East London Health and Care Partnership STP

Digital Enablement

Report to the Inner North East London Joint Health and Overview Scrutiny Committee – Wednesday 19 April 2017

Digital Footprints – Strategic Planning Groups

Having originally settled on three Local Digital Roadmap (LDR) footprints before the STP footprint was created, we are now in the process of bringing together the three into one LDR. This presentation focussed on the City & Hackney and WEL LDRs

Current situation

The fact that there are three different LDR footprints within the one STP means that, while strategic goals are aligned across the STP footprint, there will be differences in the tactical delivery mechanisms used to meet the strategic objectives. There is clearly more synergy between the C&H LDR footprint and the WEL LDR footprint because both are centred around Health Information Exchange (HIE) as a record sharing mechanism, both are almost entirely EMIS GP based with significant EMIS Community use and both are committed to the same advanced analytics project for Population Health.

BHR have a strong track record in the delivery of innovative and forward-thinking technology that supports the NHS future priorities and directly aligns to patient and user outcomes. Their LDR builds on their substantial existing developments and learning from delivering complex technology solutions across BHR.

The London NHS IUC Patient Relationship Manager pilot, which uses the telephone number to retrieve crisis information, care plans (including end of life plans) and Special Patient Notes and enables sharing of this key information with LAS, is expected to be used across the footprint.

There are clearly opportunities to learn from the experiences of each other as all the LDR footprints begin to work more closely over the next few years within the STP footprint.
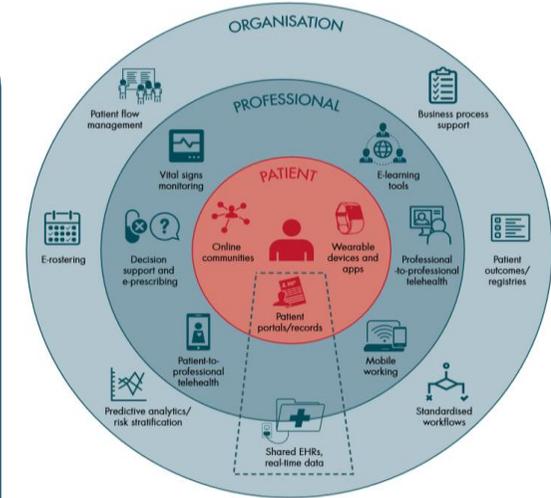
Patient centred information

From the Nuffield Trust report, 'Delivering the benefits of digital health care'

IT's about supporting transformational change

IT is rightly recognised as a key enabler to the transformation plans that are underway and planned. The work currently underway in WELC has been devised and planned after significant discussion and development work with clinicians and other system leaders to ensure that the information and technology needs of those caring for patients are met. Patient engagement events have also taken place over recent months that have identified transformational change that needs to be underpinned by IT.

The aims of reducing hospital admissions and enabling populations to better care for themselves are underpinned by providing citizens with better access to their own information and to support early intervention through the use of advanced analytics.

It is recognised locally that the ability to view patient information across the various care settings, however it is achieved, leads to improved:

- patient safety – supporting safer and more informed treatment by providing care professionals with timely access to accurate and up to date information
- efficiency – reducing the time, effort and resources required to obtain relevant information regarding patient care, e.g. reducing repeat tests
- effectiveness – supporting the delivery of appropriate care to patients
- patient experience & engagement– reducing the need for patients to recall or repeat their medication information and supporting people with difficulties communicating, and helping patients to be better engaged in their care

Within WELC these transformational aims have been recognised and are supported by many initiatives such as the east London Patient Record (eLPR), Patient On-line, EMIS to EMIS sharing, MIG, SCR, EPS, e-referral, etc., all of which have a significant IT ingredient but more importantly require the business change support that has been supported locally and for which additional funds are being sort via ETTF.
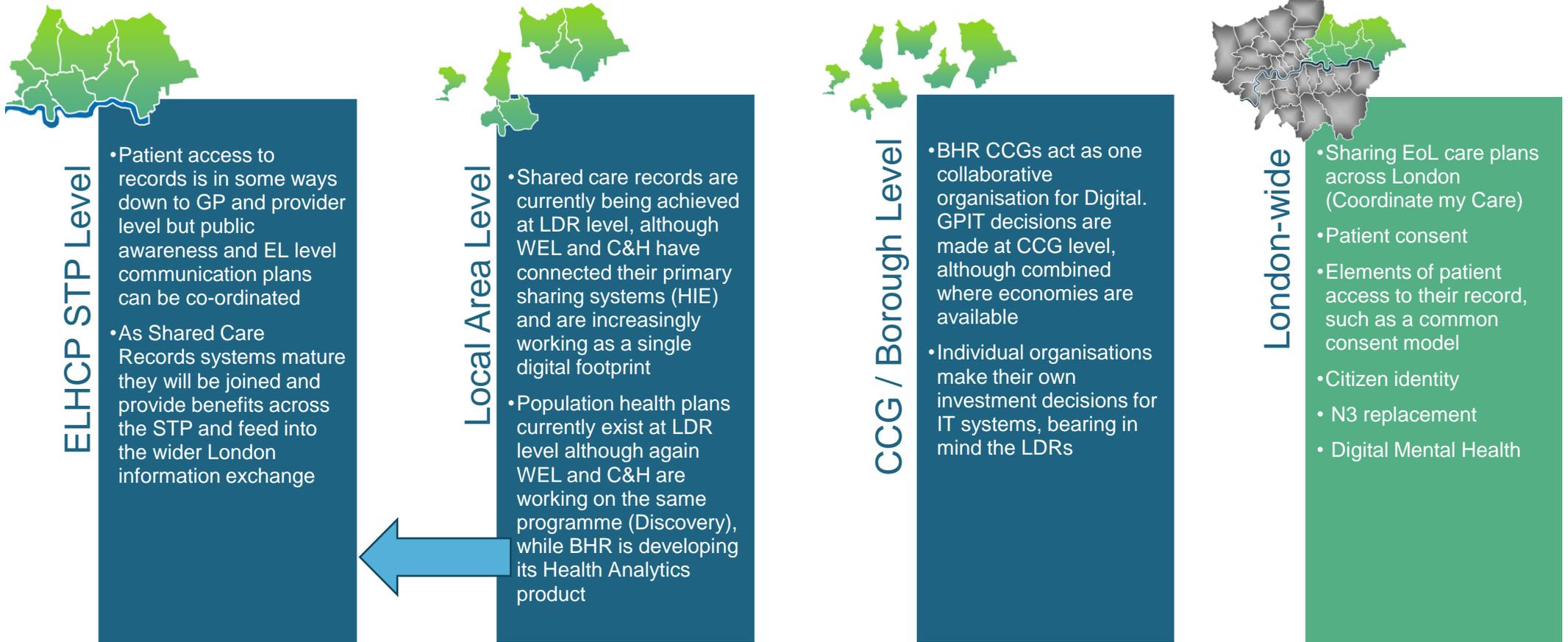
Initiative map

