



# The Nottinghamshire Forward View into Action

An Information Governance, Information  
Management and Technology (IGM&T) Strategy  
for Nottinghamshire led by NHS Clinical  
Commissioning Groups



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## Version Control

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	Using Data and Technology to Transform Outcomes for Patients and Citizens: A Framework for Action; The Forward view into action; Nottinghamshire Local Digital Roadmap (LDR); Nottinghamshire Sustainability and Transformation Plan (STP); CCG Data Management Strategy; Better Together Transformation Plan; Greater Nottingham Partnership Transformation Plan;
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## Executive Summary

With an increasingly challenging financial environment, cost savings and efficiencies are affecting the whole health and care economy. The NHS has been tasked by NHS England to change the way that it delivers care in order to reduce cost whilst continuing to improve the quality of care. Whilst it is recognised that there is an increasing financial burden on health and care organisations, through being innovative in how current and new technologies are utilised to support process redesign and transformation, efficiencies can be driven not only in primary care but also by commissioners across the wider health and care economy.

Information and technology can bring enormous benefits by making the delivery of care more integrated and efficient; however this cannot be undertaken in isolation and will only deliver the required benefits through effective change management. It is vital in supporting improvements in health and wellbeing, organisational efficiencies and quality care. In utilising high quality information and technology the CCG can help patients to understand how to improve their own health, to know what their care and treatment choices are and to assess for themselves the quality of services available to them.

This Information Governance Management and Technology (IGM&T) strategy sets out the key deliverables and the Governance required delivering the following work streams:

1. Information sharing
2. Infrastructure
3. Improving Citizen Access to Information and Care Records
4. Digital Maturity
5. Assistive Technology

The delivery of this strategy directly supports the ambitions of the Nottinghamshire Sustainability and Transformation Plan (STP), the Integrated Care System (ICS) and the Integrated Care Partnerships (ICP) that will mature in the coming months and years. It does this by providing the tools to support Nottinghamshire in reducing the Health and Wellbeing, Care and Quality and Finance and Efficiency gaps. This strategy sets out how Information and Technology will support NHS Nottinghamshire Clinical Commissioning Group's future vision for a digitally mature health and care system. It identifies the importance of Information Management and Technology (IM&T) within the health and social care community and how IM&T will support the links between health and social care providers and commissioners, which will be essential in delivering the STP.

In order to deliver the ambitions of this strategy a true system-wide approach is required in order to meet both the clinical and operational demands across the health and care economy. To achieve this, a close multi-professional collaboration between all system partners, both across the primary/community/secondary care sectors and into the Mental Health and Social Care is required. These partnerships will be clinically led and will help steer the direction of travel for system wide Information Governance, Information Management and Technology developments. Working in this way will ensure that joint ambitions are aligned to the collective requirements of each organisation, and importantly linked to clinically meaningful changes and outcomes using established best practice wherever evidence is available.

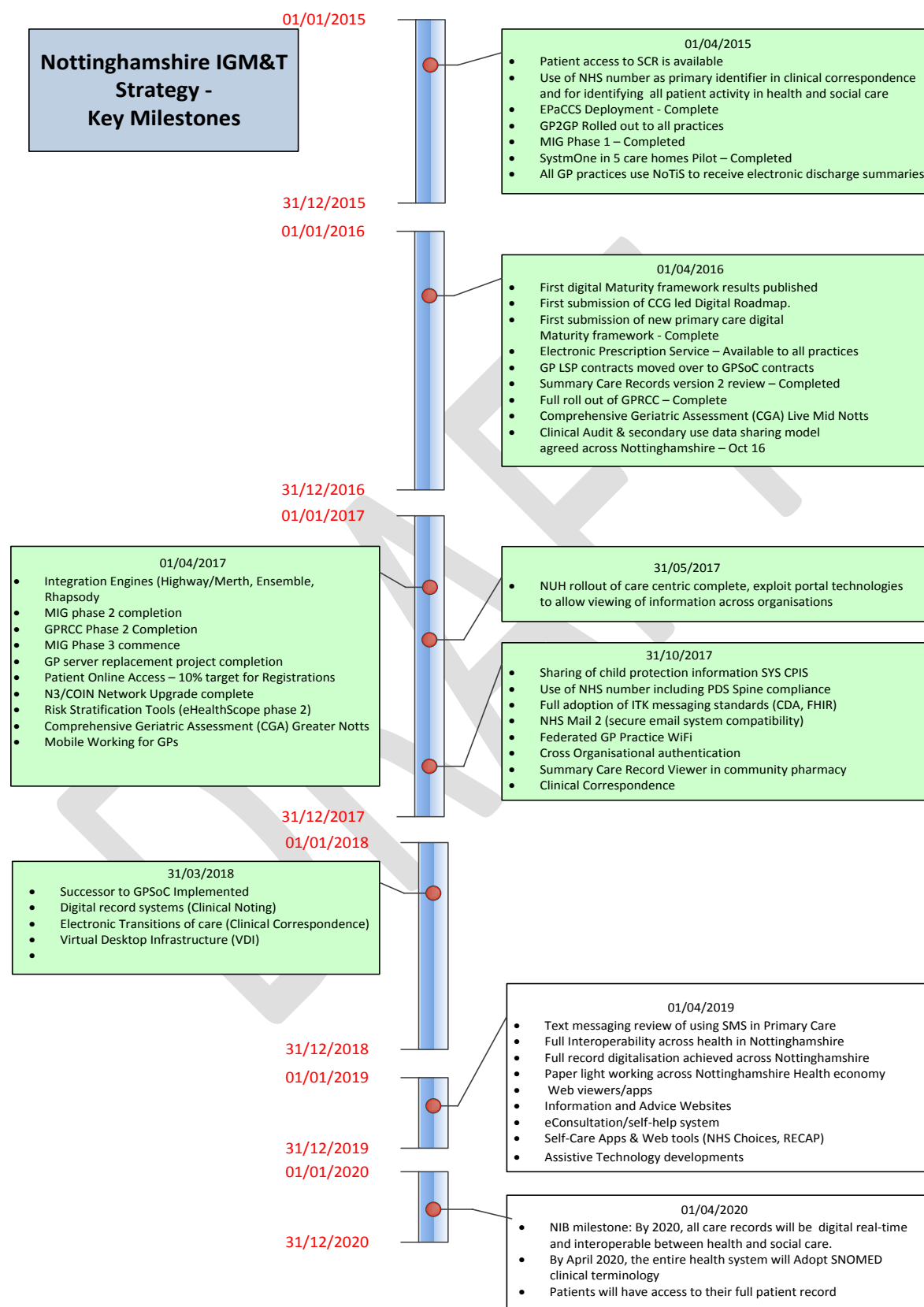
It is recognised that in order to successfully implement and drive the necessary change in pace to support new models of care, Nottinghamshire must remain agile in the use of local and national funding. Good progress has been made across Nottinghamshire's health and social care system improving infrastructure and systems, and improving integration and

