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Academic Health Science Partnership

Accelerating the adoption of technology in the NHS

Dr Charlie Davie, Managing Director, UCLPartners

8 February 2018

UCLPartners – a partnership organisation

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6 million
population

46
Healthcare organisations and clinical commissioners

11
Higher education partners

844
primary care practices

100s
industry partnerships

Parts of London, Bedfordshire, Hertfordshire and Essex

Context

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Challenges

Solutions

Examples

Life Sciences Strategy

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Challenges

- Growing and aging population
- Multiple long-term conditions
- Increasing costs

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Challenges

Put the patient at the centre of everything

It’s not “What’s the matter?”
It’s “What matters to you?”

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Challenges

Skills, capability and funding

'Whilst there is a strong heritage in research and idea generation there are often problems with achieving scale.'

'The problems include:

- a lack of commercialisation skills
- shortages of IT and analytical capabilities
- difficulties in funding
- challenges with accessing a local revenue stream in the NHS.

Monitor Deloitte Digital Health in the UK September 2015

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Challenges

- Complexity of the NHS
- Underdeveloped innovation sales strategies
- Complex and bureaucratic processes
- Financial incentives and single year budgeting
- Technical interoperability and data sharing
- NHS commissioning priorities
- Clinical and management capacity

Solutions

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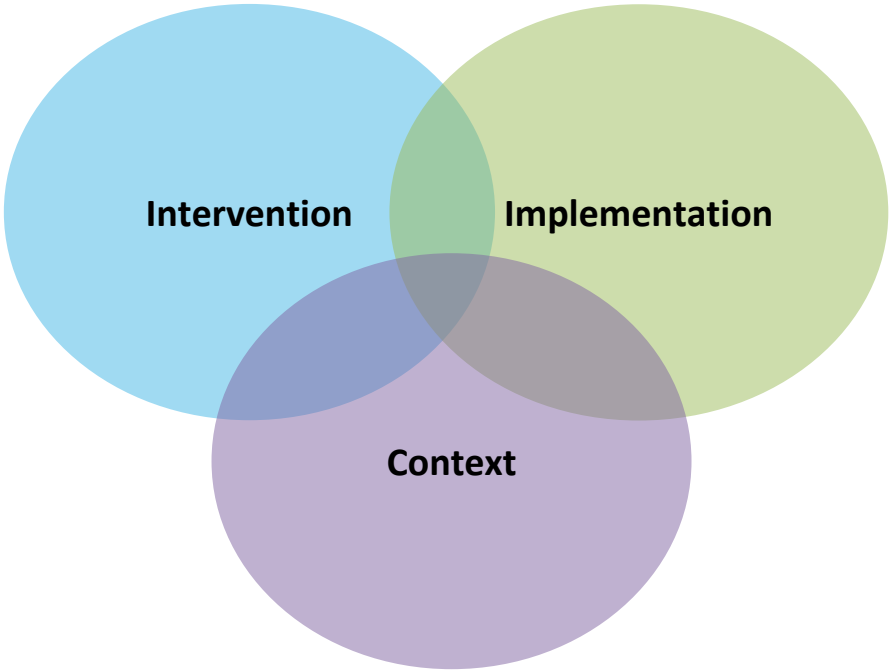
We know that improvement requires more than an effective intervention



Solutions

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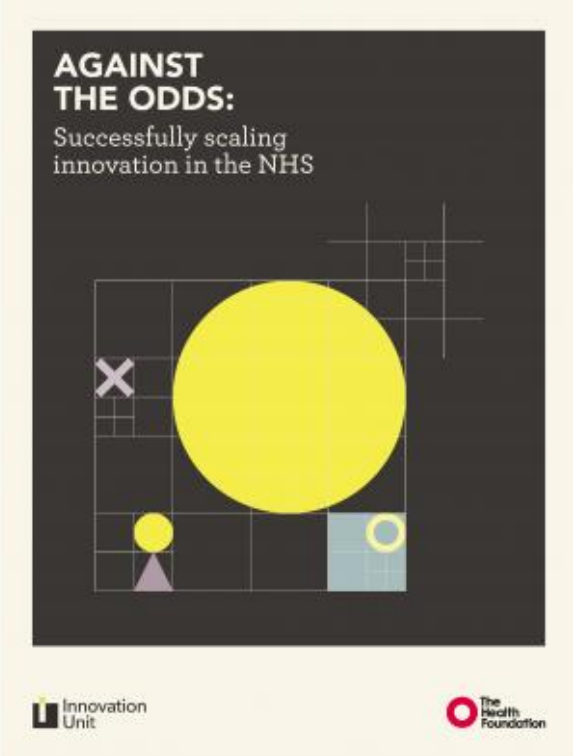
Against the odds: Successfully scaling innovation in the NHS