Our approach

There are a wide range of programmes that support our aim of supporting the delivery of care and reduction in use of services through the use of digital technology. These are outlined in our narrative plan for north east London. As the three LDRs come together we will agreed the best level at which each programme should be led and delivered within the health system. This process has begun based on the partnerships and scale required to best implement the specific programmes, using the following rationale for choosing to progress an initiative at a particular level:

1. There is a clear opportunity / benefit in doing it jointly (which is above and beyond what would be achieved through a local programme), to deliver improvement in terms of enhancing the offer, finance, quality, or capacity;
2. Doing something once is more efficient and offers scale and pace;
3. Collective system leadership is required to make the change happen.

We set out these different levels below.

ELHCP STP Level
- Patient access to records is in some ways down to GP and provider level but public awareness and EL level communication plans can be co-ordinated
- As Shared Care Records systems mature they will be joined and provide benefits across the STP and feed into the wider London information exchange

Local Area Level
- Shared care records are currently being achieved at LDR level, although WEL and C&H have connected their primary sharing systems (HIE) and are increasingly working as a single digital footprint
- Population health plans currently exist at LDR level although again WEL and C&H are working on the same programme (Discovery), while BHR is developing its Health Analytics product

CCG / Borough Level
- BHR CCGs act as one collaborative organisation for Digital. GPIT decisions are made at CCG level, although combined where economies are available
- Individual organisations make their own investment decisions for IT systems, bearing in mind the LDRs

London-wide
- Sharing EoL care plans across London (Coordinate my Care)
- Patient consent
- Elements of patient access to their record, such as a common consent model
- Citizen identity
- N3 replacement
- Digital Mental Health

Delivery Plan on a Page

Vision

Digital Technology will:

- *Support initiatives to help health, social and community care providers meet the needs of local people through shared records and access to information, built around the needs of local people*
- *Enable the development of new, sustainable models of care to achieve better outcomes for all; focused on prevention and out of hospital care*

Background and Case for Change

As laid out elsewhere in this document, transformational change is key to providing health and care services in EL over the coming years. The NHS has accepted the challenge of being paper-free at the point of care by 2020. We will accord priority to quickening the pace of appropriate digital technology adoption within our organisation, realigning the demand on our services by reducing the emphasis on traditional face to face care models. We will explore new digital alternatives that will transform our services, with the aim of shifting the balance of care into our communities, enabling new integrated digital outpatient services and providing our patients with the information and resources to self-manage effectively, facilitating co-ordinated and effective out of hospital care. We will continue to build on advanced analytics population health management technologies, utilising opportunities for real time, fully interoperable information exchanges to provide new, flexible and responsive digital services that deliver integrated, proactive care that improves outcomes for our patients in a more sustainable way.
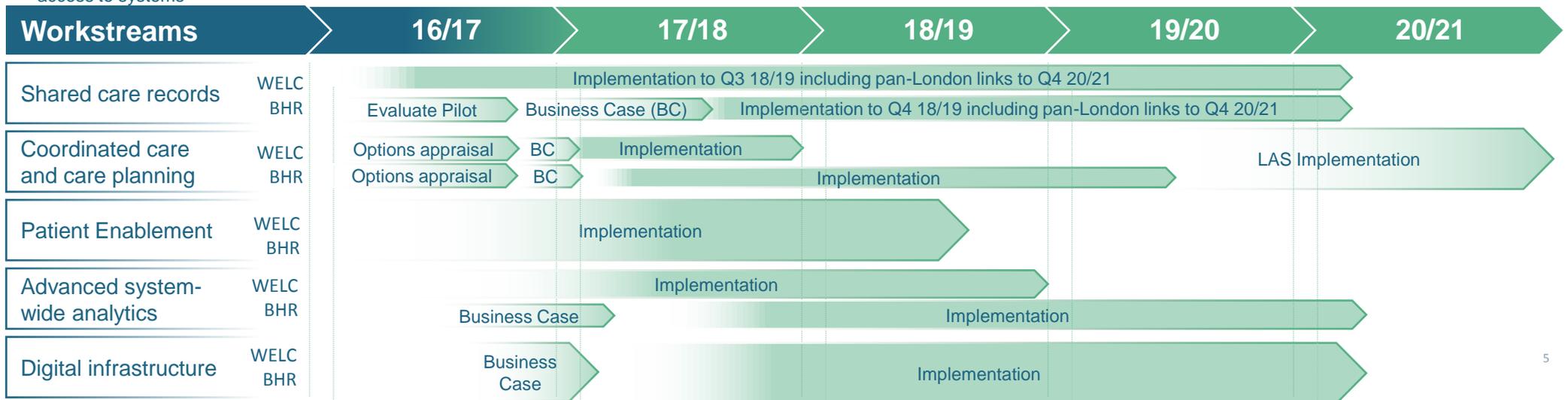
Priorities and Objectives

- **Shared care records** enhancing collaboration - Providers will collaborate with health, social and community care. Systems will therefore need to be interoperable to allow for providers from primary, community, social and secondary care to work together
- **Coordinated care and care planning** to enable more efficient transfers of care, reduce safeguarding risks and support safer and improved management of patients in crisis.
- **Patient Enablement** - Patients require the ability to view their own health records and care plans, book appointments with their GP and, eventually, the wider health and care system, and have greater access to services online.
- **Advanced system-wide health analytics** is needed to provide insight and prompt early interventions to enable informatics driven health management programmes; Population Health. Our health system will need to be proactive at preventing patients from escalating ill health and our interventions will need to be evidence-based. At present, each CCG has separate BI tools which are generally used for analysing corporate performance. This initiative will provide game changing health data analysis
- Ensure that the **digital infrastructure** across the footprint is up to the job of supporting reliable, fast access to systems

Expected Impact

It is recognised locally that the ability for professionals and patients to view and share patient information across the various care settings, leads to improved:

- Patient safety – supporting, safer more informed treatment by providing health and social care professionals with timely access to accurate and up to date information.
- Efficiency – reducing the time, effort, cost and resources required to obtain relevant information regarding patient care, e.g. reducing repeat tests, and transfers of care.
- Effectiveness – supporting appropriate care to patients, elimination of duplicate or unnecessary testing and unnecessary paperwork and handling.
- Patient experience & engagement– reducing the need for patients to recall or repeat their medication information and supporting people with difficulties communicating, and helping patients to be better engaged in their care.