digital records. Despite these positive steps forward there is much work left to do in order to achieve the transformational transition of this strategy into business as usual.

This document is an enabling strategy to support Health and care transformation and should be read alongside other key strategic documents identified later in this strategy. It supersedes the CCG IGM&T Strategy version 4.4 for 2017/18 and sets the strategic direction up to March 2020 (in alignment with the current national strategy drivers) and in some areas beyond. Driven by the National Information Boards (NIB) paper in support of the NHS Five Year Forward View and clarity on the digital maturity framework, it informs not just the local requirements but also takes into consideration the organisational attributes expected from external authorities such as NHS England, NHS Improvement, NHS Digital, Local Government Association and the Care Quality Commission.

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## Nottinghamshire IM&T Road Map





## Introduction

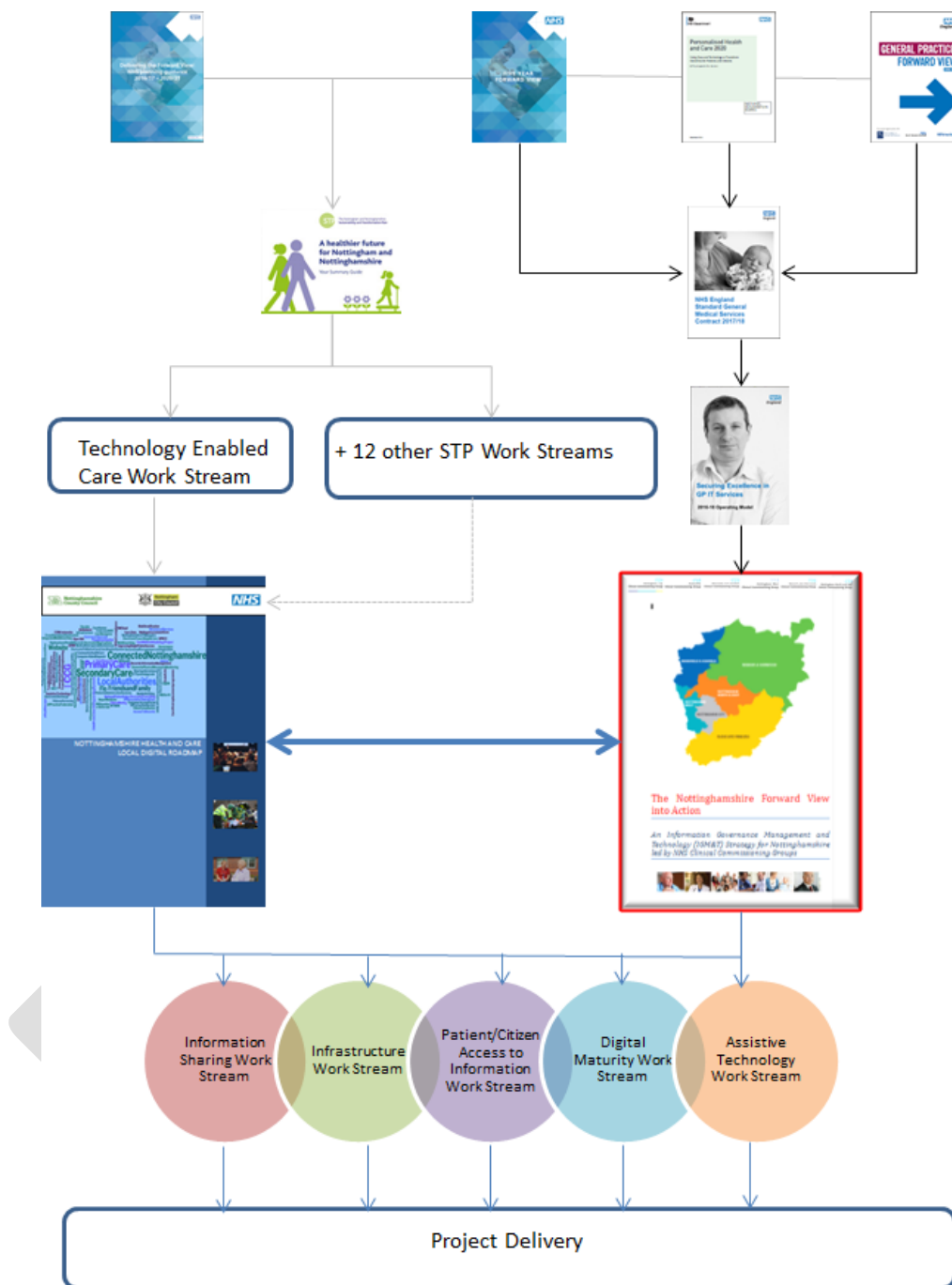
Rapidly advancing technologies have revolutionised the way we interact with each other in everyday life. Industry and the commercial sector have changed profoundly and technology now has the ability to enable a similar change in health and care services, shifting the relationships between patient, clinician and care professional towards one of shared decision-making. These changes are also influencing the behaviours between commissioner and provider towards one that is beneficial in delivery of health and care as a business whilst focused on working in partnership or alliance as a system.

