on the healthcare sector. Based on the current percentage distribution at current prices, total expenses on healthcare is expected to increase to almost US\$ 26 billion in 2050 for a population of 151 million. However, as result of change in the population distribution with people having longer life profile compared to 2015, the total expenditure on healthcare could reach US\$ 44 billion in 2050.

The Percentage of Population between **40 to 59** witnessed a slight increase from 15.9% to 17.8% between 1960 and 2015, and further expected to rise to 21.0% by 2050. The increase of total population resulted in a significant increase of population between 40 to 59 years, i.e. from only 4.3 million in 1960 to 16.3 million

in 2015 (almost 4 times increase). This is expected to double to 31.8 million by 2050.

In the next three decades, as the young population of Egypt ages, there is likely to be a sharp rise in healthcare demand, with 80% of healthcare requirements typically occur after the ages of 40-50.

The Percentage of Population between **60 to 74** increased from 5.5% to 6.2% and is expected to double to 11.7% by 2050.

In terms of absolute numbers, the input of population in age brackets between 60 to 74 years increased from only 1.5 million in 1960 to 5.7 million 2015 (almost 4 times increase), which is expected to increase further by more than three times to almost 17.7 million in 2050, comparing to 2015.

The percentage of Population **above 75** witnessed a slight increase from 1.1% to 1.7%, which is expected to increase by more than three times to 3.6% by 2050. The overall increase of total population will have significant impact on population above 75 years, resulting in increase from only 0.3 million in 1960 to 1.5 million in 2015 and to almost 5.4 million in 2050.

One of the biggest changes in Egypt's population profile is the change in life expectancy, which has increased from 46.8 years for males and 49.3 years for females in 1960 to 69.2 years and 73.6 years for males and females respectively in 2015. This will reach 75.0 years for males and 79.3 years for females by 2050.

In 1960, in Egypt the total number of population in age brackets over 65 years was just above 1 million, which increased to 4.8 million in 2015 and is expected to be almost 16 million by 2050.

These changes will lead to increasing requirement of a larger number of long term care (LTC) facilities. The minimum requirement for LTC beds in developed countries is in the range of 4-6 beds per 1,000 population above 65 years (in some countries, it is as high as 12 to 15 beds).

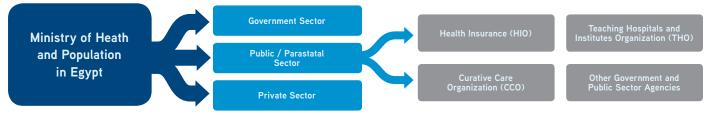
Applying these benchmarks, Egypt currently needs around 19,000 beds dedicated for LTC, this is expected to reach almost 64,000 LTC beds by 2050.

Source: Colliers International Research 2017



Healthcare Overview of Egypt

Egypt Ministry of Health and Population (MoHP) - Operating Structure



Source: Ministry of Health and Population, Colliers International Research 2017

Egypt has a diverse health system with numerous public and private healthcare providers.

Egypt's healthcare sector is regulated and governed by the Ministry of Health ("MoH"), also known as Ministry of Health and Population ("MoHP"). The above exhibit depicts three separate divisions of healthcare facilities in Egypt, managed by the MOHP.

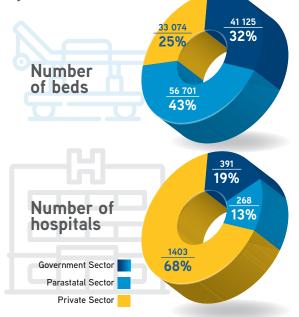
In 2014, there were a total of 2,062 hospitals with around 131,000 beds.

Public or parastatal sector is the largest in term of beds, operating almost 57,000 and 268 hospitals in Egypt. The sector is represented by other government and public sector agencies, such as Health Insurance Organization (HIO), the Curative Care Organization (CCO), the Teaching Hospital and Institution Organization (THO).

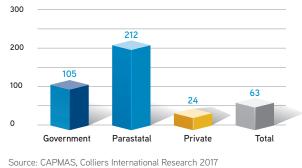
The government sector provides an additional 41,000 beds.

The private sector is fragmented with 33,000 beds in 1,400 hospitals.