Workstreams		16/17	17/18	18/19	19/20	20/21
Shared care records	WELC	Implementation to Q3 18/19 including pan-London links to Q4 20/21				
	BHR	Evaluate Pilot → Business Case (BC) → Implementation to Q4 18/19 including pan-London links to Q4 20/21				
Coordinated care and care planning	WELC	Options appraisal → BC → Implementation				LAS Implementation
	BHR	Options appraisal → BC →	Implementation			
Patient Enablement	WELC	Implementation				
	BHR					
Advanced system-wide analytics	WELC	Implementation				
	BHR	Business Case →	Implementation			
Digital infrastructure	WELC	Business Case →	Implementation			
	BHR					

Summary of provider trust capital investment required in 17/18

The table below shows the capital investment identified by each trust as needing funding in 2017/18:

Trust	Capital Cost (£000's)
Barts Health	10086
BHRUT	2770
ELFT	1100
Homerton	1438
NELFT	1017
Grand Total	**16411**

This summary table needs to be verified with each trust.

The table below shows the capital investment identified by each trust as needing funding in 2017/18, broken down into the digital work streams or programmes:

Digital Work stream	Capital Cost (£000's)
Digital infrastructure	15811
Shared record	600
Grand Total	**16411**

This summary table needs to be verified with each trust.

Shared care record

Current situation

The integration between Cerner Millennium and EMIS, for example, has delivered proven integration and secure connectivity which has successfully delivered the following functionality:

- A GP record summary containing 10 pages of patient data is available to Homerton clinicians, including recent advice given, real-time medications, current conditions, allergies and alerts. This is presented by MIG/HIE as a page within Cerner Millennium with tabs for each section of the record.
- Future appointments, radiology results, pathology results and discharge summaries for Homerton patients are viewable by GPs.
- System integration and patient matching between primary and secondary care for practices using EMIS.
- Approval and sign-up to data sharing for all relevant organisations across City & Hackney
- The electronic transition of discharge summaries and other communications through the BT Spine using MESH, a collection of national applications, services and directories, replacing post and fax.

In addition to the work using the east London Patient Record (eLPR), additional sharing capabilities are achieved through the direct sharing between the GP and the Community versions of EMIS, and from other systems such as Adastra via the MIG.

East London Patient Record System connectivity February 2017

Waltham Forest and East London footprint

City & Hackney footprint

KEY
- In place
- Committed
- Planned

DISCOVERY PROJECT – POPULATION HEALTH – ADVANCED ANALYTICS
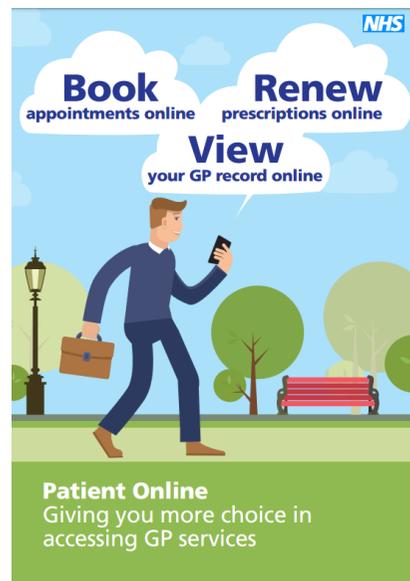
NATIONAL SYSTEMS
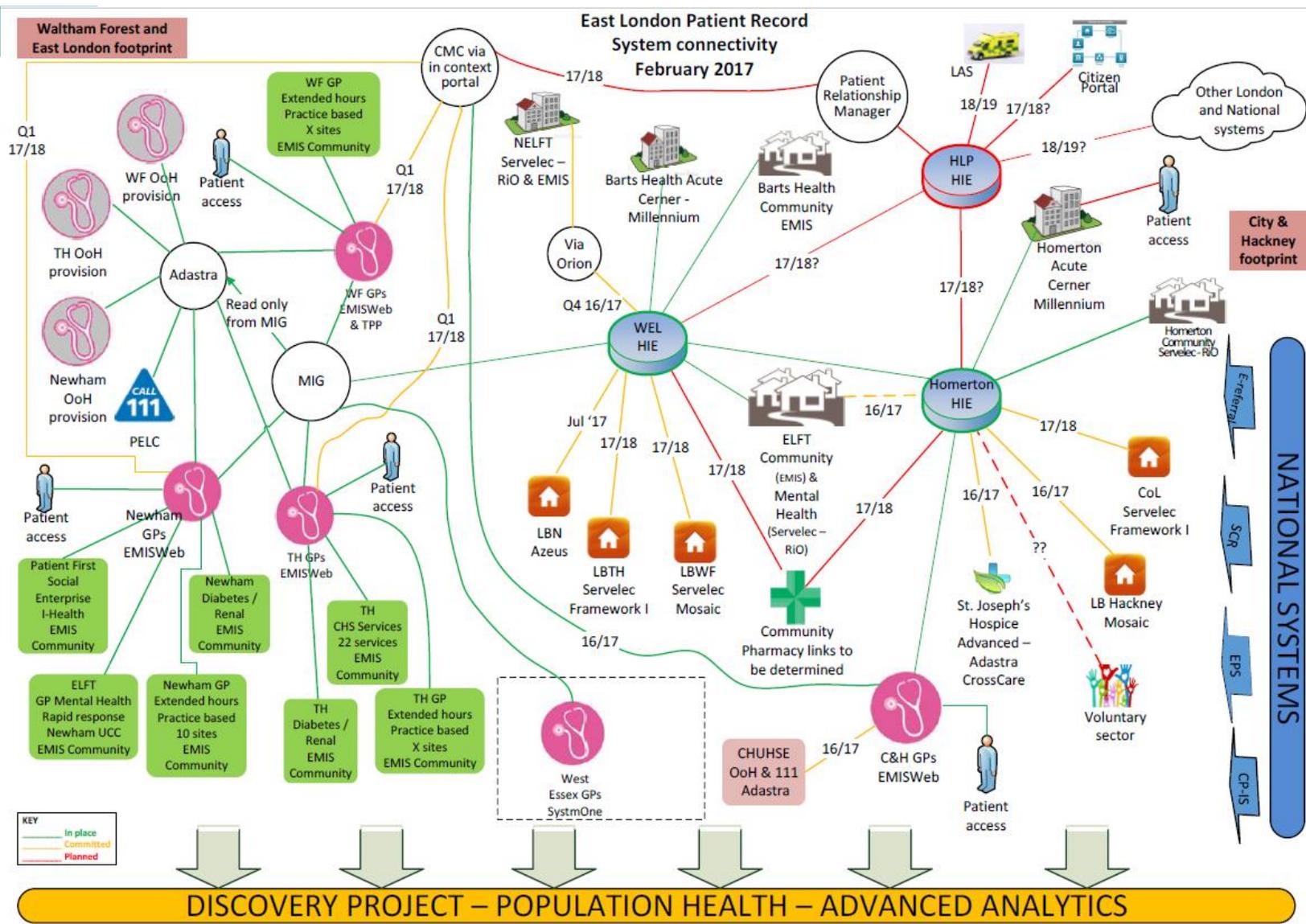
Next steps

