

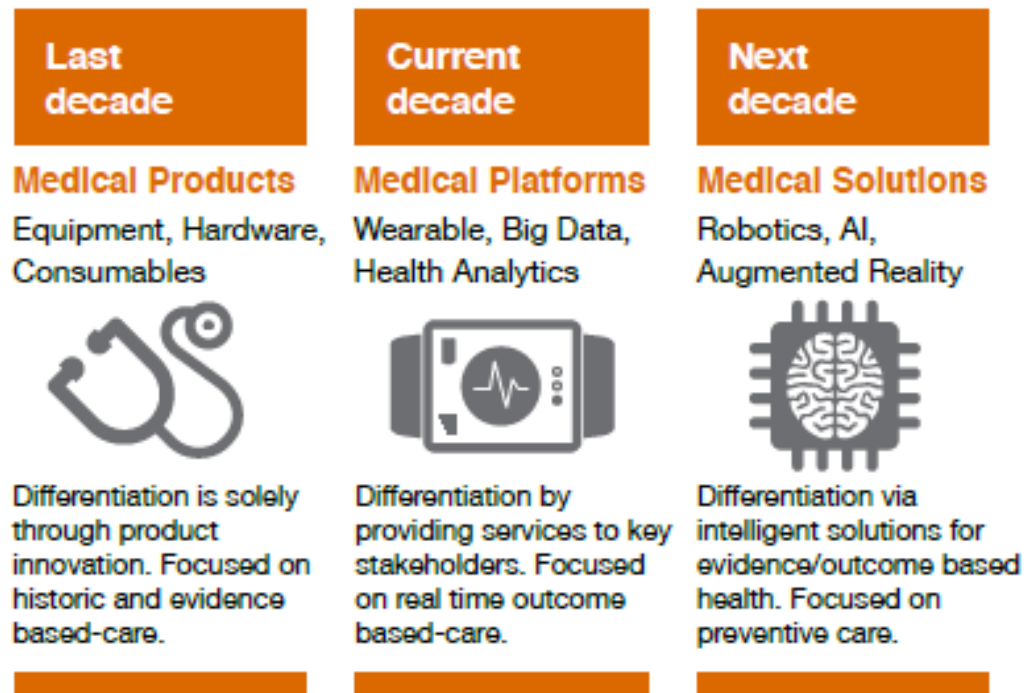
2018

What doctor?