Key enablers for scale:

1. Building demand through existing networks and narratives
2. Using evidence to build demand
3. Balancing fidelity, quality and adaptability
4. Scaling vehicles rather than lone champions
5. Capitalising on national and local system priorities
6. Using policy and financial leavers to kick start momentum
7. The importance of commissioning for sustainable spread
8. The role of external funding to support spread



Solutions

Academic Health Science Partnerships

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- Creating innovation exchanges to connect effective solutions to real healthcare challenges
- Guiding innovators through NHS bureaucracy
- Empowering clinicians to develop solutions

DigitalHealth.London
Building the Global Digital Health Capital - together

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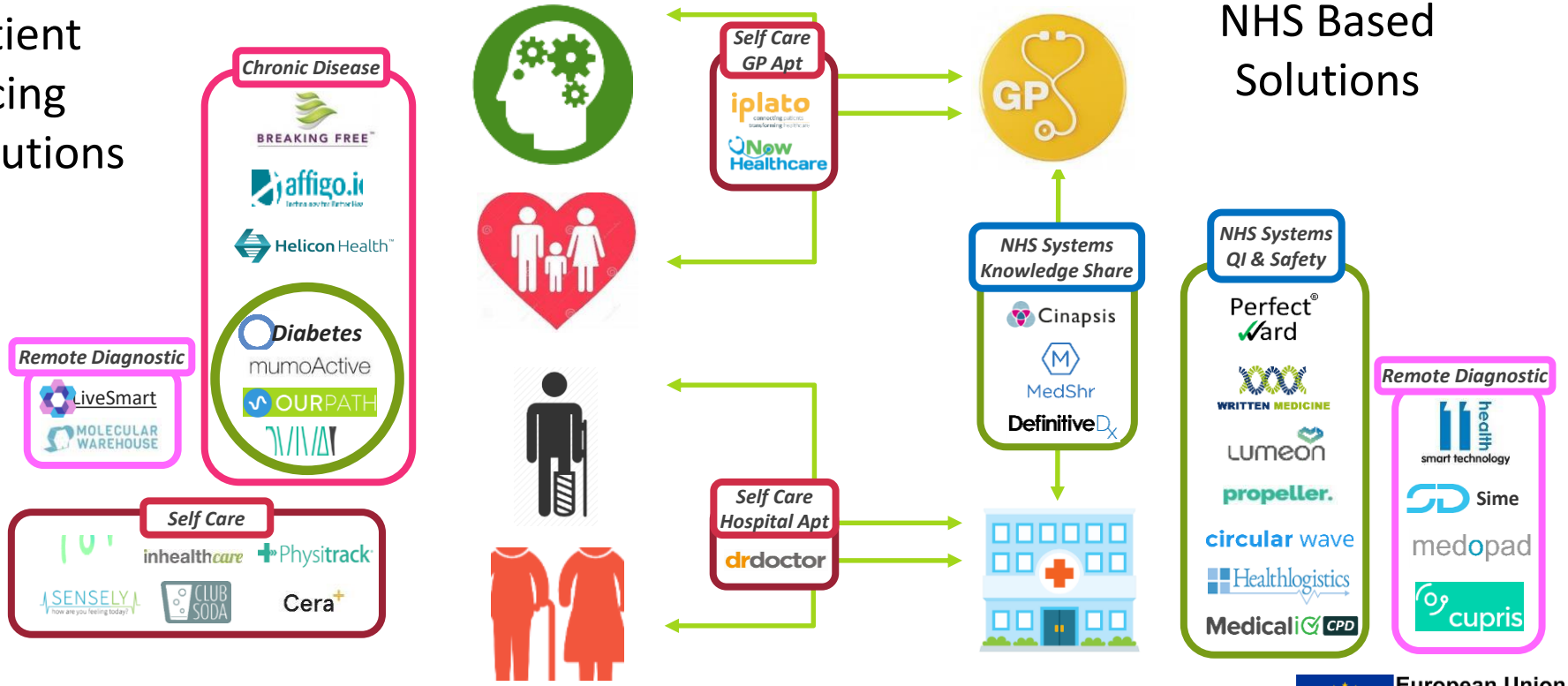
Patient Facing Solutions

