NHS Vale of York CCG, and Scarborough & Ryedale CCG - Local Digital Roadmap

Version control

1.0	02.06.16	First draft version with actions highlighted
2.0	30.06.16	Initial submission to NHS England
2.1	18.10.16	Updated for NHS England Feedback Comments
2.3	31.10.16	LDRPSG ToR and Draft Roadmap Plan added

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1 Introduction

The leads in developing the roadmap have been NHS Vale of York CCG and NHS Scarborough and Ryedale CCG. The roadmap contributes to the local Sustainability and Transformation Plan.

The local system is working together through the Sustainability and Transformation Plan to deliver a new approach to care for the Vale of York, Scarborough and Ryedale populations.

The local digital roadmap has been developed by the IT leads across Vale of York, Scarborough and Ryedale, in conjunction with the strategy leads for the Sustainable and Transformation Plan.

A Local Digital Roadmaps Partnership Steering Group is being convened with representation nominated by each of the partnership organisations. The group will work together to jointly develop our Local Digital Roadmap and to develop and implement a plan to deliver the 10 Capabilities.

The LDR has been approved by both CCGs. Engagement will also take place with wider stakeholders through the Health and Wellbeing Boards and integration partnerships through the Sustainability and Transformation Plan.

2 Vision

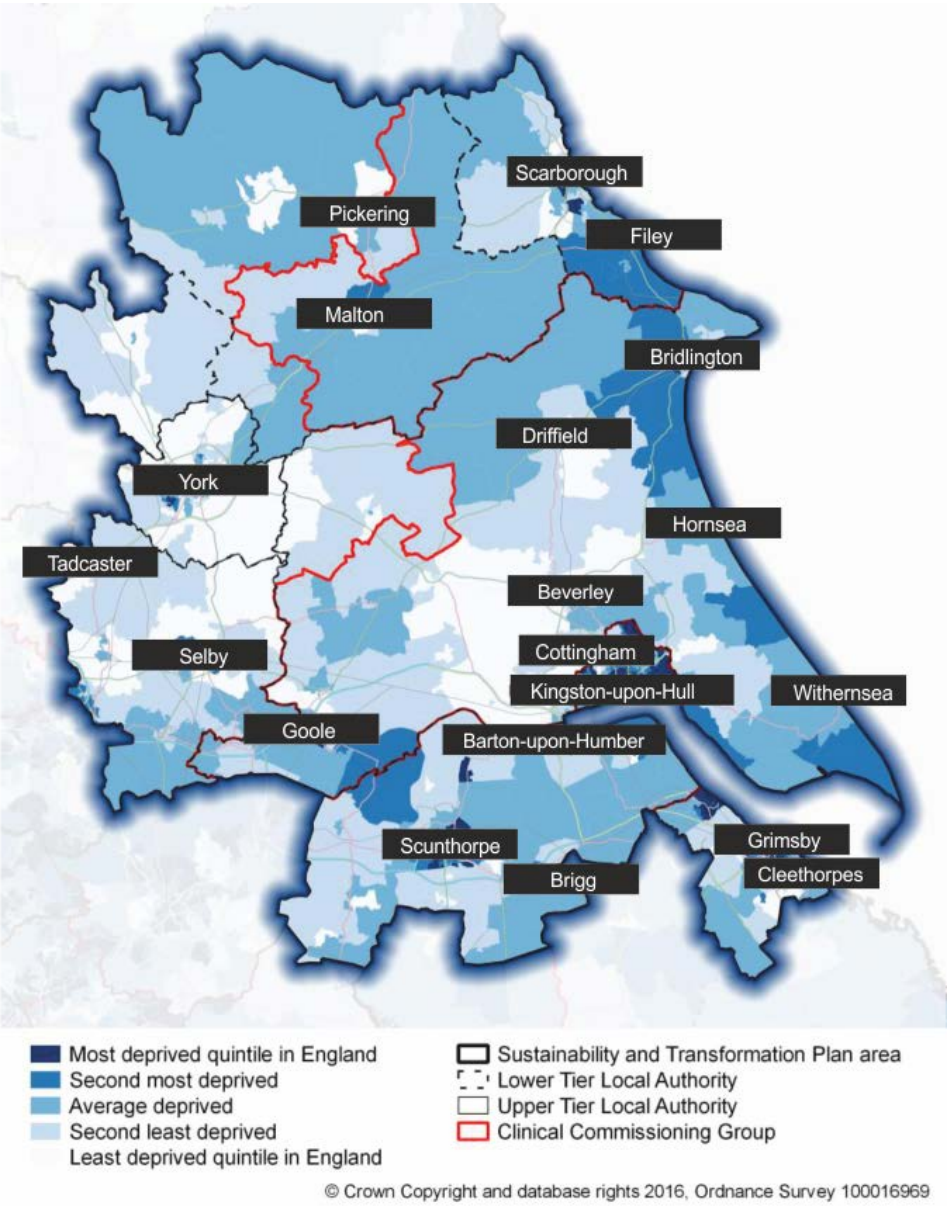
2.1 Sustainability and Transformation Plan Vision

The Humber, Coast and Vale Sustainability and Transformation Plan (HCV STP) vision is to transform the way in which we deliver a high quality health and care service to the people of the diverse communities that make up the Humber Coast and Vale into the future.

The Humber, Coast and Vale (HCV) Sustainability and Transformation Plan (STP) cover a diverse rural, coastal and urban community with a population of 1.4m.

As depicted in the map on the following page; the Humber, Coast and Vale footprint covers six CCG boundaries, six local authority boundaries as well as services provided by a number of health and social care organisations.

Figure 1: The STP footprint



NHS commissioning organisations

- NHS East Riding of Yorkshire Clinical Commissioning Group
- NHS Hull Clinical Commissioning Group
- NHS North Lincolnshire Clinical Commissioning Group
- NHS North East Lincolnshire Clinical Commissioning Group
- NHS Scarborough and Ryedale Clinical Commissioning Group
- NHS Vale of York Clinical Commissioning Group

Healthcare provider organisations

- Humber NHS Foundation Trust

- North Lincolnshire and Goole NHS Foundation Trust
- Tees, Esk and Wear Valleys NHS Foundation Trust
- City Health Care Partnerships CIC
- Hull and East Yorkshire NHS Foundation Trust
- Navigo
- Rotherham, Doncaster and South Humber NHS Foundation Trust
- York Teaching Hospital NHS Foundation Trust

Local Authorities

- City of York Council
- East Riding of Yorkshire Council
- Hull City Council
- North Lincolnshire Council
- North East Lincolnshire Council
- North Yorkshire County Council

The HCV STP sets out the roadmap to:

- Prevention of illness
- More effective acute services within the footprint
- Shifting settings of care
- Mental health and parity of esteem

Through working together effectively and delivering at scale where appropriate the STP identifies four key enablers, with detailed baselining through 16-17 to inform the strategic approach in the next four years these are:

- Finance
- **Digital Health**
- Estates
- Workforce

2.2 Local vision

The commissioning aims across the Vale of York and Scarborough and Ryedale CCGs that were originally set out in 2014 remain, with a commitment to improve health outcomes, reduce health inequality and deliver the sustainability of services for the local area.

