HAMPSHIRE HEALTH RECORD
HAMPSHIRE

INTRODUCTION

The Hampshire Health Record (HHR) is a shared care record that shares information about 1.9m patients across a range of health and care settings. The record is used to support clinical decision making and transfers of care. A second database was deployed with the solution which uses pseudonymised data to support research and population health planning.

The Hampshire Health Record uses Graphnet's CareCentric software.

| SCALE | L |
| COMPLEXITY | H |

- ✓ ACUTE CARE
- ✓ PRIMARY CARE
- ✓ MENTAL HEALTH CARE
- ✓ COMMUNITY CARE
- ✓ SOCIAL CARE

Scale:
S = < 5 organisations
M = 5-10 organisations
L = 10+ organisations

Complexity:
L = Healthcare (HC) only
M = HC + community or social care
H = HC + community + social care

TIMELINE

2005

2005
The first iteration of the Hampshire Health Record was deployed with Graphnet v1 across Hampshire Primary Care Trust

2008
Hampshire Health Record upgraded to Graphnet v2

2016
Hampshire Health Record extends from Hampshire CCG to cover the wider North East Hampshire and Farnham CCG area as part of the NE Hants and Farnham Vanguard

Plan 2017+
Risk stratification to identify patients who are at risk of developing diseases

INVESTMENT OBJECTIVES

" DELIVER INTEGRATED PATIENT CARE BY FACILITATING THE SHARING OF INFORMATION ACROSS HEALTH AND SOCIAL CARE SETTINGS IN HAMPSHIRE. "

12 organisations

Approx. **250** unique end users per day

Approx. **1.9 million** population

SOLUTION

- The Hampshire Health Record is a Shared Care Record and uses Graphnet's Care Centric product.
- End-users can access the Hampshire Health Record via a web-based portal or through their existing clinical systems. This access is read-only.
- This record contains summary information about the patient drawn from GP records, hospital records, mental health, community care, and social care records from the council.
- Ambulance services and GP 111 can access this information in emergencies.
- Each day 2500 patients records are accessed.
- Data from the Hampshire Health Record is also used for research and operational monitoring and reporting. All patient data is anonymised before it is used.

BUSINESS CAPABILITIES

RECORDS ACCESS

- Provides a read-only view of the patient record within the existing clinical systems, or through a web-based portal.
- The record includes access to:
  - Patient medications
  - Hospital attendances
  - Diagnosis
  - Social Care Information
  - Allergies
  - Immunisations
  - Test results

TRANSFERS OF CARE

- Information is shared in the Hampshire Health Record when a patient is handed-on via a referral, transfer or discharge.
- GPs, social and community care organisations are able to see the appropriate information such as discharge summaries, future appointments and test results when they access the patient record.
- This supports safe and effective continuation of care.

INFORMATION SHARING RULES

- A protocol governing access to patient records, overseen by the Hampshire Health Record Information Governance Group (HHRIGG).
- Role-based and group-based accessed managed by the central team.
- Patients give their consent at the point of care.
- Patients can submit a request to see their record using the Hampshire Health Record website which provides transparency.

ANALYTICS

- Data from the Hampshire Health Record is used for research as well as for internal operational monitoring and reporting.
- Researchers use the dataset to analyse outcomes of patients with specific conditions e.g. diabetes or COPD. Results from studies supported a programme to target interventions for cohorts of diabetes patients.
- This is supported through a separate database that contains anonymised data from the Hampshire Health Record.

TECHNICAL SOLUTION
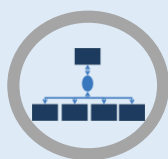
CENTRAL-REPOSITORY ARCHITECTURE

- Hampshire Health Record uses Graphnet CareCentric v.2.
- Patient data is pulled from GP, acute, community, social care and county council systems and stored in a central data repository. Updates range from every 15 minutes to every 24 hours.
- End users request data through a portal, or through their core clinical systems. This request pulls the data from the central repository.
- A separate database holds anonymised patient data for research and analytics.