NHS Based Solutions



European Union
European Regional Development Fund

Solutions

NHS Innovation Accelerator

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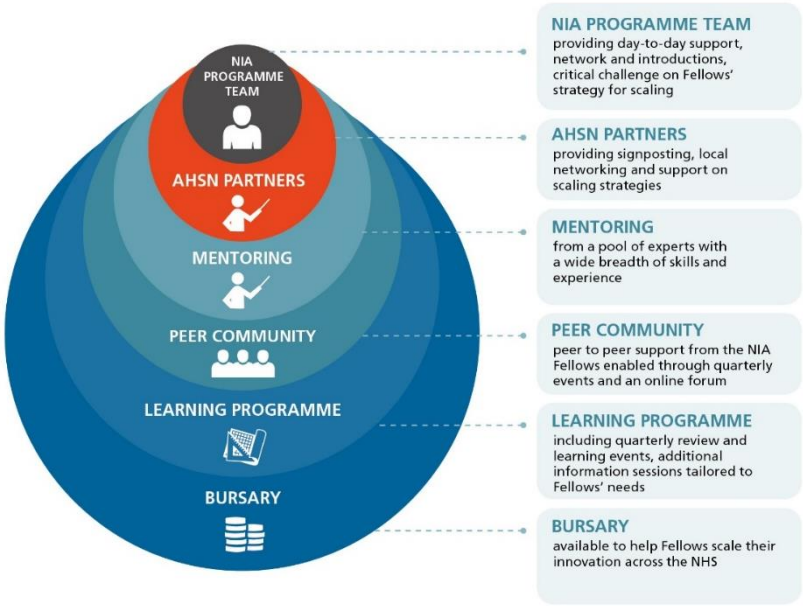
AIM to help create the conditions and cultural change necessary for proven innovations to be adopted faster and more systematically for patient benefit

Selects: annual call for Fellows representing high impact evidence-based innovations via a robust multi-stage selection process

Offers: Bespoke support through a range of mechanisms to accelerate national uptake

Progress to date:

- 964 NHS sites now using NIA innovations
- £40M external funding raised
- 116 new jobs created
- 29 awards won
- 13 NIA innovations selling internationally



NHS England

The AHSN Network

NHS Innovation Accelerator

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A number of the innovations directly empower patients to self-care:

myCOPD

- Complete online self-management for COPD patients
- Expertise normally provided by the health professional delivered at time & place to suit patient
- Also has a “MyPulmonary Rehabilitation” - comprehensive 6-week PR class delivered online

Neuro Response

- Nurse led, technology enabled model of care for people with Multiple Sclerosis
- Offers expert assessment and advice to people at times when it matters most to them
- By phone, patients can discuss physical, mental & social care needs, agree plans & share info

Sleepio™

- Fully automated cognitive behavioural therapy (CBT) programme, delivered via web or mobile
- Users receive proven techniques from a virtual sleep expert through weekly tailored sessions
- In a placebo-controlled trial Sleepio was shown to be comparable in effect to face-to-face therapy, but is available instantly at a fraction of the cost.

wise breast cancer

- Website and mobile app that brings all the information about a person’s breast cancer together with tailored insight and support
- Patients can write into the app about their treatment, side effects and emotionally how they are feeling that can be shared with health professionals

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Whilst other NIA innovations enable greater patient empowerment…

Health Coaching

- Training programme to provide clinicians with the skills and techniques to empower patients to become more active participants in their care
- HealthCoaching helps time- poor clinicians manage difficult conversations, and demand through reduced prescribing, repeat appointments and tests

HealthUnlocked

- One of world's largest support networks for health with over 4million visits each month
- Connects patients, caregivers and health advocates safely online with guidance from leading credible health organizations
- Partnership with Macmillan will see all cancer patients provided with a personalisable online care plan delivered by HealthUnlocked

PATIENTS KNOW BEST®
MANAGE YOUR HEALTH

- Patient controlled record enables patients to hold all their medical information in a single record owned by them.
- Patients are able to invite anyone they wish to view their record and so can construct a strong and comprehensive care network best suited to them

Solutions

Innovation and technology tariff

NHS England

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News

NHS England announces first medtech devices and apps to join fast track payment scheme for innovation

2 November 2016 - 00:01

Medtech devices and apps will for the first time be included under NHS national payment rules helping to accelerate uptake, NHS England Chief Executive Simon Stevens has announced today. The commitment to create a new Innovation and Technology Tariff was announced by Mr Stevens in June.

Now following clinical review, the first six innovations have today been selected as part of a new Innovation and Technology Tariff, benefiting women giving birth, patients with chronic lung problems, men having urological surgery, and acutely ill inpatients. NHS England is also, in parallel, backing new mobile technology solutions for diagnosing heart problems.

