

Making *IT* Work: Harnessing the Power of Health Information Technology to Improve Care in England

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Nyborg, 13th October 2016

Making *IT* Work: Harnessing the Power of Health Information Technology to Improve Care in England

Report of the National Advisory Group on Health Information Technology in England

Robert M. Wachter, MD, Chair

Overview

- Context to the "Making IT Work" Wachter Review
- Review process
- Our key recommendations
- Progress with implementation and next steps...
- Possible implications for Denmark's eHealth strategy





SCOTLAND IN EUROPE

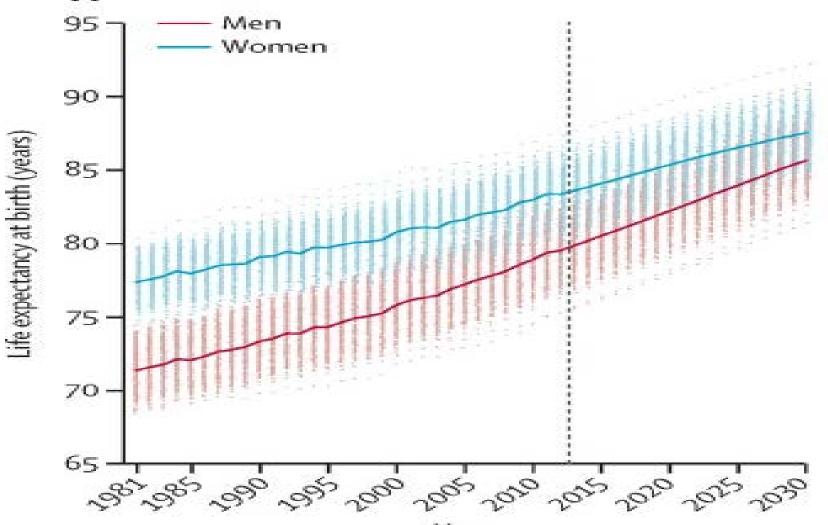


THE BURNING PLATFORM...

Major challenges facing health systems internationally

- Changing demographics: ageing populations
- Increasing numbers of people living with longterm conditions
- Ongoing concerns about the safety and quality of healthcare
- Spiralling healthcare costs

Increasing UK life expectancy



Year

The demographic time bomb: Forecasts for dependency ratios

80%	
70%	
60%	
50%	
40%	
30%	
20%	
10%	
0% USA New Zealand Australia	a veland UK France Germany Hall Spain Japan
New Zer AUS	In Y. Get.
	2005 2050

The exponential rise of multi-morbidity

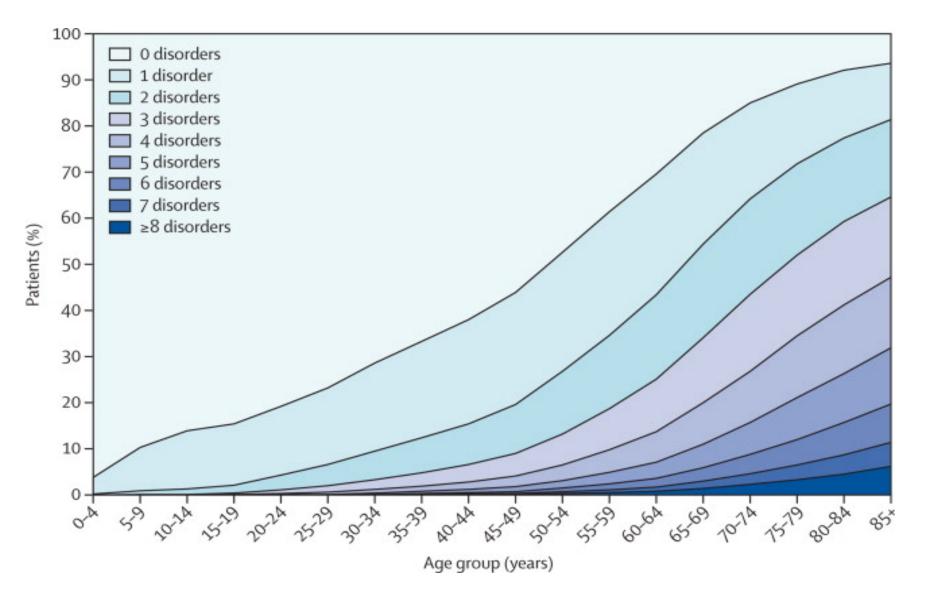


Figure 1: Funding pressures on the English NHS in 2030/31 (in 2014/15 prices)

