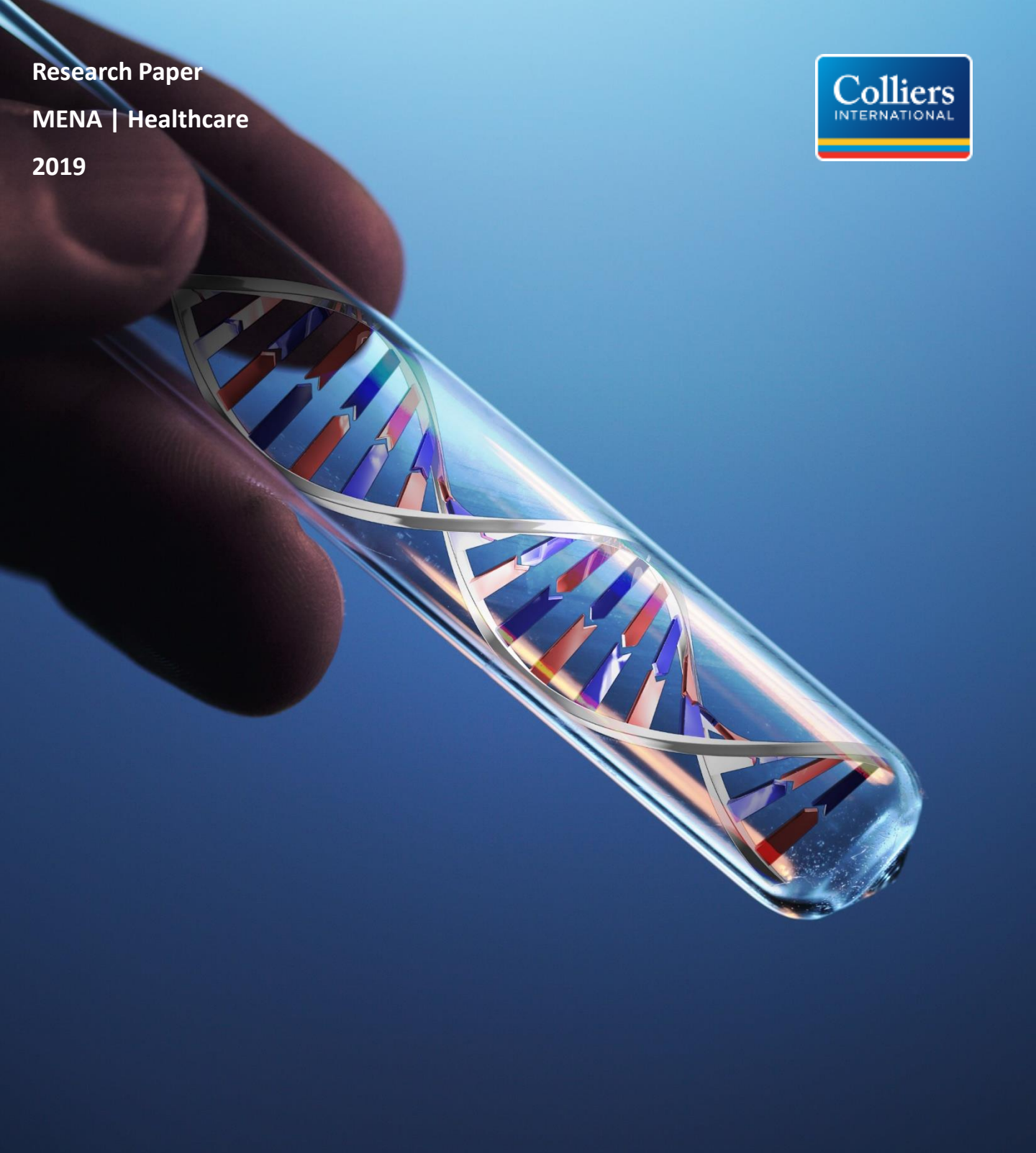


Research Paper
MENA | Healthcare
2019



The Pulse: 11th Edition
MEDLAB Market Report

Clinical Laboratory Services in the MENA Region
2019

Status of the Clinical Laboratory Industry

Clinical Laboratories are one of the most important segments in the healthcare industry's value chain. With the emergence of life style diseases and a paradigm shift in both public as well as private sector worldwide, focusing on preventive care rather than curative care, the importance of clinical laboratory industry is growing with the passage of time as laboratory tests help determine the presence, extent or absence of disease and monitor the effectiveness of treatment.