For the people of the Vale of York, Scarborough and Ryedale, this is focussed on delivering integrated care out of hospital to enable patients to have their needs supported as close to home as possible, and support the future sustainability of our local acute hospitals. This work is being led through the Ambition for Health Programme Board for Scarborough and Ryedale, and through the Integrated and Transformation Board in the Vale of York. These are connected to the North Yorkshire and City of York Health and Wellbeing Boards respectively.

The Digital Roadmap and Estates Strategy set out how the enabling work will start to progress to allow the new models of care for the local population to be delivered operationally through shared care records, effective information sharing, rationalising

premises and using space more flexibly to enable the co-location of health and care professionals, and moving the wider system towards population health management.

Estates, technology and workforce are viewed as key practical enablers in developing each CCG's strategy around shifting care closer to home, and supporting the development of integrated working across health and care teams, and ultimately moving towards an Accountable Care model of service provision. The ability for providers to work as a single entity will be essential in order to deliver system efficiencies that reduce hospital admissions and enable funding to be moved to out-of-hospital services that are accessible to the population, and can shift the focus from reactive care towards more managed and preventative services.

Addressing the Health and Wellbeing Gap:

- **Prevention**, self-care and helping people of all ages to lead healthy and active lifestyles – with a particular emphasis on encouraging a smoke free generation, improving local smoking cessation and alcohol admission rates and supporting respiratory, cancer and circulation outcomes. Digital solutions are seen as key enablers in enabling the population to access information and signposting to promote wellbeing and healthier lifestyles and shift from reactive to proactive care.
- Improving **emotional health**, through better mental health services and helping people to live well with dementia through early diagnosis and support.

Addressing the Care and Quality Gap

- Providing services that are of the expected **quality and safety, within budget**
- Securing a **sustainable future for local hospital sites**, in particular in Scarborough
- Implementing New Models of Care for sustainable small hospitals and multi-speciality community providers, and using technology to enable providers to work more collaboratively in out-of-hospital setting
- When people do need to be admitted to hospital, ensuring they **return home** as soon as they are fit and ready to do so
- Supporting people to have more **choice** about where they die
- Working together to align services, reduce duplication and ensure **a positive experience of health and social care for each individual**
- Developing our **workforce** and recruit and retain the right people for the right roles

Addressing the Finance and Efficiency Gap

- Listening to, and shifting power, to patients and the public, through better access to **information and advice** and the development of **shared records** that can be accessed by appropriate health and care professionals to support the provision of better, more joined-up care
- **Reduce acute activity from the local population** through alternative delivery models and tackling variation in areas identified by Rightcare analysis, such as MSK, creating more flow and flexibility within the acute sector and reducing activity cost. Using technology to manage demand from the population and provide access to health and care services through new, digital channels.

- **Moderate demand growth in non-elective admissions** through providing **more services in the community,** targeting support for the frail elderly, including better support for carers and more choices for people to live in their own homes with support.

3 Baseline position

3.1 Overview of digital maturity

Along with strategic transformation, we also need to focus on building up the digital maturity of each individual provider organisation. The table below summarises the digital maturity of our key providers and compares their position with the national average.

The completion of Digital Maturity Index (DMI) for local authorities is voluntary and not all local authorities within our footprint have chosen to complete the assessment. A summary of provider digital maturity is shown on the following pages.

Secondary Care

Section	Type	York Teaching Hospital NHS Foundation Trust	Tees, Esk and Wear Valleys NHS	National Average
Strategic Alignment	Readiness	65	60	76
Leadership	Readiness	85	60	77
Resourcing	Readiness	70	85	66
Governance	Readiness	65	90	74
Information Governance	Readiness	46	75	73
Records, Assessments & Plans	Capabilities	72	36	44
Transfers Of Care	Capabilities	93	48	49
Orders & Results Management	Capabilities	80	9	52
Medicines Management & Optimisation	Capabilities	30	3	29
Decision Support	Capabilities	78	17	36
Remote & Assistive Care	Capabilities	50	17	33
Asset & Resource Optimisation	Capabilities	65	50	42
Standards	Capabilities	46	21	41
Enabling Infrastructure	Enabling Infrastructure	77	61	68
Readiness Average	Readiness	66	74	73
Capabilities Average	Capabilities	64	25	40
Enabling Infrastructure Average	Enabling Infrastructure	77	61	68

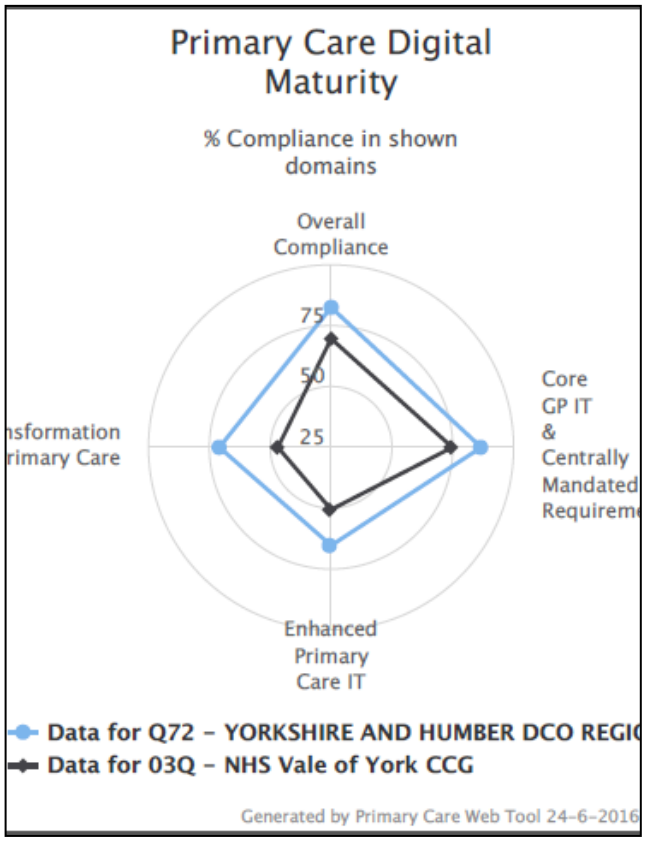
York NHS Teaching Hospital NHS Foundation Trust has implemented the accessing of the Summary Care Record which is available to clinicians in emergency care, acute admissions and pre-op assessments. This is downloaded and forms part of the secondary care clinical system. The Trust has developed an electronic patient record and is among the top 10 users of SCR.

