The Connected Health Cities Team

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Lou Wilson
Heather Parker

.....& 3.6 million other people
Presentation Overview

1. Connected Health Cities
   • Background
   • Objectives

2. The Great North Care Record
   • Conception
   • History
   • Regional Status

3. Supporting a Regional Approach
   • Interoperability
   • Public Engagement
   • Citizen Preferences
Connected Health Cities (CHC) Geographical Scope – The North East and North Cumbria
Connected Health Cities - Key Aims

1. To continually improve and optimise the health and social care system to deliver better care, more efficiently, by providing actionable information to inform decision making at all levels (a Learning Health System.)

2. To establish a social contract with the population that gives license to use healthcare data for the public good.

3. To accelerate business growth in the digital health sector for the benefit of the North of England.

To December 2018.
Connected Health Cities – Objectives

1. Support development of an Integrated Care Record (*The Great North Care Record*) for the NENC that helps achieve the aims of a Learning Health System.

2. Support *regional governance* for informatics aligned with a continually evolving NHS.

3. Support development of a *common infrastructure and platform* for the region.

4. Develop a *social contract with the citizens* of the NENC for use of their data.

5. Create a *consent rich research* environment.
Connected Health Cities- Building a Learning Health System (LHS)

Joining up health and social care data for the benefit of:

• Point of care
• Care planning
• Research

• Delivering value and improvement at each stage
• Taking the citizens of the NENC with us on the journey
• Getting scale in the deployment of the technical aspects
Connected Health Cities Approach - The Long March

- Citizen Focused
- Build on what’s there
- Build Civic Partnerships
- Borrow from the best
- Transparent
- Citizen focused
- Agile
- Build a trusted brand (the Great North Care Record)
- Leave your team shirt at the door
Northern CCG Forum

Northern England Strategic Clinical Networks

AHSN

NE U&EC Vanguard

VCS/SMEs/Privates providers

CIO Forum

Strategic IG Network

CCIO Network

Connected Health Cities (Newcastle University)

Regional Interoperability Group

MIG Project Board

Palliative & EOL

NE&C Digital Care Programme

Regional Groups/Forums

Share learning & best practice

CCGs

NHS Providers

LAs

VCS/SMEs/Private providers

Universities

Patients/Service Users/Healthwatch
Connected Health Cities: The Story So Far

1. Supporting joining up frontline care
   - Medical Interoperability Gateway (MIG) and Information Sharing Gateway (ISG)

2. Supporting the Digital Care Programme across the region

3. Local Digital Roadmap and Sustainability and Transformation Plan (STP) emergence

4. Regional Governance for Informatics
   - Increasingly aligned with STPs

5. Reviewed national and international ‘data sharing’ programmes

6. Adopted the ‘Great North Care Record’ for sustainability
The Elephants in the Room

- Engagement of the public
- Care.Data
- Caldicott 3
- Consent
- Money
- Global Centres of Digital Excellence
- Regional Governance
- The Regional Interoperability Budget
- System Supplier collaboration
- Standards and the technical challenge
“To do list”

I wonder?

- [ ] 
- [ ] 
- [ ] 

Joined Up
“Local” NHS IT
Is it possible?

Dr. Mark Westwood “Joining” GP
Live Theatre
7th March 2013
Outcomes Post March 7th Meeting 2013

- A sense of common purpose, 3Ft’s 2GP system suppliers, two integration companies
- An outline of common issues
- Challenge of competition versus collaboration
- Feedback from a brief Primary Care survey
- Back to my day job........
- Next enabling steps?
- Power Of Information Discussion June 25
- Joining up IT next steps meeting 2015
- Safer Hospitals Funding
- Awaiting breakdown of funding to CCG ........pause
Successful but “unfunded” July 2014

- IDCR fund bid in supported by NHCT, NTW, NUTH, CCG, OOH and Local Authority.
  - Consistent Quality Clinical Correspondence to Primary Care (structure/format/layout and transport method)
  - Consistent Quality Real Time View of appropriate Primary Care medical record
  - As technology allows bi-directional share of data between providers
Back to the Drawing Board
September 2015

MIG Implementation, funded/supported by NHCT/NTW

Population – 535,000 patients
72 practices
Mixed Estate – TPP and EMIS
Northumbria, Northern Doctors, NTW
Second phase NEAS, MHM, NUTH

Real time view of Primary Care Record
Foundations laid for future sharing
Removal of Organisation Barriers
Patients Informed
Equity of Information regardless of GPSOC
Strong IG process to support
Filling the void
Download the App!
Point of Care Sharing – the MIG and U&EC Vanguard

- The Medical Interoperability Gateway (MIG) supports the sharing of data between organisations delivering care.

