“Coming of age, the Leeds health and care record.”

A Local Health & Care Record Exemplar

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SRO Digital WY&H STP
“But I would walk 500 miles, An' I would walk 500 more, Just to be that man who walks a thousand miles, To fall down at your door.”

The Proclaimers
Leeds Health and Wellbeing Strategy 2016–2021

We have a bold ambition:
‘Leeds will be the best city for health and wellbeing’.

And a clear vision:
‘Leeds will be a healthy and caring city for all ages, where people who are the poorest improve their health the fastest’.

5 Outcomes

1. People will live longer and have healthier lives
2. People will live full, active and independent lives
3. People’s quality of life will be improved by access to quality services
4. People will be actively involved in their health and their care
5. People will live in healthy, safe and sustainable communities

In our city... wellbeing starts with people and everything is connected.
Digital Health is not a computer science or an engineering science.

It is a social and behavioural science.
Digital has to be the ‘fourth utility’ in health care!

The history of technology as it enters industries is that people say ‘this is going to transform everything in 2 years’. And then you put it in and nothing happens and people say ‘why didn’t it work the way we expected it to?... . And then lo and behold after a period of 10 years, it begins working.

— Robert Wachter
UCSF

Technology has transformed hotel, transport, retail, banking, communications - when will it come to health care?

Average EU eHealth Investment is 3.2% of budget. Average Financial Sector investment is 15.7% of profit.

International eHealth investment estimates

- €15.8Bn England - NPfIT Over 10yrs
- €1.6Bn Canada, Southwest Ontario (2013-2017)
- €25Bn - USA - HITECH-Act/meaningful-use
- €1.6Bn – Australia – Predicted over 10yrs
- €5.4Bn – NHS – Predicted in next 5 yrs

Most common patient assumption about information: the NHS is one single information system, clinicians can see my information no matter where I am.
The World Has Never Been Changing So Fast
NUMBER OF YEARS IT TOOK FOR EACH PRODUCT TO REACH 50 MILLION USERS

- Automobile: 62 years
- Telephone: 50 years
- Electricity: 46 years
- Credit Card: 28 years
- Television: 22 years
- ATM: 18 years
- Debit Card: 12 years
- Internet: 7 years
- PayPal: 5 years
- YouTube: 4 years
- Facebook: 3 years
- Twitter: 2 years

ppm+ 10 years
Leeds Ecosystem

Leeds City Council

Leeds Academic Health Partnership

The Leeds Teaching Hospitals NHS Trust

Leeds and York Partnership NHS Foundation Trust

NHS

UNIVERSITY OF LEEDS

Clinical Commissioning Group

Yorkshire & Humber Academic Health Science Network

LEEDS BECKETT UNIVERSITY

St. Gemma's Hospice

Leeds Community Healthcare NHS Trust

Leeds Trinity University
The Leeds City Region has 9% of the UK medtech patents.

In the Leeds City Region and wider Yorkshire economy, the economic output per job in medtech is 4 times the regional average.

The University of Leeds predicts that, with support, the medtech industry in the Leeds City Region could grow by a further £1bn per year by 2025.

The Leeds City Region has 40,000 manufacturing jobs which is second highest for any city region in the UK.

The Leeds City Region has 22% of the UK digital health jobs.

This concentration makes the Leeds City Region an ideal place to grow medtech and increase regional productivity.

The global market for medical technologies is predicted to grow by 50% by 2025.

The Leeds City Region is one of the most highly productive sectors in the UK with a value of over £20bn per year.

In the Leeds City Region and wider Yorkshire economy, the economic output per job in medtech is 4 times the regional average.

The University of Leeds predicts that, with support, the medtech industry in the Leeds City Region could grow by a further £1bn per year by 2025.

By establishing strategic partnerships with the medtech sector, the health and care system could see benefits at £1bn per year by 2025.
About Leeds Teaching Hospitals NHS Trust

- Over 1,100,000 Outpatients
- Over 263,000 A&E Attendances
- Over 117,000 Inpatients
- Over 108,000 Day Cases
- 9,844 Babies born
- Over 17,000 staff

Turnover £1.17 billion

Providing 120 specialist services:
- 82 Adult Specialities
- 28 Paediatric Specialities
- 5 Pathology Services
- 5 Medicines Management and Pharmacy Services

2,000 beds
Leeds Care Record
Integrated Care Across 2.2 Million

Leeds Teaching Hospitals Trust has built its own EHR known as PPM+. This is now a platform for delivery of mobile, location based care information & the Leeds Care Record.
Leeds Care Record
Integrated Care Across 2.2 Million

Bob often feels that he’s seen by public services as a collection of bits and illnesses.

Leeds Care Record enables digital solutions to support the delivery of integrated care to patients throughout the city for health and social care.

Bob as seen by his friends and family  Bob as seen by the healthcare system
Leeds Care Record
Integrated Care Across 2.2 Million

Investment to date to be realised...
1. No need to be FAST, time elapsed already
2. CHEAP = Investment internally, Our staff skills, our Eco-System
3. GOOD we define what good is!

