

What doctor?

Middle East consumers ready to
embrace AI and robots for their
healthcare needs



Survey Methodology

EMEA (Europe, Middle East and Africa)

In **November 2016**, we asked YouGov Research to conduct a **survey** of the general public across Europe, the Middle East and Africa to understand 3 things:

- If there is the appetite to engage with artificial intelligence (AI) and robots for healthcare.
- The circumstances under which there would be greater or lesser willingness to do so.
- The perceived advantages and disadvantages of using AI and robots in healthcare.

We surveyed over 11,000 people across 12 countries and the evidence strongly indicates that there is a growing enthusiasm among consumers to engage in new ways with new technology for their health and wellness needs.

Middle East

In **December 2016**, we hosted **3 roundtables** in the UAE, KSA and Qatar to gain insights and more qualitative data on the introduction of AI/ robotics.

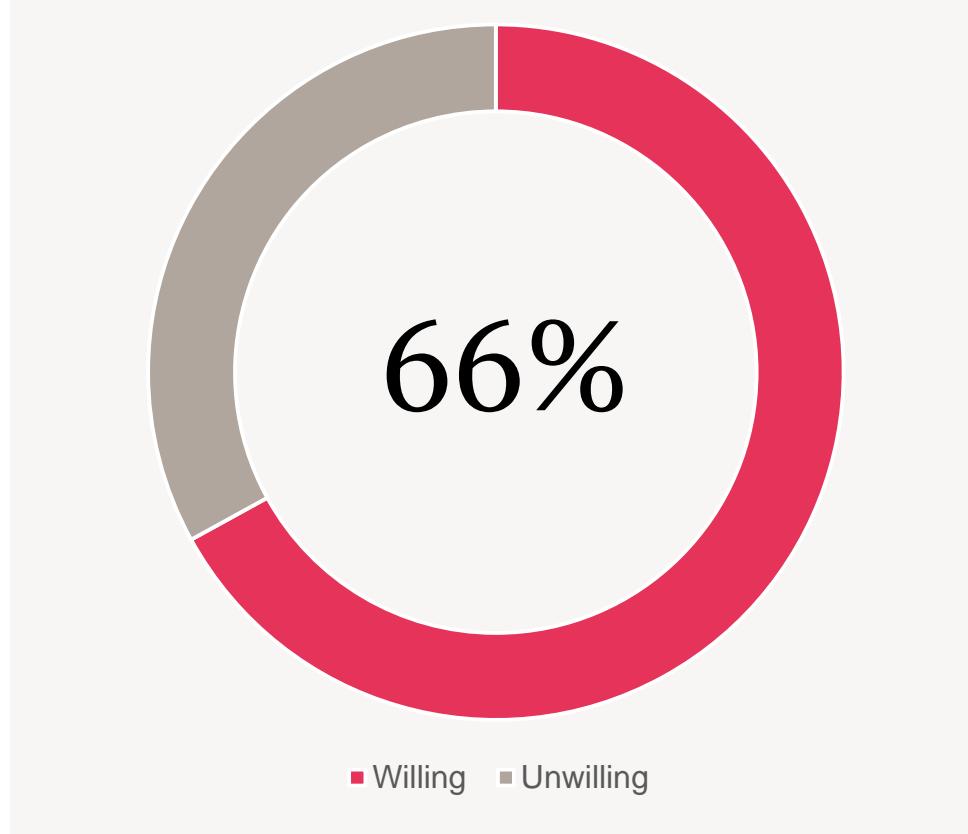
In **January 2017**, an event was hosted alongside **Arab health** which added more insights from customers and SMEs across the region.



