



**DIGITAL  
HEALTH & CARE  
INSTITUTE**

# Digital Health and Care Institute

**18<sup>th</sup> May 2017,**

**CSSG Operational Group and Regional Care Leads**

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# Scotland's Innovation Centres



Innovative sensor and imaging solutions. Reducing risks, costs and time to market for industrial applications



Bio-based solutions for the chemical, life science and energy industries – Led by Industry for Industry



Building the Future: Blending industry demand driven challenges with world-leading academic expertise to supercharge growth across the construction sector in Scotland, through a mixture of collaborative R&D, explorative new technologies and disruptive innovation, creating global opportunities for local companies



Delivering a University matchmaking service and providing access to innovation funding for the entire oil and gas supply chain



Industry success through research partnerships: driving applied research to boost the long-term economic benefits of farmed fish, shellfish and aquatic plant life



The Data Lab,  
Unlocking Value from Data



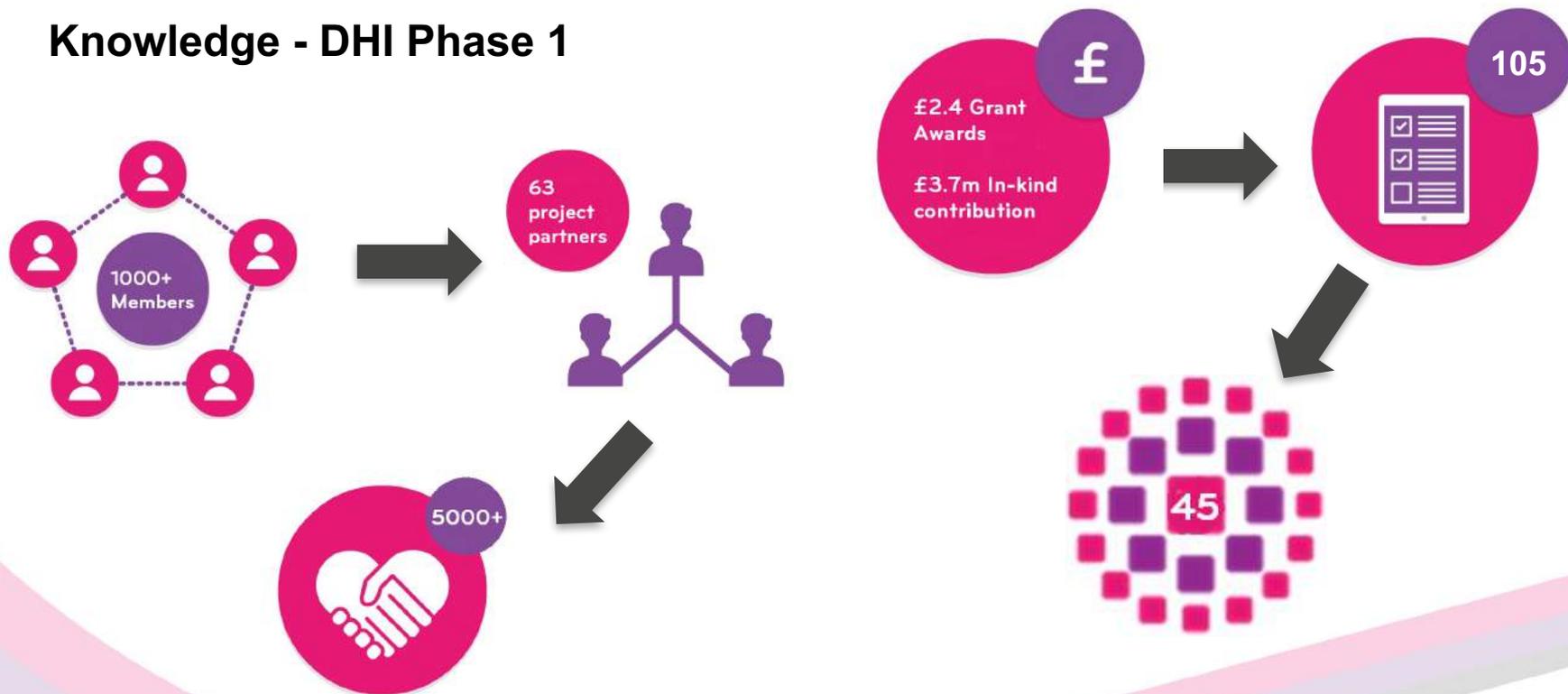
**Constructively disrupting health and care provision through innovating the right products and services and establishing a new digital health economy for Scotland**