The new Innovation and Technology tariff will help cut the hassle experienced by clinicians and innovators in getting uptake and spread across the NHS. It will remove the need for multiple local price negotiations, and instead guarantee automatic

Examples

Data linkage driving efficiency in clinical trials

- > 26,000 volunteers
- > 6,900 volunteers enrolled in dementia studies
- 152 NHS, University and other research organisations
- 91 research studies

Examples

Microsoft HoloLens at University College London Hospital

Examples

Moorfields collaboration with DeepMind

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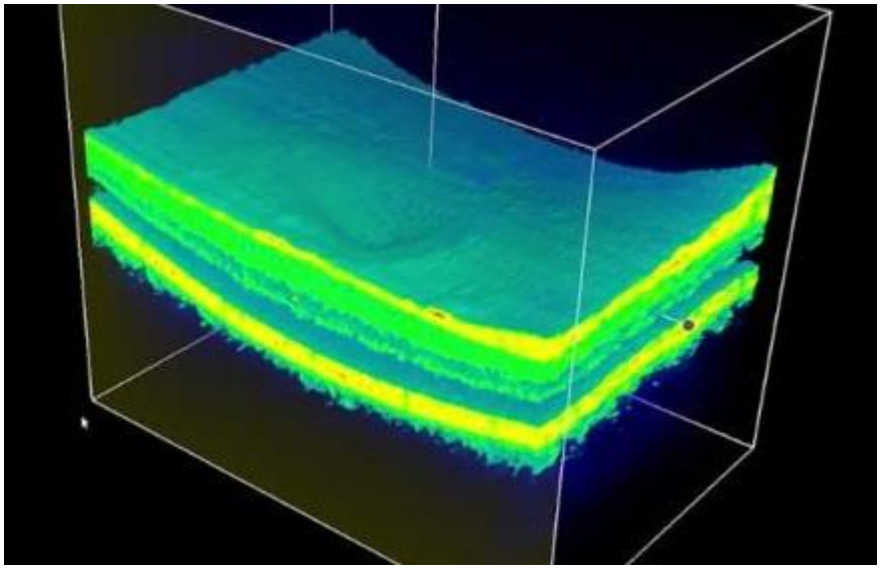
Reinventing the Eye Exam

In the Era of Big Data and Artificial Intelligence

Pearse Keane
Moorfields Eye Hospital and
UCL Institute of Ophthalmology



- Moorfields is now sharing 1 million fundus photographs and images with DeepMind, who will train its AI algorithms to detect even the earliest signs of disease pathology

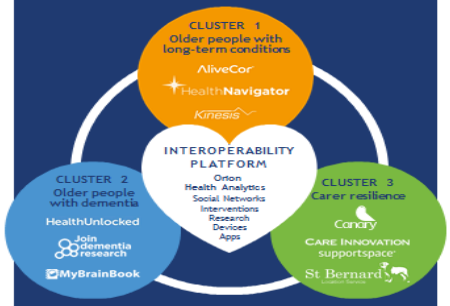
- Manual retinal image analysis today requires highly-trained, experienced specialists, and takes time. AI could help both speed up the process, and prioritise the patients who need review and treatment the earliest

Examples

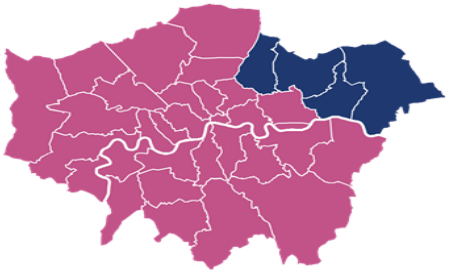
Care City Innovation Test Bed

The Care City Innovation Test Bed aims to improve the wellbeing and resilience of older people with long term conditions, older people with dementia, and carers across four London boroughs - Barking and Dagenham, Havering, Redbridge and Waltham Forest.

We are testing a combination of devices and software alongside new approaches to service delivery and patient participation to assess whether they improve outcomes and experience for service users and their families.



Our Test Bed covers the 1million+ population of Barking & Dagenham, Havering, Redbridge (BHR) and Waltham Forest.



Did you know...

...that across our Boroughs of Barking and Dagenham, Havering, Redbridge and Waltham Forest...

People living with long term conditions

- There are approximately **69,000** older people living with multiple long term conditions
- In 2014, **2,734** people over 65 were predicted to have been admitted to a hospital because of falls. This figure is predicted to rise much further to **3,766** by 2030

Carers

- There are over **21,000** people who provide unpaid care for more than 50 hours a week
- **1 in 9** workers is also a carer - and **20%** will eventually give up work
- **66%** of people with dementia are supported by unpaid carers

Dementia

- In 2014, **9,465** people over the age of 65 were thought to have dementia across the four boroughs - this will rise to **13,437** by 2030
- **1 in 4** patients in hospital beds have dementia

Our partnerships

We are working in partnership and drawing on the expertise of our system partners.