All discharge summaries, clinic letters, radiology reports and clinical reports are transferred electronically and adhere to Royal College Guidelines.

The Trust provides discharge and associated withdrawal notices electronically to local authority social care within the required timescales. (CYC, NYCC and East Riding.)

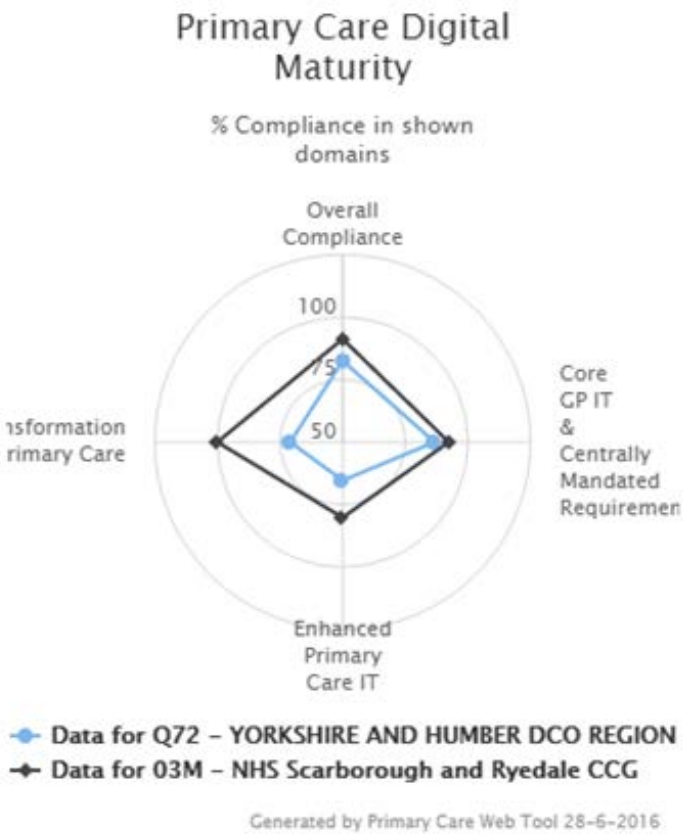
Vale of York CCG

CCG: NHS Vale of York CCG
Overall Compliance: 69.65%, (Data Quality:75.23%)
Core GP IT & Centrally Mandated Requirements: 74.8%, (Data Quality:88.84%)
Enhanced Primary Care IT: 50.57%, (Data Quality:51.05%)
Transformation in Primary Care: 46.87%, (Data Quality:37.64%)



Scarborough and Ryedale CCG

CCG: NHS Scarborough and Ryedale CCG
Overall Compliance: 91.21%, (Data Quality:29.41%)
Core GP IT & Centrally Mandated Requirements: 92.34%, (Data Quality:37.9%)
Enhanced Primary Care IT: 80.17%, (Data Quality:13.64%)
Transformation in Primary Care: 100%, (Data Quality:7.64%)



North Yorkshire County Council

NYCC has completed the (optional) social care digital maturity self-assessment produced by the Local Government Association (LGA), Association of Directors of Adult Social Services (ADASS), Association of Directors of Children's Services (ADCS) and Society of IT Management (SOCITM). That self-assessment highlights a number of successful areas of informatics work which provides the platform for further exploitation in the period leading up to 2020.

NYCC has reached Level 2 in the IG Toolkit and has implemented robust arrangements to ensure good management of information within the organisation. Systems are in place to enable social care professionals to electronically record all case related content, this holds true from initial contact, through assessment to support planning. A project to deliver citizen access to social care records is underway as part of a corporate approach to providing citizens with increased digitally based services. This will allow users of the service to view their own assessments / support plans and to communicate electronically with professionals. Work to integrate electronic systems with those of service providers is in its initial stage, it is intended that this will enable electronic interchange of invoices without any use of E-mail.

NHS Numbers are traced using the Demographics Batch Service and uploaded into the social care case management systems. Approximately 85% of current adult social care cases have a traced NHS Number.

NYCC has had a full operational N3 service since 2006 and this is used to provide access from NHS organisations into the current social care case management systems. The same is true in reverse, with access across N3 by NYCC staff to NHS systems used in Mental Health Provider services. It will also be used to support the introduction of the CP-IS service later in 2016. In addition, NYCC is certified to ISO27001 & ISO20000 standards and also has a current PSN Certificate.

Future developments include: consolidation of separate systems that deliver the same solution to different services within the council, on-going use of the Council's corporate mobile working solution to improve operational efficiency for all service areas and developments to improve notifications of discharge from hospital by electronic means. Work is also about to commence with NHS Cumbria on a proof of concept project for the electronic transfer of Transfers of Care events.

Please see **Annex 3.1: NYCC Mobile Working**

City of York Council

City of York Council has not yet completed a Digital Maturity Assessment but has summarised its commitment and progress towards digital solutions and joint working as follows.

Technology is a key enabler to move care provision towards a more efficient and effective delivery both internally and to the customer/resident.
Within the relevant projects in City of York Council (CYC) we are working hard to identify opportunities and understand our collective vision.

- This can be evidenced through efforts in establishing common factors across new system implementations for example ensuring that the NHS number can be used as the common person indicator by including it within the core data collection methods for current projects such as the Customer Relationship Management system and the supporting Master Data Management tools. Social Care are underway with upgrade and refresh of their main back office systems and once again we are seizing the opportunity to incorporate the NHS number within the structure of the systems.

- The acquisition of new systems also takes into account the future needs and aligning information and aspirations. A good example of this would be the choice of mobile technology – Total Mobile, chosen as the corporate mobilisation tool for CYC which has an established presence in the Health sector. We have undertaken some work with the mental health team to improve information sharing across health and social care systems through integration and workflow supporting an assessment process which is capable of sharing information between Paris (Health systems) and Mosaic (social care system). This work will be replicable in many other areas of social care.

- The council will continue to provide a first class city wide infrastructure (dark fibre ring, broadband provision and Wi-Fi rollout) as a key enabler ensuring residents, businesses and mobilised colleagues can access appropriate networks to undertake their activities.

- ICT are playing a key role in ensuring that staff are supported in developing the necessary skills and have access to the appropriate technology to support our customers in

community and home settings beyond the boundary of traditional jobs and roles. Examples of this are housing officers who are assisting elderly residents in care homes to use iPads and devices to access the internet and family over Skype/Facetime (once again supported by a wifi infrastructure implemented by CYC) to contribute to social inclusion and wellbeing. We will continue to encourage and support the enabling of staff to act as advocates and educators in the use of technology for the ultimate benefit of the customer.