As can be seen from the diagram above, a significant amount of work is still planned (amber & red connecting lines) in terms of interoperability of systems via the Homerton and Barts Health HIE platforms. Already connected in 2016/17 is Barts Health's Cerner HIE system. ELFT's RiO EPR, St Joseph's Hospice's Crosscare, CHUHSE's (OoH provider) Adastra, the City of London's CoreLogic and LB Hackney's Mosaic Social Care systems will all follow before the end on 2016/17. This will deliver an increasing richness to the views available to the wider footprint to the benefit of patients. In the second half of 16/17 work will commence on integration with the advanced analytics Discovery Programme and with the HLP Shared Records hub for which a programme of work is currently being drawn up. An Information Sharing Agreement has been put in place across C&H that will facilitate the sharing of third party data via HIE, e.g. GPs seeing LB Hackney data, ELFT seeing GP data, etc. Beyond this, it is expected that most additional connectivity will be achieved through the HLP HIE layer, such as other organisations connecting for care record exchange from 17/18, the use of a cloud-based Patient Relationship Manager to support IUC in 17/18 and LAS in 18/19. A pan-London consent model is vital for this.

Current situation

As a result of the NHSE Patient On Line project, the primary clinical systems (EMIS) in all C&H GP practices are configured to allow patients access to their detailed record, order repeat prescriptions and book appointments with GPs, all online. As with most of the country, take-up of these services is very patchy. Current figure show a poor take-up of the service across the board, with only one practice with more than 30% of their registered patients assigned an account. Some practices, although having small numbers registered are clearly targeting those needing frequent appointments.

As is the case in the rest of the country, a significant issue with the take-up of the service is the number of appointments available for booking on-line. Most practices offer a very small number of appointments because the fear dis-advantaging those unable to access on-line, although two offer over a third. In turn, this discourages those that would make use of the service as, whenever they try to book, there is rarely, if ever an available slot in the timeframe they are seeking.

In addition to this access, all practices send patients SMS text messages as appointment reminders in an attempt to minimise DNA's. Some practices are also able to handle replies.

Primary care transformation

CCG primary care and estates teams are in the process of determining exactly how they will meet the requirements for extended access by the end of 16/17. The interoperability of systems is already in place to facilitate the requirements of this service, although bids will be submitted for additional work as part of the ETTF process

Wi-Fi

Plans are currently being formulated via the IT Enabler Programme Board for a common landing page for when members of the public take advantage of free Wi-Fi provision from any NHS or Social Care provider. This would point people to various services including the identity and citizen portal being proposed by HLP

Wearables

An investigative piece of work is underway to explore the collection and use of data from patient owned wearable devices which can then be shared via eLPR and analysed in Discovery

Book appointments online **Renew** prescriptions online
View your GP record online

Patient Online
Giving you more choice in accessing GP services

Next steps

Discussions are underway with EMIS and with the London Digital Programme around developments that will allow patient access to their record from a single source, albeit in multiple forms such as via smartphones, tablets or PCs.

EMIS are looking to develop their existing web application to allow it to pull through data supplied via HIE. This would have the considerable advantage of a simple message being given to the public about how to access all their health records. A potential interim step will be to deploy Cerner's HealtheLife product at the Homerton allowing patient consultant interaction, patient self service, and electronic forms completion e.g. Pre-operative anaesthetic assessment self-assessment. The option of providing patients with access directly to a subset of HIE is also being explored.

The final alternative approach is to await the developments proposed by the LDP. At the time of writing there is no clarity around exactly what would be offered and when it might reach the level of functionality likely to be achievable through the EMIS web site. C&H will co-operate with LDP developments while continuing to work with Cerner & EMIS.

C&H have rolled out the 'Co-ordinate My Care' care planning tool that will allow patients and their carers to actively contribute to, and view the contributions of professionals, to their care plans, initially for End of Life. WEL have just made the same decision

In addition to allowing patients access to records, other digital technology can be used to interact more effectively with patients. For example, the 'eConsult' online triage service is currently being assessed as part of a GP Confederation led approach to Demand Management for GP services.

Encouraging take-up

The intention is to pilot a range of demand management activities to encourage patient engagement through the adoption of digital technologies such as 'eConsult', Patient Access and health apps. The hope is that it will be possible to demonstrate significant savings to the practices in terms of time and money, and an increase in patient satisfaction with the practice. Case studies would then be created that would encompass 'lessons learned' reports so as to encourage more practices to make serious efforts to shift patients to digital channels.

# Advanced analytics Discovery Project – growing a learning health system

Current situation

No comparable information system exists in the footprint at present. The CCG has a Business Intelligence tool which is used to a greater or lessor extent to achieve a small subset of what the Discovery Project is expected to achieve.

Next steps

The Discovery Project has received formal approval and financial sign-off, with the WELC CCGs contributing revenue over four years. This commitment has released charitable resources from the Endeavour Foundation. Data feeds have been established from Homerton, Barts Health and over 40 Practices. A Community of Interest Company is being created that will hold the application and the data from all sources. Key to the initial work is agreement on quite who will hold the data in the time before the CIC is created.