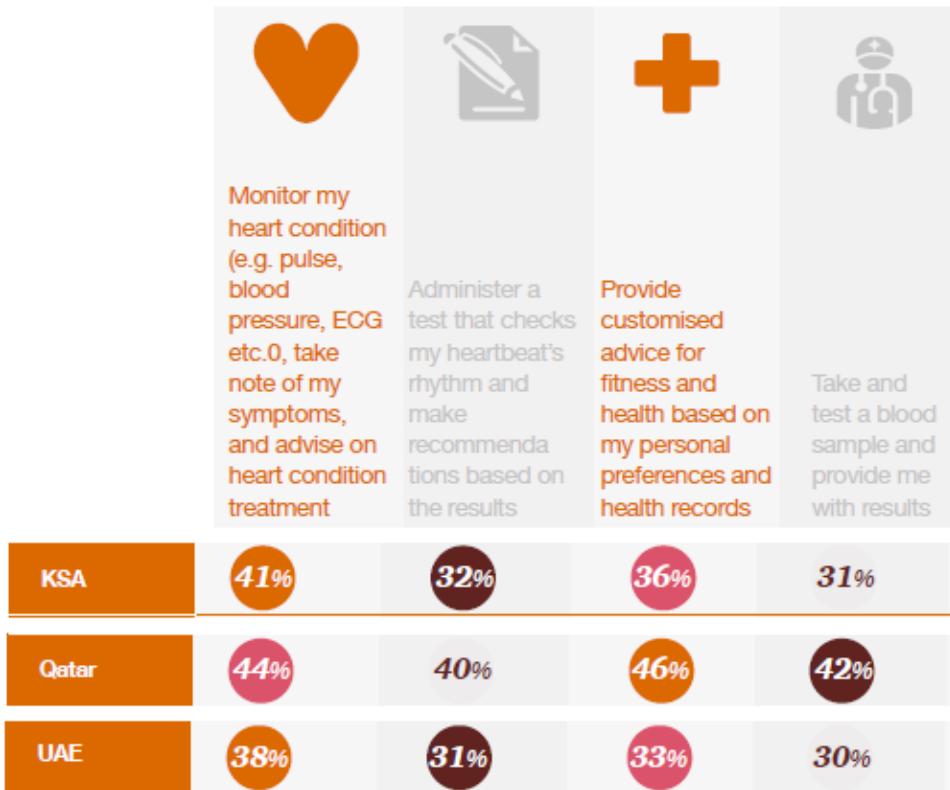


The Middle East – A unique platform to adopt New Health; AI & robotics

2/3 of Middle East respondents are willing to replace human doctors with AI and robots



Service Preference in the Middle East



The Middle East – A unique platform to adopt New Health; AI & robotics

Countries in the Middle East sit in the middle of our survey results. These countries have a longer history with universal coverage and spend two to three times more per capita on healthcare than other emerging markets, but are affected by workforce issues and capacity constraints

A combination of clinical workforce shortages and a young, digitally savvy population in the Middle East means the region could leapfrog other countries in AI and robotics in healthcare

Trust in the technology is vital for wider use and adoption; the ‘human touch’ remains a key component of the healthcare experience

‘The Message is clear, the Middle East can leapfrog the West to become a global centre of excellence for AI and Robotics in Health’





