



# Clinical Laboratory Market Insights for UAE

(Forecast to 2023)

Medlab Middle East 

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# Clinical laboratory - UAE

## Market review

UAE has been demonstrating vigorous economic growth over the last two decades, from medical tourism to government initiative in developing the infrastructure particularly in healthcare as well as raising awareness of a disease that may be infectious. Clinical laboratory market has generally managed to maintain an elevated position in the UAE.

Tests type, techniques and service providers offering high quality, cost-effective services as well as clinical expertise to healthcare units and hospitals are all incorporated in clinical laboratory services. In the UAE, the clinical laboratory services market is subdivided into hospital-based laboratories, clinic-based laboratories, standalone laboratories and clinical research organizations. All these segments fall under the same sector in which specific attention has been given to annex value through further evolution and development. UAE has proven to be capable of sustaining a propitious condition upon the implementation of the latest revolution.

This has successfully attracted foreign investments which have diversified their operations across UAE, providing motion in the clinical laboratory sector. Innumerable strategies have been placed by the government of UAE through various channels to continuously improve the healthcare industry including the internal sectors, making clinical laboratory one of its priorities. Dubai Health Authority (DHA) for instance, has presented a Clinical Laboratory Regulation which emphasised on the quality of services, facility design and safety of professionals. These are based on the local and federal laws alongside standards of international accreditation.



## Technology, agenda, budget

In 2017, UAE has successfully launched the Strategy for Artificial Intelligence (AI) with the appointment of the first UAE Minister of State for Artificial Intelligence. This is an en-route towards making UAE the world leader in AI investments within the healthcare industry by focusing on minimising vulnerable and chronic diseases. Introduction of AI is set to pronouncedly change ways of performance in laboratory medicine in the UAE.

Dr P. K. Menon, Director and COO of UAE-based Thumbay Labs, mentioned that “medical laboratory has known to be one of the earliest to adopt AI as well as robotics within its sector. AI will be the power source in manoeuvring the enhancements across the care continuum”.

To improve the patient outcomes within UAE, National Reference Laboratory (NRL) which is headquartered in Abu Dhabi, has planted an initiative to adopt AI methodologies as a fundamental element of NRL’s molecular diagnostic laboratory services, access of advanced technology with the latest innovation. It has also been anticipated that with the existence of AI, there will be a conspicuous leap in the discovery of the novel gene, hence putting the diagnostic peregrination with abundant undiagnosed genetic disease chapter to an end as discussed by Dr Val Zvereff, Technical Director of Molecular Genetics at NRL.

AI is predicted to add an approximate sum of US\$182 billion by 2035 to the economy in UAE with healthcare industry yielding almost US\$22 billion from the profits in its gross value added (GVA). The entire clinical laboratory in UAE is bracing for the “AI lab of the future”.

H.H. Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and the Ruler of Dubai inaugurated the ‘National Agenda’ to guide the initiative towards Vision 2021. The agenda involves entities from distinct fields. UAE aims to provide world-class healthcare services and systems in which private and public healthcare industry is accredited according to its required standards.

Assertiveness is expected to rise among all related entities within the UAE healthcare system as this project has been approved by the Board of Directors of the Emirates Authority for Standardisation and Metrology (ESMA). Director-General of ESMA, Abdullah Al Muaini, has emphasized that the mandatory field accreditation for clinical laboratories is absolutely in line with UAE government’s Vision 2021, reinforcing sustainable development as well as enriching the life quality in UAE.

## Innovation, supply, demand

ESMA top officials also support the encouragement of innovation in provisions of healthcare treatments and services using advanced technology. Hence this supports the development of researches within medical sectors as an initiative to treat diseases. On the other hand, Government Excellence Model (GEM) has put forward initiative with several features which include the focus on innovation in the public healthcare industry.

However, an adequate amount of attention is also given to the private sector as it is a crucial part of the national innovation standing alongside the engagement with R&D institute in the country. UAE has set the comprehensive orientation of science, technology and innovation (STI) policy through the National Innovation Strategy (NIS) which carries the objective of being one of the world’s most innovative countries by the year 2021.

This culture which has been thought to be in practice amongst public sectors, private firms and individuals in the UAE will be a major turning point within the clinical laboratory sector. Even though the sector may be relatively minor to the stereotype minds since only an approximate amount of five to seven per cent of a healthcare bill is allocated to cover the cost of clinical laboratory service.

However, what patients do not conceive is the massive role clinical laboratory carries in fortifying patients’ well-being. It is vital to be aware that more than 70 % clinical decisions by physicians are stated to be determined by laboratory tests results which give a clear indication of why clinical laboratory has a vital link in the healthcare chain.