Various studies have shown that nowadays approximately 60% to 70% of doctors' decisions regarding a patient's diagnosis, treatment, hospital admission and discharge are based on laboratory test results.

Moreover, the advancement and introduction of information technology in the healthcare sector has perhaps the greatest impact on clinical laboratory industry, which on one hand has resulted in an increase in the initial set-up cost and on the other hand presented several benefits including:

- i) Improving and enhancing the accuracy and efficiency of laboratory operations,
- ii) Decreasing the average cost per test (economies of scale)
- iii) Decreasing the lead time to providing test results to the patients and doctors.



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Key Facts & Figures and Demand Generators

Market Size



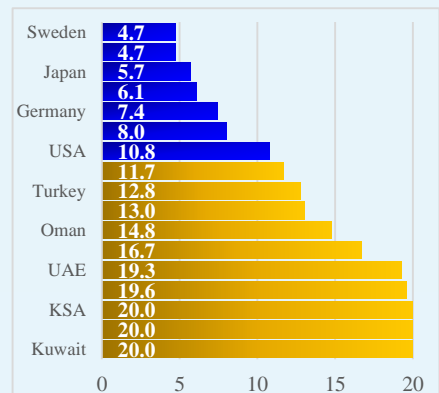
- Based on multiple market sources, the size of the global clinical laboratory industry was in the range of US\$ 180 billion to US\$ 210 billion in 2017, which is expected to increase at a CAGR of 6% to 8% till 2025.
- In comparison, MENA market with an estimated size of around US\$ 8 - 10 billion, is still in its nascent stage and has the potential to grow to match up with developed countries in next few years.

Emergence of Lifestyle Diseases

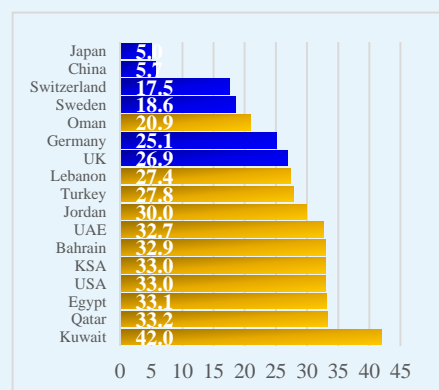


- Based on the demographic trends, it is estimated that MENA population will change from Baby Boomers & Generation X to Generation Y & Z. We believe that this shift would substantially impact disease patterns and in turn the type of healthcare services (Laboratory tests) required.
- Driven primarily by drop in physical activity, rising disposable income levels and changing unhealthy dietary habits, lifestyle diseases (also sometimes called diseases of longevity or diseases of civilization) such as heart disease, cancer and diabetes are on the rise. Aging population and increased life expectancy in the recent years further increases the risks of having chronic disorders.
 - Diabetes:** Based on latest figures available from IDF, there were over 425 million people diagnosed with diabetes in the world and MENA's contribution was 38.7 million diabetic patients in 2017, which is expected to further increase to over 70 million by 2024.
 - Obesity:** Based on the data available from WHO in 2016 almost 2 billion adults, 18 years and older, were overweight, of these over 650 million were obese. In the Middle East region, the data for adults aged 15 years and older in 16 countries shows the highest levels of overweight and obesity in Egypt, Bahrain, Jordan, Kuwait, Saudi Arabia and United Arab Emirates. The prevalence of overweight and obesity in these countries ranges from 74 to 86% in women and 69 to 77% in men.