The Middle East – A unique platform to adopt New Health; AI & robotics

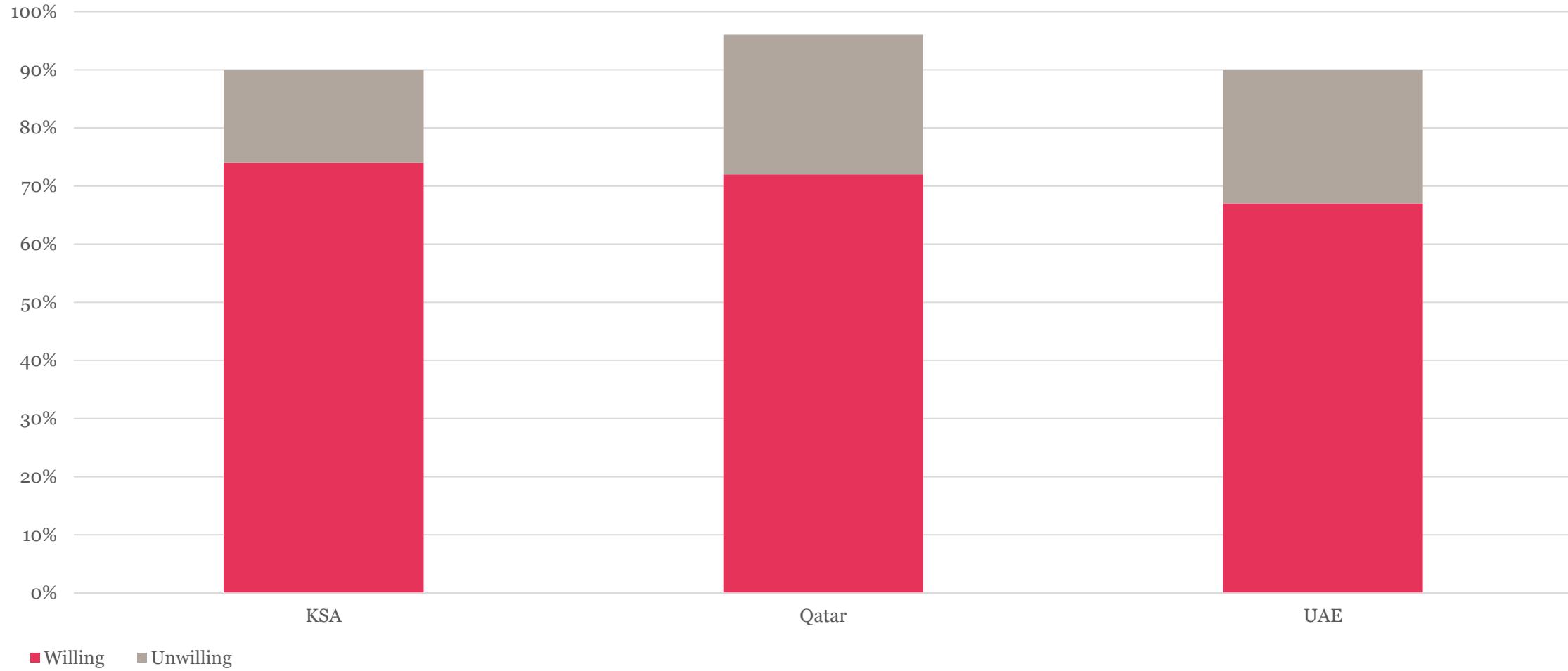
“ AI and robotics are the future of healthcare, and the Middle East is poised to take advantage. Access to quality, affordable healthcare, and good health for everyone are the ultimate goals of all health systems, including the Middle East. And when you combine clinical workforce shortages in the Middle East, with more positive factors like a young, digitally minded population that, is willing to adopt AI and robotics - PwC thinks the Middle East could leapfrog other countries in these technologies. We would like to see the Middle East invest and become a global centre of excellence for AI and robotics in healthcare, bringing benefits locally and becoming a place that other countries look to for healthcare innovation. ”