The overall average number of beds per one hospital was 105 beds in government sector, 212 beds per one hospital in public or parastatal sector and only 24 beds in private sector, this clearly indicates that private sector offering is very fragmented, doctor driven instead of brand driven and offers opportunities for consolidation, merger and acquisition. Composition of Hospitals and Bed Supply by Sector – 2014



Average size of hospital by sector (in beds) – 2014



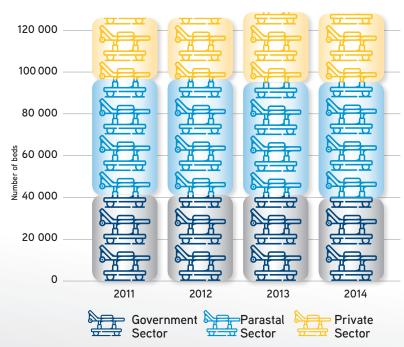
Healthcare Facilities, Resources and Services

Growth in Beds

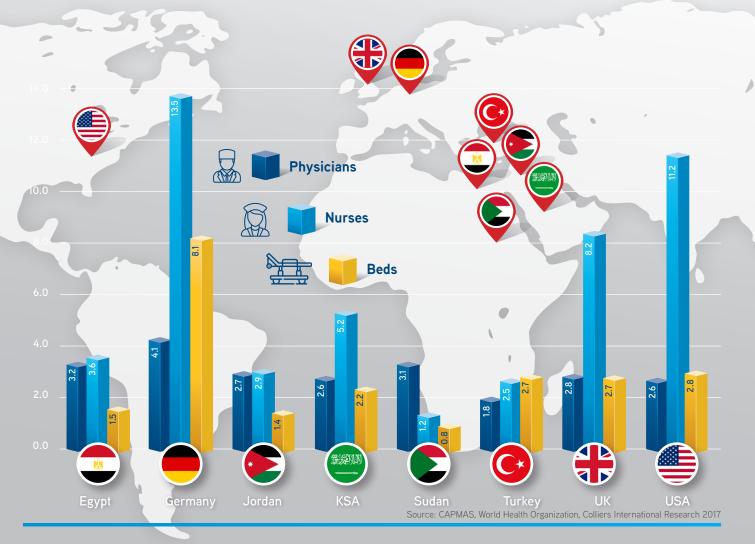
During 2011 – 2014 number of public / parastatal beds remained more or less the same while the number of beds in the private sector grew at a CAGR of 4.1% during the same period. Adding almost 3,700 new beds, indicating demand for the private sector.

However, the number of beds per 1,000 population (1.5 beds / 1,000) remains low compared to other countries in the region and significantly lower compared to the developed countries and even world average of 2.7 beds / 1,000 population, thus offering opportunity for expansion.

However, the ratios of physicians and nurses per 1,000 population remain competitive, when compared to both regional and international benchmarks. Number of beds in Egypt by sector, 2011 - 2014



Key Healthcare Indicators (per 1,000 of population) - 2014



Outpatient Encounters in clinics of general hospitals in public sector by Governorate in 2015

The adjacent exhibit depicts the number of outpatients in clinics of general hospitals in the public sector.

The total number of outpatients in clinics in general hospitals in the public sector was 59.3 million.

Sharkia had the highest volume of outpatients at 6.1 million, followed by Giza at 5.2 million and Cairo at 4.3 million.

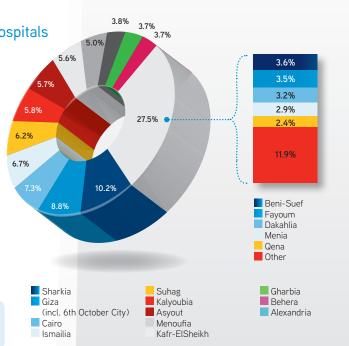
Greater Cairo, which comprises of Giza, Cairo and 6th October City, had a total volume of 9.6 million of outpatient encounters.

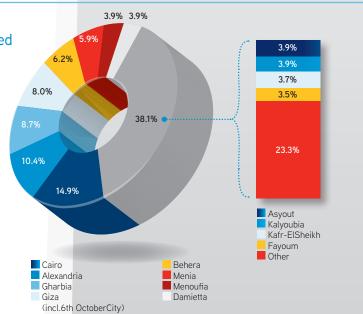
Numbers represent only outpatients in clinics in general hospitals in the public sector. Total numbers of outpatients and inpatients for all three sectors are not publicly available.