SOLUTION FEATURES

| FEATURE	IN USE
Coded data	✔
Free text data	✔
Bi-directional	✔
Real time	⊘
Role-based access	✔
Clinical Portal	✔
Analytics	✔
Write access	⊘
Notifications/Alerts	⊘
Patient Portal	⊘

HEALTH AND CARE IT SYSTEMS IN THE REGION

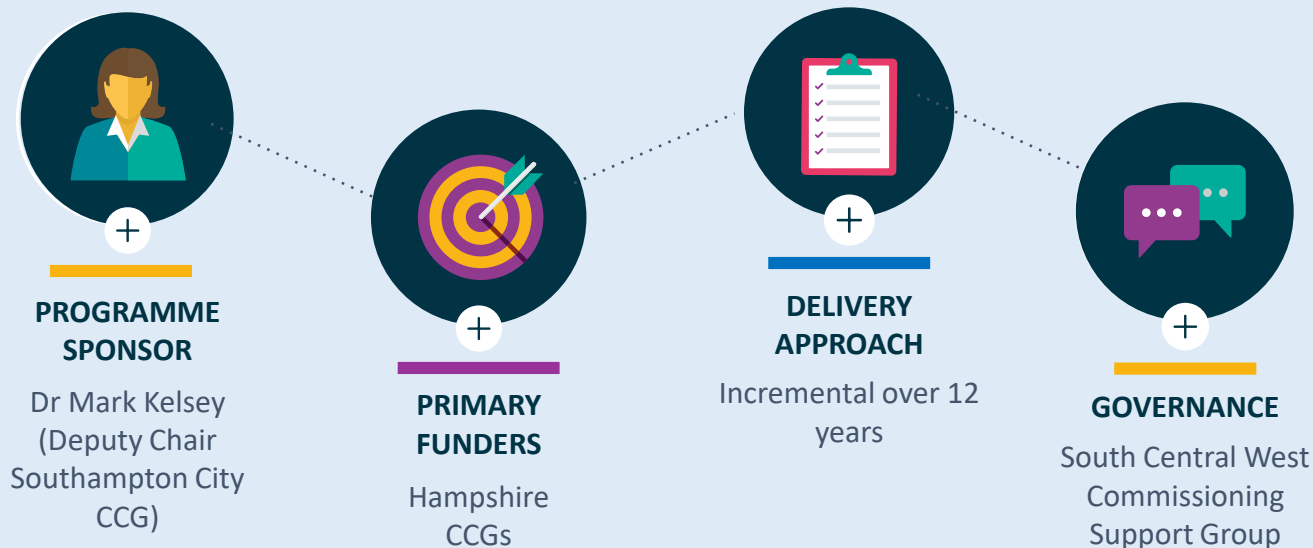| SITE	IT SYSTEM
Hampshire Health Foundation Trust, University Hospital Southampton, Portsmouth Health Trust	Clinicom, Ascribe, Radiology
Solent Health	SYSTMONE
Southern Health Foundation Trust	RIO
Hampshire County Council, 190 GP Practices	Liquid Logic EMIS, SYSTMONE