Challenges surface when we look to share information across what are currently separate networks governed by separate standards. This issue extends beyond just Health and local authorities, impacting on Police and charity sectors also and our ability to share common appropriate data securely and efficiently. Work at a central government level to align these governance structures and standards both to each other and also the national vision for digitisations of public services would be a significant step forward removing some of the barriers to information sharing.
This would also be beneficial in the management of commercial relationships with suppliers who seek to capitalise on such security issues in proposals for development of solutions.

In summary there are many examples of good practice and local service level initiatives to help to improve and share information. Adopting techniques in journey mapping and understanding the touch points for customers as they transition through services and across organisations is a key factor. Understanding the challenges faced by colleagues and ensuring they have the technology (applications, devices, skills and access to data) and infrastructure to support their work is also key. There is undoubtedly more to do, but by making wise choices about the work we are underway with and aligning to the shared vision we can begin to put the building blocks in place.

Yorkshire Ambulance Service
Yorkshire Ambulance Services NHS Trust refreshed their five year ICT Strategy in 2014. This Strategy presented a five-year 'road map.' That recognised the importance of working closely and in a focused way with internal customers from functions across the Trust and key external stakeholders. It also recognised the importance placed on sharing information with partners and stakeholders for the benefit of patients.

Extract from ICT Strategy: High Level ICT Strategy Timescales

- The tables below set out the high level timescales for each element of the ICT strategy.
- All of these elements are being managed through the ICT portfolio process and progress will be reported at weekly accountability meetings.

Priority	General Projects	Timescale
1	Management information/Data warehouse deployment	2014-2018
1	ECS/ePRF Deployment – Data integration and reports	2014-2016
1	Telematics deployment in PTS and A&E area	2014-2017
2	YAS new intranet	2014-2015
1	Resilience Web deployment across Y&H	2014-2016
2	Adopt ITIL best practice	2014-2017

Priority	General Projects	Timescale
3	Extend the capacity of YAS data centres	2015
3	**Move to Agile methodologies.** Working from anywhere to allow staff to have an easy access to YAS applications from anywhere (Office application , emails, SharePoint, Storage, Lync, video conferencing, telephony)	2014-2016
2	Deploy wireless network across YAS sites	2014-2016
1	PTS Transformation Systems support (SMS, Geo-fencing , Patient E-booking, Book Ready Kiosk	2015-2016
3	YAS support centre of expertise in SharePoint/Network Design/software deployment/mobile.	2015
2	Provide secure public connectivity to YAS services	2014-2015
2	Apps deployment.	2014-2018

Annex 3.1 YAS current capabilities

Annex 3.1 YAS Trajectory

3.2 Key recent achievements

Initiatives	Benefits Achieved
Summary Care Record fully implemented in primary care	• Summary Care Records provide healthcare staff treating patients in an emergency or out-of-hours with faster access to key clinical information. • All practices sharing means trusts can use SCR as they can rely on records being available • SCR are being viewed by all teams in YHFT • 100% compliance with SCR uploads • SCR is in use in Tees Esk and Wear Valleys Foundation Trust (TEWV) for any clinician requesting access
Improved hardware in primary care	• More reliable primary care service • All IT equipment across GPs in both CCG areas is less than 5 years old and is part of a rolling replacement programme • More efficient with lower maintenance costs
GP2GP	• GP2GP enables patients' electronic health records to be transferred directly and securely between GP practices. • Faster access to a patient's health record, as opposed to awaiting delivery of paper records. • 100% compliance across VOY and SR with GP2GP
Information portals	• All guidelines and relevant documents in one place to support delivery of clinical care • In both VOY and SR areas all GP Practices used hosted clinical systems, which means that the all guidelines and clinical documentation is stored in a secure data centre
Risk Stratification and Business Intelligence	• Benefitting patient healthcare through increased patient knowledge and access to activity/cost information for Practice • Greater access to activity, quality and benchmarking data for decision-making, planning, and proactive care planning

Initiatives	Benefits Achieved
Mobile working	• Community services are currently utilising mobile working technology • TEWV have a mobile working capability which will be improved through a funded Next Generation Devices project
Establishment of stakeholder networks	• Two information networks have allowed discussion and agreement of a shared vision and created a forum to drive the digital transformation priorities • Actively involved in the regional digital transformation program
Community services SystmOne deployment	• Community staff able to appropriately access and share with the primary care record
Electronic Prescriptions	• VOYCCG has 16 out of 29 practices live using EPS • SRCCG has 11 out of 15 practices live using EPS
Patient On-line	• This was the first stage of Patient Online Access that required all GP practices to switch on the facility for patients to book/cancel appointments, order repeat prescriptions and view their summary care information • 100% compliance across both CCG areas • VOY - For the 3 months up to end March 2016, 12,542 appointments were booked or cancelled online and 15,579 repeat prescriptions ordered online • SR - For the 3 months up to end March 2016, 2,437 appointments were booked or cancelled online and 4,791 repeat prescriptions ordered online
Patient Online Access to Coded Data	• This is the second stage of Patient Online Access that requires 95% of all GP practices to offer patients access to the coded information (in relation to medication, allergies, illnesses, immunisations and test results) held in their records by April 2016. • 100% compliance across VOY and SR
Infrastructure	• Migrated the full GP desktop estate to Windows 7 • Currently replacing all servers using 2003 operating systems • Wi-Fi is in being put in place in all GP Practices • New data network being put in place to put all GPs onto one domain to support shared working • N3 networks are being upgraded to greater bandwidth

3.3 Key current initiatives

The following schemes will be included in the VOYCCG and SRCCG Estates and Technology Transformational bids.

N3 upgrades
N3 is a Wide Area IP Network (WAN), connecting many different sites across the NHS within England & Scotland. It also connects to other networks via Gateways, notably to the Internet via the Internet Gateway.

There is an N3 connection in all NHS buildings allowing access to clinical applications and NHS Mail across a secure internet connection.

In 2010 the core of the N3 network migrated from using Multi-Protocol Label Switching (MPLS) services, to a core based on high-speed Ethernet services from Virgin Media and BT (Etherflow). This effectively doubled the England network core capacity and increased the core

capacity several times in Scotland. Some N3 connections have already been upgraded but this is an opportunity to upgrade connections that have not already been upgraded, without incurring any additional annual charges.

The new 21CN products will support more complex overlay services such as voice over IP, and enable faster maintenance activity such as software downloads and patches, as well as, in many cases, increasing internet browsing speed.

In order to support the development of its GP Alliances, and General Practice working at scale to rationalise back office functions and work more flexibly to deliver services, NHS Vale of York CCG wishes to upgrade the bandwidth available through its Practices' N3 connections. This will provide a fit for purpose backbone network with sufficient capacity to enable Practices to be able to use shared back office systems for document management, MDT meetings and care planning. In practical terms this can be facilitated across all Vale of York CCG Practices through upgrades to each site's main N3 router.