Diabetes Prevalence (% of Population above 18)



Obesity Prevalence (% of Population above 18)



Source: DHA, MOHAP, Company Annual Reports; Colliers International, 2018

Status of the Clinical Laboratory Industry

Key Facts & Figures and Demand Generators

Emergence of Lifestyle Diseases



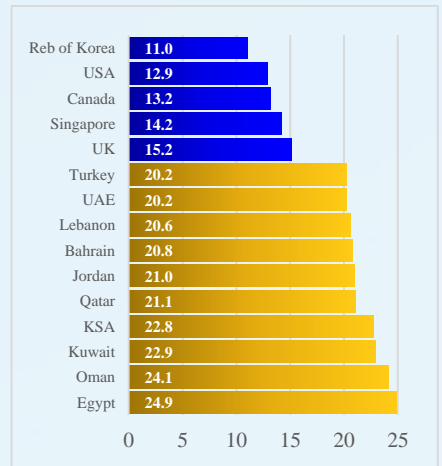
Hypertension:

Based on latest figures available from WHO in 2015, over 1.23 billion people were suffering from high blood pressure and the MENA has one of the highest percentage of hypertensive patients having a prevalence of 20 to 25%.

Aging Population

- Across the Arab world, the life expectancy has significantly improved due to advancement in healthcare technology and services. For instance, in the last 3 decades life expectancy at birth in UAE has increased by 9 years to reach 78.9 years of age, in KSA by 11 years to reach 74.6 years of age and in Egypt by 14 years to reach 71.8 years of age.

Hypertension Prevalence (% of Population above 18)



Source: DHA, MOHAP, Company Annual Reports; Colliers International, 2018

Common Diseases of Lifestyle / Longevity creating Demand for Clinical Laboratory Services



- Alzheimer's disease
- Atherosclerosis
- Asthma
- Some types of cancer
- Chronic liver disease
- Pulmonary Disease
- Type 2 diabetes
- Heart disease
- Metabolic syndrome
- Chronic renal failure
- Osteoporosis
- Stroke

Aging population, emergence of lifestyle diseases and a high incidence of seasonal diseases are the top factors driving the global and regional clinical laboratory services market, as more and more healthcare practitioners rely on clinical tests before making a clinical decision on the treatment regimen.



Status of the Clinical Laboratory Industry

Laboratory Market – Focus on UAE



Increasing Population and Aging

Increasing Population: The UAE had a population of 9.4 million in 2017, which is expected to reach 12.8 million by 2050 according to World Bank projections. As shown in the exhibits below, there has been a robust growth in the population of UAE between 1980 and 2015 and it is expected to upsurge further between 2016 and 2050.



- **Population between age of 0 to 19 years** has jumped from 0.3 million in 1980 to 1.7 million in 2015, which is expected to rise further to reach 2.0 million in 2050. This age group creates demand for healthcare facilities and services, particularly relating to mother and childcare, besides the common prevailing communicable and non-communicable diseases. All these services are expected to augment the overall demand for clinical laboratory services.



- **Population between age of 20 to 39 years** is expected to reach around 3.7 million in 2050 comparing to 4.7 million in 2015. This age group is very critical for the existing and future diseases' pattern and health expenditure, as during this age group people develop diseases, which have long lasting impact on a person's life. As the focus is more on preventive care rather than curative, it will have a positive impact on utilization of clinical laboratory services.

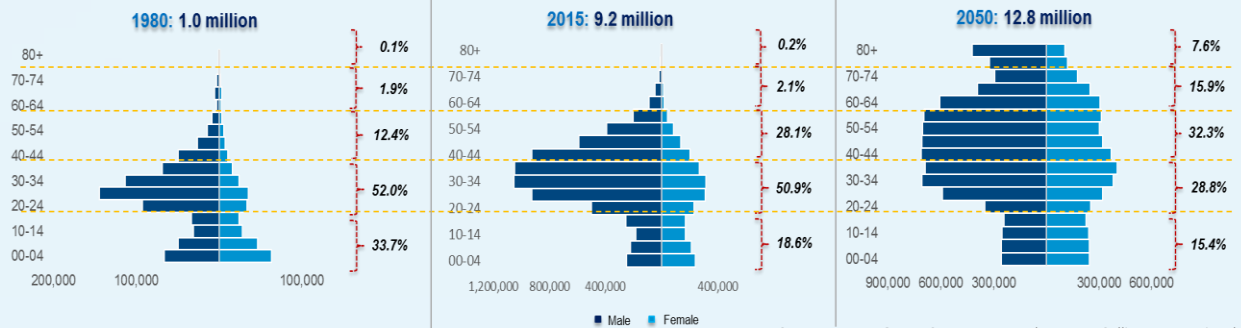


- **Population between age of 40 to 59 years** has witnessed a noteworthy rise from merely 0.1 million in 1980 to 2.6 million in 2015 and is expected to surge to 4.1 million, by 2050. With people surviving for longer and subsequent increase in lifestyle diseases, healthcare and clinical laboratory sector would be forced to expand to keep pace with the demand, as four-fifths of a person's health care needs are generally incurred after the age of 40 years.