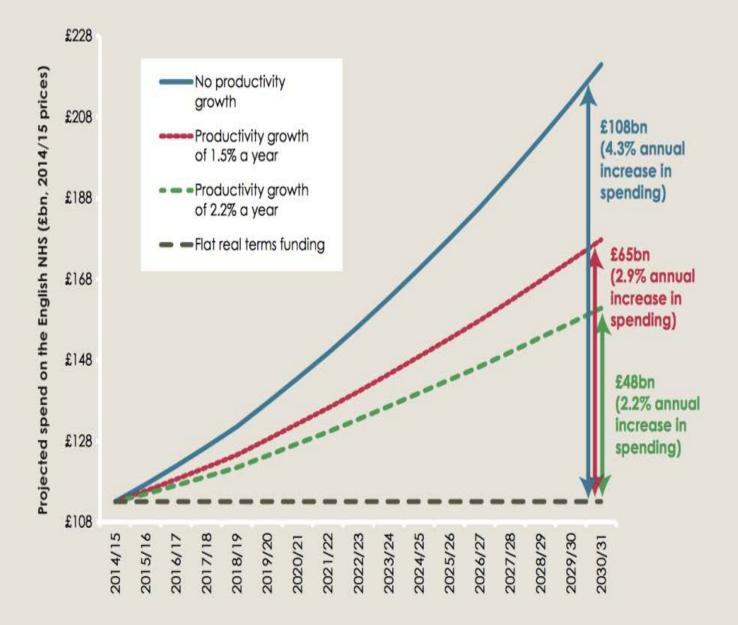


EXHIBIT ES-1. OVERALL RANKING

COUNTRY RANKINGS



Middle	×.	4								$\searrow \mathbb{Z}$	
Bottom 2*	* . AUS	CAN	FRA	GER	NETH	NZ *	NOR	SWE	SWIZ	UK	US
OVERALL RANKING (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/Capita, 2011**	\$3,800	\$4,522	\$4,118	\$4,495	\$5,099	\$3,182	\$5,669	\$3,925	\$5,643	\$3,405	\$8,508

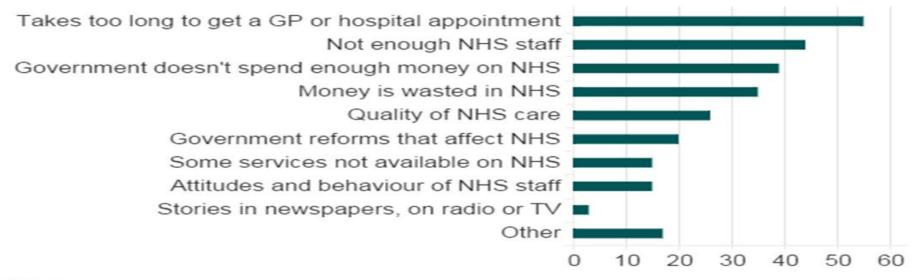
Notes: * Includes ties. ** Expenditures shown in \$US PPP (purchasing power parity); Australian \$ data are from 2010.

Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults; 2012 International Health Policy Survey of Primary Care Physicians; 2013 International Health Policy Survey; Commonwealth Fund National Scorecard 2011; World Health Organization; and Organization for Economic Cooperation and Development, OECD Health Data, 2013 (Paris: OECD, Nov. 2013).



Record rise in NHS dissatisfaction levels survey says

Why did you say you were dissatisfied with the NHS?