As a first step GP practices will allow visibility of vital data on the patient to ambulances and A&E Departments via the MIG.
The Information Sharing Gateway

- More efficiency in providing the sharing protocols required to support information sharing between multiple organisations
# Where Patients Go - self presenting at A&E

## Emergency Activity - Self referral activity for all hours

<table>
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<th>NSEC</th>
<th>RVI</th>
<th>QE</th>
<th>STDH</th>
<th>SRH</th>
<th>DMH &amp; UHND</th>
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**Data Source:** NECS Information Services Dept, Activity During the Time Period 01/07/2015 - 30/06/2016
# The MIG Current & Future Viewing Position (Vanguard A&EC)

## MIG Update: MIG Enabled to share with...

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**Data Source:** Delivery Teams

**Key**

- MIG Viewing Planned
- MIG Viewing 'Live'
The MIG – A Snapshot

The Village Green Surgery

Users should be aware that MIG messages received from EMIS or INPS are subject to an exclusion code set. This means that there may be sensitive data in the patient record that you cannot see. For further information go to http://www.healthcaregateway.co.uk/contact.

Summary

- 12-Aug-2016  GP out of hours service notified
- 13-May-2016  Malignant neoplasm of bronchus or lung NOS
- 11-Apr-2016  Peripheral ischaemic vascular disease
- 11-Jan-2016  Foot pain
- 16-Nov-2015  Pleural plaque disease due to asbestosis
- 2015  Osteoporosis
- 01-Dec-2014  [D]Nocturia
- 01-Jun-2008  Generalised osteoarthritis - OA
- 20-Sep-2004  Chronic obstructive pulmonary disease
- 13-Aug-2002  Pain in joint - arthralgia
- 20-May-2002  Actinic keratosis
- 1996  Bronchiectasis

Current Medication

Acute Medication
- Furosemide 20mg tablets
- Dexamethasone 2mg tablets
- Colomycin 2million unit powder for solution for injection vials (Forest Laboratories UK Ltd)

Repeat Medication
- Aspirin 75mg dispersible tablets
- Atorvastatin 40mg tablets
- Carbomer '980' 0.2% eye drops
- Docusate 100mg capsules
- DuoResp Spiromax 320micrograms/dose

By Commissioner

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By Provider

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Total

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Clicks on the MIG by provider organisations

Graph showing number of clicks over time from April 16 to December 16.
Win over the 2%

- Understand the concerns of Summary Care Record (SCR) and ‘Care.Data’ objections
- Most Vulnerable groups
- Push the data quality issue, problem list uniformity
- Agree across Acute and Primary care (Snomed)
- Align with the patient online program
- <simples> When direct care
Connected Health Cities: 3 Key Workpackages

1. Interoperability

2. Public Engagement

3. Citizen Preferences (Consent)
Great North Care Record
What sort of Project?

• Technology
• Sociology
• Culture change
• Collaboration
• Infrastructure
Infrastructure Projects

A Vision
Full consultation
User centred
design
Platform
Services
Standards
Reusable
Scalable
Compatible
Appropriation
We can only get the platform right through widespread consultation with patients and citizens, clinicians, social carers and technologists; with senior managers in health and social care, with researchers in Universities and health related industries throughout the North-East and North Cumbria
Team of Teams – CHC Governance

Chief Executives
Clinical Chief Information Officers
Great North Care Record
STP / Digital Roadmap Leads
Communications
Information Governance
Analytics

Great North Care Record
Regional Platform and Infrastructure - Governance

- Regional Interoperability Forum
- Regional IG Group
- Regional Analytics Group
- Joint Care Pathway Group
Suppliers and Systems Involved
Principles

- No rip and replace
- A supplier-neutral platform
- Connect current systems with open national and international standards
- Join up multiple organisations economically
- Reusable and scalable solutions
- Common vision of regional strategy, design, infrastructure
- Create a platform for future innovation
- A regional organisation for common ownership of shared infrastructure?
National NHS Advice
## Linking Programmes to Outcomes

### Self Care and Prevention
1. Citizen Identity
2. NHS.UK
3. Health Apps Assessment & Uptake (inc wearables)
4. Widening Digital Participation
5. Clinical Triage Platform
6. Patient Relationship Management
7. Access to Service Information
8. Out of Hospital Care
9. General Practice Operational Systems and Services
10. Adopting Existing Technologies in General Practice
11. Technology for General Practice Transformation
12. GP Data for Secondary Uses

### Urgent and Emergency Care
13. Integrated Care – Business Change
14. Integrated Care – Interoperability and Architecture
15. Social Care Integration
16. Personal Health Record
17. Digitising Community Pharmacy
18. Pharmacy Supply Chain and Secondary Uses
19. Integrating Pharmacy Across Care Settings
20. Digital Referrals
21. Driving Digital Maturity
22. Digital Child Health
23. Digital Diagnostics
24. Workforce and Professional Capabilities
25. National Data Services Development
26. Data Content (inc. GP data, PLICS and PCOMS)
27. Innovative uses of Data

### Transforming General Practice
29. NHSmail2
30. HSCN
31. WiFi

### Integrated Care
32. Cyber-Security
33. National Opt-Out Model

### Digital Medicines
34. Electronic Prescribing
35. Shared Medicines Intelligence

### Elective Care
36. Telehealth
37. Robotic Surgery

### Paper Free at Point of Care
38. Electronic Document Management
39. Electronic Patient Letters

### Data Outcomes for Research and Oversight
40. Data Referral
41. Data Protection

### Infrastructure
42. Cloud Hosting
43. Data Centre

### Public Trust and Security
44. Privacy
45. Security Operations Centre
46. Cyber Security Operations Centre
The legal framework governing the use of personal confidential data in health care is complex. It includes the NHS Act 2006, the Health and Social Care Act 2012, the Data Protection Act, and the Human Rights Act.
The Information Sharing Gateway
Version 2