Realistically, patients certainly affect the demand for clinical laboratory services, which consequently generate the growth of this sector. A report by Clinical Laboratory Services in the MENA Region 2019, published that an estimated increase from 29.3 million to 95.3 million in 2016 to 2030 respectively for Emirati inpatients and outpatients in Dubai and Abu Dhabi will be witnessed. Thus, the increase in demand signifies that a human error and a diagnosis delay have to be eliminated. Increase of productivity has to be put forth, making the advance automation a fundamental attribute in providing accuracy, reduction of time in generating results and efficiency in the clinical laboratory services.

## Public vs private sector

A massive progress in the healthcare industry can be observed over the last two decades in the UAE. Efforts on improving, expanding as well as reshaping services offered to the citizens and residents of UAE, have been an on-going focus point by bureaus that are responsible in future provision planning and balancing the resources given by private and public sectors. In return, it has been indicated that the escalation in health care industry in Abu Dhabi for instance, is a result of private sector investments. UAE government's strategy of opening acute medical care such as Cleveland Clinic in UAE has given a favourable outcome with only an approximate percentage of 2 to 3 per cent tests are sent outside UAE. This encourages trust in the domestic healthcare industry.

## Growth and opportunities

Introduction of 3D printing strategy in Dubai, has definitely given a positive impact in the clinical laboratory sector. With continuous pressure to further innovate in order to squeeze in the competitive market, application of 3D printing has aid in creating a well-equipped infrastructure for research, development, design and manufacturing activities. By having numerous worlds' best minds from researchers, designers to innovators, it is undeniable that Dubai will be leading 3D-printing hub by 2030 globally.

## Future prospect

The consecutive growth in the UAE population will indubitably have an impact on the demand for clinical laboratory services in the future and this certainly vindicates an optimistic future for this sector. UAE health ministry is persistently working towards nurturing effective treatments, foster longer lives and a disease-free society. With the effort done by the UAE government, clinical laboratories will become a consistent attraction to investors and shall be a sector that proves how technology plays a part in contributing to healthy urban life with cutting-edge care.



## The Middle East & Africa market overview

The Middle East & Africa market for clinical laboratory services is estimated to reach US \$ 14,067 million by 2023 from US \$11,252 in 2017 (registering a CAGR of 3.8% from 2017 to 2023.)

Rising government support for the healthcare sector followed by rising healthcare expenditure is a major driver for the market to grow within the region.

These growth figures arise despite the fact that the Middle East and Africa held the least market share of the clinical laboratory services market in 2017 owing to stringent government regulations, lack of healthcare services and poor healthcare infrastructure, and the presence of low-income countries in the African region.

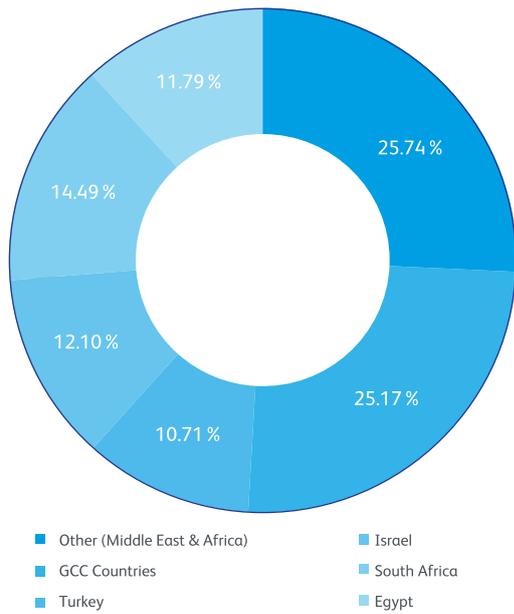
A number of government efforts to help fill the gaps persisting in the market can now be seen such as Sharjah Healthcare City under which Sharjah's Investment and Development Authority (Shurooq) is projected to invest

a sum of AED 5.6 billion by 2020. Moreover, the Dubai Clinical Services Capacity Plan of 2015 involved building three new medical colleges and five nursing schools with an aim to make the nursing profession more desirable and retain high calibre medical and healthcare staff.

**According to a report by WiseGuyReports. com, the Middle East & Africa market for clinical laboratory services is estimated to reach US \$ 14,067 million by 2023 from US \$11,252 in 2017 (registering a CAGR of 3.8% from 2017 to 2023.)**

