Getting Digital

Transforming care at home and in the community

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Overview

- Wider technological trends

- How technology is supporting healthcare

- How technology can support care in the home

- Conclusion

An increasingly digital world

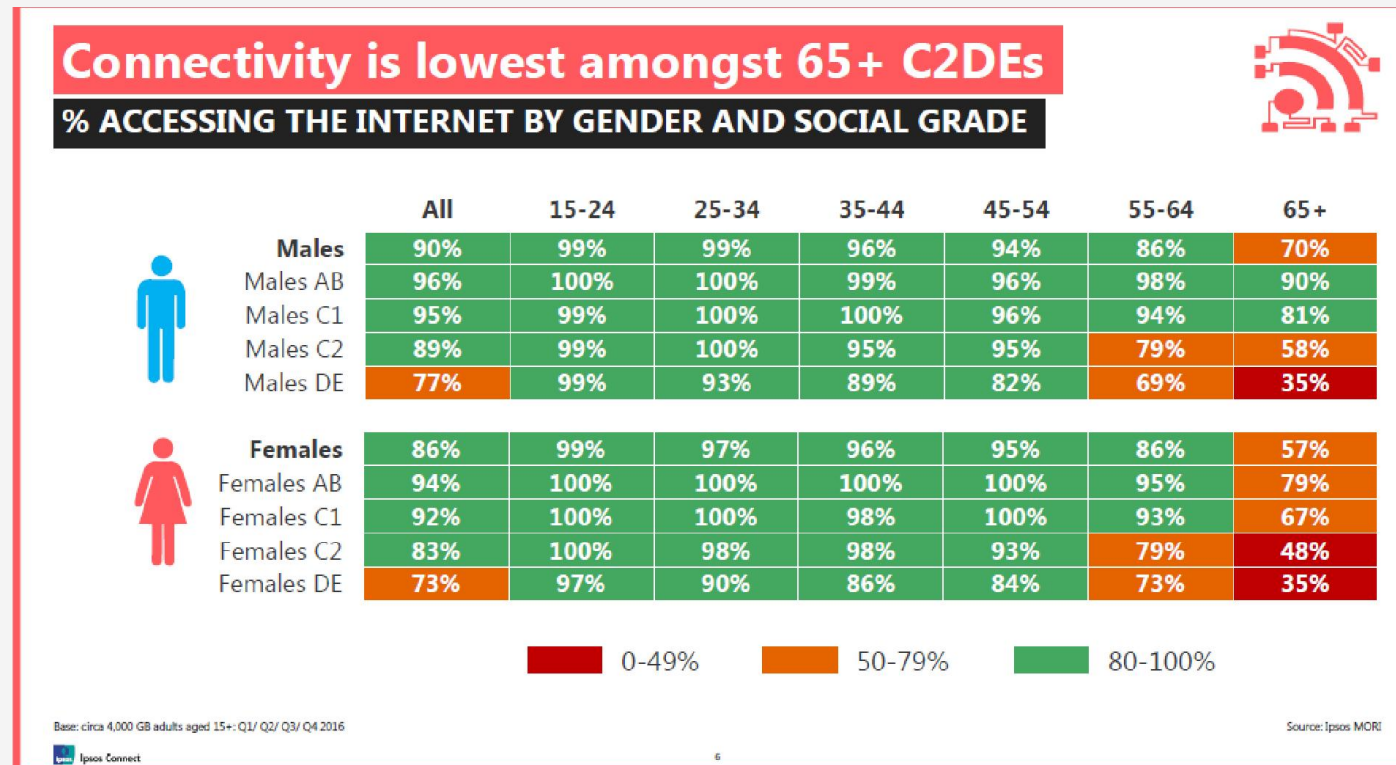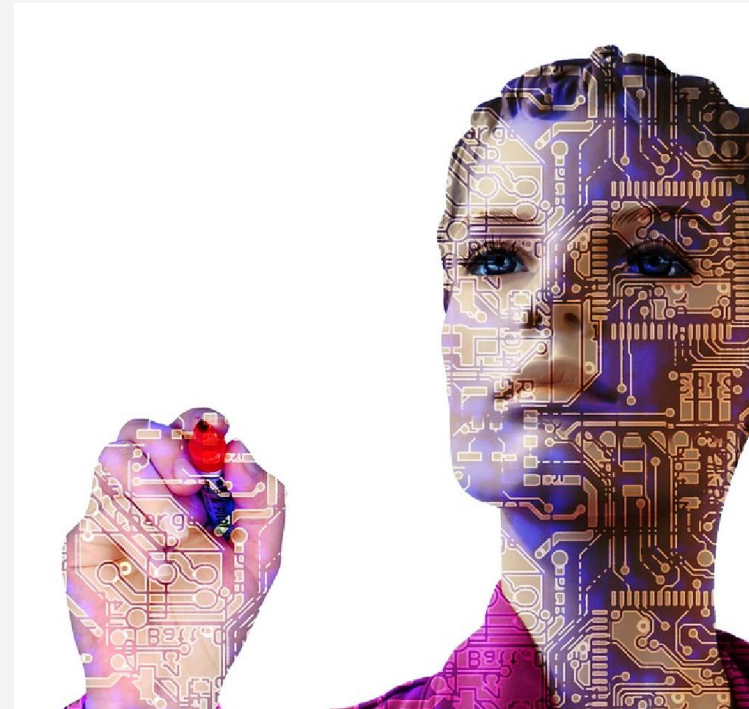|	
Internet usage	90% adults accessed the internet in last 3 months
Social networking	60% on Facebook – across all age groups
Smartphone ownership	74% Own a smart phone
Connected home	80% personal computer or laptop