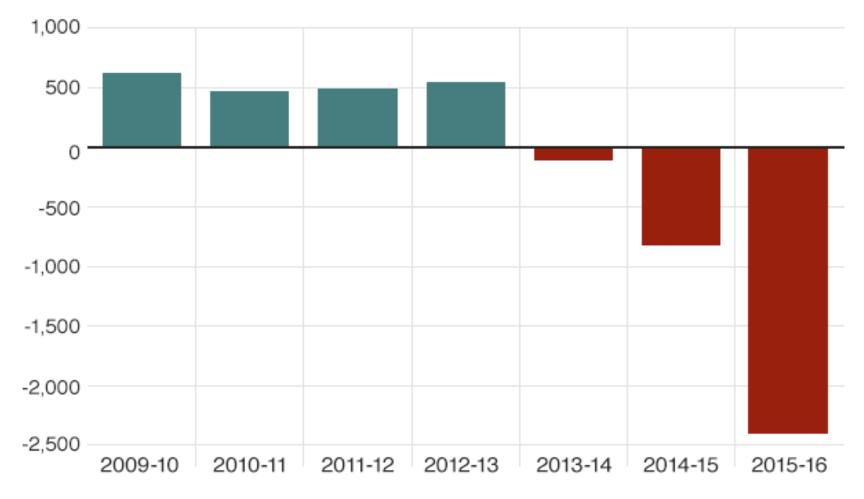
BBC

Percentage

Source: NatCen's British Social Attitudes survey

NHS trusts end-of-year financial results

£ millions







THE 'SILVER BULLET' OF HEALTH IT

How best to respond?







Possible solutions



- Increase taxation: direct and indirect
- Increase retirement age
- Modify pension plans: average salary schemes
- Encourage immigration
- Cut expenditure on public services
- All are however deeply unpopular and make politicians very wary...

The UK's National Programme for IT



- Considerable policy interest in Health IT as being the answer
- **1998:** "If I live in Bradford and fall ill in Birmingham then I want the doctor treating me to have access to the information he needs to treat me." (Rt. Hon. Tony Blair, NHS Conference, London, July 2, 1998)
- **2002:** £12billion 'vision' for the National Programme for IT approved by Tony Blair at an un-minuted 10minute briefing in Downing Street with Bill Gates

Th He	R	BM	T	EDITORIAL	
Ashly Brian 1 eHealt Health S 4 Depart	D.	<i>BMJ</i> 20		The rise and fall on National Program	
A Ba qu ve		Imj hea qua in '	DECLARATIONS	Ann Robertson ¹ • David W Bates ¹ eHealth Research Group, Centre for Population Health Scier ² Division of General Internal Medicine and Primary Care, Ha Harvard, MA, USA Correspondence to: Aziz Sheikh. Email: aziz.sheikh@ed.ac.ul During nine turbulent years, the most enduring	nces, The University of Edinburgh, UK Irvard University & Brigham Women's Hospital,
in ef		Aziz in infi profe	Competing interests None declared	features observed in the landscape of the National Programme for IT have been continual change and uncertainties. The Government's new announce-	

PLOS medicine

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL REPORT



Wiring the Health System — Origins and Provisions of a New Federal Program

PART ONE OF TWO

David Blumenthal, M.D., M.P.P.

Presented as the 36th annual Joseph Garland Lecture of the Boston Medical Library on October 25, 2011. Dr. Garland was editor-in-chief of the Journal from 1947 through 1967.

In February 2009, the U.S. government launched an unprecedented effort to reengineer the way the country collects, stores, and uses health infor- information technology in the Obama adminismation. This effort was embodied in the Health

original justification for the HITECH Act, its major provisions, and some of the early challenges associated with its implementation. In interpreting this report, readers should be aware that I served as national coordinator for health tration from April 2000 until April 2011

Leveraging health information technology to achieve the "triple aim" of healthcare reform

RECEIVED 7 December 2014 REVISED 2 February 2015 ACCEPTED 23 February 2015 PUBLISHED ONLINE FIRST 16 April 2015



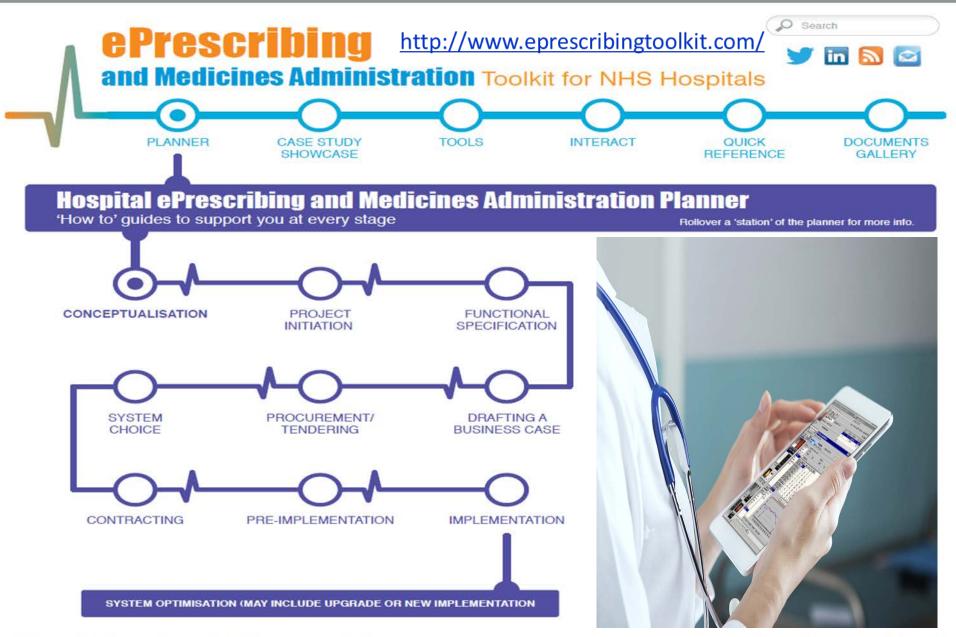
Aziz Sheikh^{1,2,3}, Harpreet S Sood², and David W Bates^{2,3}