Outpatient Encounters in clinics in Specialized Hospitals by Governorate in 2015

Outpatients in clinics in specialized hospitals in Greater Cairo reached a total of approximately 2.7 million in 2015, of which 1.9 million were in Cairo and 0.8 million were in Giza (including 6th October city). Alexandria had the second largest volume of patient encounters (1.3 million) in specialized hospitals after greater Cairo.

With the advance in medical science, most surgeries are now being performed as day procedures. This has been a key reason for the strong growth of the outpatient encounters in Cairo.



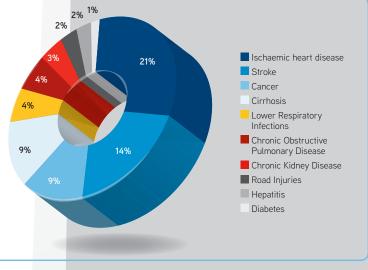


Top 10 Causes of Death in Egypt in 2010

On overall basis, the proportion of deaths as a result of communicable diseases has declined. However, the lack of of safe drinking water and sanitation has resulted an increase of both hepatitis B and C cases.

Non-communicable diseases (NCDs) are the main cause of death estimated to be over 82% of total deaths in Egypt.

The adjacent chart, the top 10 causes of death in Egypt, shows that main causes of death are non-communicable diseases (NCDs).



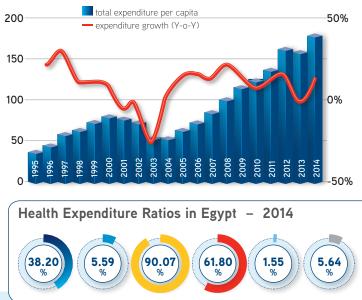
Source: CAPMAS, Colliers International Research 2017

Health Expenditure

Total expenditure on health as a percentage of GDP was 5.6% in 2014, representing a decrease from 6.3% in 2011.

The health expenditure per capita in 2014 was US\$ 178, representing an increase from only US\$ 37 in 1995, US\$ 64 in 2005 and US\$ 126 in 2010, with total expenditure on healthcare estimated to be around US\$ 16 billion. Therefore, the health expenditure per capita grew at a CAGR of 8.6% between 1995 and 2014, which is quite significant. However, in 2014 it was only above US\$ 178, compared to over US\$ 1,000 in most of the GCC countries, for example UAE's had health expenditure per capita of US\$ 1,611.

Healthcare expenditure per capita [USD] (1995 - 2014) in Egypt



Health Insurance Sector

The Health Insurance Organization (HIO) is the primary provider of insurance in Egypt, established by the MOHP in 1964 as a parastatal government-owned establishment with intent to provide health insurance coverage to all Egyptians.

In 2010 the number of people, covered by the HIO, was 45 million growing at a CAGR of 2.8% and reached 50.2 million in 2014. The HIO covers employees, retirees and widows of publicly owned institutions and some private-sector, newborns and schoolchildren.

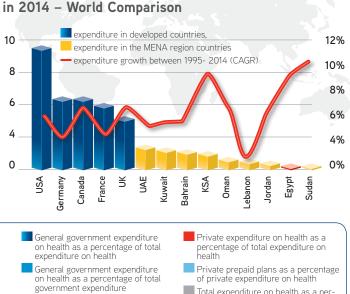
In 2016 a new law was submitted to the government for consideration. The new bill intends to cover 100% of all Egyptians including business owners, expatriates and casual workers. The low imposes compulsory monthly payments (subscriptions) for all, ranging from 1 to 4% of the whole monthly income. This is significantly higher than current payments, withhold from only part of salary. Additionally, the individuals will be responsible for payment of monthly subscriptions for their family members, including an unemployed wife and each of the kids (2% and 0.5% respectively).

Compared to developed nations the per capita expenditure on healthcare was very low, i.e. Switzerland spent US\$ 9,674, which is highest in the world, United Kingdom had US\$ 3,935 and other countries had over US\$ 4,000.

Egypt needs to make major changes in its policy to come closer to some of its neighboring developed and GCC countries, requiring a major shift in composition of healthcare market, which is at present highly depended upon private sector.