The diagram below shows a high level view of the Discovery project architecture:
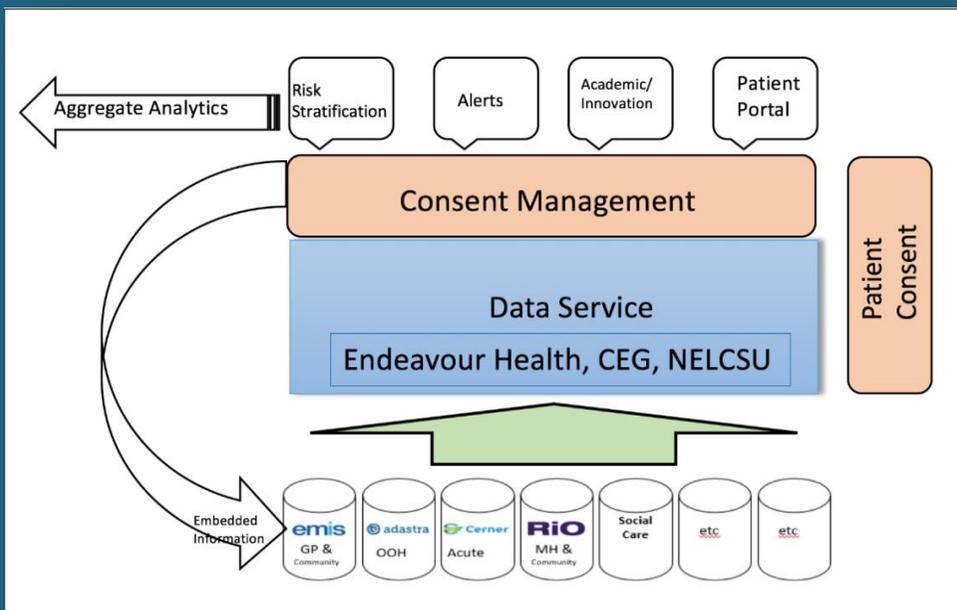
A Learning Health System…

"…will improve the health of individuals and populations. The learning health system will accomplish this by generating information and knowledge from data captured and updated over time – as an ongoing and natural by-product of contributions by individuals, care delivery systems, public health programs, and clinical research – and sharing and disseminating what is learned in timely and actionable forms that directly enable individuals, clinicians, and public health entities to separately and collaboratively make informed health decisions… The proximal goal of the learning health system is to efficiently and equitably serve the learning needs of all participants, as well as the overall public good."

Extract from http://www.learninghealth.org/

Aims of the project

The Population Health Discovery project aims:

a) To predict, anticipate or inform individual health needs from algorithms running in real time (or as near as possible) and to deliver the insight gained directly into the patient's record across the whole of their pathway, whether in primary or secondary care or elsewhere, thus creating the opportunity to improve or prevent adverse outcomes.

b) To expand the existing primary care informatics driven population health programme in east London, led by the Clinical Effectiveness Group at Queen Mary's, to all health and care sectors.

c) To enable the real time reporting on programmes by providers and commissioners supporting clinical improvement and new payment mechanisms. This would involve reporting on either a pseudonymised or identifiable cut of the clinical data, as appropriate.

d) To use data by third parties (commissioners, public health, and academics) to support research, development and planning, whether on consented identifiable data, or the pseudonymised dataset. East London would thus become a research enabled community.

Infrastructure

Current situation

Underpinning all of the digital technology work and the current drive to make systems interoperable, is the IT infrastructure that is vital to allow the various systems to communicate and to allow staff to access them. Infrastructure in almost all organisations is currently at reasonably good levels, which no major expenditure envisaged beyond normal equipment replacement programmes.

Next steps

CCGs have put forward bids to the Estates & Technology Transformation Fund (ETTF) to further improve the effectiveness of GPs, including Demand Management tools for Primary Care, and for each practice, staff to support significant take-up of Patients Online and channel shifting technology and solutions.

For mobile working and infrastructure, further analysis will be required to determine how this could be linked in with the GP demand management service so that the primary care interface could be extended to other areas e.g. hospital settings. An option being explored is for Wi-Fi provision across City and Hackney as a whole with a Hackney landing page for service users to access apps, etc. Similar options are being explored in WEL.

Discussion are underway at London level for a single approach with regard to the replacement of N3 that will see a far more joined up approach with Social Care colleagues.

Bids are currently being prepared to secure capital funding from NHSE for investment across the STP providers

Digital Maturity Assessment

As secondary care providers, Homerton, Barts Health, NELFT, BHRUT and ELFT were required by NHSE to complete a self-assessment in January 2016. The DMA provides a wide ranging assessment of the state of play in each organisation allowing for comparison between providers and against national averages. The providers across the STP footprint all have different strengths and weaknesses compared with each other and each has areas in which they exceed the national average and areas where they are below. Each provider has been asked to predict where they will be for each of the seven sections particularly focussed on 'Paperless by 2020' measures, over the next three years. The graph below shows the average situation across the footprint. There is no attempt to weight the scores by size of Trust.

Additionally, Social Care providers and CCGs have been asked to complete similar assessments but results are not yet available.
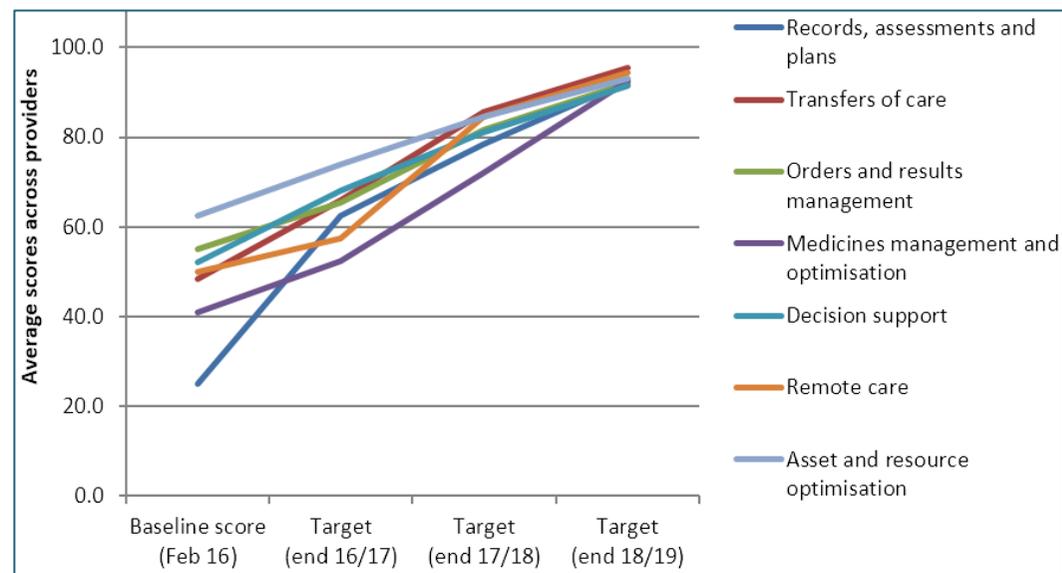
The C&H footprint shares the HLP Shared Design Principles for Digital Enablement in London

. Citizens should be able to express their information sharing preferences (once) and be confident that these will be remembered by the organisations who provide health and care, (provided that they are prepared to confirm their identity and express these preferences in advance).

- Citizens should be confident that data held by organisations providing care and which is relevant to the immediate care needs of the citizen (e.g. to support an e transaction), is available to be shared (in real time) with clinicians who are involved in the delivery of care anywhere in London.