Wi-Fi

VOY and SR CCGs, as part of the GPIT contract, have contracted eMBED to provide their GP Practices with staff Wi-Fi capability. This will support clinical applications and enable their Practices to work flexibly across all areas of a Practice; there are 29 GP Practices in the VoY CCG area and 68 sites.

The Practices who will benefit most from having wireless installed will be those Practices who have recently had a new server delivered by the GP Server Project; currently 11 Practices (24 sites) still need to be deployed with new servers. The GP Server Project will migrate the data and staff to the North Yorkshire domain which will enable Practice and CCG staff to work out of each other’s buildings and have access to each other’s files. (The functionality has been tested and requires further configuration, however it is envisaged as a longer term benefit of this project).

There are 35 sites remaining in the VOYCCG area needing to have Wi-Fi implemented and 24 sites in the SRCCG area.

The provision of Wi-Fi in Practices is a key technical enabler for the developing Integrated Care Team models that will be rolled out to all Practices during 2016/17. The integrated Care Team model aligns closely with the Multi-Specialty Community Provider Model as described in the Five Year Forward View.

New Server Model in GP Practices

The new server model we are aiming to deploy will work across a new central Primary Care domain. Data and applications will continue to run locally on the new server in the practice, and data will be backed up centrally, removing the need for backup tapes. It has business continuity and disaster recovery built into the model and provides Windows and Anti-Virus updates, backups (and restore), roll-out of new programmes and integration with core systems such as Wi-Fi. It will also allow greater flexibility for GPs, CCG and CS staff to work out of each other’s buildings.

The model we are applying has the flexibility to meet different practice requirements and we will discuss these requirements with each practice as part of the project. We will use the N3 network to put in place as cost effective a model as possible.

General Practice e-Consultations
e-Consultations work through a website platform (that can be linked to any existing GP practice website) that brings together a suite of click first approaches. These are alternatives to calling or coming into the GP surgery for common, more minor presentations. The suite includes self-help content, sign posting options, symptom checkers, access to 111 clinicians and the ability to consult remotely with your own GP.

The principal benefits of using e-Consults, which the CCG is keen to support, are that:

- The system enables patients to access self-help content – freeing up appointments
- Patients can access the system out of hours – potentially avoiding presenting in urgent care settings
- Patients can access the system if their Practice has no free appointments - potentially avoiding presenting in urgent care settings
- Practices can process up to 3 e-Consultations for every traditional 10 minute face to face appointment slot – releasing capacity in General Practice

The use of e-Consultations aligns with key national strategy and reports:

- Personalised Health and Care 2020 - Using Data and Technology to Transform Outcomes for Patients and Citizens
- General Practice Forward View (p52) one of the Ten High Impact Actions to release capacity
- Making Time In General Practice (Primary Care Foundation and NHS Alliance) Appendix 3
- The future of primary care Creating teams for tomorrow (Primary Care Workforce Commission) p26
- The 2022 GP A Vision for General Practice in the future NHS p14

There is a wider range of aspirational initiatives, many dependent on the successful outcome of ETTF funding applications. These are listed in Appendix 1.

3.4 Rate limiting factors

- **Supplier variance**: Across health and care providers there are numerous ICT suppliers which adds significant complexity in terms of working practices and data requirements.
- **Data sharing protocols**: Suppliers are often reluctant to support real data sharing at the depth of data required.
- **Reliance on paper**: Providers have key parts of their operations on paper, in order to add real value providers must be fully paperless.

- **Historical data access**: Medical and other notes are predominantly on paper records, especially in secondary care which means this data is not available to share/investigate in any meaningful way.
- **Procurement timelines**: Procurements can take a significant amount of time and resource to undertake. There are also challenges where multiple organisations may want to utilise the same system, but organisational procurement regulations add complexity. There may also be instances where early exit penalties exist which either increases cost for one organisation, or delays overall benefit.
- **Collaborative and financial joint working**: Costs may be experienced in one organisation with benefits delivered to others and further work is required to structurally address the macro level benefits, risks and costs challenge.
- **Financial limitations**: All providers face financial obstacles and internal competition for funding. In reality in order to deliver many of the aspirations in this strategy additional, external monies are likely to be required.
- **Human resource limitations**: At a period of continued change within health and social care there are competing demands on people's time which could constrain the ability to deliver this strategy without additional or dedicated resource.
- **Collaborative working** – organisational cultures can sometimes make it difficult to work collaboratively and these need to be overcome.

4 Readiness assessment

4.1 Leadership, clinical engagement and governance

This digital roadmap is aligned to the Humber Coast and Vale STP to deliver the shared ambition and work at scale on digital initiatives that underpin the development of new models of care. Joint governance arrangements to take this work forward across the Humber, Coast and Vale are agreed and are in the process of being finalised.

Figure 2: STP Governance Arrangements:

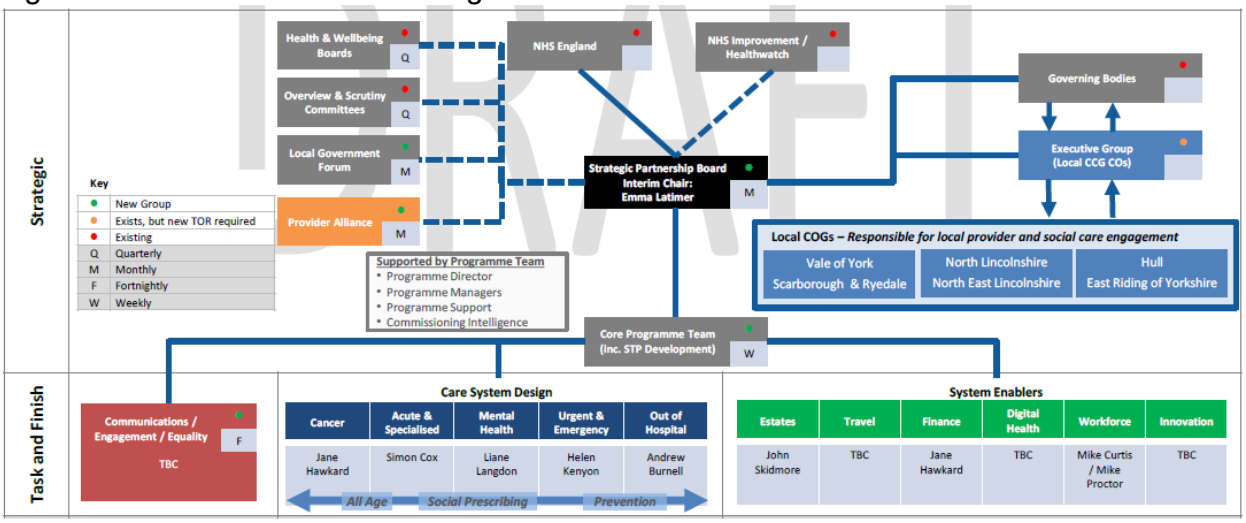
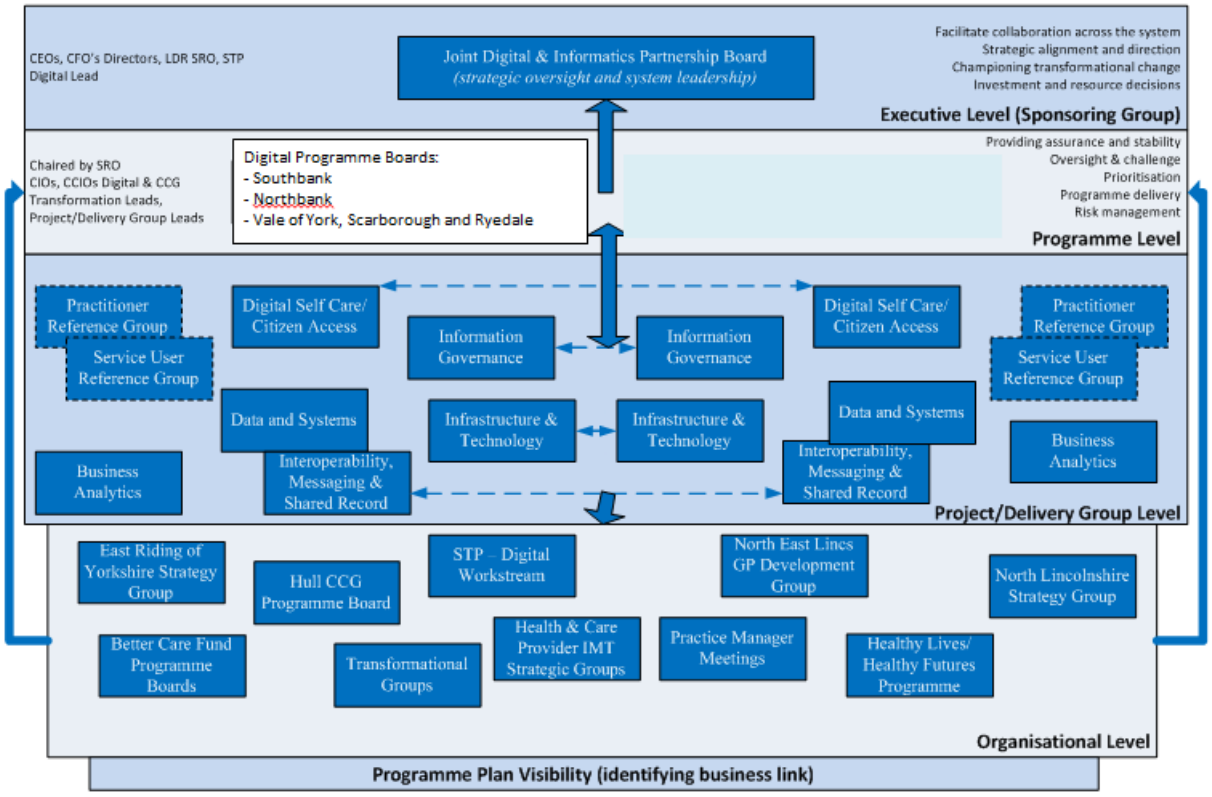


Figure 3: Digital Health Governance - proposed arrangements



The proposed governance arrangements for digital health are in the process of being finalised and approved for commencement in September 2016. The arrangements align with the three 'COGs' of the STP: Vale of York, Scarborough and Ryedale; North Lincolnshire and North East Lincolnshire, Hull and East Riding.

The Digital Roadmap has clinical leadership through Dr Tim Maycock at Vale of York CCG, Executive Leadership through the Chief Operating Officer for Vale of York CCG and Accountable Officer at Scarborough & Ryedale CCG, currently supported by senior Innovation and Improvement Managers and eMBED Health Consortium's Senior Service Delivery Manager. It is acknowledged that greater provider engagement is key to the success of the Digital Roadmap programme, and this will be secured through the footprint's Digital Programme Boards.

4.2 Change Management Processes

All organisations within this footprint are fully cognisant of the need for robust business change processes if real, sustainable, benefits are to be delivered that become embedded in provider workflows. Whilst there is some local variation in terms of methodologies, for example MSP or Prince2 all have similarities to the NHS Change Model which is the proposed overarching methodology proposed in this roadmaps delivery.

4.3 Benefits management and measurement

Transparent measurement is one of the key facets of the NHS Change Model so appropriate weighting will be applied to defining (SMART), measuring, and celebrating the success of achievements delivered and sustained. An important part of the approach will be that named individuals will be identified as benefit owners who will be accountable for the delivery of specific benefits. Particular focus will be given to defining what benefit is sought and how it should be measured as evidence repeatedly highlights that this is a key enabler to delivering success and avoiding project scope creep which moves resource away from the sought after benefits.

4.4 Investment

Known sources of investment

- GP IT Capital
- GPSoC
- Non-recurrent funding through CCG

Opportunities for investment

- Estates and Technology Transformation Fund
- Better Care Funds

4.5 Use of resources

The planning and delivery of health and care services needs to be underpinned by accurate and timely information to ensure that patients get the best possible care within the resources available. Better information supports the delivery of more cost-effective and better quality care. Business change of this scale cannot be underestimated and will require significant involvement and support from all partnering organisations.

The programme of work will span health and social care, both primary and secondary care, community based services and mental health. We need to acknowledge that this work will extend beyond just clinical leadership and require sponsorship and professional leadership from colleagues in social care, third sector and in housing – this will be a multi-practitioner and multi-organisational approach, with partners owning the shared digital vision, and the wider visions around integrated working and new contacting models that the technology underpins.

Professionals will champion the Local Digital Roadmap within their organisation and be able to use their influence to unblock any barriers, should they arise, such as information governance and data sharing issues. They will support knowledge transfer and provide mentoring and support to staff within the implementation and deployment.

We will ensure that there will be a multi-skilled IM&T team, shared by partnering organisations, who will help to deliver maximum efficiency and productivity that aligns with the vision and improved capabilities that are required across the system. This is particularly important given the large workforces we will be working with, many of whom may need influencing and continued support. New models of working will need to be implemented and where

appropriate, this will be done through a train the trainer model to ensure fast spread and adoption.

We will ensure that the risk of duplication is mitigated.

5 Capability deployment

5.1 Capability deployment schedule

The Capability Deployment Schedule is in the early stages of development and requires further input from key provider organisations. This will be secured through the Local Digital Roadmap Partnership Steering Group..