ABSTRACT

Objective To investigate experiences with leveraging health information technology (HIT) to improve patient care and population health, and reduce healthcare expenditures.

Materials and methods In-depth qualitative interviews with federal government employees, health policy, HIT and medico-legal experts, health providers, physicians, purchasers, payers, patient advocates, and vendors from across the United States. Results The authors undertook 47 interviews. There was a widely shared belief that Health Information Technology for Economic and Clinical Health (HITECH) had catalyzed the creation of a digital infrastructure, which was being used in innovative ways to improve quality of care and curtail costs. There were however major concerns about the poor usability of electronic health records (EHRs), their limited ability to support multi-disciplinary care, and major difficulties with health information exchange, which undermined efforts to deliver integrated patient-centered care. Proposed strategies for enhancing the benefits of HIT included federal

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NIHR Programme Grant for Applied Research, Principal Investigator: Professor Aziz Sheikh

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University Hospitals Birmingham NHS NHS Foundation Trust

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TAKE 2: WACHTER REVIEW





Health

NHS to get £4bn in drive for 'paperless' health service

7 February 2016 Health



Health Secretary Jeremy Hunt: "Investment in IT can save time for doctors and nurses"

Top Stories

German trains in deadly head-on crash

At least 10 people are killed and more than 100 injured as two passenger trains collide in the German state of Bavaria.

35 minutes ago

Labour Trident deal 'may be impossible'

1 hour ago

Age UK halts controversial energy deal

3 hours ago

Features



Terms of Reference

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News story Review of information technology in NHS

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From:	Department of Health and National Information Board
First published:	8 February 2016
Part of:	Research and innovation in health and social care and NHS efficiency

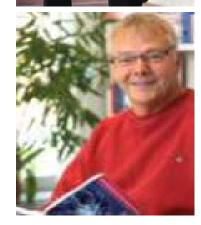
Review will look at ways to improve NHS IT, including electronic health records, to achieve a paper free health and care system by 2020.

Members of the National Advisory Group on Health **Information Technology in England**

- Robert Wachter (Chair)
- Julia Adler-Milstein
- David Brailer
- Sir David Dalton
- Dave deBronkart "e-Patient Dave"
- Mary Dixon-Woods
- Rollin (Terry) Fairbanks
- John Halamka
- Crispin Hebron

- Tim Kelsey
 - Richard Lilford
 - Christian Nohr
 - Aziz Sheikh
 - Christine Sinsky
 - Ann Slee
 - Lynda Thomas
 - Wai Keong Wong
 - Harpreet Sood (secretariat)





Modus Operandi

- Short-life Working Group
- International, interdisciplinary group
- Number of focused teleconferences
- One 2-day face-to-face of review team meeting in London with expert witnesses called
- Minister and ministerial team kept abreast of progress
- Launch of Report at NHS Expo on 7 September 2016

Main findings

- 1. Digitise for the correct reasons
- 2. It's better to get digitisation right than to do it quickly
- 3. Return on investment from digital is not just financial
- 4. When it comes to centralisation, the NHS should learn but not over-learn from NPfIT
- 5. Interoperability should be built inform the start
- 6. While privacy is very important, so too is data sharing
- 7. Health IT systems must embrace under-centred design
- 8. Going live with IT systems is the beginning, not the end
- 9. A successful digital strategy must be multifactorial and requires workforce development
- 10. Health IT entails both technical and adaptive change