A critical element of the National Information Board's national vision is local design and delivery against the identified national objectives. Clinical Commissioning Groups (CCGs) became accountable on 1<sup>st</sup> April 2016 for the production of Local Digital Roadmaps (LDR) working with local authorities, local providers, and other local stakeholders such as housing and education to set the direction for fully interoperable digital records. This is the fifth revision of the Information Governance, Information Management and Technology (IGM&T) Strategy for Nottinghamshire and it is anticipated that it will continue to evolve.

Achieving interoperability and the integration of systems within Nottinghamshire is critical to enable successful communication and information sharing between clinical teams and the wider health and care economy including; primary, community, secondary, mental health, social, housing, education and third sector services. Where possible information should be recorded once, utilising every contact and shared securely with those professionals with a 'legitimate' patient relationship in providing care. Information is a service in its own right, and local digital maturity will be closely monitored by the CCGs following national guidance, tools and standards set out within the NHS England Interoperability Handbook.

The Five Year Forward View made a commitment that, by 2020, there would be *"fully interoperable electronic health records so that patient's records are paperless"*. This was supported by a Government commitment in Personalised Health and Care 2020 that *"all patient and care records will be digital, interoperable and real-time by 2020"*. Radically new care delivery models supported by new payment arrangements which are value and outcome based are driving the need for change. This requires information to flow more effectively across health and care to support the delivery of direct care to patients/citizens.

## Strategy relationships



Nottinghamshire's STP identifies Technology Enabled Care as one of its high impact work streams to support the delivery of the ambition set out in a number of national policy documents. The digital vision is to gain a number of 'quick wins' where digital enablement has already made progress whilst continuing to develop strategic information systems and make improvements in the system wide infrastructure.

Nottinghamshire's vision for supporting the STP, the five year forward plan and 2020 objectives is to provide the capability for paper free at the point of care through the digital provision of;

- The Right Information
- To be available at the Right Place
- For the Right Person
- To make the Right Decisions
- At the Right Time Always

Nottinghamshire's focus on existing ICP level transformation programmes and projects supports the vision that Nottinghamshire should always be one step ahead in providing the digital enablers so that transformation can happen without waiting for technology delivery. This work will ensure that Nottinghamshire is able to achieve the National Informatics Board milestones.

This five-year strategy shows how IGM&T will support the ICS and ICPs in the delivery of the ambitions set out in the STP. The objectives within this document depend on stakeholders having an up-to-date and robust IT infrastructure combined with modern, optimised systems which provide good quality and relevant data and information. For this reason the Digital Maturity of all providers across Nottinghamshire will be monitored through the Digital Maturity Framework – a national requirement for providers to submit details of their digital readiness.

Technology enables the use of information when and where required for the best clinical, operationally effective delivery of care. The key elements of IM&T investment covered in this strategy are:

- Infrastructure and security (the physical hardware and software used to interconnect computers, users and services);
- Systems (the clinical applications that provide staff, managers, clinicians and care professionals with the tools and information to perform their tasks safely and efficiently. Alongside the professionally used systems those that allow patients to have improved access to services and support self-care)
- Accessibility (improving patient/citizen, clinician and care professional access to information)
- Support (needed for all organisations involved including CCGs; Primary care; community care, acute, mental health and Social Care);
- Change Management (the management of change and development needed within Health and Care organisations to realise the benefits of IM&T);
- Transitional Management (necessary in managing an institutional investment and enable the merging of funds and pooled resources e.g. NHSE and local funds).

## Where Are We Now?

Nottinghamshire, through the Connected Nottinghamshire Programme of work, delivers the digital agenda by bringing together outcomes from both the STP and Local Digital Roadmap (LDR) to inform the strategic direction. Across Nottinghamshire Health and Local Authority organisations along with third sector partners have helped deliver an exemplar LDR document, in which the joint ambitions to achieve the 2020 vision have been documented. It is anticipated that as the Integrated Care System and Integrated Care Partnerships develop the CCG IGM&T strategy and LDR will become one document.

Nottinghamshire has identified five key work stream areas (information sharing, infrastructure, patient access to information and care records, digital maturity and assistive technology). Each of these work streams has an executive lead that ensures oversight of key projects identified to enable development and delivery against the objectives of the LDR. A number of key projects are already well into the delivery phase and Appendix A provides an overview of the current position of the five key work stream areas.

## What will Nottinghamshire deliver by 2020?

### 1. Information sharing

**Summary:** This chapter outlines plans for integrating health and care systems across all organisations and providers as well as between individual GP Practices.