Digital exclusion still an issue for some

Connectivity is lowest amongst 65+ C2DEs
% ACCESSING THE INTERNET BY GENDER AND SOCIAL GRADE

	All	15-24	25-34	35-44	45-54	55-64	65+
Males	90%	99%	99%	96%	94%	86%	70%
Males AB	96%	100%	100%	99%	96%	98%	90%
Males C1	95%	99%	100%	100%	96%	94%	81%
Males C2	89%	99%	100%	95%	95%	79%	58%
Males DE	77%	99%	93%	89%	82%	69%	35%
Females	86%	99%	97%	96%	95%	86%	57%
Females AB	94%	100%	100%	100%	100%	95%	79%
Females C1	92%	100%	100%	98%	100%	93%	67%
Females C2	83%	100%	98%	98%	93%	79%	48%
Females DE	73%	97%	90%	86%	84%	73%	35%

0-49%   50-79%   80-100%

Base: circa 4,000 GB adults aged 15+: Q1/ Q2/ Q3/ Q4 2016
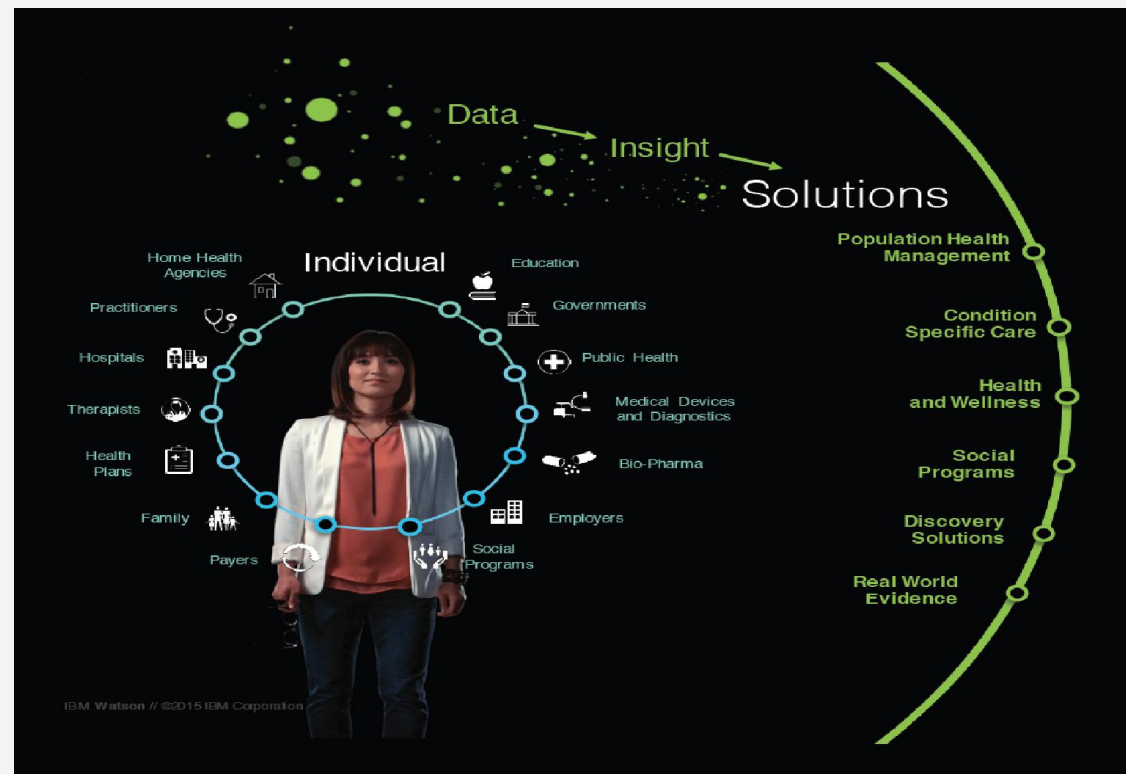
Source: Ipsos MORI

Ipsos Connect

6

Source: Ipsos Mori – Tech Tracker Q4 2016

What's on the horizon?

- Capacity to analyse unstructured data

- Artificial intelligence – improves user interface and magnifies impact of technology