Dr. Tim Wilson, Middle East Health Industries Leader, PwC



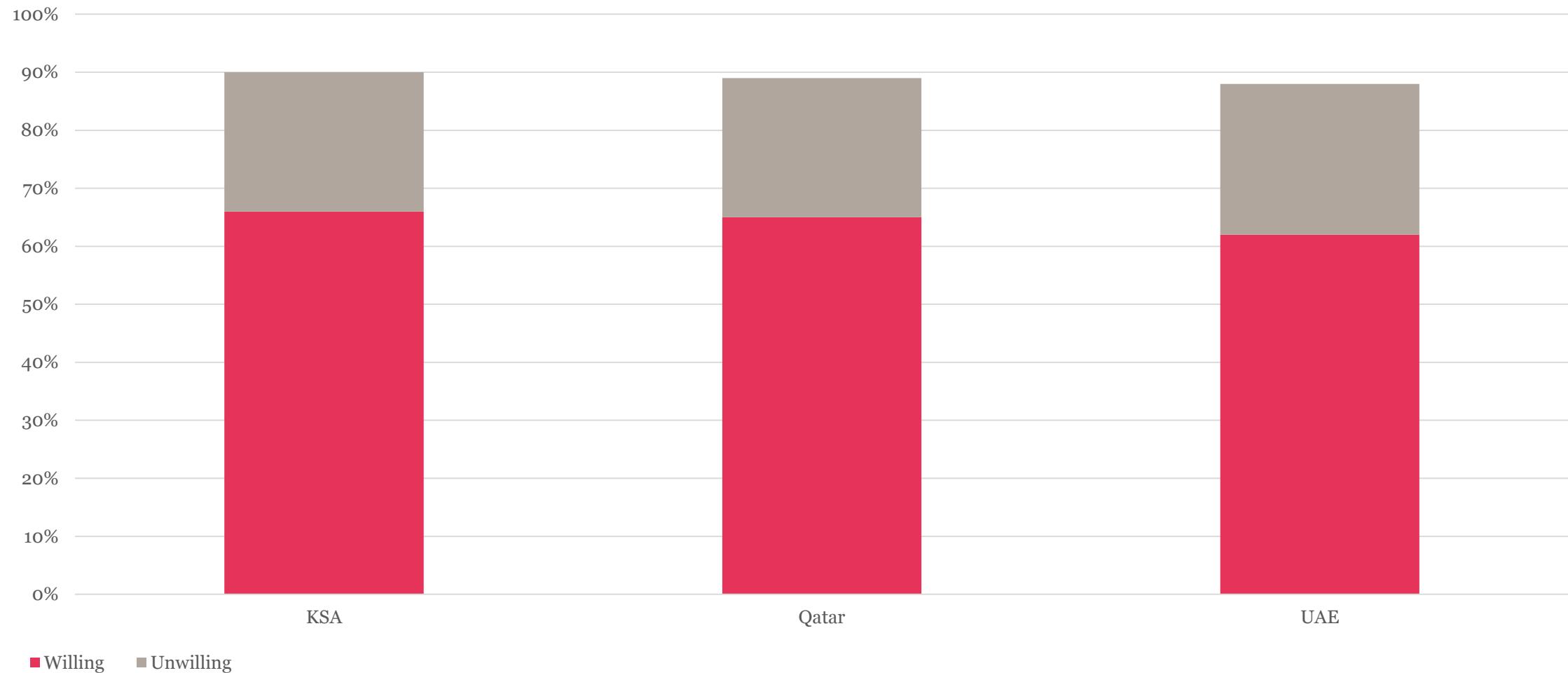


1- Percentage of respondents willing/unwilling to engage with AI and robotics for their healthcare needs