Why AI and robotics  
will define New Health

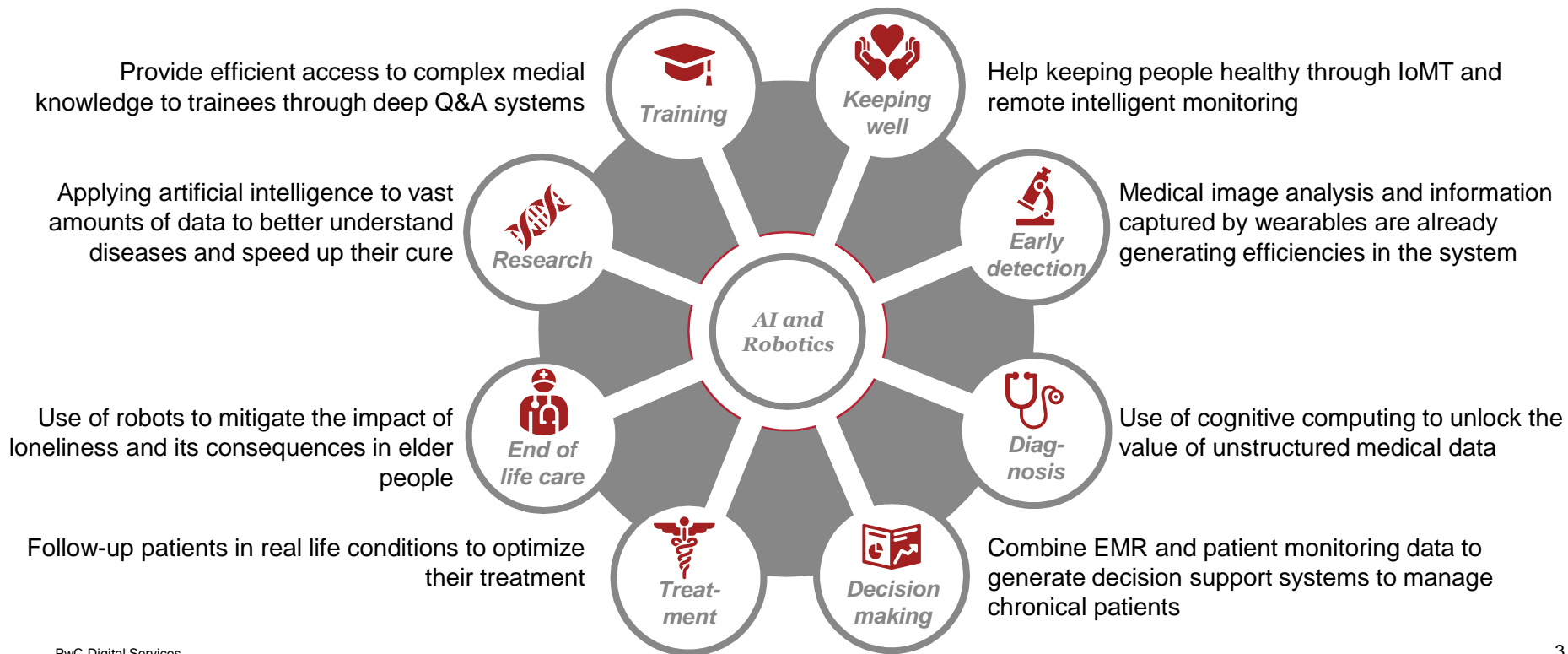


# AI is the next step in the healthcare technology evolution



Source: Frost & Sullivan, 'Transforming healthcare through artificial intelligence systems', 2016

# AI and robotics are already transforming healthcare



# Investment is booming in many areas

Figure 1: Artificial Intelligence Market for Healthcare Applications, World, 2014, 2021 (in Millions)



Source: Frost & Sullivan 2016 Transforming healthcare through artificial intelligence systems



*Insights and  
risk analytics*

*Imaging and  
diagnostics*

*Remote  
patient  
monitoring*

*Core AI  
companies  
bring their  
algorithms to  
Healthcare*

*Drug  
discovery  
times*

*Medical  
image  
analysis*

*Emergency  
room and  
hospital  
management*

*Virtual  
assistants*

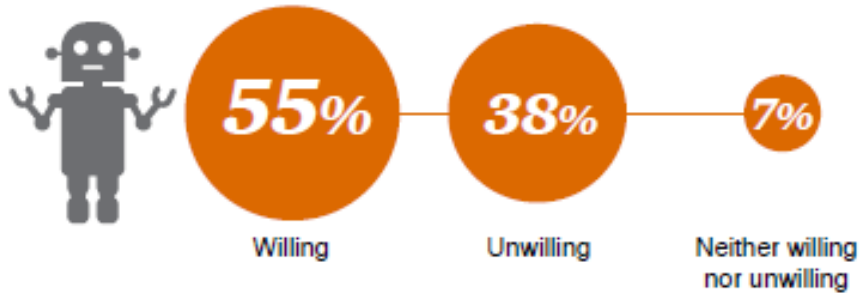
*Mental health*

*Research*

*Nutrition*

# People is ready

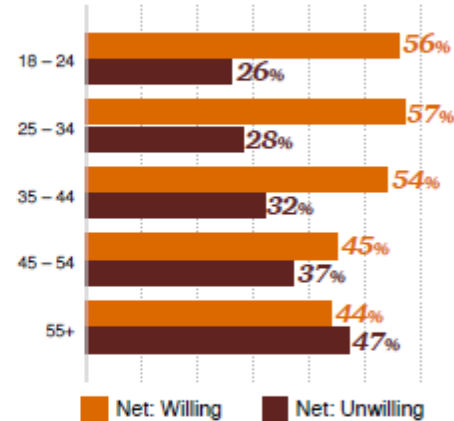
Figure 2: Percentage of respondents willing/unwilling to engage with AI and robotics for their healthcare needs (total sample)