- "Cloud-first" supports interoperability
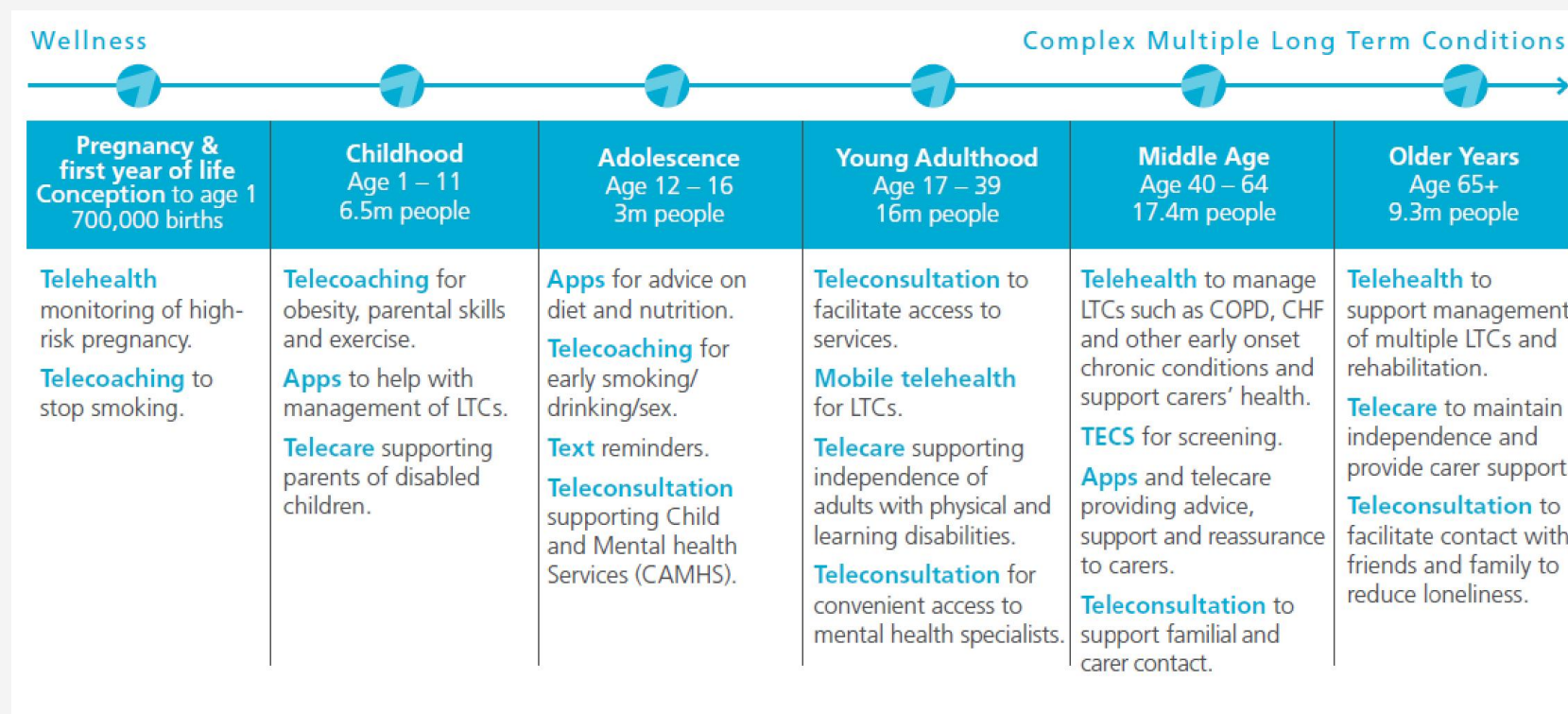
- More secure data through "Blockchain"

Big Data – transforming health and social care in ways that are hard to predict

In health care - technology can support patients at each stage of their journey


6 Following up a consultation and managing a condition
a. Online repeat prescription ordering
b. Online access to medical records
c. Online patient networks
d. Online sources of health information
e. Wearables
f. Professional telemonitoring
g. Assistive technologies

5 Talking to a clinician remotely
a. Video conferencing
b. Web chat
c. Telephone

4 Booking an appointment
Online appointment booking

3 Contacting the health care team for non-urgent concerns
E-consults and e-mails*
*May be used for triage

2 Finding the right care
a. Interactive symptom checkers
b. Online service directories
c. Online information to manage minor ailments

1 Staying well
a. Wearables
b. Apps (Stages 1–6)

Start here

Providing support over the life course

Wellness					Complex Multiple Long Term Conditions
Pregnancy & first year of life Conception to age 1 700,000 births	**Childhood** Age 1 – 11 6.5m people	**Adolescence** Age 12 – 16 3m people	**Young Adulthood** Age 17 – 39 16m people	**Middle Age** Age 40 – 64 17.4m people	**Older Years** Age 65+ 9.3m people
Telehealth monitoring of high-risk pregnancy. **Telecoaching** to stop smoking.	**Telecoaching** for obesity, parental skills and exercise. **Apps** to help with management of LTCs. **Telecare** supporting parents of disabled children.	**Apps** for advice on diet and nutrition. **Telecoaching** for early smoking/ drinking/sex. **Text** reminders. **Teleconsultation** supporting Child and Mental health Services (CAMHS).	**Teleconsultation** to facilitate access to services. **Mobile telehealth** for LTCs. **Telecare** supporting independence of adults with physical and learning disabilities. **Teleconsultation** for convenient access to mental health specialists.	**Telehealth** to manage LTCs such as COPD, CHF and other early onset chronic conditions and support carers' health. **TECS** for screening. **Apps** and telecare providing advice, support and reassurance to carers. **Teleconsultation** to support familial and carer contact.	**Telehealth** to support management of multiple LTCs and rehabilitation. **Telecare** to maintain independence and provide carer support. **Teleconsultation** to facilitate contact with friends and family to reduce loneliness.