Projects	Key Milestones
Template Alignment and Standardisation (F12 / Ardens)	April 2019 (transition to BAU)
Medical Interoperability Gateway (MIG) phase 3	June 2018
GP Repository for Clinical Care (GPRCC) Phase 3	October 2018
Nottinghamshire Health and Care Portal (CareCentric) Phase 1	May 2018
Nottinghamshire Health and Care Portal (CareCentric) Phase 2	April 2019
Use of NHS number including PDS Spine compliance (Health and Local Authorities)	December 2018
Summary Care Record Viewer in community Pharmacy	May 2018
GP Connect connectivity	October 2018
Transition to SNOMED CT	GP from June 2018
Integration Engines (implemented in larger organisations with multiple and complex information system relationships)	June 2018
e-Referral Service	October 2018
Unified Communications	March 2019
Key References and Publications	
<ul style="list-style-type: none"> <li>Everyone Counts: <i>Planning for Patients 2014/15 to 2018/2019</i></li> <li>The Caldicott 2 Review: <i>To Share or Not To Share</i> published April 2013</li> <li>Information: <i>A report from the NHS Future Forum 2012</i></li> <li>National Information Board: <i>Personalised Health and Care 2020</i></li> <li>NHS England: <i>interoperability hand book 2015</i></li> <li>Five Year Forward View into Action 2014</li> <li>Health and Social Care (Quality &amp; Safety) Act 2015</li> <li>General Practice Systems of Choice</li> <li>Securing excellence in GP IT Services 2016-2018</li> <li>Information standards, bulletins and notices</li> <li>Nottinghamshire Health &amp; Care Local Digital Road Map V5 2018</li> <li>The Nottingham &amp; Nottinghamshire Sustainability &amp; Transformation Plan</li> </ul>	
Key Ambitions	
<ul style="list-style-type: none"> <li>To continue to improve the flow of electronic information sharing through the use of the NHS number as primary identifier across all providers</li> <li>To improve system wide capacity and flow of patient information for care planning</li> </ul>	

and care co-ordination purposes

- To reduce clinical variation through the use of standardised templates and information
- To enable integration and sharing of care records to support the delivery of transformation across the ICS and ICPs
- To improve effective, efficient correspondence and communication to support system efficiencies
- To continue to improve prescribing processes and support system wide transformation
- To continue to improve information sharing for the purposes of safer clinical decision making
- Increase access to information for the purposes of care planning and co-ordination
- To drive up the utilisation of information sharing tools to support improvements in care and remove the use facsimile machines for routine communication

### **Approach**

As integrated care models mature across Nottinghamshire further work is needed to ensure that the IGM&T capabilities required to support new models of care are developed. One of the Future Forum's 2011/12 recommendations is that NHS organisations should strive for interoperability, to enable the provision of more joined-up care; Nottinghamshire CCGs will ensure this recommendation is extended to include wider care providers such as social care, third sector organisations and care homes.

Strengthening communication and the sharing of information between organisations, to ensure patients are cared for seamlessly across organisations or speciality boundaries is vital, particularly by supporting clinical and social care services through the use of instant messaging and accessing decision-support/specialist advice more rapidly than we current do. This will promote less duplication, improve patient transitions and improve quality and safer ways of working. Providing better information to points of advice and navigation in the care system will improve the citizen/patient experience and improve outcomes.

Where applicable we will align general practice and community provisions to utilise, co-locate and share resources for patients in line with their estates strategies. This will enable CCGs to move towards health and care teams becoming integrated and tailored to particular need, whilst working together to utilise and share a limited workforce. GP practices working collaboratively in these localities will have requirements to support the sharing of patient clinical information, administrative functions, back office functions and workforce.

If a patient has a complex condition, or set of conditions, the emerging care model is that they are appointed a care co-ordinator, to work with multi-disciplinary teams responsible for delivering care. These multi-disciplinary teams comprising of community, primary care and social care services will have appropriate access to patient information regardless of the clinical system used.

The CCGs will adopt national standards to sharing information meaning that systems will be able to connect and join up, rather than every organisation using the same technology or product. GP systems will be connected through interoperability gateways and portals allowing patient medical records to be shared to clinicians and staff who have a 'legitimate relationship' with the patient for the purposes of direct care. A fundamental part of this support will be the comprehensive and consistent use of the NHS number across health and social care services, at the point of care with the aspiration of achieving "real time" NHS number matching as care is delivered. The NHS number will be used to connect patient records across the whole system as patients move between services. This alongside

professionals being able to access relevant records online, simply, securely and in one place will enable more joined-up care. The NHS number will become far more visible to patients themselves, for example on every letter and appointment. As users of health and care services, and as members of the public, patients should become increasingly aware of their own NHS number and its ability to ensure that they are always correctly identified and how it can help ensure that their care and their records are appropriately reconciled and coordinated.

Nottinghamshire GP systems are connected together using the Medical Interoperability Gateway (MIG) supplied by Healthcare Gateway during the development of the wider interoperability solution, the Nottinghamshire Health and Care Portal (CareCentric). System developments underway at each of the secondary care providers will be managed from within the Trusts. The GP system developments will be managed from within the CCGs. Local Authorities will commission appropriate systems to connect into health systems. Connected Nottinghamshire has facilitated the development of an interoperability framework within which providers can share data to other service providers.

Nottinghamshire CCGs will support the procurement and use of innovation and advances in technology that will integrate clinical systems data with the wider community in order to support localities with integration. Encouraging economy-wide joined up patient care through systems integration, interoperability and information sharing across all providers and General Practices encompassing Primary, Community, Secondary, Out of Hours and Social Care service, ensuring information around the patients is available to those who provide care. Whilst new technologies will be needed to deliver the ultimate ambition of fully integrated digital care records the Local Digital Roadmap has been developed to ensure existing assets are also used to the full. Existing products such as eHealthscope (software supporting the GPRCC project) will continue to play a significant role in the management of patient's care, singularly within organisations and in support of co-ordinating multi-disciplinary care team resources and reporting on outcomes and levels of delivery.

CCGs will encourage providers to ensure safer, quicker, more efficient care by transferring electronically all correspondence about patients and service users, including referrals, discharge summaries, medication details, assessments, outcomes and letters, between professionals and services. These data transfers should be coded and structured as far as possible, in particular in respect of discharge diagnoses. This will enable increasingly automated derivation of national data sets. It is expected that NHS Digital (previously named HSCIC) will continue to develop standards and providers will need to conform to these.