Source: PwC survey



Figure 4: Percentage of respondents willing/unwilling to engage with AI and robotics for their healthcare needs (by age)

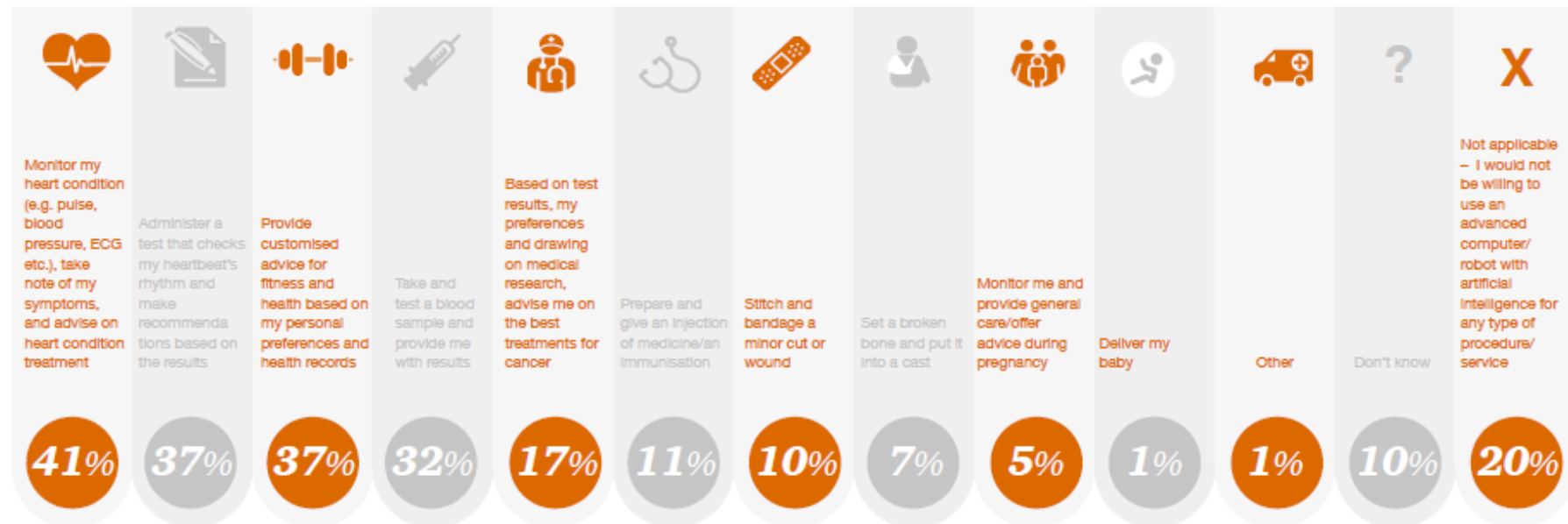


Source: PwC survey



# Patients are more willing to automate routine procedures where the human touch is less relevant

Figure 7: Procedures respondents were most willing to receive from an AI/robot, when asked to rank three



