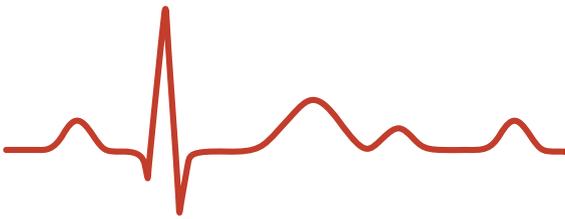
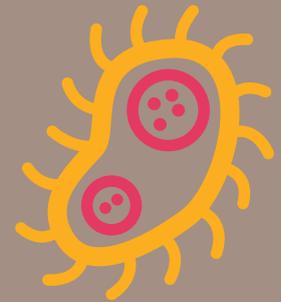


Better Data Means Better Quality Healthcare

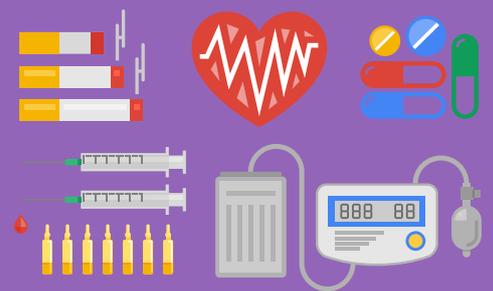
Investments in health informatics is witnessing a steady surge in the past couple of years. To match global healthcare delivery models with sustainability and practicality, the Middle Eastern care givers are more open to invest and explore the best possible ways to move ahead and become a centre for medical tourism backed with affordable world class medical infrastructure.

In the Middle East and North Africa region, the rise of non-communicable diseases (NCDs) is predicted to cost over **\$68 billion** by the year 2022.



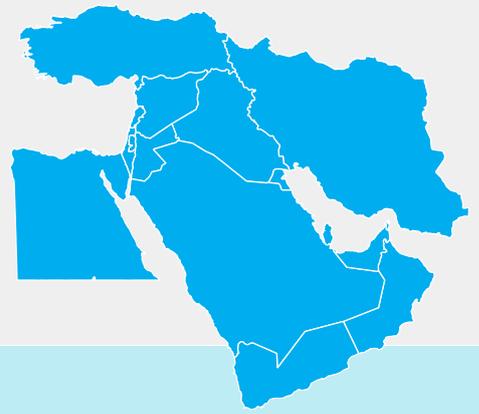
By 2030, almost 80 % of deaths in the Middle East will result from non-communicable diseases (NCDs) or 'lifestyle' diseases, such as cardiovascular disease (CVD) or cancer.

The high prevalence of unhealthy diets, smoking and lack of physical exercise, a direct result of urbanisation and rising per capita income, are big contributing factors.



According to McKinsey Global Institute, healthcare providers commonly ignore **90 % of the data** they generate, but now they are moving to capitalise on this information.

The Middle East region lags behind when it comes to gathering and sharing clinical data



Many healthcare institutions still rely on traditional data such as medical records and histories, as well as real-time data on a patient's condition, such as blood pressure or heart rate, with little (if any) sharing of said data.

However, various governments in the region are taking notice by overhauling their medical reporting mechanism.



In Saudi Arabia for instance, the Ministry of Health is working to deploy an e-health interoperability standards program between different parts of the Kingdom's healthcare system to improve access, patient safety and the quality of healthcare.

In other parts of the Middle East, public and private healthcare providers are working on pilot projects to develop image exchange capabilities, enabling hospitals to share, store send diagnostic images for remote assessment by radiologists.

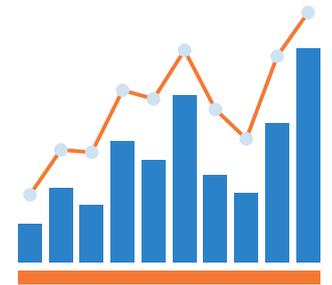


Big data analytics can help combat several problems healthcare industry faces today, such as:

1. Increasing Cost Pressures
2. Consolidation
3. Staff Shortages
4. Asset Optimisation Issues



According to Deloitte, the Middle East and Africa will see the most rapid growth globally in healthcare expenditure with an annual average increase of 8.7 % from 2014 to 2018 due, in part, to population growth and efforts to expand access to healthcare.



However, three key challenges are detrimental to the wide-spread adoption of big data analytics in the healthcare industry:



Cost: Leveraging big data solutions requires industrial level management and analysis infrastructure as well as a large-scale investment.



Expertise: Expert knowledge is required for implementation and continued use. Large IT projects fail or have much longer installation times because of the complexity of the systems.



Security: No data is more personal than health data. Patients expect extra privacy protection if they are going to fully participate in Big Data projects in the healthcare space.

Having said that, the healthcare industry is faced with unsustainable costs and enormous amounts of under-utilised data.



Thus, big data analytics can help the healthcare industry with more efficient practices, research, and tools to harness the full benefits of the data collected.

Opportunities big data analytics brings forth:

- Benefits everyone in the value chain - Provider, Payer and the Patient
- Optimises care by device/remote monitoring
- Clinical efficiency, quality, and outcomes through patient profile analytics
- Disease identification and risk stratification
- Supporting participatory healthcare through public health analytics
- Reducing the cost of care by Genomic Analytics
- Reducing hospital readmissions by evidence-based medicine
- Reducing fraud by pre-adjudication fraud analysis



Sources:

PRB (<http://www.prb.org/Publications/Datasheets/2012/world-population-data-sheet/fact-sheet-nlds.aspx>)

GE Healthcare (<http://newsroom.gehealthcare.com/middle-east-evolving-healthcare-landscape-big-data-big-deal/>)

Arab Health Magazine (<http://www.arabhealthmagazine.com/press-releases/2016/issue1-/big-data-for-better-faster-care/>)

Siemens Healthcare (<http://www.healthcare.siemens.com/magazine/mso-big-data-and-healthcare2-.html>)

Big Data Analytics in Healthcare

(http://www.powershow.com/view6/0b-1025ZjE5N/Big_data_analytics_in_Healthcare_powerpoint_ppt_presentation)