- Clinicians should expect to be able to locate and access data from multiple sources across London via a single search launched from their normal clinical application and using agreed data content and technology standards.

- Citizens should be able to connect to NHS systems in London through a reliable information exchange using the application of their choice.

Integrated Urgent Care

Our approach is to adopt the HLP IUC model for greater joined up working and collective benefits to the system. Further work is needed to understand how the HLP model can integrate locally but it is expected that the local decision to move to using CMC for EoL care plans will aid this integration.

First 'live' HLP product

The advanced analytics Discovery Project uses the Symphonic Data Controller to store, manage and sign data processing agreements since November 2016. This was the first live use of an HLP product, although initially as a stand-alone repository, before being connected into live systems to eventually control access to records.

Target Architecture

The target architecture for the London Health and Care information Exchange comprises a set of regionally provided and 'federated' services that will sit above each local architecture as an overall connectivity layer designed to enable improvements in the patient's journeys across the capital, as illustrated in the diagram below:
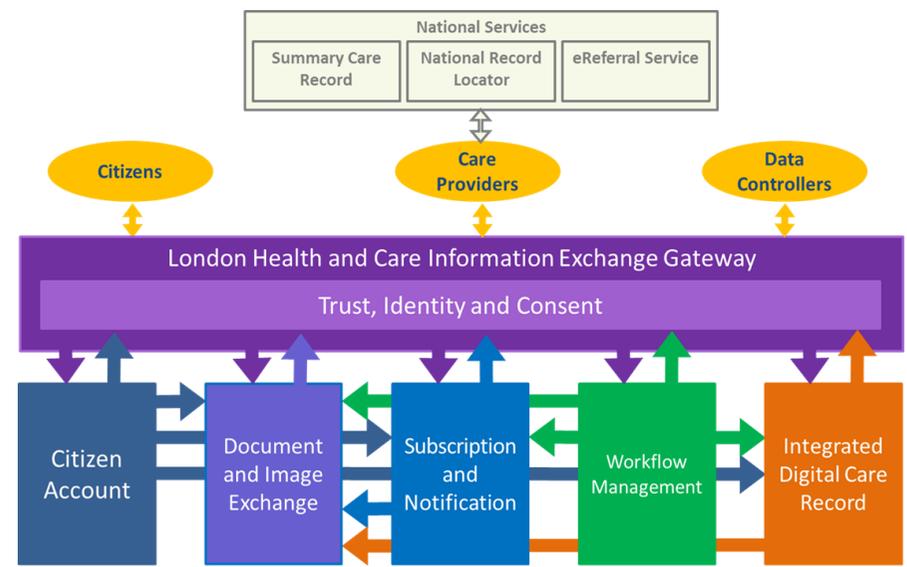
Next steps

Homerton and Barts Health have recently connected their HIEs, which is thought to be the first such joining in England. Engagement with the LDP has begun to scope out what is required for the local HIEs to connect to the HIE at the London level; discussions in which Homerton will be a close partner. Work is underway with Cerner to test connections between prototype services at HLP level with the Homerton HIE

Expected Benefits & Metrics

As an enabler, Digital struggles to isolate specific metrics that aren't impacted by other factors outside of its control.
Most of the measures identified here are not currently used or in place and so the exact mechanisms are subject to change

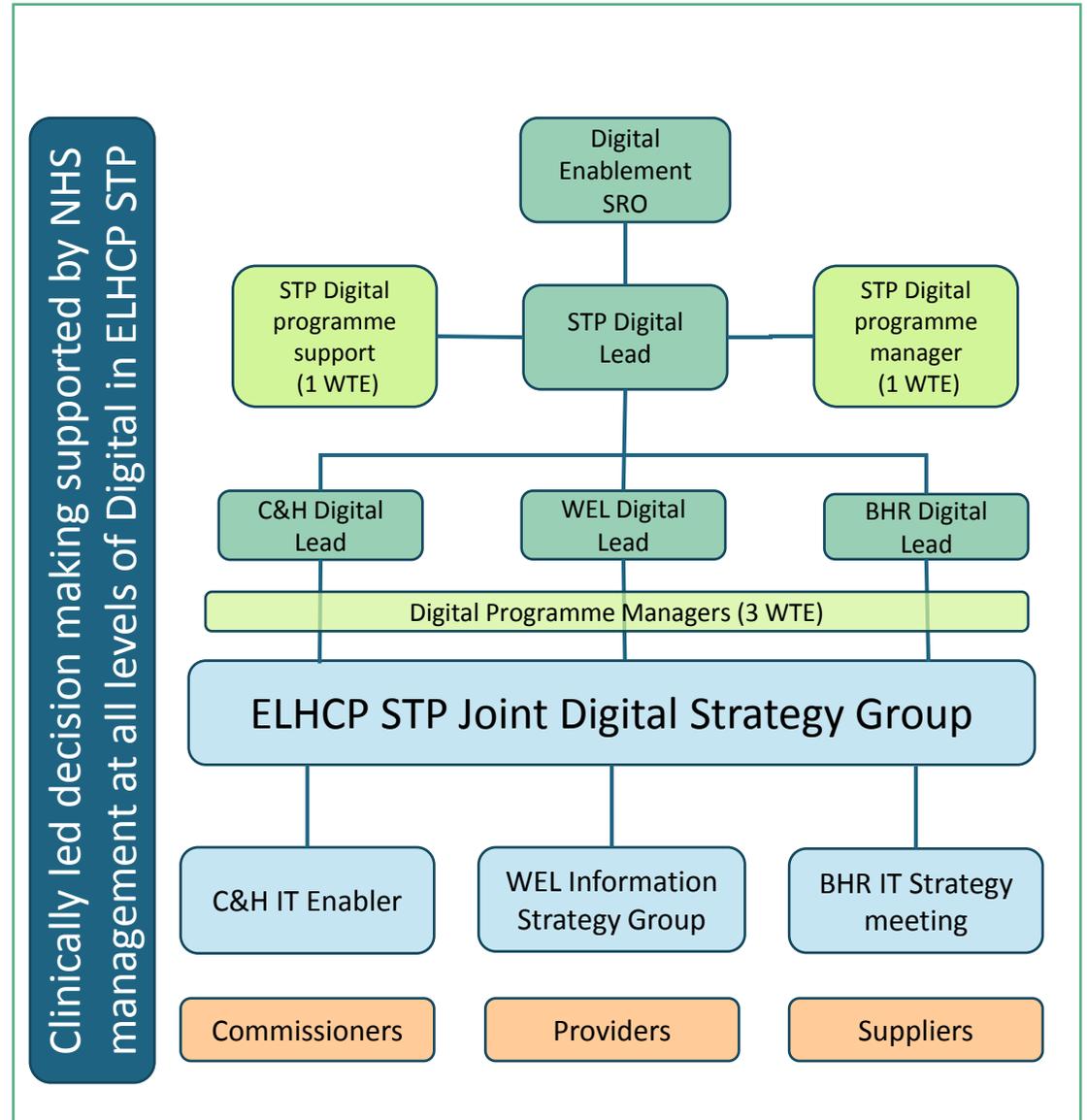| Benefit description (Health & wellbeing, care & quality or financial)	Measurement (metric)	Current performance	Target performance	Target date (default 2020)	Linked work streams
New models of care can be developed, achieving better outcomes for all; focused on prevention and out of hospital care	Other delivery plans supported to deliver new models of care	New models of care not yet in place	All new models of care assessed as being supported	Incremental to 2020	Advanced system-wide analytics, Digital infrastructure
Provide the information needed to enable organisations to work in partnership to commission, contract and deliver services efficiently and safely	Clinically significant information available where requested and agreed by Discovery board	Unknown - Discovery is a newly created service	Information requests met or rejected with good reason	2020 in BHR 2018 in WELC	Advanced system-wide analytics
Improved patient safety – supporting safer and better informed treatment by providing clinicians with timely access to accurate and up to date information	Number of serious incidents found to be as a result of lack of information	Measurement not yet made. Investigating this option	Reduction	Incremental to 2020	Shared care records, Coordinated care and care planning
More efficient care –reducing the time, effort and resources required to obtain relevant information regarding patient care, e.g. avoiding repeat test requests	Amount of repeat testing	Specific measure to be established	Less unnecessary testing	Incremental to 2018/19	Advanced system-wide analytics, Shared care records
Better patient experience– reducing the need for patients to recall or repeat their medication information and supporting people with difficulties communicating	Patient satisfaction rating	Need to develop a specific question that can be used as an indicator	Improved level of satisfaction	Incremental to 2018/19	Shared care records, Patient enablement
Intervention for individual patient prompted by analysis of broad set of data	Reduced incidence of specific life events	Need to consult to establish how this is measured	Reduction	Commencing 20017/18	Advanced system-wide analytics, Shared care records
Patients take more active role in their own wellbeing	Accessing 'patient on-line' functionality	4%	20%-30%	2017/18	Patient enablement