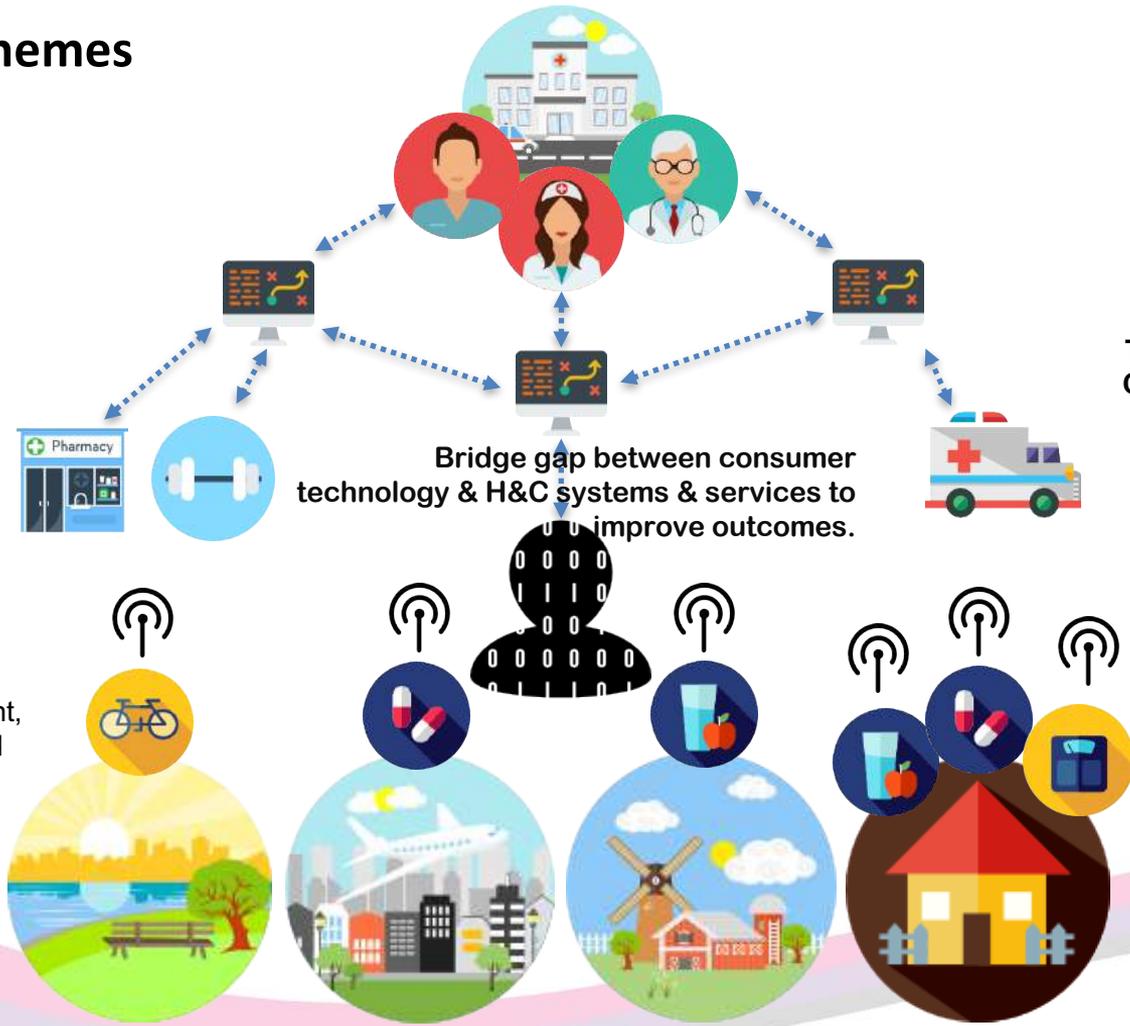
Right patient right drug, right time. Applying genomic medicine to the NHS and Pharma/bio clinical development