The healthcare market in Egypt is mostly a private sector driven market, where almost 62% of the total expenses are spent by private sector and only 38% are spent by public sector, with 90% out-of-pocket expenditure as a percentage of private expenditure on health in 2014.

Healthcare expenditure per capita [USD]

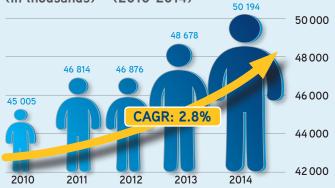


- Total expenditure on health as a per-
- centage of gross domestic product

Population of Egypt covered by the HIO (in thousands) - (2010-2014)

Out-of-pocket expenditure as a percent-

age of private expenditure on health



However, the new law faces numerous difficulties, facing objections of the Doctors Syndicate.

Currently it is not clear when the new law will will be implemented. But once it is introduced, the expand of insurance coverage for all Egyptian citizens will have a positive effect on healthcare expenditures and further increase the demand for healthcare services

Source: CAPMAS, World Health Organization, Colliers International Research 2017

Healthcare / Medical Cities and Parks

Across the region and in Egypt specifically, there is a new trend in developing Healthcare / Medical driven Mixed Use Developments, known as "Healthcare Cities / Parks" or "Medical Cities / Parks", with retail, residential, commercial and hospitality developments. Those components can work together to form a successful destination.

Hospitality

Cairo is known to be a local and regional medical tourism hub, attracting patients from Africa and the GCC. Traditionally, medical tourists were accompanied by one or more family members and the length of stay was between 3-15 days depending on the treatment.

Apart from medical tourists, the market is also witnessing an inflow of visiting physicians from regional and global markets, on a periodic basis. Physicians generally prefer staying in hotels and serviced apartments in close proximity to the healthcare facility, which will be beneficial to the "Healthcare Cities / Parks" or "Medical Cities / Parks".

Retail

A number of new malls in the GCC region have incorporated day surgical centers. Some of the key examples are Mediclinic Day Surgery center in Dubai Mall and Ibn Battuta Mall. Such healthcare facilities within or in close proximity to retail centers providing easier access for patients.

Waiting time at healthcare facilities can usually range between 30 minutes to an hour. It is a common practice for a family member, accompanying the patients, to indulge in shopping during the waiting time.

Impact of Healthcare on Other Sectors

Residential

The healthcare offering will have positive impact on the residential sector as number of doctors and staff prefer to live in close proximity of the healthcare facilities.

88 78

Offices

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Healthcare has a positive impact on the office sector. Businesses relating to healthcare generally prefer to have their office complex in close to healthcare facilities.

Impact of Healthcare & Wellness on Second Homes





One of the drivers for Egyptian property investment is a hedge against inflation. The recent devaluation and currency fluctuations increased residential prices approximately by 20% (in EGP terms) year-on-year, supported by an undersupplied residential market.

Along with the demand for primary accommodation, a second tier within the residential market has emerged over the last decade. Holiday or vacation homes have become a popular investment and lifestyle choice and will continue to be underpinned by the volume of products and choices available to consumers, both in terms of location and price points.

Sustaining high occupancy levels all year round in second home destinations can be challenging. Colliers has witnessed these challenges being addressed through introducing healthcare and wellness driven resorts, long-term care and rehabilitation facilities. These facilities will have a positive impact on occupancy levels by attracting not only vacationers, but also retired households and those seeking longer holidays within proximity to healthcare facilities.

While seasonality is part of the story, it can also be due to the lack of 'pull factors'. These 'pull factors' include proximity of hospitals, clinics, long-term rehabilitation centers, wellness retreats, fitness/ skill retreats and retirement homes.

There is an opportunity within the holiday home market for developers to create destinations, by providing essential community infrastructure.

HEALTH & WELLNESS

High prevalence of lifestyle diseases in Egypt, along with growing awareness among affluent consumers, leads to Egyptians looking for resorts that offer more than just spa packages. In order to create a destination, developers can also offer health driven wellness and healthcare facilities, which are likely to increase absorption, occupancy levels within the development and enhance price premiums.

FITNESS/SKILL RETREATS

Destination-based fitness camps are gaining popularity especially within the younger generation Y and Z. There are two components: health retreats that promote lifestyle changes and academies focused enhancing group skill techniques. The fitness industry is upgrading with fitness slimming getaway programs in holiday locations. With obesity levels increasing across the region, it is likely that Egypt's holiday home market has capacity to absorb this product within the developments.