Please see **Annex 5.1: Capability Deployment Schedule**

5.2 Capability deployment trajectory

Capability Deployment Trajectories have already been obtained from a number of providers. Additional providers to follow.

Annex 5.2 TEWV Capability Trajectory

Annex 5.2 Yorkshire Ambulance Service Universal Capabilities Plan

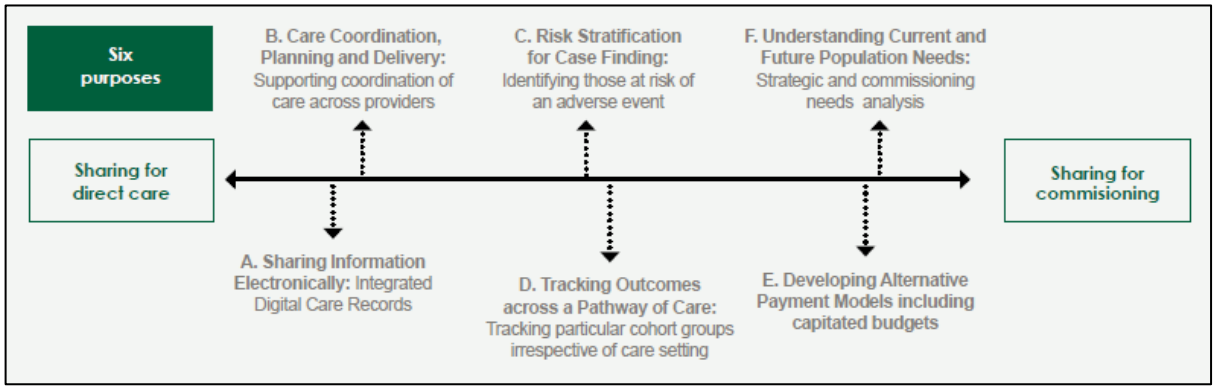
6 Universal capabilities delivery plan

Annex 6.1

7 Information sharing

The CCGs recognise and agree that data sharing is needed to support two main outcomes. Firstly, sharing at the point of care including care co-ordination and care planning (Direct Care). Secondly, system level sharing across health and care for risk stratification and tracking patient journeys & outcomes (Indirect Care).

Information governance activities are aligned with the different purposes for information sharing as set out in the diagram below (taken from the Information Governance Alliance).



All partner organisations have nominated leads for Information Governance and have an appointed Caldicott Guardian where required. Caldicott Guardians are registered on the National Register of Caldicott Guardians (http://systems.hscic.gov.uk/infogov/caldicott).

Services have their own individual methods for ensuring that local people have clarity about how data about them is used, who may have access and how they can exercise their legal rights. Information is provided through website materials, leaflets and during 1:1 consultations between the person and their health or care professional.

7.1 Information sharing approach

- Adoption of SNOMED plans to standardise clinical coding
- NHS Number usage as the standard identifier across health and care
- Factoring in Information Sharing and Information Governance
  - Sharing agreements in place and under development
- Interoperability solutions under development and in situ

7.2 Plans for common sharing agreement

CCGs have been working with their practices on the delivery of a Primary Care IMT Strategy. There is a draft strategy that reflects the objectives set in the General Practice Forward View. Practices have signed data sharing agreements to allow development of new models of care, working collaboratively with other health and care partners.

A new information sharing framework (ISF) has been adopted by a number of partners. The ISF has been designed to ensure we have the appropriate information governance controls in place for information sharing in line with the revised Caldicott principles and guidance made available by the Information Governance Alliance (IGA).

The CCG and other business partners as outlined below are signatories to an Overarching Information Sharing Protocol, last updated June 2016.

Signatories to the Overarching ISP as at June 2016:

- Broadacres Housing Association Limited
- City of York Council

- Craven District Council
- Harrogate Borough Council
- Harrogate & District NHS Foundation Trust
- NHS Harrogate & Rural District CCG
- NHS Vale of York CCG
- North Yorkshire County Council
- North Yorkshire Fire and Rescue Service
- North Yorkshire Police
- Richmondshire District Council
- Ryedale District Council
- Together Housing Group
- Scarborough Borough Council
- Veritau Limited / Veritau North Yorkshire Limited
- York Teaching Hospital NHS Foundation Trust
- Yorkshire Coast Homes

The Information Sharing Protocol is currently being considered by General Practices in the Vale of York CCG footprint.

We are in the process of convening a group, (The Local Digital Roadmaps Partnership Steering Group); to work with organisations across the region to develop a Digital Care Programme to provide leadership and bring the different elements of digital work together.

7.3 NHS Number

The use of the NHS number is mandated by national planning guidance and should be used in health and social care organisations and environments as long as the purpose is to communicate with those who are involved in providing direct care. In this context, commissioners are expected to understand how their providers are using the NHS Number as the primary identifier for their clinical correspondence.

The CCG monitors use of NHS number as the primary identifier through the contract monitoring process. Our healthcare providers routinely meet NHS number performance targets.

7.4 Plans and milestones for adopting information sharing standards

Annex 7.4 VOY-S&R CCG Roadmap

8 Infrastructure

8.1 Current status of mobile working infrastructure

Baseline and plans for providers to develop mobile working

NYCC has in place an agile working solution for all workers. This is based upon portable equipment using a secure VPN service through to the Councils network infrastructure. This enables staff to work flexibly around the Councils estate and also where partners provide "Guest" Wi-Fi services. In addition, this also provides a means for working from home. There is a widespread base of Wi-Fi hot spots throughout the Councils estate which supports flexible use of all workspaces. The Council is certified to ISO27001 & ISO20000 and maintains an ITIL based service management infrastructure

Annex 8.1: NYCC Modern Council

VOY and SR Practices can access their clinical systems remotely using N3 VPN tokens from any base where there is an internet connection. All practices have mobile IT equipment so they can effectively access the clinical system from any base.

TEWV - Mobile working solution in place and will be improved through Next Generation Devices project (funded), main issue is connectivity as Paris requires a constant network connection

8.2 System wide mobile working initiatives

Both Vale of York and Scarborough Ryedale CCG's are currently deploying wifi in all GP Practices across the locality to support Integrated teams working out of one building to enable those teams to access their own clinical systems.

TEWV have a mobile capability for community and mobile staff with existing laptops, enabling them to use Wi-Fi both in TEWV and non-TEWV locations. One of the key objectives for TEWV is to further improve mobile working across the organisation which will be supported by the Next Generation Devices project.