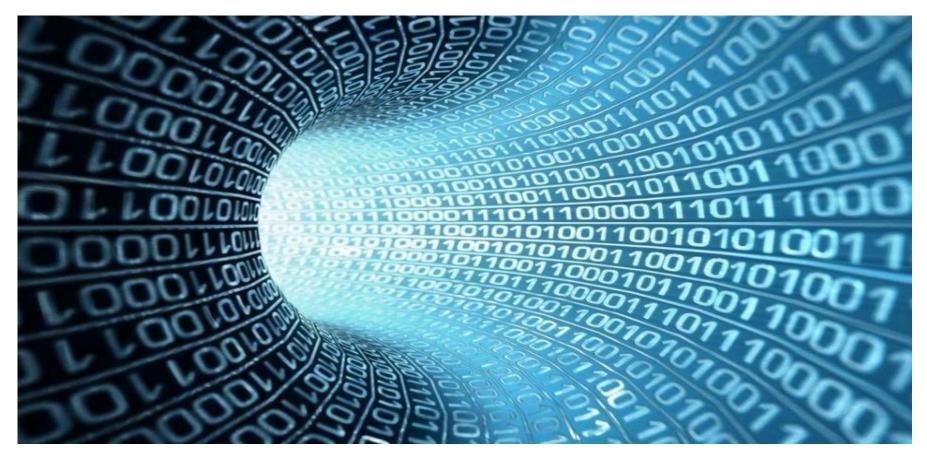
10 Key Recommendations

- 1. Carry out a Thoughtful Long-term National Engagement Strategy
- 2. Appoint and Give Appropriate Authority to a National Chief Clinical Information Officer (CCIO)
- 3. Develop a Workforce of Trained Clinician-Informaticists, and Give Them Appropriate Resources and Authority
- 4. Strengthen and Grow the CCIO Field, Others Trained in Clinical Care and Informatics, and Health IT Professionals More Generally
- 5. Allocate the New National Funding to Help Hospitals Go Digital and Achieve Maximum Benefit from Digitisation

- While Some Hospitals May Need Time to Prepare to Go Digital, All Hospitals Should be Largely Digitised by 2023
- 7. Link National Funding to a Viable Local Implementation/Improvement Plan
- 8. Organise Local/Regional Learning Networks to Support Implementation and Improvement
- Ensure Interoperability as a Core Characteristic of the NHS Digital Ecosystem – to Promote Clinical Care, Innovation, and Research
- 10.A Robust Independent Evaluation of the Programme Should be Supported and Acted Upon

And one other thing...





WIDER CONSIDERATIONS

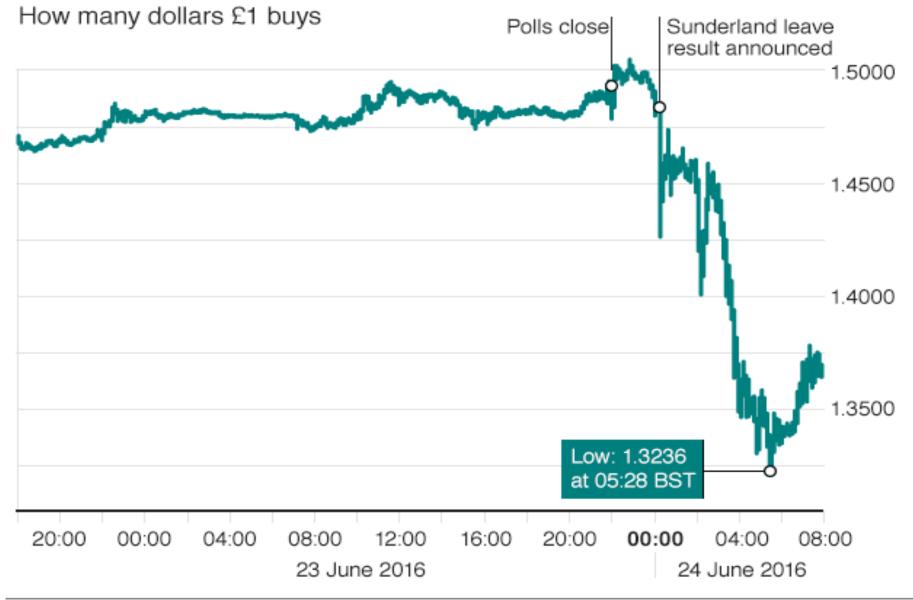


LET'S STICK TOGETHER





Sterling value plummeted as results came in







PROGRESS SO FAR...