A requirement of the 2016/17 standard NHS contract condition 11.5 requires acute and mental NHS trusts to send inpatient and day case discharge summaries subject to the 24 hour rule to GP practices electronically. Trusts within Nottinghamshire have been providing electronic discharge information through existing systems for some time such as GP access and NoTiS. Further requirements for 17/18 with effect from 1 October 2018, means that acute providers need not accept (and will not be paid for any first outpatient attendance resulting from) referrals by GPs to Consultant-led acute outpatient services made other than through the NHS e-Referral Service.

The CCGs are in direct support of the National Information Board (NIB): personalised health and social care 2020: Framework for action objectives to help clinicians ensure patients are safely transferred between episodes of care. The objective is to ensure a standardised electronic discharge summary of information relevant to the service user sent from all providers in accordance with the relevant transfer of and discharge from care protocol and, for discharges from inpatient or day case services, using or consistent with the Academy of Medical Royal Colleges (AoMRC) endorsed clinical headings.



In order to reduce clinical variation and improve access to care across Nottinghamshire there will be an ongoing review and assessment of current templates and coding use to ensure that data contained within clinician records is accurate. A standardised suite of template documents, supporting guidance and reports will be deployed within primary care either by using Ardens (Mid Nottinghamshire) or F12 (Greater Nottinghamshire) products. Whilst different solutions are utilised a piece of work to enable the alignment of coded data and data fields will continue to ensure consistency across Nottinghamshire. This activity directly supports Nottinghamshire strategic aims of Right Information; To be available at the Right Place; For the Right Person; To make the Right Decisions; At the Right Time Always.

Practices will have the option to view Summary Care Records (SCR) for patients that are not fully registered as part the delivery of care. Practices will ensure they have a privacy officer role in place to ensure there is a mechanism for monitoring SCR and other system audit accesses to ensure they are legitimate. SCR will continue to play a part in allowing access to records across Nottinghamshire where patients from outside the local care community present to our services and for the use of pharmacy services but it is envisaged that this will be the limit of its use. It is not the intention to pursue one of the national ambitions of 15% of patients uploaded for SCRa as other solutions are felt to offer better care and use of GP time.

A number of projects are underway to ensure Pharmacists and Pharmacy resources are digitally enabled to support the STP plans. SCR has been expanded into Community Pharmacies with 101 of the 111 sites now live with SCR and others will be enabled throughout the life of this strategy. It is anticipated that further developments in Pharmacy access to information will be explored and delivered in the move to paperless working in 2020.

CCGs recognise and support a duopoly of SystmOne and EMIS Web instances across their patches for GP Practices. Where this is the case the use of Nottinghamshire Health and Care Portal (CareCentric), Medical Interoperability Gateway (MIG) and Clinical Record Viewer (CRV) can be implemented to support the sharing and viewing of records across care settings (choosing the most appropriate technology for the specific use). Depending on the level of collaboration between providers, consideration will need to be given on the current limitations of Nottinghamshire Health and Care Portal (CareCentric), MIG, CRV and similar technologies. The current strategic approach is to avoid writing back directly into clinical records but instead to use electronic correspondence sent as a structured message to report back to the originating system as part of the Transfer of Care. Where required as an interim step clinicians and care professionals may need to be granted permission to access other clinical/care systems where Information Governance policies will allow this to take place.

Where there is a clear advantage to the health system, requests from GP practices for support to migrate to alternate GPSoc compliant systems will be considered. CCGs will continue to commission health informatics services to provide support for business critical systems including 1st, 2nd and 3rd level support and extended hour's service desk function.

Other technologies will also be rolled out where there is a supporting business case to do so or where it is deemed to add value to patient experience and the quality of care they receive. An example being mobile working technology, currently being rolled out to provide visiting clinicians access to patient records in a care home or patient's own home setting. This provides more accurate access to patient information for the clinician and the ability to instantaneously update the patient's record with the necessary observations and tasks, potentially eliminating unnecessary delays, referrals to other services and clinical errors.

## 2. Infrastructure

**Summary:** Ensuring all of our providers are equipped with suitable, secure, compliant systems that meet the standards and specifications set out by NHS England and NHS Digital (formerly the Health and Social Care Information Centre HSCIC) e.g. 'GP Systems of Choice' (GPSoC), systems which meet the requirements of the strategic frameworks set out by NHS Digital and achieve a suitable level of Digital Maturity as captured in the Digital Framework.

Projects	Key milestones
Patient administration systems (PAS)	Complete
Migration from N3 to HSCN Network	2018/19
Electronic Prescribing	2018/19
Warranted Environment Specifications (WES)	(commencement)
GPSoC Transition to new GP IT Delivery Model	2018/19
Agile/Mobile Working	October 2018
Cross Domain authentication	June 2018
Data warehousing/Public Health Intelligence	October 2018
Care CERT and Cyber Security Development Programme	March 2019
	On-going development
Key References and Publications	
<ul style="list-style-type: none"> <li>○ General Practice Systems of Choice</li> <li>○ Development a new GP IT delivery model, NHSD</li> <li>○ Securing excellence in GP IT Services 2018/19</li> <li>○ NHS England interoperability handbook 2015</li> <li>○ Nottinghamshire Health &amp; Care Local Digital Road Map V5 2018</li> <li>○ The Nottingham &amp; Nottinghamshire Sustainability &amp; Transformation Plan</li> </ul>	
Key Ambitions	
<ul style="list-style-type: none"> <li>○ Improve information sharing between all care organisations to support business needs</li> <li>○ To protect and improve 'core' GP IT service provision, whilst providing mechanisms to enable local investment in enhanced and transformational services including new models of care</li> <li>○ Exploration, development and alignment of Warranted Environment Specification infrastructure (WES)</li> <li>○ To ensure through commissioning all providers are equipped with suitable compliant systems in line with new developments of a local WES specification</li> <li>○ To ensure up to date IT platforms are available and meet levels of Digital Maturity specified within a locally developed WES specification</li> <li>○ Increase efficient ways of working by enabling agile working across organisations</li> <li>○ To enable the provision of IT Services to support the extended use of information systems in the delivering of care</li> <li>○ Ensure robust processes in place for information, data, and cyber security to ensure appropriate levels of security and business continuity and ensure compliance with the GDPR</li> </ul>	

### Approach

Fundamental changes to the way health care is delivered are necessary to ensure value for money and quality of care is achieved, including the working together in networks or partnerships in order to deliver a step change in the scale, scope and organisational capacity of General Practice, to deliver and demonstrate measured value and ensure sustainability.