Technology can support a new model for chronic disease management and deliver improved outcomes

- Professional monitoring can reduce hospitalisations, mortality and improve clinical outcomes – particularly for heart failure, COPD and diabetes

- Apps and wearables can improve medication adherence and chronic condition management – particularly for multiple sclerosis, Parkinson's and cardiovascular disease

- Online patient networks can improve engagement and clinical outcomes

An example – Heart Failure

"there is a large category of people who deteriorate over two or three days, with a deterioration pattern you can pick up...behaviours that are exacerbating the problem or symptoms. If you collect those in a systematic way....and you monitor people... then you can intervene. So the person with heart failure... you intervene by adjusting their diuretics... [or] by seeing them in the clinic urgently." (Adam Darkins, Medtronic)

Source: Nuffield Trust - Delivering the Benefits of Digital Health Care
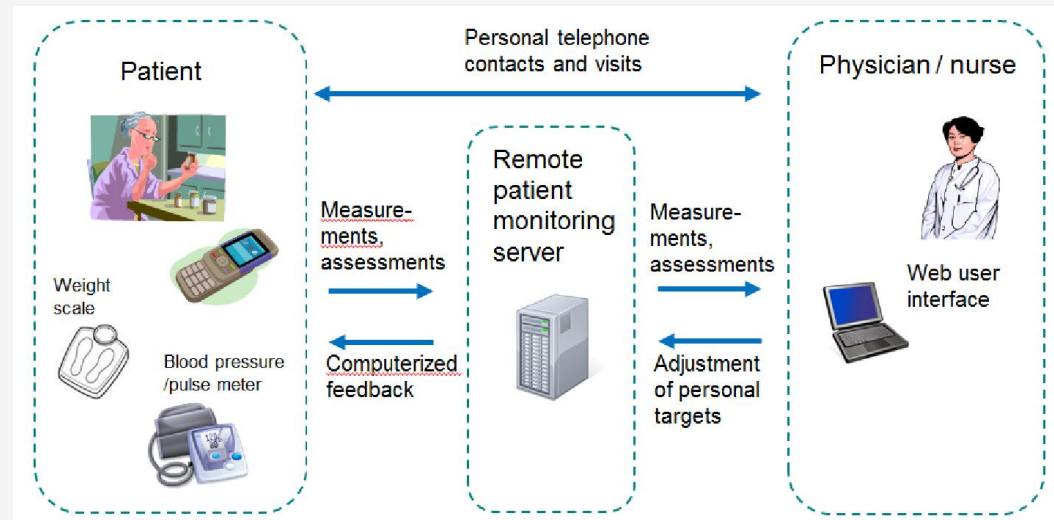
Wearables and apps – a health warning

- Over 165,000 health apps on the market

- Can improve diet and physical activity

- May offer new approaches to population health

- But behaviour change is hard to sustain

- Cannot accredit all devices – many apps are inaccurate and patients need to know risks