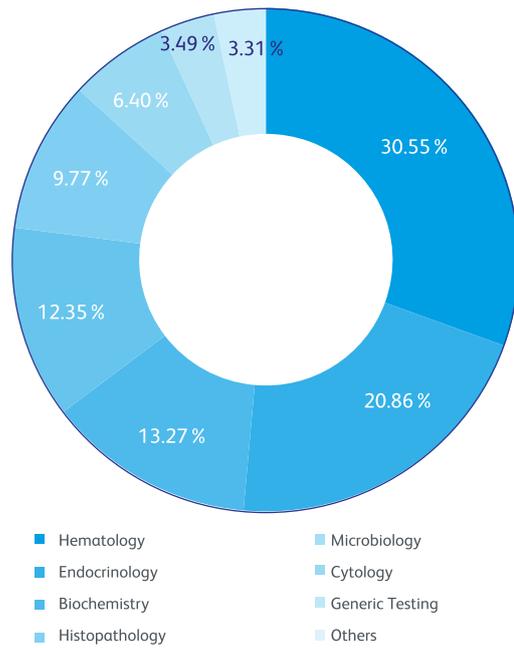


### The Middle East & Africa clinical laboratory services consumption by countries in 2017



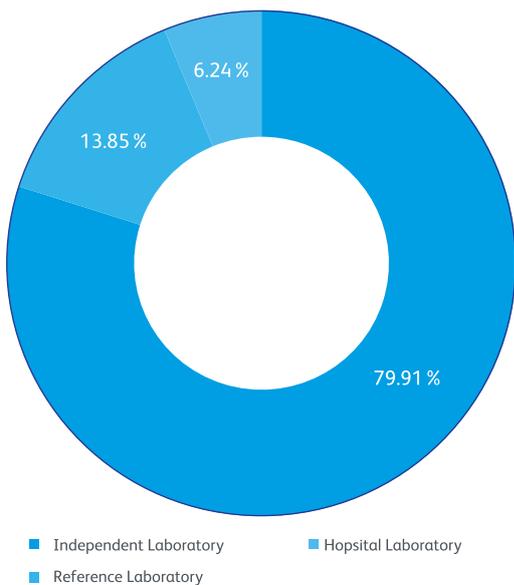
In 2017, the GCC countries took 25.17% of the Middle East & Africa clinical laboratory services by market size, followed by South Africa (14.49%), Israel (12.10%), Egypt (11.79%), Turkey (10.71%), with other countries in the Middle East & Africa occupying the remaining 25.74% of the market share.

### The Middle East & Africa clinical laboratory services consumption by type in 2017



In 2017, Haematology and Endocrinology dominated the consumption of clinical laboratory services in Middle East & Africa with 30.55% and 20.86% respectively. This was followed by Biochemistry (13.27%), Histopathology (12.35%), Microbiology (9.77%), Cytology (6.40%), Genetic Testing (3.49%), and the remaining 3.31% as other types of consumption.

### The Middle East & Africa clinical laboratory services consumption by application in 2017



In 2017, the major proportion of clinical laboratory services in Middle East & Africa were carried out in hospital laboratories (79.91%), followed by 13.85% of services that were applied in independent laboratories and 6.24% in reference laboratories.



# Country profiles – The Middle East & Africa clinical laboratory services market size 2013 - 2018

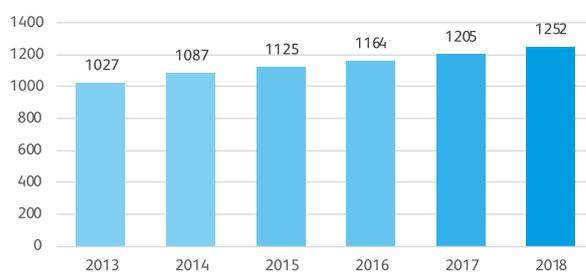
## Egypt

Laboratory Services Market Size (Million USD)  
2013 - 2018



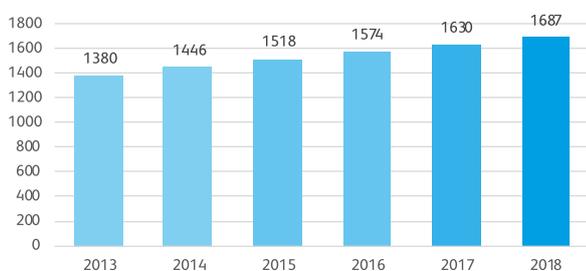
## Turkey

Laboratory Services Market Size (Million USD)  
2013 - 2018



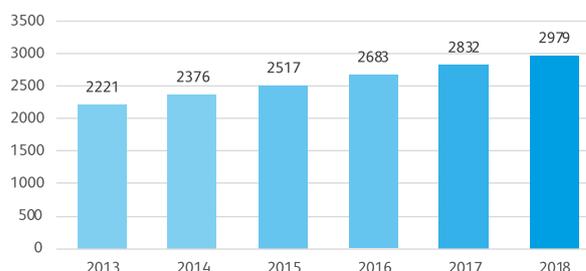
## South Africa

Laboratory Services Market Size (Million USD)  
2013 - 2018



## GCC Countries

Laboratory Services Market Size (Million USD)  
2013 - 2018



## Israel

Laboratory Services Market Size (Million USD)  
2013 - 2018