The future can be digital:
GOOD – Leeds has a clinically driven EHR in place.
BETTER – The city has a solution that allows patients to interact with their digital information.
BEST – Continuous Service Improvement Plan can be invested in locally.
Leeds Care Record

Digital Maturity

- Biggest eWhiteboard deployment in country (110 wards, 2602 staff trained)
- 16,000 active users across PPM platform with 350 new users added every month
- 302,000 forms completed (Nov 17) - Peak time, one form every 3.8 seconds
- eCorrespondence 77k per month
- 2.8 mil patients known to PPM/LCR of which 2.2 mil associated with LTHT
- 51 million interactions with PPM per month – 64 million messages per year through the integration engine
- eMeds – 2245 nurses and 1148 prescribers trained in 85 area. 741,096 prescriptions
Virtual Ward

Engage, Assess current state, identify requirements, develop plan with team, identify resource within informatics to support/exploit existing ppm+ functionality and core clinical systems fully by July.
Build a road and put the cars on it!
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Up to 7 care setting for a complex case – newest is hospice – Children’s Social Care this month
Leeds Care Record provides clinical and care staff directly involved in your care access to the most up-to-date information about you. It does this by sharing appropriate information from your health and care records between health and social care services in Leeds.
“This is the best thing in the NHS in the last 10 years”

Caroline Senior
Clinical Lead, Cardiac Services, Leeds Community Healthcare
Leeds Digital Team
Digital Evolution.
Create a new agility in the development team:

1 – Long term Vision with a Medium term plan.
2 – ‘Industrialise’ the link to clinical leadership.
3 – Support, deliver and enthuse become the raison d’etra for the team.
CHANGE IS HAPPENING
What if our culture could be our advantage for digital?
Platform business are the new normal, in Leeds the PLACE is the PLATFORM!
Open Platform - Leeds City Principles

1. Citizen Centred Care
2. Open Standards Based
3. Shares Common Information Models
4. Supports Application Portability
5. Federatable
6. Vendor and Technology Neutrality
7. Supporting Open Data
8. Providing Open API
Open Platform Principles - Y&H, GM and NE

1. Citizen Centred Care
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Legacy and New World

Mode 1 CORE SYSTEMS OF RECORD is traditional and sequential, emphasizing safety and accuracy and legacy composite applications.

Mode 2 CITIZEN SOLUTIONS is exploratory and nonlinear, emphasizing agility and speed. Best for componentised model allowing different mixes of solutions for different individual needs.
Helm

Your health and care data under control
People will take greater control over their own health and wellbeing and take action sooner to treat or prevent health conditions.

Information boundaries between services will disappear

A transformation in the way that people view their health and wellbeing and in how services are accessed

Informed by citizen research
Core solution will include the following base information:

- Problems
- Medications
- Allergies
- Vaccinations
- Letters

Citizens will also be able to contribute the following base information:

- Top 3 things to know about me
- Key contacts

All accessed via verified/authenticated reusable identity
The Person Held Record Platform

Bob’s Carer/family

BOB

(Digital) health and care Practitioner

Y&H Care Records

openEHR

PHR

GOV.UK VERIFY

Health monitoring
Alerts/prompts
Information
Environment
Appointments

Alerts/prompts
Information
Environment
Appointments

(FHIR)
Further opportunity to collaborate wider with LHCRE

Longitudinal record
Normalised - managing cohorts
Population management / research
Open standards based information models
It’s not just our place, simplify, standardise and share for everyone
Leeds Trust and GS1 launch new partnership in demonstrator site programme

“I love handover.”

Doctor, L17

“I don’t like change; but I like this!”

Emma, Physiotherapist, L15

Hannah Shore @hshore21 · Nov 6
Replying to @LHTImptTeam
This function is amazing - we should all use it @Leeds_Childrens

“Makes NEWS easy!”

“Much clearer and safer results.”

@DITLeeds | #LeedsDigitalWay
New Frontiers

CHAT BOT: AI supporting search capability within PPM+ and the possibility of AI support for patient interaction.

CLOUD FIRST: Remove reliance on LTHT infrastructure and move to an agile, secure and waste resistant model.

MOBILE FIRST: Ensure all clinical teams have responsive kit that can be used to adapt to the changing needs effectively. Deliver choice.

CLINICALLY IMPACTFUL GENOMICS: Enable a MDT view of geneticists opinion in rare disease and cancer.

CLINICIAN PROXIMITY: Enable technology to prompt clinical time based on location in the hospital.

VIRTUAL CONSULT: Enable clinical contact with patient virtually but within a secure and contextualised environment.
Proclaimer-ations

Focus on people, process and place – Not organisations!
Clinical Leadership Priority – Health & Care professionals
Be Clear about business requirements – How does the system want to transform?
Free the Data – Adopt Open Design Principles to all that we do
Legacy is here to stay – We can’t afford to throw away our legacy mode
Fast and Considered – Bi-Modal enables a co-existence
People and Team Focused – Develop joined up thinking across the geography
Digital is the 4th utility – No infrastructure decisions without digital
Eco-Systems Creation – Deliver value to the people in the place
Get the BASICS done well – Citizen Digital Literacy & Maturity
The Leeds Digital Way enables everyone to provide safe and integrated patient centred care in Leeds and beyond. We deliver this using innovative technology, information and insight that transforms patient journeys and makes us all part of a successful team.