NHS Digital is in the early stages of designing the new GP IT delivery model to succeed the current GPSoC framework that expires in 2018 (albeit with a one year extension to support transition). The new model aims to facilitate the more effective delivery of GP IT and will support the delivery of infrastructure capable of delivery of national commissioning intentions for general practice services and Nottinghamshire's aspirations to deliver new models of care.

Nottinghamshire health and social care organisations recognise the importance of ensuring a locally developed Warranted Environment Specification (WES) enabling health and social care providers to effectively operate concurrently and support applications necessary to delivery fully supported and secure technical environments. The Nottingham IT Managers group (NITMAN) have developed a WES which sets out a number of technical standards to be applied across all health and social care providers within the Nottinghamshire STP footprint to ensure a consistent level of service and assurance of a fully supported, secure and compatible technical environment to support new models of care delivery.

The current pressures on the NHS are increasing, with staffing levels in short supply, costs on the rise and the increase in care being transferred from secondary care into the community, this makes transforming the current models of care imperative and even more challenging. Demand is increasing along with patient expectations of how they access health and care services.

One way in coping with this demand is to free up the GP time to enable them to focus more on managing those patients with Long Term Conditions (LTC). General practice will utilise digital offerings such as the Electronic Prescription Service which enables prescribers, such as GPs and practice nurses, to send prescriptions electronically to a dispenser (such as a pharmacy) of the patient's choice. This makes the prescribing and dispensing process more efficient and convenient for patients and staff. Alongside this GPs have full access to functions such as Sunquest ICE enabling them to request radiology reports and pathology tests electronically and to receive results electronically, including results for other tests requested by other clinicians for the same patient reducing duplication. Nottinghamshire will support future developments of these systems, exploring options such as enabling acute trusts to send electronic letters and discharge reports electronically to GP Practices via currently utilised or new systems.

Whilst good progress has been made in information security management it is recognised that as we move into more whole system information systems, additional capabilities and resources will be needed to ensure that the existing high levels of cyber security are maintained and continuously improved. Over the next 12 months further work will be undertaken to ensure that the cyber security standards are implemented and aligned with the National Data Guardian for Health and Care Review of Data Security, Consent and Opt-Outs 2016, the Care Quality Commission Review, and by the development of a Cyber Security Strategy and Framework across Nottinghamshire, there will also be a number of table top testing and incident management exercises to ensure we are resilient and can respond effectively to cyber incidents. It is recognised that technology alone will not address all cyber security risks; one of the biggest risks in cyber security is 'insider threat' therefore responsibility for the cyber security agenda must sit with the appropriate board and there will be user training and awareness on cyber security embedded within all Nottinghamshire health and social care organisations.

Nottinghamshire will ensure cyber security continues to be a top priority ensuring robust processes are in place for information, data, and cyber security to ensure appropriate levels of security and business continuity and ensure compliance with the EU General Data Protection Regulation (GDPR).

Nottinghamshire will continue to engage with NHS Digital and develop robust processes to make sure patient data and information is used securely and safely utilising the exiting Data Security Centre and the CareCERT programme in order to support the monitoring and respond to security threats through local defence and incident management mechanisms.

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### 3. Improving Citizen Access to Information and Care Records

**Summary:** Enabling patients to self-manage their own health needs, improving access to services through the use of technology and improving health outcomes through access to information.

Projects	Key Milestones
Online appointment booking/prescriptions	March 2019 30%
Patient access to coded and detailed care record	April 2019 20%
Patient access to online consultations	December 2018
Patient access to guidance and self-management tools	December 2018
Information and advice websites aligned to self-management tools	December 2018
Patient self-referral available (ERS)	March 2019
Key References and Publications	
<ul style="list-style-type: none"> <li>○ The Department of Health's National Mobile Health Worker Project report (published January 2013)</li> <li>○ The Five Year Forward view into Action</li> <li>○ Nottinghamshire Health &amp; Care Local Digital Road Map V5 2018</li> <li>○ The Nottingham &amp; Nottinghamshire Sustainability &amp; transformation Plan</li> <li>○ General Practice Development Programme</li> </ul>	
Key Ambitions	
<ul style="list-style-type: none"> <li>○ Seek opportunities to help patients with long term health conditions in managing their own care, treatment and navigation</li> <li>○ Providing the information for patients and health care staff to better help and educate in order to support better decision making</li> <li>○ To provide patients /citizens access to their record and to enable them to contribute information and preferences</li> <li>○ Deployment of Patient facing digital services to support self-care and prevention by encouraging, empowering, enhancing and enabling patients to manage their health</li> <li>○ Support the development of local protocols to manage out of area patients seen within Nottinghamshire that has access to an existing patient portal (linking into the "Midlands Accord" LDR developments)</li> </ul>	

Patients themselves should be provided the capabilities to monitor and proactively manage their care more closely. As well as managing appointment and prescription renewal, over the period of this strategy it is anticipated patients will be able to:

- Send secure messages to their care team;
- Conduct e-consultations;
- Submit requests to update medication and allergy lists;
- View a summary of their consultations;
- Access, review and update their personal care plan including management of long term conditions;
- Undertake pre-visit reviews;
- Access information from the record for their child up to age 12 (and beyond depending on their level of capacity as assessed by Fraser competency);
- View appropriate elements of their medical record including; test results, diagnoses, medications and immunisations

- Receive personalised digital guidance to support the best outcomes for them based on their specific set of conditions

As access to these applications and patient portals increases nationally Nottinghamshire will need to have robust protocols in place to support local health and care providers make best use of information held by the patient.