OPEN STANDARDS

STANDARD	COMPLIANT
HL7 v2, HL7 v.3, ebXML	✔
GS1	⊘

HIGH LEVEL TECHNICAL ARCHITECTURE DIAGRAM
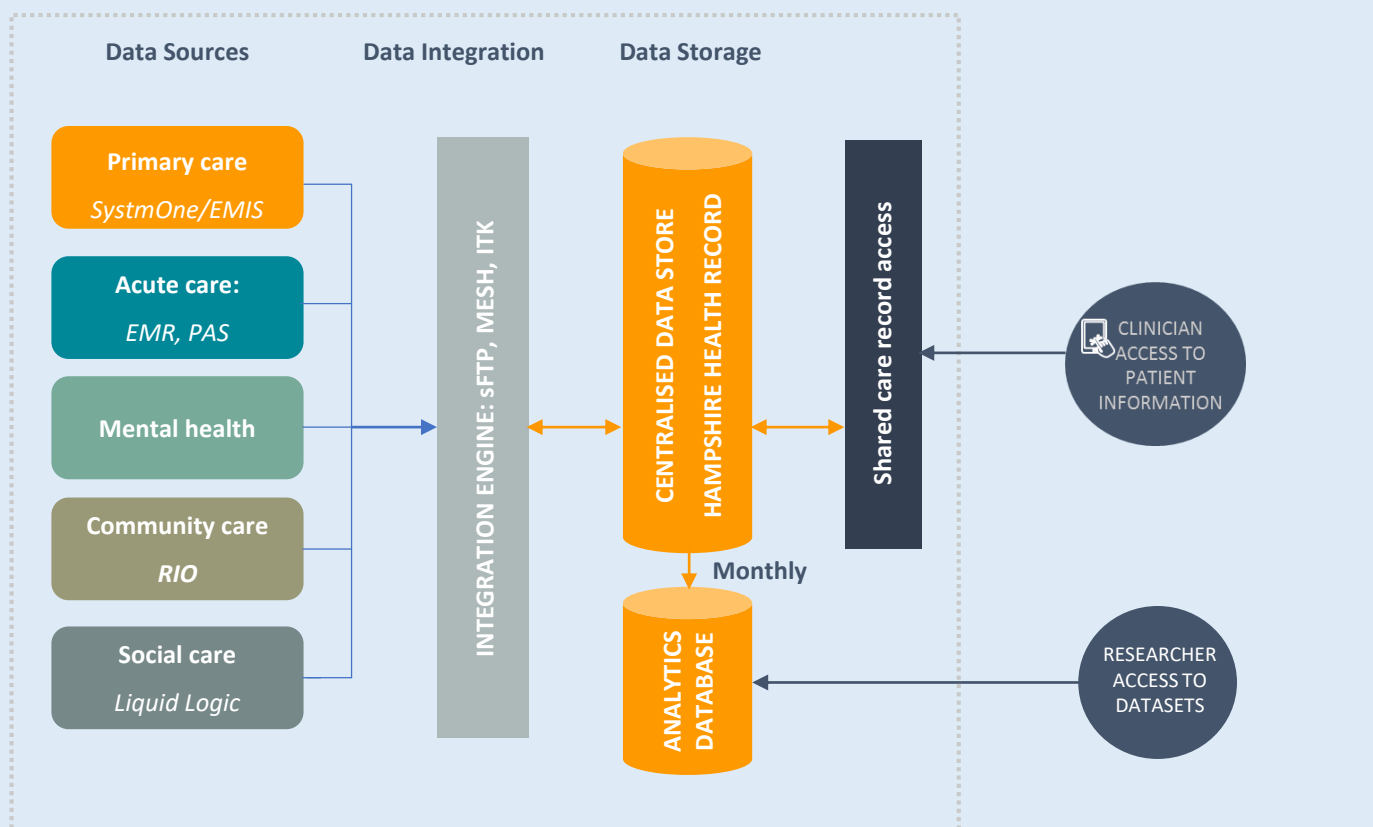
IMPLEMENTATION

The Hampshire Health Record has been implemented incrementally since 2005. Graphnet CareCentric v.2 was deployed in 2008, and it consumes data from 12 organisations and 4 different GP systems. An integration feed was built between each system and CareCentric. A process of data standardisation was carried out as most systems did not have open standards. A local API was built in A&E systems to integrate the view of the record into core clinical systems.

PROGRAMME SPONSOR

Dr Mark Kelsey (Deputy Chair Southampton City CCG)

PRIMARY FUNDERS

Hampshire CCGs

DELIVERY APPROACH

Incremental over 12 years

GOVERNANCE
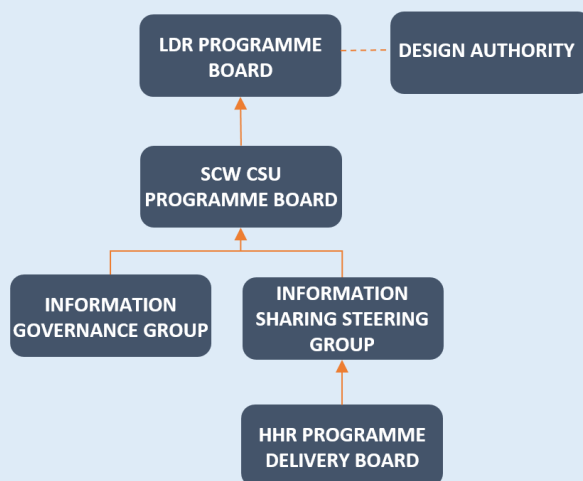
South Central West Commissioning Support Group

GOVERNANCE

Hampshire Health Record is hosted, maintained and supported by NHS South Central West Commissioning Support Unit on behalf of the other stakeholders.

This team sits under the Local Digital Roadmap Programme Board who support funding applications, and the Design Authority who govern decisions on design.

The HHR User Group and HHR Operational Board provide a mechanism for communication of changes to the HHR to the stakeholder community.

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LDR PROGRAMME BOARD ----- DESIGN AUTHORITY
         ↑
SCW CSU PROGRAMME BOARD
    ↑           ↑
INFORMATION    INFORMATION
GOVERNANCE     SHARING STEERING
GROUP          GROUP
                   ↑
              HHR PROGRAMME
              DELIVERY BOARD
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FUTURE AMBITIONS

In the future there are specific milestones and plans to:
- Upgrade to Graphnet CareCentric v.3 which has improved functionality for mobility and enables cross-organisation care planning – mid-2017.
- Use of patient level predictive modelling e.g. the risk of patients developing cirrhosis and intervening early in their care [John Hopkins Adjusted Clinical Groups] – 2017.
- Introduce proactive event based alerting and notify care professionals when one of their patients has entered A&E. Start with notification about childhood immunisation in 2017.
- Expand the record to citizens and organisations in the Isle of Wight – 2017.
- Develop patient access to the Hampshire Health Record – 2018.