Source: PwC survey

## Will robots replace humans in the operating theater?

### Undergoing major surgery performed by a robot



**27%**  
Willing

**35%**  
Willing

UK

Sweden

**60%**  
Willing

Turkey

**45%**  
Willing

Qatar

**69%**  
Willing

Nigeria

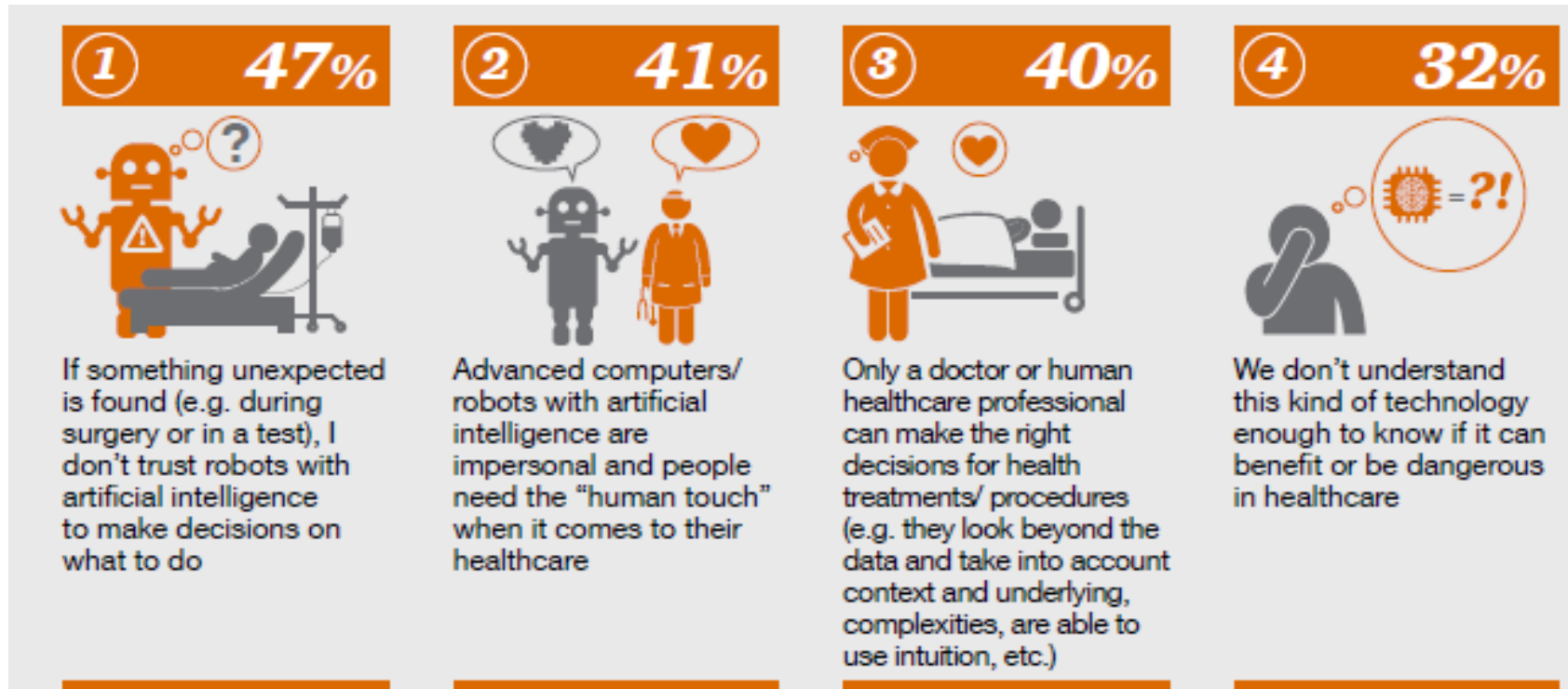
**51%**  
Willing

South Africa

Again, it is important not to focus too much on the lower percentages in countries with the more established health systems. It is still very interesting that fully one-quarter of people in the UK, and almost one-third in Germany would be willing to have major surgery conducted by a robot in place of a human. That represents millions of operations a year.

These findings are telling and point towards a greater – and in some countries almost complete – acceptance of AI and robots for delivering many different types of healthcare services, treatments and procedures.

# Top disadvantages identified





# In this journey every party has its responsibilities



## Governments

Create quality standards, regulatory framework and appropriate incentive systems to adopt these technologies



## Professionals

Understand how AI and robotics have the potential to work for and with them, and be open to change



## Patients

Be more accustomed to AI and robots and discover the benefits for themselves. It will become part of everyday life



## Private sector

By providing AI and robotic solutions the private sector has the opportunity to disrupt healthcare for the good



## Decision makers

Develop an evidence base methodology to measure the effectiveness and efficiency of these solutions