Resources & Delivery Structure

6.1 Resources

Delivery Plan	SRO	Delivery Lead
Shared care records		*Anita Ghosh, IT Enabler Programme Manager, Homerton*
Coordinated care and care planning	*Terry Huff, Accountable Officer, Waltham Forest CCG*	*Bill Jenks, TST Programme Manager, TH CCG*
Patients' access to their own information		
Advanced system-wide analytics		*Simi Bhandal, Project Manager, BHR CCGs*
Digital infrastructure		

In addition to the SRO and delivery needs named above, Luke Readman, CIO, WEL CCGs is taking the lead for Digital Enablement across ELHCP STP. Rob Meaker (Director of Innovation, BHR CCGs) and Niall Canavan (Director of IT, Homerton), along with Luke Readman in WEL, continue to provide digital leadership across their respective LDR footprints, working ever closer. Two other permanent Programme Managers are in post.

As ever, much of the delivery on the ground is provided through individual IT departments, change facilitators and suppliers which will need augmenting / paying for specific projects.

CCIO support is provided to the overall programme from the CCIOs in individual organisations needing to achieve business change. Clinical leadership is a key strength of the Digital Enablement work stream

6.2 Delivery structure

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Risks

Work stream	Description and impact	Mitigating action	RAG
All	Finance – much of the Digital programme for the STP is unfunded and is reliant on successful bids to technology funds	Successful bids to Estates Technology Transformation Fund (ETTF) and other upcoming funding streams	R
All	Premature consolidation of BHR and WELC LDRs would potentially halt or even reverse progress that has already be made	Take time to consider real benefits verses risk before creating a single LDR	A
Digital infrastructure	Poor infrastructure in key areas	Successful technology bids allowing improvement programmes to be launch	A
Shared care record, Coordinated care and care planning	Compatibility of systems that haven't yet been connected	All systems use or soon will use recognised interoperability standards. Close supplier engagement underway	A
Shared care record, Coordinated care and care planning, Patient enablement	HLP Digital Programme failing to deliver the products they have committed to	Successful ETTF bid and ongoing funding streams secured	A
Patient enablement, Digital infrastructure	Progress would inevitably slow if GPIT re-procurement results in a new provider being selected	Careful consideration as to how and when any new service is brought on stream	A

This is a list of the highest-rated risks. Additional risks identified at a lower mitigated risk rating

Dependencies, Constraints and Assumptions

This section provides a summary of the key benefits that we expect to achieve through the implementation of this Delivery Plan level:

Dependencies, constraints & assumptions (in order of impact)			
Workstream	**Type: Dependency/ constraint/ assumption**	**Description**	**Actions / next steps**
Shared Care Record, Advanced system-wide analytics	Dependency	New Information Sharing Agreements and fair processing notices need to be in place before significant further steps can be taken	IG groups across ELHCP to collaborate on process and gain approval from all relevant parties
All	Assumption	Sufficient funding will be made available to deliver the transformational digital systems required. Current national (short term) bidding system for IT doesn't allow for good planning	Continuing to make the case for investment in Digital, bidding for monies from funds as they become available
All	Dependency	All suppliers deliver on their commitments	Continue existing good supplier engagement
Patient engagement	Constraint	Concerns from GPs about the effectiveness of patient on-line objectives and patient indifference / lack of awareness	Clinician and public engagement exercises
Patient engagement	Dependency	GP promotion of service to patients and willingness to publish appointment slots on-line	Clinician and public engagement exercises
Advanced system-wide analytics	Dependency	Engagement to determine where to focus initial efforts. Commitment to use information supplied	Continue discussions with clinicians
All	Dependency	Workforce appropriately skilled and engaged to take advantage of new ways of working enabled by Digital Enablement	Engage with Workforce team to ensure full understanding
Coordinated care and care planning	Assumption	Willingness for professionals and patients to use care plans	Fully engage with professionals and patients once clear on delivery mechanism
Digital infrastructure	Dependency	Provision of sufficient facilities for IT in new or refurbished buildings	Fully engage with estates and facilities teams where physical It assets need housing

Dependency map

This dependency map highlights where this delivery plan is linked to another delivery plan within our STP