• Information Sharing Gateway - electronic repository

• Develop “advanced information broker” for automatic filtering of allowable data flows based on data sharing agreements in the hub.
**CHC Objective: Care Pathway Projects**

- Fund projects
  - Join up frontline care – better, rich data available for analysis
  - Enhance and augment data for analysis
  - Research for Universities (sometimes with industry)
- Demonstrate
  - Future information standards and infrastructure
  - *Learning health systems*
**CHC Objective: A Common Platform For Analytics**

- Led by Regional Analytics Group (RAG)
- Emerging governance group within CHC NENC
  - Universities, Trusts, NHS and Social Care
  - Analytics and BI experts
  - Part of regional infrastructure
  - Key feature of Care Pathway projects
  - Imminent design phase
  - Focus on secondary use and research use of data
  - Consent driven analytics
CHC Objective: Regional Interoperability
Work Package

• STPs - Vision for Regional Record Interoperability
• CHC funded workpackage – consultation on Regional Platform
  • Potential architectures
  • Essential services
  • Available technologies
  • Candidate suppliers
  • Likely timeframes and costs

Report due in Feb 2017
Logical Structure of Federated Health and Social Care

This is not a hierarchy of control but a Federation Infrastructure operating under the principle of subsidiarity.

Federation
Self similarity
Fractal architecture
Invitation

• Please come to a **Technical and Clinical Standards Workshop**

• Run by the PRSB, HL7 UK, IHE

• Thursday 24\textsuperscript{th} November

• At the Core 11.00 am to 4.00pm
Public Engagement: CHC Work Package

• Open a discussion with the citizens of the NENC

• Citizen views on information sharing; inform them on what happens now and get views on how they want sharing to work (what are their preferences?)

• Citizens’ Forum/Council

• How do people want to record preferences (e.g. for point of care, planning and research) and being a NHS Data Donor.
Citizen Preferences: CHC Workpackage

- Develop a digital communication channel with the citizen
- Allow the citizen to identify themselves on-line
- Collect the citizens sharing preferences as an NHS data donor
- Collect the citizens communications preferences (email etc)

Why?
- Create a consent rich research environment
Data for Analytics and Research

Data donors agree to defined secondary use of data

Resource and capacity planning

Defining and conducting research
The Secret of Consent? – Get Consent

• [https://blu3id.github.io/gnrc-consent/preference.html](https://blu3id.github.io/gnrc-consent/preference.html)

What do you want your information to be shared for?

- **For research by the GNCR**
  Your health information will be shared with researchers that have been reviewed by the GNCR panel.

- **For care**
  Teams caring for you within the GNCR area will have easy access to your health information when needed to provide safe, effective care.
  - [Details](#)

- **I don't want to share**
  You will have to tell each team caring for you about your health needs and any important or relevant information.

- **For all research purposes**
  You are happy for your information to be shared with researchers and industry both nationally and internationally.
Can I see the health information held about me?

How will it affect me as a CARE PROFESSIONAL?

How will it affect me as a PATIENT?

The Great North Care Record (GNCR) is a region wide electronic patient record programme that allows health and social care professionals directly involved in providing care, to share a summary of medical records at the time and place of treatment. Read more >
When the money runs out......

• Postage, Paper, Typing, Printing, Repetition, Unnecessary Admission.
  PATIENT HARM
Connected Health Cities Projects

• Test and develop the principles and technologies underpinning the Connected Health Cities programme and the Great North Care Record.

• Projects still in development: start in 2016/17
Comfort Break
Connected Health Cities Team
Overview of the Projects

Project Leads
North Cumbria – John Roebuck
North of Tyne and Northumbria – Dr Kathryn Hall
County Durham and Darlington – Dr Ian Briggs and Professor Graham Towl
South Tyneside and Sunderland – Lynn Eddon
Newcastle – Raghu Lingam
This is Impossible Right?
The Great North Care Record – The Vision

• Our **common purpose** is to serve the 3.6 million people in the North East and North Cumbria by meeting their needs for health care and social care.

• Our **common vision** is that, by sharing information securely and effectively, we will make a **lasting contribution to the health, well-being and opportunity** of our population.

• This vision is matched by a **commitment**: to keep working together until we have made it a reality.

• **Our goal** is to **share information**, not data for the sake of it. We want to **connect** people to their care.

• Be the **best place in the world to get care** and the **best place in the world to do research**.
Our Ask of You

• To join the conversation

• We’d like to talk to you more – invite us to your meetings and events

• Be a champion for the Great North Care Record

• Let us help you develop your information sharing communities

• Talk about the Great North Care Record in your organisations and communities

• Tweet about the Great North Care Record

• Visit the Great North Care Record website and send us your comments as a critical friend of the programme
@GreatNorthCare

https://www.greatnorthcarerecord.org.uk/

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