Appointment of England's first Chief Clinical Information Officer for England

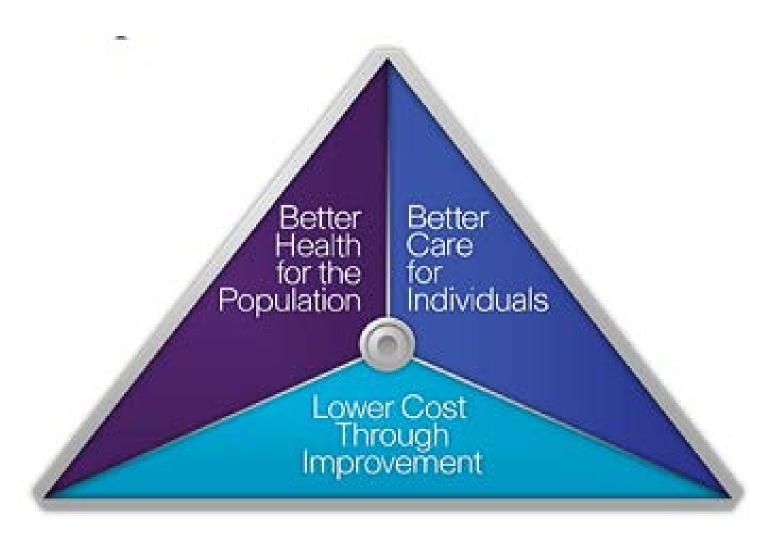


NHS Centres of Digital Excellence

- 12 awarded with the expectation that these will become beacons of excellence within 2 years
- Criteria
 - Vision
 - Leadership
 - Technology
 - Workforce
 - International partnerships
 - Commitment to evaluation
- ~£10m/hospital



The 'triple aim'



'Fast follower' hospitals

- Competition will soon be announced
- Looking for national centres of excellence within 2 years
- £~5m/hospital will be allocated

Creation of NHS Digital Academy

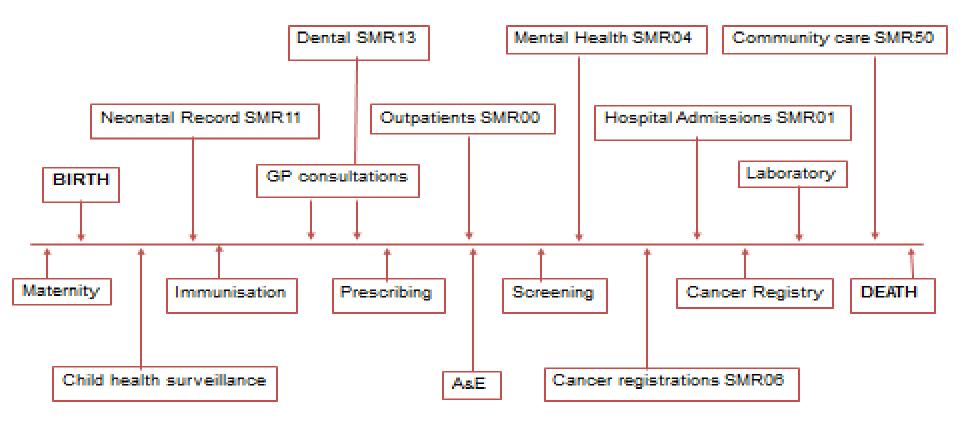
- Need to grow and network leaders in clinical informatics
- Need to cover all professional bases
 - Medicine
 - Nursing
 - Pharmacy
 - Allied Health Professionals
- Anticipated start date: Q1, 2017



ALIGNING EFFORTS

Digital infrastructure

Scotland's linkable databases



Strengthening the UK's capability in health informatics research

1st May – 2nd May 2013 Conference report



wellcometrust

NHS National Institute for Health Research

Prthritis Research UK

- Develop UK Health Informatics Research Network Strategy.
- Provide a blueprint for the Network activities which are designed to harness expertise and engage stakeholders for the coming five years and beyond.