	Prevention	Access to care close to Home	Accessible quality acute services	Infrastructure	Provider Productivity	Specialised Services	Workforce
Shared care records	View of the entire record can prevent referrals & investigations	A fuller view of the patient record enables out of hospital services	Clinicians often make better decisions with relevant information from all providers	Facilitates MDT working, allowing reconfiguration of services more readily	View of the entire record can prevent referrals & investigations	Supports pathway transformation required for specialised services	Workforce appropriately skilled and engaged
Coordinated care and care planning	Provision of shared care plans facilitates keeping people out of hospital	Provision of shared care plans facilitates keeping people out of hospital	Providers are better able to meet patients' wishes when a care plan is accessible		Patients with EoL care plans are less likely to die in hospital		Workforce appropriately skilled and engaged
Patients' access to their own information	Engaged patients may be more likely to self-medicate	Engaged patients may be more likely to self-medicate or access lower cost services			GPs need to engage with the process of giving patients access	Improve education, prevention and wellbeing	Workforce appropriately skilled and engaged
Advanced system-wide analytics	Engagement to determine where to focus initial efforts.	Management of populations with long term conditions reduces hospital admissions	Management of populations with long term conditions reduces hospital admissions		Providers are able to focus resources on early interventions	Supports pathway transformation & community surveillance and case finding	Workforce appropriately skilled and engaged
Digital infrastructure (what others provide to Digital)				Provision of sufficient facilities for IT. Digital facilitates MDT working	Essential to allowing a paperless NHS by 2020		Workforce appropriately skilled and engaged

As an enabling delivery plan, Digital Enablement has few dependencies on other delivery plans

Contribution to our Framework for Better Care and Wellbeing

This delivery plan sets out how it will deliver improvements against the core areas of prevention, out-of-hospital care and in-hospital care.

Promote prevention, and personal and psychological wellbeing in everything we do

The Patient Engagement work stream supports patients to improve their own wellbeing through providing information to them and enabling them to provide information, e.g. from an activity tracker or mood score app, back to their clinician.
The Advanced System-wide Analytics work stream will provide prompts to clinicians to enable early intervention.

Co-ordinated Care and Care Planning will help patients receive the treatment and social care support they want where and when they want it, initially supporting end of life care. The Shared Care Record will give a sense to the patient that those involved in their care have a complete picture and have the confidence to act upon that information

There is clear evidence that multi-authored end of life care plans have a significant impact on the ability of patients to die in their preferred place. Wider multi-authored care plans enable all those involved in care to provide what is need in the right place and at the right time, involving carers as necessary. A full Shared Care Record can facilitate safe discharge from hospital but also help prevent admission and attendance at A&E because professionals have a full picture and can make more appropriate decisions based on that information

Through the use of all of the Digital Technology described in this Delivery Plan and in the LDRs it is possible to reduce recourse to acute services because professionals and patients alike have a much richer picture of previous care, current conditions, risks and ongoing planned interventions. Such reductions in demand for acute services allows greater access for those that necessarily require them.

ACCESSIBLE QUALITY ACUTE SERVICES

CARE CLOSE TO HOME

PREVENTION

COMMUNITIES, FRIENDS AND FAMILY

PEOPLE-CENTRED SYSTEM

Promote independence and enable access to care close to home

Ensure accessible quality acute services for those who need it

Addressing the 10 Big Questions

Q1. Prevent ill health and moderate demand for healthcare

- Greater patient engagement (slide 8 - work stream 3)
- Advanced system-wide analytics uses risk stratification and algorithms to alert clinicians to possible early interventions engagement (slide 9 - work stream 4)

Q2. Engage with patients, communities & NHS staff

- Greater patient engagement though access to their own record and digital interaction with professionals (slide 8 - work stream 3)

Q3. Support, invest in and improve general practice

- Greater patient engagement though access to their own record and digital interaction with professionals (slide 8 - work stream 3) can reduce workload on practice staff

Q4. Implement new care models that address local challenges

- Advanced system-wide analytics can surface bottlenecks in the health and care system and support new models of care with early evidence of effectiveness (slide 9 - work stream 4)

Q5. Achieve & maintain performance against core standards

- Improved e-referral usage can make significant impact on overall system performance. The Local Digital Roadmaps describe how e-referral performance will be improved

Q6. Achieve our 2020 ambitions on key clinical priorities

- Shared care record (slide 6 - work stream 1) and Coordinated care and care planning (slide 7 - work stream 2) generally support professionals delivering care by giving them a more complete picture
- Advanced system-wide analytics will alert for early intervention (slide 9 - work stream 4)

Q7. Improve quality and safety

- Shared care record (slide 6 - work stream 1) and Coordinated care and care planning (slide 7 - work stream 2) support quality improvement by giving professionals a more complete picture
- Advanced system-wide analytics will alert for early intervention (slide 9 - work stream 4)

Q8. Deploy technology to accelerate change

- All work streams in this delivery plan involve the deployment of technology to accelerate change (see slides 6-10)

Q9. Develop the workforce you need to deliver

- Work streams 1,2&4 provide the tools required to support MDTs, for example

Q10. Achieve & maintain financial balance

- The benefits sections of all work streams identify ways in which digital technology can improve efficiency and reduce demand
- In addition to the identified work streams, digital is engaged with Carter review recommendations

Addressing the 9 Must Dos

1. STPs

- This delivery plan outlines our agreed STP initiatives and milestones and the timeline for delivering them. We have also begun to map out the metrics against which we will measure our progress.
- Much more detail is included in the Local Digital Roadmaps

2. Finance

- The Digital Enablement plan will enable the other delivery plans to achieve their financial targets
- We are working collaboratively to develop a flexible / scalable back office service models where this will deliver value for EL;

3. Primary Care

- Digital underpins primary care activity, as expressed in all of the work streams

4. Urgent & Emergency Care

- Access to shared more complete records in EL and across London, plus the ability to write back into records and care plans underpins changes needed in U&EC

5. Referral to treatment times and elective care

- The digital capability is already in place to enable 100% use of e-referrals
- The use of advanced analytics will provide key parts of the information required to streamline elective care pathways

6. Cancer

- The Shared Care Record and the Coordinated Care And Care Planning work streams in particular, support the Recovery Package information requirements

7. Mental health

- The Shared Care Record allows professionals to see what interventions have been tried or are ongoing outside of their own organisation

8. People with learning disabilities

- Shared Care Records reduce the need to ask patients for information about allergies, previous treatments in other care settings, etc.
- Multi-authored care plans that are accessible by patients and their carers support community provision and avoiding admissions

9. Improving quality in organisations

- The information provided by Advanced system-wide analytics can be used to drive up quality across the system
- Access to fuller care record information from beyond own organisations enables professionals to take better decisions, driving up quality and reducing avoidable cost