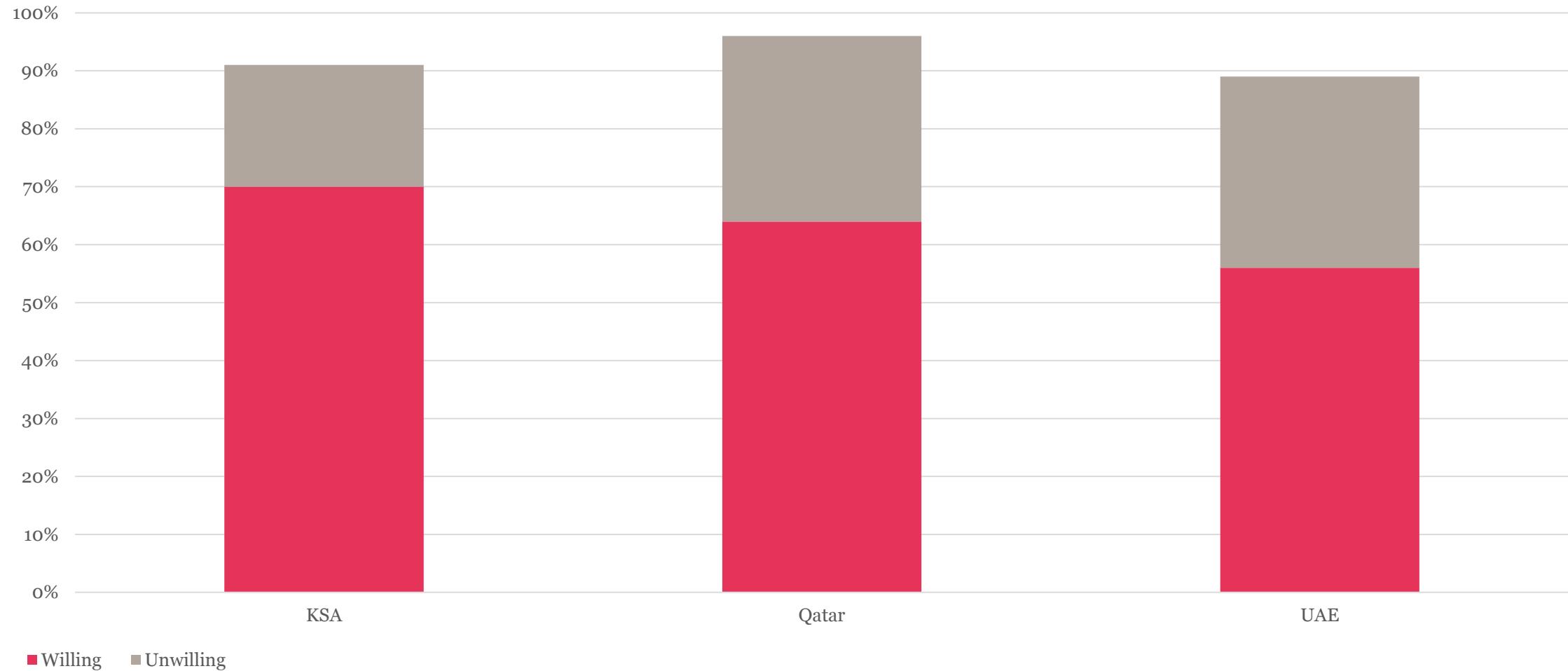


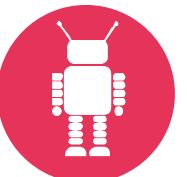
2- Percentage of respondents willing/unwilling to use an 'intelligent healthcare assistant' via a smartphone, tablet or personal computer



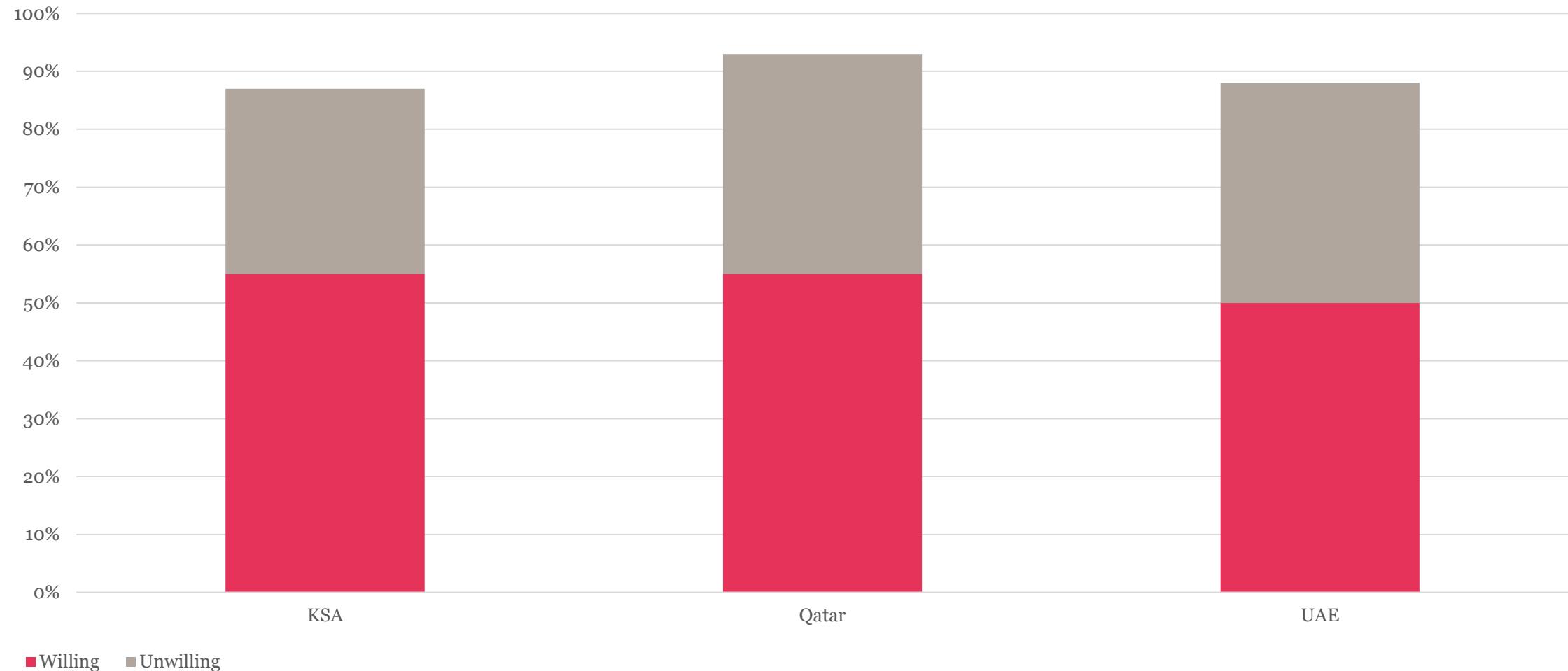


3- Percentage of respondents willing/unwilling to use an 'intelligent healthcare assistant' via a smartphone, tablet or personal computer for a loved one (e.g. child, parent)