- We need more evidence of what works in which contexts
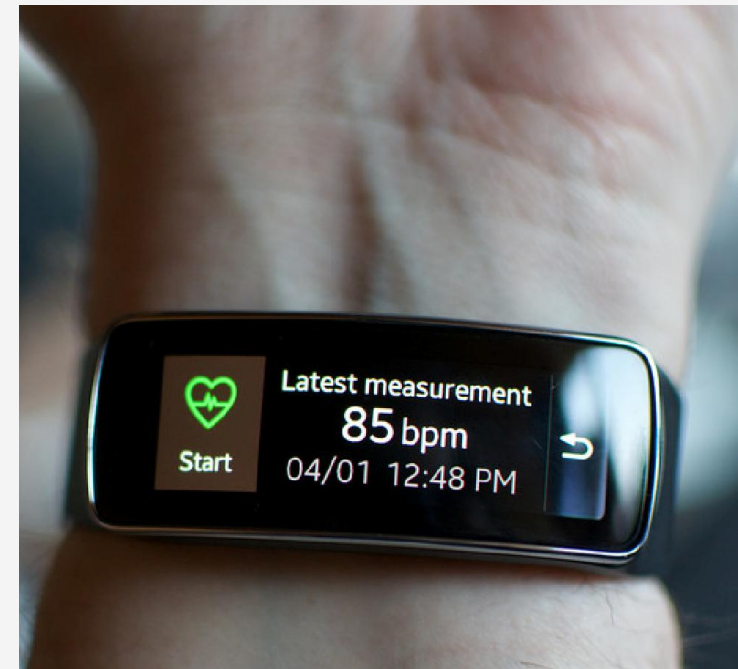
Many opportunities to make "smart homes"

- Building's management technologies – eg alarms and detectors

- Monitoring technologies – eg pendant alarms, falls monitors, movement sensors

- "SMART" – home technology – automated operation of equipment

- Security and communications technology – eg entry systems and home entertainment

Smart Home
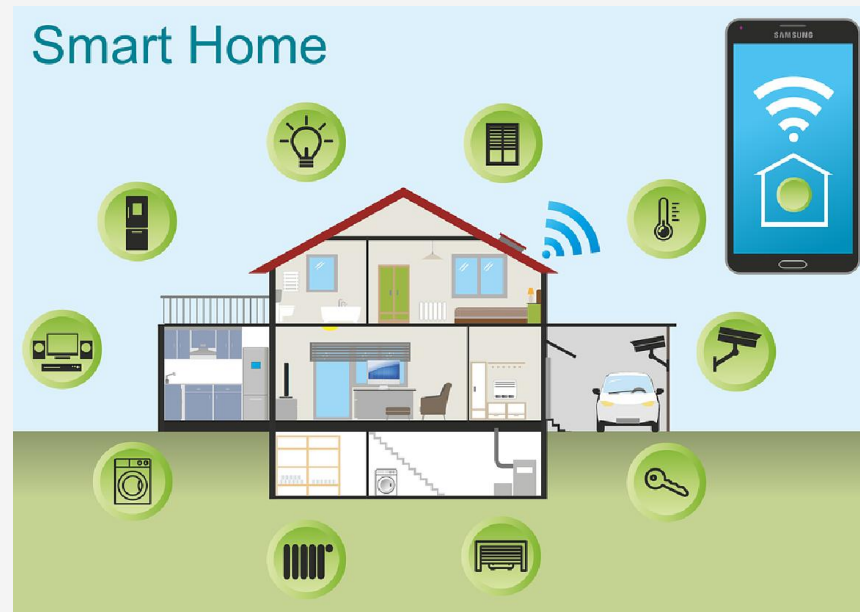
Telecare in practice

Enabling someone with Dementia to live independently

• Automatic cut off of gas

• Detecting when leaving the home unaccompanied

Supporting someone vulnerable to falls

• Bed pressure monitor – alert if not return to bed

• Spots unusual patterns of activity => early intervention UTI

Telecare – not a "technological fix"

- Works best if part of a social network – telecare alerts require a response

- Anticipates an "active user" – able to follow instructions – not suitable for complex needs

- Many tasks it can't do

- Creates additional work and responsibilities – eg maintenance and monitoring equipment

Unintended consequences

- Stress for staff monitoring

- Decreased privacy

- Non- compliant or non-use – eg avoiding activation of monitor

- Social needs ignored and unmet

Conclusion

- Technology is changing rapidly and will alter all our lives in ways that are hard to predict

- Provides new care solutions but also new care challenges

- People's engagement can not be assumed

- User centred design will be critical to success

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