# Knowledge - DHI Phase 1



# DHI Focussed Themes



**Theme 1  
Wellness Services**  
(Supporting co-management,  
building trust in distributed  
data)

**Theme 3 Unscheduled  
Care Decision Support**  
(Supporting the best  
possible decisions)

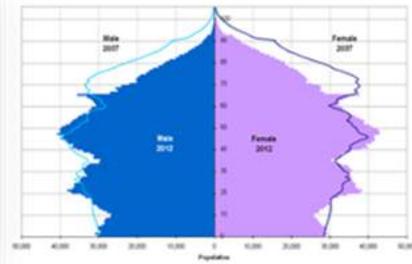
**Theme 2  
Living Well in the  
Community**  
(Predictive analytics driven  
home care)

# Health & Care Drivers for Change

## Public Finances



## Aging Population

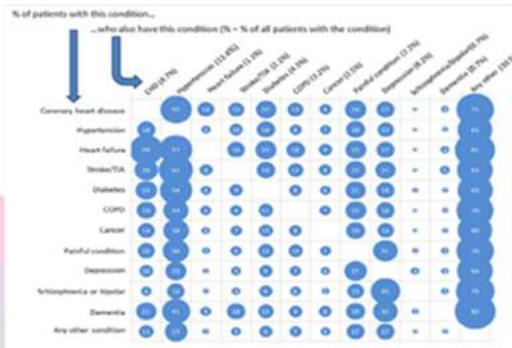


## Health Inequalities

	Males - Least deprived	Males - Most deprived	Female - Least deprived	Female - Most deprived
Life Expectancy (years)	81.7	71.3	84	77.2
Healthy Life expectancy (years)	69.1	48.3	71.9	51.5
Expected years of "ill health"	12.6	23	12.1	25.7

Source: ISD

## Multiple and Chronic Conditions Reduce Avoidable Admissions



	2011	2012	2013	2014
Emergency inpatient discharges	534,178	547,673	551,524	554,893
Routine inpatient discharges	447,989	448,263	469,543	518,743
Day case discharges	443,109	453,520	459,919	451,281

Source: ISD Scottish Hospital Activity

## ***“The future is digital”***

The Scottish Government eHealth strategy is expected to make a ***“truly transformational contribution to the way health and care professionals work and to how patients access safer, more person-centred and more effective health and care services”*** by 2020.

*-Scottish Government, 2015*

## The NHS workforce



**138,458**  
Whole-time  
equivalent (WTE)

NHS staff, March 2016: up 5 per cent  
since 2012.

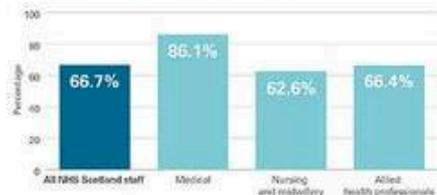


4.7 per cent of the Scottish working age population is employed by the NHS.



In 2015/16 just over £6 billion (56 per cent) of NHS spending was on staff costs.

Percentage of staff working full time



In 2016 ca  
203,200  
people were  
employed  
within social  
services in  
Scotland =  
7,8% of all  
workforce.

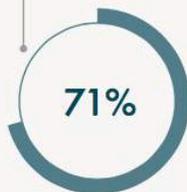
# Changing conditions for work – Changing skills requirements for staff