8.3 Collaboration

Current status and future plans for improve collaboration between professionals from different organisations

Some of the way in which professionals from different organisations are working collaboratively are as follows:

- Wi-Fi in GP Practices allow staff from other organisations to work from any building using Wi-Fi, they are able to access systems across N3 using a BT N3 VPN token. As an example, the availability of wifi in Practices will allow District Nurses and Social Care staff to access their own care systems during multi-disciplinary team meetings as part of Integrated Care Teams to review patient information to deliver direct care. This capability provides huge benefits in delivering more integrated care and reviewing care plans for vulnerable patients who may be at risk of hospital admission or readmission.

- GP Practices being on one domain across VOY and SR CCG areas allows practices staff to work from any building in that area, other areas and the CCG and be able to log

on, access files etc and their Clinical system. This provides improved infrastructure over which Practices will be able to share systems, rationalise back office functions to free up capacity, and work at scale to offer services across groups of Practices

- All organisations should use NHS Mail or the council equivalent system, to be able to share information securely across different domains. It would help if this was their main email system as it is complicated for staff having to use one system for sensitive emails and another for non-sensitive

- Joint video conferencing facilities should be set up to reduce travel

8.3 Shared infrastructure

Summary of current or planned initiatives to share infrastructure

Plans for sharing infrastructure are as follows:

- Organisations should upgrade and share N3 connections in buildings, rather than have their own networks.

- When a service is contracted, the new service provider should use the designated building, network, IT equipment and clinical system, then when the contract ends the next provider should use the same. This would reduce IG risk and would also allow the service to function much better and avoid the unnecessary cost of ripping and replacing networks, IT Kit and clinical systems.

- Organisations should share telephony solutions when sharing buildings

- Organisations should share IT Support providers in buildings instead of using many providers, confusing both the staff and engineers.

- If possible, where staff so not have access to mobile IT equipment, Desktop PCs should be shared between organisations to allow any staff using the building to use the equipment

- General Practice should share telephony solutions (this is underway in Vale of York) and use the N3 network to work at scale through Alliance and Federation groupings to improve efficiencies.

9 Minimising risks arising from technology

9.1 Minimising risks

Confirmation that robust plans, policies and procedures are in place across the system to minimise risks / how we will address gaps

The CCG recognises that there are many potential risk factors around people, processes and technology. Effective management of risk will impact the pace of delivery of the digital roadmap. Key risks relate to:

- Funding
- Sufficient staff with knowledge and expertise in the required portfolio roles
- Capacity for change across the system
- Signed-off digital requirements
- A variety of external dependencies
- Access to stakeholders and stakeholder leadership
- Clinical champions
- Technology

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The delivery of infrastructure at pace, which is robust and resilient, is a key dependency on delivering the Roadmap. Step changes to deliver the digital agenda across the STP footprint include the need to:

- Establish a strategic STP-wide governance and implementation of a working group to take the agenda forward;
- A full review of the current infrastructure and support models
- Identification of the gaps and opportunities leading to recommendations for unified solutions.

The CCG is looking to work collaboratively with digital partners to proactively manage risks.

A key element of our approach to manage risks arising from technology is to ensure that robust governance processes are in place and our intention to establish a common strategy to future proof services. As such, it is desirable that GS1 standards are routinely considered in capturing requirements.

9.2 GS1

The Department of Health's eProcurement strategy mandates the use of GS1 standards in every NHS Acute Trust - to increase efficiencies and significantly improve the quality and safety of care. This work will be coordinated through the Digital Programme Board.

Appendix 1: Key Initiatives and Aspirations

Although the CCG's acknowledge that they are at an early stage in the development of the digital roadmap, and this will be an evolving programme as provider engagement is developed and new pathways and models of care are agreed, there are some key capabilities that have been identified as follows which will provide the basis for initial discussions around a footprint wide agreement.

- **Universal uptake of the NHS number** across health and social care – the current position should become clearer from the Digital Maturity Assessments.

- **Enhanced Summary Care Record** (HSCIC have contacted the CCG's are keen to increase uptake) – this is fairly simple to implement and adds some valuable detail to SCR that clinicians may find useful http://systems.hscic.gov.uk/scr/additional

- **Promoting patient access to records, electronic prescriptions, electronic appointment booking and repeat prescriptions** – already technically enabled for EMIS and SystmOne, but an opportunity to increase patient uptake.

- **Improving processes around electronic referrals and discharge summaries**

- **Mobile access to clinical systems**

- **eConsults (online consultations)** to help manage demand in General Practice by encouraging patients to use digital channels to access Primary Care, and enabling Practices to signpost patients to other parts of the system. This is referenced in the GP Forward View. Main systems are webGP http://webgp.com/ (preferred) and askmyGP http://askmygp.uk/
- **Shared Care Plans** – ideally across health and social care providers. Potential to add much more value than the SCR (which is read only) and should develop into a web-based dynamic care plan that all providers should be able to view and add to – should be a main priority for Integrated Care Teams with a specific emphasis on last year of life. Examples include My Rightcare (discussions already held with the company) http://www.myrightcare.co.uk/ and Graphnet http://www.graphnethealth.com/

- **Cross-Practice working** and access to clinical systems to enable Practices to work at scale, offer services on behalf of other Practices, and 'share' clinicians and patients (i.e. interoperability between SystmOne/EMIS)

- **Access to the full GP record and safeguarding information in A&E** through the EMIS and SystmOne clinical record viewers. This may not be a routine requirement for every patient, but it could provide A&E clinicians with clinical history to enable them to make more informed decisions and avoid unnecessary admissions, and could be a potential life saver in some instances.

- **Real-time admission and discharge alerts to GP's** from the hospital to ensure that all GP's know when a patient attends A&E or has an unplanned admission, and when patients are ready for discharge – supports proactive discharge planning and improved transfers of care.

- **Risk profiling** using this in a structured way in Integration Hubs to identify vulnerable and 'at risk of admission' patients to develop and maintain case lists. Risk profiling should also be used to case find for more LTC management and prevention work.

- **Self management support for Long Term Conditions** patients – possibly platforms like Vitrucare http://www.dynamichealthsystems.co.uk/vitrucare-supported-selfcare

- **Access to consultant advice and guidance** for GP's using technology to help GP's make more informed decisions with specialist support – e.g. Consultant Connect http://www.consultantconnect.org.uk/
- **Telehealth and Telemedecine**

- **Population Health Management** – this should be the ultimate objective on the roadmap – an overarching information system that sits across all the point-of-care IT systems and pulls in information and links it at patient level to deliver a 'whole system' suite of applications to support a) direct care (longitudinal care record, diagnostic and test results, meds management, risk management, alerts, care plans and patient management, cross-provider workflow management, patient portal, etc) and b) planning and commissioning (whole system activity and spend, analytics, and intelligence and registries to support quality frameworks and potential management of budgets across an accountable care system). Examples are Cerner's Healthe Intent http://www.ehcca.com/presentations/pophealthsummit4/sutariya_2.pdf and Orion Health https://orionhealth.com/uk/