4- Percentage willing/unwilling to have minor surgery performed by a robot instead of a doctor (e.g. eye surgery)



The top advantages of using AI and robotics were identified as:



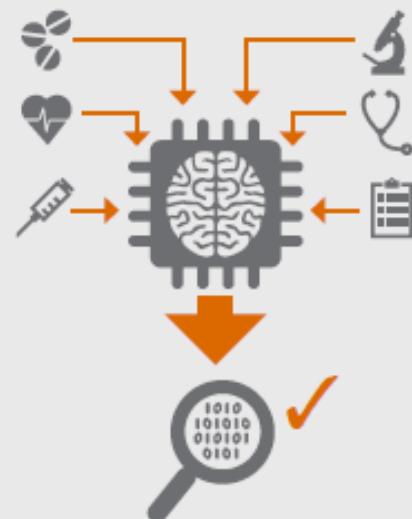
The top advantages in order were:

① 36%



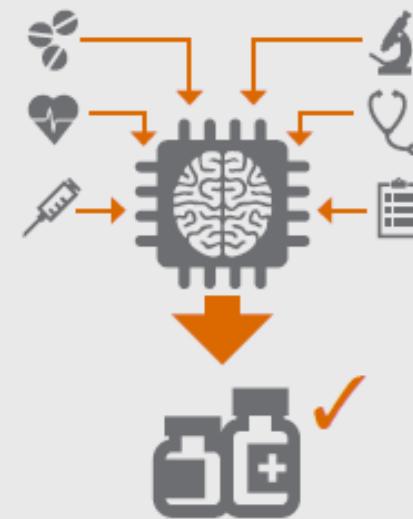
Healthcare would be **easier and quicker** for more people to access

② 33%



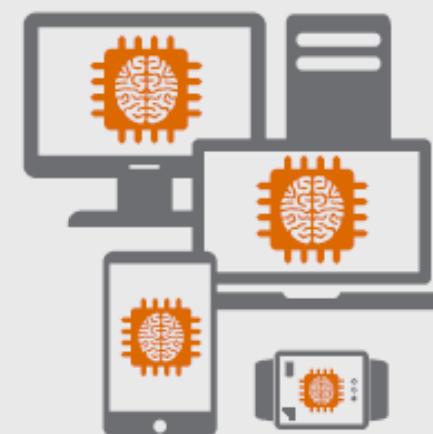
Advanced computers/robots with AI can make a diagnosis **faster and more accurately**

③ 29%



Advanced computers/robots with AI will make **better treatment recommendations**

④ 29%



Like having your own **healthcare specialist**, available at any time (e.g. via a smartphone, tablet, computer etc.)

The public is ready to embrace this new world of healthcare - a few things need to happen beforehand:

For **governments**: Create quality standards and a regulatory framework which keeps pace with the technological developments and enhancements AI and Robotics can bring to how healthcare is delivered in the region.

For **healthcare professionals**: understand how AI and robotics have the potential to work for and with them in a medical setting as well as throughout the healthcare ecosystem, and be open to change. If clinicians will not be as good at monitoring, diagnosis, decision making or surgery, then what is the unique role for the human, and how can they prepare for it?

For **decision-makers** at healthcare institutions: Develop an evidence base to measure the success and effectiveness of the new technology; phased implementation, prioritise and focus on what consumers want and need.

For the **private sector** developing AI and robotics solutions: In essence, by providing AI and robotic driven solutions, the private sector has the opportunity to positively disrupt the healthcare ecosystem.





Contacts

Tim Wilson

Partner, EMEA

Tim.wilson@pwc.com

Dhiraj Joshi

Partner, Middle East

Dhiraj.joshi@pwc.com

David Suarez

Partner, Middle East

david.suarez@pwc.com

Hamish Clark

Partner, Middle East

Hamish.clark@pwc.com

Eyad Al-Musa

Partner, Middle East

Eyad.al-musa@pwc.com