Image: Imison et al., 2016

## The world of digital health in numbers

### Consumer IT

In 2015



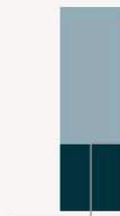
of all UK citizens had a smartphone



of adults used the internet



The average adult spends almost **2 hours** a day online on a smartphone



**33%** of users see their smartphone as the most important device for going online

### But only 2%

of the population report any digitally enabled transaction with the NHS



**43,000** medical apps are now available on iTunes



**500 million** people around the world will use a healthcare app this year



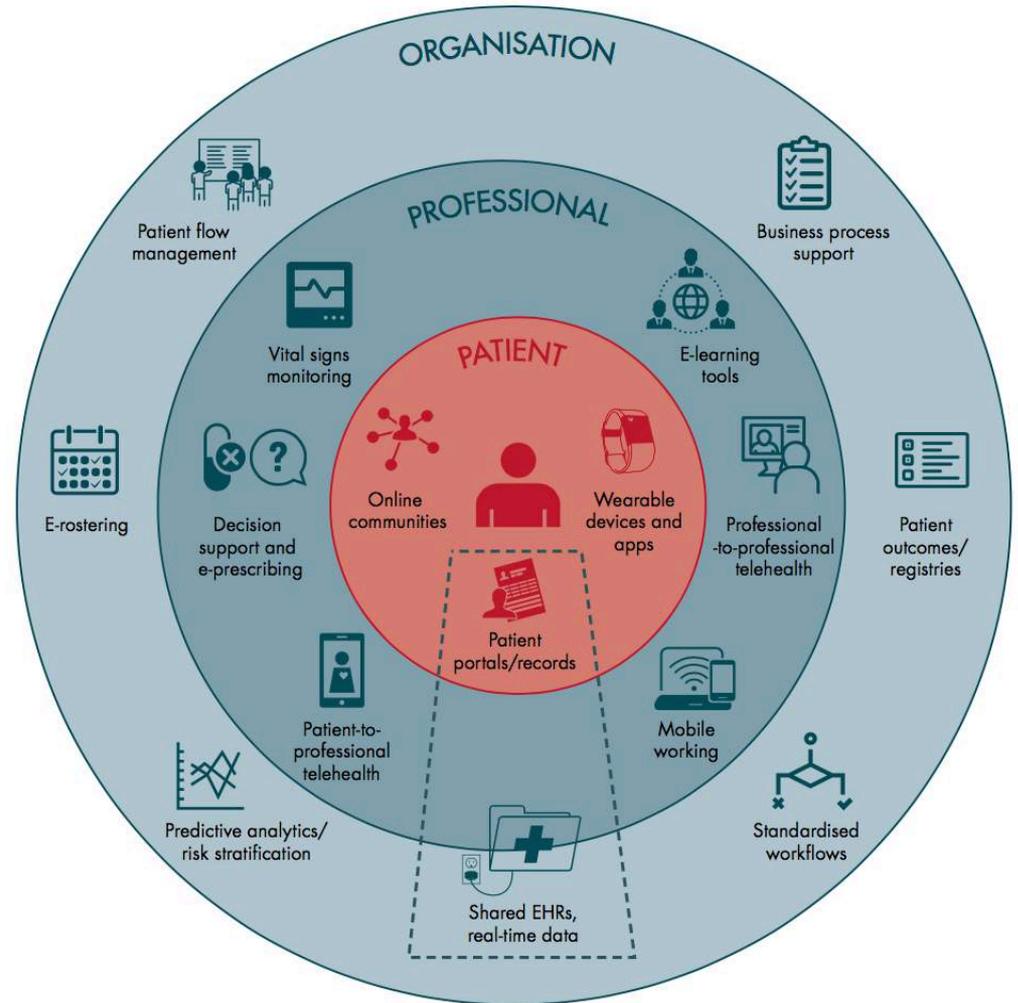
**50%** of the UK population use the internet for self-diagnosis, while



**75%** search the web for health information

## Changes in health and care data:

- Increasing amounts and types of data
- Automation
- New practices needed for handling and governing data – what will these be like?
- How will the influx of data impact day to day work of health and social care workers?



## Digital skills crisis?

- 16,5 million people in the UK without appropriate skills to become digital workers (ECORS 2016, 25)
- Training and education are the key solutions to this problem, but the training levels have remained static since 2013 (UKCES 2016).

## **What can the college sector do?**

Prepare the workforce for the future by ensuring that all students are digital-ready – able to pick up and use new technologies, and work within digitally enabled services as part of their daily practice as and when these are made available to them.

# What can the DHI offer:

- Promote “digital-preparedness” of health and social care staff by endorsing and supporting core digital skills training in Scotland
  - Investigation of the core digital skills training provision under way.
  - Investigation of emerging skills gap within the work force forthcoming.
  - DHI could support curriculum development at colleges, and facilitate the creation of modules in collaboration with relevant stakeholders, if necessary.  
E.g. Core digital skills for social work by Skills for care
  - DHI can deploy these skills modules at scale as part of on the ground innovation work in health & care environments.



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**Thank you for listening!**

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