It is essential that our patients feel empowered to “self-manage” their own health and care needs and have the necessary information at hand to do this. The CCG will ensure that all practices have information on how patients are able to direct themselves around the complexities within health and care with support from the Practice clinical and administrative teams. CCGs want to encourage patients to take responsibility for their own health and become confident in managing their own health needs as much as possible. Each practice will have the technology to support patients on how to improve the “self-management” of their own care through the use of smart phone apps, and e-referral as examples of patient facing digital services. Patients will be able to refer themselves into services that have been commissioned as suitable for self-referral. The CCGs will determine which services are appropriate to accept self-referrals from patients making them visible to patients and give the patient the choice to decide whether their GP is notified of the self-referral or not.

The CCGs will support GPs in utilising their existing clinical system functionality to enable patients and carers to access online services. In 2016 patients were able to access their coded GP record online including the ability to view test results, book appointments and order repeat prescriptions. All patients regardless of which Practice they are registered with will have access to booking appointments and repeat prescriptions online and building on the early full records access pilots the CCG will work towards patients accessing their full health records where it is beneficial via the online clinical system used by the Practice. CCGs recognise there is a national agenda driven by the BMA and RCGP that will influence the Primary Care national digital road map and developments of other record access systems across Nottinghamshire also offer opportunities to learn and deliver functionality to meet the requirement of new models of self-care.

The potential of the this new area of technology will be exploited with a CCG strategy developed outlining the approach to use of these capabilities, identifying the key capabilities needed to support the new models of care. With such a fast developing area of technology the ambition is to continue with the agile approach, not limiting individual pockets of innovation but not fully committing to a single direction of travel until agreement of the patient facing digital strategy is reached. The technology should fit the patient requirement and it is hoped that through work with NHS England and the NHS Digital that a set of standards can be developed which will allow the patient to choose the best solution for them irrespective of where the data is held. Working as an aggregator of the data these patient held care records can then access and direct care using the information pertinent to the patient's self-care plan.

The CCGs will explore options in relation to how patients access their GP and wider care team (including secondary care and care homes). This will include building on existing learning on the use of telephone consultations, online consultations, audio-visual consultations, face-to-face appointments, supported consultations (using subject experts in remote locations) and telephone triage. All these new ways of working will allow GP Practices to make informed decisions on what would work best for them and their patients. Care navigation, video conferencing and collaboration tools will offer health and care providers a whole host of opportunities to provide their services in a more efficient and productive manner. By allowing real-time, two-way or multiplex interaction, using technology to effectively simulate the experience traditionally obtained face-to-face or to obtain clinical input during multi-disciplinary team meetings as and when needed.

Video will also provide GPs with the ability to diagnose certain symptoms such as skin disorders without the necessity for patients to attend the Practice with additional support of specialist involvement remotely. In order to gain the greatest benefit to the patients and the care providers the CCGs will continue to support and observe the innovative developments taking place locally and nationally, building into commissioning intentions those areas that deliver the greatest results.

Alongside the traditional use of tele-medicine applications the CCGs will assess and explore capabilities that allow patients to consult with their GPs using e-consultation capabilities. Whilst the CCGs and other organisations in the health and social care community have elected to implement proprietary products, the success of e-consultation facilities will hinge on the flexibility for patients to use their system of choice as well as the ability for systems to fully integrate with TPP / EMIS clinical systems. It is, therefore, imperative that the infrastructure deployed into GP Practices and other points of access is sufficiently flexible to communicate seamlessly with a range of products in common use.

It is likely that the introduction of e-consultation capabilities will require hardware enhancements to consultation room IT equipment, since the availability of web cams is not covered under the existing GMS / PMS blue book minimum standards. The added financial pressure of reduced GP IT revenue allocations will mean that consideration may be given to a phased introduction for this capability over a period of up to 3 years.

## 4. Digital Maturity

**Summary:** This chapter covers the adoption and change management aspects of Digital Maturity to support all Nottinghamshire's organisations to be paperless at the point of care.

Projects	Key Milestones
Electronic Palliative Care Coordination System (EPaCCS) 2 incorporating RESPECT MIG Phase 2/3 Care Gap and Risk Stratification tools (eHealthScope Phase 3) GP repository for clinical care (GPRCC) (Phase 3) Community Of Interest Network (COIN) Federated GP WiFi and patient WiFi Transition to SNOMED CT	Phase 1 Live April 2016 Phase 2 Live April 2019 Phase 2 Live, Phase 3 - 2018 April 2019  March 2019  Live Live April 2019
Key References and Publications	
<ul style="list-style-type: none"> <li>○ The Five Year Forward view into Action 2014</li> <li>○ Nottinghamshire Health &amp; Care Local Digital Road Map V4.1 2016</li> <li>○ The Nottingham &amp; Nottinghamshire Sustainability &amp; transformation Plan 2016</li> <li>○ The Caldicott 2 Review: <i>To Share or Not To Share</i> published April 2013</li> <li>○ Information: <i>A report from the NHS Future Forum</i> 2012</li> </ul>	
Key Ambitions	
<ul style="list-style-type: none"> <li>○ Successful adoption and change management to drive up digital maturity of organisations ensuring benefits are evaluated and realised in order to increase best use of technology</li> <li>○ To ensure that Nottinghamshire providers of care are making the most of the opportunities that the digital enablement can bring.</li> <li>○ Support the increased utilisation of technology to support care.</li> <li>○ Successful implementation of key projects to improve digital maturity</li> </ul>	

The CCG has a good understanding of our strengths and weaknesses in digital maturity and has identified a number of areas that require improvement over the next three years to deliver the highest level of digital enablement. Our aim is to provide joined-up information across all providers, allowing staff to work differently using shared assessments and to see the information they need at the time they need it, all the time.