RETIREMENT COMMUNITIES

With approximately 10% of Egypt's population above the age of 65 and the affluent community representing 2% of the total population, need for retirement homes has been on the rise. There is an established pattern across international markets for developing retirement communities that provide the look and feel of vacation homes. There is a potential for Egyptian developers to look at capitalizing on such concepts within their developments.



REHABILITATION CENTRES

With the decline of the nursing home model of care and the growth in more assisted living options, long-term rehabilitation centers have become a common phenomenon across international markets. Developers can integrate new real estate products, targeting retirees as well as those looking for longterm care and having on-the-ground amenities.



Conclusions

Demand Gap

Between 2010 - 2014 Egypt had on average 1.5 beds per 1,000 population, which decreased to 1.46 in 2015 and 1.36 in 2016, which is quite low comparing to world average of 2.7 beds per 1,000 population. The ratio of doctors per 1,000 population of 3.3 is quite impressive, however, there is a shortage of specialized doctors and para medical staff due to relocation of high quality doctors to GCC and Western countries. Colliers has projected the demand for total number of beds and clinics required till 2050 under the two scenarios:

- Scenario 1 (Beds) applying Egypt's average ratio (between 2010 - 2014) of 1.5 beds per 1,000 population,
- Scenario 2 (Beds) applying other countries ratio of 2.0 beds per 1,000 population.
- Scenario 1 (Clinics) 75% of total doctors working in public or private sector or having their own business run clinics on full time or part time basis.
- Scenario 2 (Clinics) 50% of total doctors working in public or private sector or having their own business run clinics on full time or part time basis.

Thus, the number of beds in 2014 was around 131,000 with 1.5 beds per 1,000 population. However, in order to improve the healthcare services in Egypt both in terms of quality and quantity, Egypt needs to increase the beds ratio per 1,000 population to 2.0 beds at a minimum. This will create demand of around 179,000 (a gap of

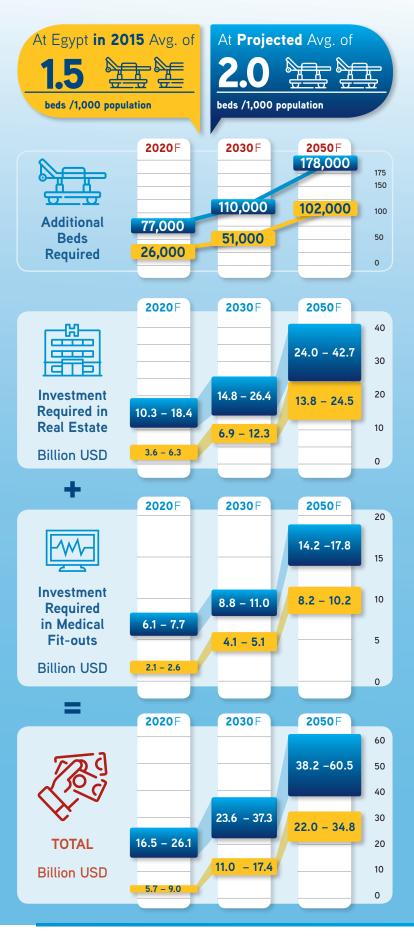
almost 48,000 beds between existing requirement and supply in number of beds in 2014).

There were a total of 310,741 doctors in Egypt during 2016, i.e. 3.3 doctors per 1,000 population, a significant improvement compared to 2010, when the ratio was 2.8. However, if we assume that the future ratio will remain at 3.3 doctors per 1,000 population, Egypt will require additional 36.000 doctors by 2020 and almost 203,000 doctors by 2050, creating a great demand for clinic space. Currently, most of this demand is surveyed by establishing clinics in residential, offices and retail shops, which usually provide healthcare services of poor quality. Colliers has observed developing of dedicated healthcare clinics / daycare surgery centers and centers of excellence as one of the main growth opportunity in Egypt.

The current cost of construction for a Grade A hospital is in the range of US\$ 1,500 / sqm to US\$ 2,000 / sqm, while the gross area per bed ranges from 90 sqm to 120 sqm and investment in medical fit-outs ranges between US\$ 80,000 to US\$ 100,000 per bed.