- **Population of 60+ years** has witnessed a significant increase since 1980, from only 20,000+ in 1980 to over 200,000 in 2015, which is expected to reach to almost 3 million by 2050, resulting in increasing healthcare demand for aging population and long term care (LTC) facilities. All of this would create a significant demand for clinical laboratory services.

Population pyramid



Growing Number of Beds

Increasing number of beds is bound to create significant demand for clinical laboratory services as on an average an inpatient undertakes 5 to 6 medical lab tests per admission.

	Beds 2016	Historical Growth	Projected Beds 2030
UAE	12,500	5.14%	25,300
Abu Dhabi	5,250	5.60%	11,200
Dubai	5,200	5.29%	10,700



Status of the Clinical Laboratory Industry

Laboratory Market – Focus on UAE

Increasing Number of Inpatients and Outpatients

Rise in number of inpatients will also increase the demand for clinical laboratory services significantly as on an average 3 medical lab tests are undertaken by each patient (inpatient and outpatient combined).



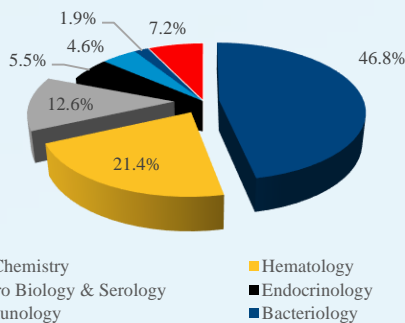
	Inpatients 2016	Historical Growth	Inpatients 2030	Outpatients 2016	Historical Growth	Outpatients 2030
Abu Dhabi	234,000	7.98%	635,000	19 million	8.35%	58 million
Dubai	294,000	6.96%	753,000	9.8 million	9.72%	36 million

Lab Stats of Dubai

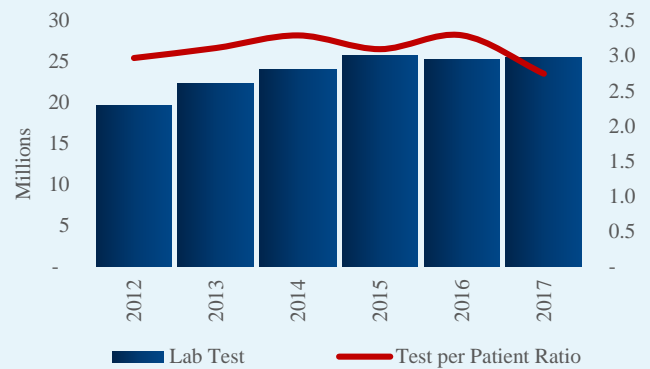


- Based on latest data available, Dubai public sector healthcare facilities conducted around 25.5 million tests in 2017. While Dubai private healthcare sector performed over 6.2 million tests during the same period.
- On average, a patient in Dubai has undergone 2.7 laboratory tests in 2017 as 11.5 million inpatients and out patients were encountered in Dubai.

Most Common Laboratory Tests in UAE (2017)



Laboratory Tests & Per Patient Ratio in Dubai (2012 -2017)



Source: DHA, MOHAP, Company Annual Reports; Colliers International, 2018

Conclusion

In conclusion, the clinical laboratory industry is evolving as a result of the introduction of new technologies. There has been a continuous shift in the balance of power from service providers to healthcare insurance companies and from laboratories in hospitals to standalone laboratories having better and advanced technologies as well as lower cost per test due to economies of scale.



69 countries

\$2.7

billion in
annual revenue

2.0

billion square feet
under management

15,400

professionals
and staff

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In MENA Colliers International has provided leading advisory services through its regional offices since 1996. Colliers International currently has five corporate offices in the region located in Dubai, Abu Dhabi, Egypt, Riyadh and Jeddah.

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