The Farr Institute vision

"To harness health data for patient and public benefit by setting the international standard for the safe and secure use of electronic patient records and other population-based datasets for research purposes"



Our 10 key activities

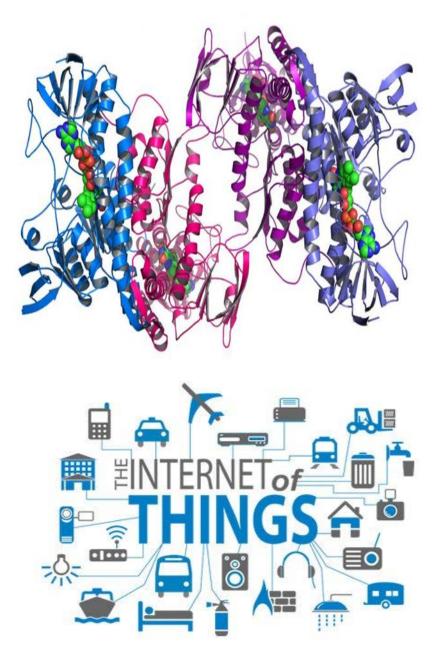


- 1. Collaborative leadership.
- 2. Cutting-edge research
- 3. Public engagement.
- 4. Governance ('safe havens')
- 5. Methods development

•The Farr Institute of Health Informatics Research

- 6. Enabling datasets
- 7. Harmonized e-infrastructure
- 8. Industrial partnerships
- 9. Training and capacity building
- 10. Communications

To deliver impact nationally and internationally



Never Offline.

The Apple Watch is just the start. How wearable tech will change your life—like it or not

ND MATT VELLA



Institute core activities and data driven research challenges:



UK Institute for Health and Biomedical Informatics Research Director Recruitment Pack THE DANISH GOVERNMENT LOCAL GOVERNMENT DENMARK DANISH REGIONS

MAKING eHEALTH WORK

NATIONAL STRATEGY FOR DIGITALISATION OF THE DANISH HEALTHCARE SECTOR 2013-2017

CONCLUSIONS



progress is being made in the Substantial implementation of electronic health records (EHRs) in hospitals, ambulatory care, and primary care practices globally, but uncertainty remains about how these large financial investments will translate into tangible patient, population, and societal benefits.¹This question is topical for all governments, but particularly pertinent for the UK and the USA, since important decisions on government health information technology (HIT) strategies related to EHRs are imminent.²³ The extent of governmental involvement is crucial to these deliberations. Ultimately, both public and private sectors will be involved, but the balance between these sectors is contested. We propose six roles that governments should fulfil to maximise the health and economic benefits of HIT.

Six ways for governments to get value from health IT

First, there is a need to formulate national vision and establish appropriate leadership and organisational structures to ensure monitoring of progress against strategic milestones. Alignment with, and support of, key national health-care and population health goals is important. HIT must be seen as an enabler of these history, current medications, and drug allergies, which need to be accessible to all relevant health-care professionals at the point of care. Nationally agreed conformance testing procedures for EHRs and linked technologies, such as telemonitoring devices and smart pumps,⁷ can help to ensure data exchange will work. In the USA, electronic clinical data summaries are now sent routinely, but they are often uninterpretable by recipients of EHRs and are printed out, which defeats much of their purpose.

Third, digital health systems need to progressively eliminate the need for paper health records and create digital national infrastructures for continuous quality improvement. This process should be driven by improving care and not by rates of EHR adoption. Financial incentives and penalties for adoption of EHRs—as used by the ONC—can be a powerful catalyst, but other health-system targets, such as ensuring provision of venous thromboembolism prophylaxis and reducing rates of hospital-acquired infections, are vital. Meeting such requirements is nearly impossible in health systems with paper-based records.

Government priorities in eHealth

- 1. Formulate the vision and strategy, cultivate leadership and develop infrastructure to enable successful execution
- 2. Support effective data exchange between and across stakeholders
- 3. Create digital infrastructures to support continuous quality improvement
- 4. Find the optimal balance between national and local quality improvement targets
- 5. Address usability concerns
- 6. Enable the trusted and secure use (and repeated reuse) of data to support policy, practice and research

Conclusions

- Formulating effective HIT/eHealth policy and strategy is difficult
- Government needs to focus on the big ticket issues and in doing so create platforms that engage and catalyse stakeholders
- Policy initiatives need to be evaluated
- There is very considerable opportunity for and benefit in sharing experiences/insights internationally
- This has been of considerable benefit in developing England's strategy 2.0 and may also benefit the forthcoming refresh of Denmark's eHealth strategy

Mange Tak!

• Further details: <u>aziz.sheikh@ed.ac.uk</u>





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