The following exhibits represent the number of additional beds and potential investment in real estate and healthcare business (medical fit-outs, medical equipment etc.), which are required to cater to the demand of the growing population during upcoming years:

Demand Forecast – Beds & Required Investment in Real Estate & Medical Fit-outs



Demand Forecast - Clinics & Required Investment in Real Estate





Market Opportunities

The healthcare market continues to grow in Egypt, primarily due to the demand from continuously increasing population in general, which is expected to reach 151 million by 2050, gradual increase in elderly population volume specifically (from current level of 7.8% to 15.3% by 2050) and increase in health insurance coverage.

Every year Egypt needs a minimum of 2,500 (1.5 beds / 1,000 population) to 3,500 (2 beds / 1,000 population), resulting in a requirement of additional 26,000 to 77,000 new beds by 2020 (and between 102,000 to 178,000 beds by 2050, a considerable increase), thus offering ample opportunities to invest in the healthcare sector of Egypt. The rising volume of elderly population and burden of lifestyle diseases are expected to increase the demand for the following facilities:



Centers of Excellence / Daycare Centres

As a result of advancement in healthcare technology (for example, such as laparoscopy) a number of daycare surgeries (treatments / procedures) significantly increased, resulting in higher demand for daycare surgery centers.

Moreover, an increase in number of lifestyle diseases, such as diabetes, obesity, depression, strokes, heart related alignment, blood pressure, etc., globally and in Egypt specifically.



Such daycare surgery centers and Centers of Excellence can be part of a large office complex and even retail centers or malls, requiring from 3,000 sqm to 5,000 sqm space.

Long Term Care/ Rehabilitation

One of the biggest changes in Egypt's population profile is an increase in life expectancy, which has increased from 46.8 years for males and 49.3 years for females in 1960 to 69.2 years and 73.6 years for males and females respectively in 2015 and expected to reach 75.0 years for males and 79.3 years for females by 2050.

The total number of population above age of 65 years in Egypt in 1960 was only above 1 million, which increased to 4.8 million in 2015 and expected to be almost 16 million by 2050.

Based on the market benchmarks, Egypt requires presently around 19,000 dedicated LTC beds, which are expected to increase to almost 62,000 LTC beds by 2050.

In summary, the healthcare sector in Egypt, especially private healthcare sector, offers several lucrative opportunities for developers, investors and operators. However, it also possesses number of challenges, such as high capital cost, brain drain of qualified doctors and paramedical staff, especially to GCC countries.

Colliers International works with a number of market players to assist them in their expansion plans, either by expansion of existing brand or attracting international brands to the region. Colliers also assists to a



Primary Care

Owing to the large population in Egypt and high occupancy rates of the hospitals, the country requires more primary care clinics and medical centers to meet the demand of the rising population.



Laboratory and Diagnostic Center

Standalone laboratories and diagnostic centers are required in Egypt to support the increasing volume of outpatient facilities.



Medical Tourism

Egypt has earned a strong reputation within the region of having quality doctors and infrastructure at a "cost effective" fees. Moreover, the visa access is also quite easy comparing to some of the regional competitors.

This has helped the country to earn a reputation of a medical tourism hub in the region, attracting tourists mainly from North, East and West Africa & GCC, which increases the utilisation of the existing healthcare facilities.



Beauty & Cosmetic

Increasing income and population, becoming more aesthetically aware, have resulted in a growing demand for beauty and cosmetic related treatments, such as body contouring, anti-aging, lipoplasty (liposuction), eyelid surgery, breast implants, rhinoplasty, facelifts, Botox, medical spas, hair transplant etc., which have created demand for large number of beauty and cosmetic centers in upscale areas in Cairo and elsewhere.

number of market participants through traditional funding options, such as debt and equity raising, or emerging funding options, such as OpCo / PropCo, or a Joint Venture (JV) with an investor and REITs.

With over 500 offices in 68 countries, and centres of excellence platforms across the globe, Colliers International brings together global innovations with in-depth local knowledge. For further inquiries, please contact Mansoor Ahmed, Director (MENA Region) for Healthcare, Education & PPP on mansoor.ahmed@colliers.com

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\$2.6 billion

in annual revenue

2 billion

square feet under management

15,000 professionals and staff

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