- BHR Integrated Care Coalition:
  - NELFT NHS Foundation Trust
  - Barking, Havering and Redbridge NHS University Trust
  - Barking, Havering and Redbridge CCG
  - London Borough of Barking and Dagenham
  - London Borough of Redbridge
  - London Borough of Havering and BHR GP Federation
- Waltham Forest CCG
- Carers of Barking and Dagenham and Age UK Redbridge, Barking & Havering
- UCLPartners (Academic Health Science Network)

Life Sciences Strategy

The Accelerated Access Review

Accelerated Access
Review of innovative medicines and medical technologies supported by Wellcome Trust

Aim: To speed up access to innovation and grow the UK life sciences industry

Recommendations in five key areas:

1. Patients, clinicians and charities to be the key drivers in innovation
2. A new accelerated access pathway will prioritise innovations
3. Open and transparent pathways to bring forward medtech, digital and diagnostics
4. Driving innovation through NHS planning, increasing capacity, clinical leadership and incentives
5. A new accelerated access partnership provides a single source of national level guidance and oversees the pathway

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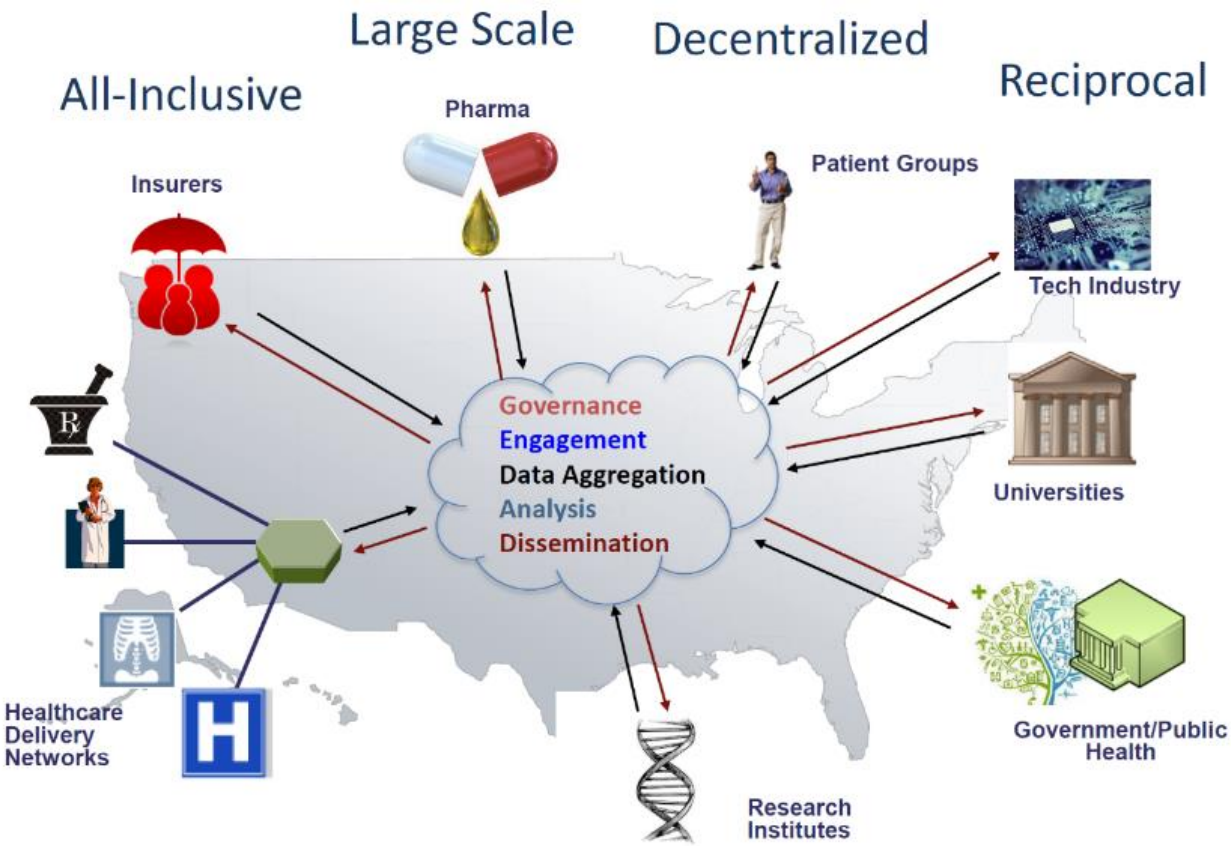
A Learning Health System