SOLUTION BENEFITS

Hampshire Health Record programme identified a number of potential indirect benefits from the use of the record:
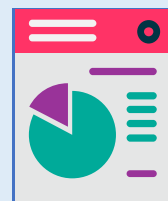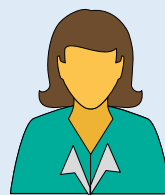
	DESCRIPTION	PATIENT	CLINICIAN	OPERATIONAL
ACCESS TO RESULTS	Healthcare professionals have access to patient's previous test results This reduces the number of unnecessary duplicate tests	Experience improves Outcomes may improve as action can be taken without delay	Saves time chasing information	Reduces costs from duplicate tests: 13% reduction in number of pathology tests [2012]
ACCESS TO PATIENT RECORD	Clinicians in A&E have access to patient's information when they enter A&E. For example allergies, diagnosis and medication	Patient experience improves as may spend less time in hospital	Saves time chasing information	Frees up bed spaces 9% reduction in decision to admit to hospital 1.7 day reduction in average length of stay in hospital

BENEFITS MONITORING

- A 2012 study of unscheduled care events at Southampton University Hospital and Portsmouth Hospital found a statistically significant change when health and care professionals had access to the Hampshire Health Record. One third of those admitted as inpatients had their Hampshire Health Record checked, and the following results were found:
    - 13% reduction in the number of pathology tests
    - 9% reduction in decision to admit to hospital
    - 1.7 day reduction in average length of stay in hospital

Note: The remaining benefits are assumption based and there are no supporting data or metrics to quantify the benefits described.

SUCCESS FACTORS

ENGAGEMENT

STAKEHOLDER ENGAGEMENT

- A public website was created to inform patients about the Hampshire Health Record and for patients to request a copy of their record.
- The Chief Clinical Information Officer at SCWCSU acts as a facilitator between frontline care professionals and the ICT team.
- The Chief Clinical Information Officer promotes the HHR across the region to maximise the use and benefits of the system for local communities.

GOVERNANCE

INFORMATION GOVERNANCE

- A clear information governance model is in place to define who can access a patients record.
- Access to records is audited and practitioners must seek explicit consent from the individual in order to view the details of their care record. An exception would be in the event of an emergency, for example, if the patient is admitted to hospital in an unconscious state.

TECHNOLOGY

CENTRALISED DATABASE FOR ANALYTICS

- The Hampshire Health Record is a large repository of information that can provide a very holistic view of the patient over time.
- The large amount of information provides a county-wide view of patients.

DATASETS

INTEGRATION OF SOCIAL CARE INFORMATION

- The Social Care information includes: The social care team(s) involved with the person, the person's assessment of need, type(s) and frequency of care being delivered by social services.
- To date, there are 17,000 social care records in HHR

LESSONS LEARNED

SINGLE SIGN-ON

Challenge: The number of users accessing the Hampshire Health Record was low because they had to open a separate system to find the information.

Approach: Providing single sign on for the GP out of hours system increased usage of the Hampshire Health Record by 700-800%. Single sign on is now rolled out to >50% of the users. Further single sign-on roll out is dependent on vendor availability and local priorities.

CLINICALLY LED DESIGN

Challenge: Usage of the Hampshire Health Record is lower than expected in certain health and care settings. A greater engagement with clinical stakeholders in the design of the solution would have been able to better tailor the service to real-life use cases and meet their needs. For example there is currently limited work-flow and alerting functionality.

Approach: A GP Chief Clinical Information Officer has now been appointed to lead an advisory group of professionals on changes to the service provision. A stakeholder engagement lead has been recruited to understand the clinical use case requirements.

STRATEGIC DIRECTION

Challenge: There was a challenge integrating datasets. This was because the activity was not seen as a local priority and stakeholder engagement was low. This was partly because the Hampshire Health Record has been available for >10 years and has had many different organisational priorities.

Approach: Key stakeholders produced the Local Digital Roadmap and the Sustainability Transformation Plan which communicated a shared vision for integrated care, enabled by the Hampshire Health Record. Integrating datasets into the Hampshire Health Record is now a higher priority for stakeholders.

SCALE

Challenge: Implementation of the Hampshire Health Record has been a long and challenging journey.

Lessons Learned: Don't underestimate the cost, resources and commitment that are required to implement an interoperability solution.