Local providers of health and care will be required to carry out a digital maturity assessment and will work in partnership to identify areas of strength and weakness working collaboratively to develop robust plans for improvements aligned to national data security guidance. CCGs will exploit opportunities where funding exists to support provider requirements and expect all health and care providers systems to conform to national and local contractual requirements and standards e.g. GPSoc and NHS Digital Cyber Assurance standards.

A vital part of our approach is to digitally enable citizens; using health and care IT to help the public use technology to support their health and wellbeing choices, and enable self-care.

Nottinghamshire has made significant progress across all health and care providers and commissioners in improving information sharing and infrastructure to support transformation in the last three years. There is a desire and willingness to work together across



organisational boundaries, with mature governance arrangements in place. The necessary management processes are in place, but it is recognised that some (change and benefits management) will need further development to cope with the change of scale and pace required.

Connected Nottinghamshire has plans in place to support the fast-moving changes needed to meet the local and national requirements by 2019/20. However, these will require additional financial support to achieve the scale and pace described.

Nottinghamshire has a good understanding of the current position of its care providers and commissioners. In addition to the Digital Maturity Assessment process, Nottinghamshire has and continues to review the technical landscape.

The Digital Maturity Assessment has identified gaps in some areas within the universal capability requirements of the LDR and there remains much more work to do in order to reach the paperless at the point of care target for example e-Prescribing across Acute providers.

From the Secondary Care and Ambulance Digital Maturity Assessment (DMA) report Nottinghamshire has confirmed a number of areas for improvement. E-Prescribing in secondary care was identified and the Nottinghamshire acute providers have agreed to explore a joined up approach to e-Prescribing across Nottinghamshire that is integrated across all care settings. Further work is underway to review and plan to address the specific points of improvement.

As the Primary Care and Local Authority Digital Maturity information become available these will be used to identify priority areas.

The Nottinghamshire assessment has given a clear indication on areas that need development. Plans are now underway to address them. As further information on the maturity of providers becomes available through further iterations of the Digital Maturity Assessment and associated projects (including Primary Care, Community Providers and Social Care) these will be used to support the planning and delivery of the necessary capability improvements.

Nottinghamshire recognises the importance change management will play to the success of the IGM&T strategy and as such will develop a Change Management Toolkit and Framework in order to support the increased utilisation of current and future technology to support patient care and drive efficiencies.

An assessment on the maturity of data quality across Nottinghamshire's health and care organisations was undertaken in 2016, which resulted in the development of a framework and accreditation standard for managing data quality across the Nottinghamshire footprint. In order to support this framework and Nottinghamshire's strategic priorities the Data Advisory Group (DAG) was reviewed resulting in a change in focus and a newly formed Data Leadership Alliance (DLA). The main objectives of the newly formed DLA are to effectively communicate and improve data quality consistency across Nottinghamshire, by developing robust data quality standards and guidance and recommend these to the member organisations across the Health and Social Care economy for inclusion within organisational policy and practice. It will provide advice, standards, principles and documentation to support the adoption of best practice, communicating these and ensuring their adoption in individual

member organisations. The group will develop and monitor system wide data quality, KPIs and outcome reporting requirements in order to support the priorities of the STP, such as clinical pathways and drive data quality maturity forward across Nottinghamshire.

Nottinghamshire health and social care partners will carry out a digital maturity assessment and will work collaboratively to identify areas of strength and weakness and support the development of robust plans for improvement. CCGs will exploit opportunities where funding exists to support provider requirements. CCGs expect all health and care providers systems to conform to national and local contractual requirements and standards e.g. GPSoC, PRSB, DCB, ISSI and other NHS Digital standards.

Key priorities of the DLA group for 2018/19 have been defined as care plans, summaries, forms and referrals. This will be essential as we move in the direction of standardisation of SNOMED CT codes by 2020 but have to deal with multiple systems during the transition. Good data quality is an essential element of Nottinghamshire's digitalisation plans.

There is an established collective bidding process to support individual partners through identification of the correct funding and support in the application process. It is anticipated that collective bids will be submitted to the Developing Digital Maturity Fund to drive improvement of digital maturity and the integration of systems across Nottinghamshire. Connected Nottinghamshire will support and facilitate this work on behalf of health and care providers and will look for opportunities to share bids and reduced costs through frameworks and joint procurements with other LDR footprints through the Midlands Accord.

Nottinghamshire recognises that work is still required to ensure the highest level of strategic alignment is achieved. Generally local providers are well aligned but further work is needed for regional and out of area services e.g. EMAS, Derbyshire Health United (111).

The use of technology to support resource management is an area that requires greater investment and development. Plans for 2018/19 include development of systems to build on pockets of good work and to further support localised resource management improvements (system wide staff resource management, bed management and equipment resource management).

There remains a great deal of work to complete in reaching the level of maturity required. Whilst there are plans in place to address the technical enablers through MIG/GPRCC/Nottinghamshire Health and Care Portal, and some are already implemented, a significant amount of change management will be needed to achieve the milestones set out in the plan to be paperless at the point of care by the end of 2018 (for health and care). In addition to the national requirement the ambition for joint trusted assessment is a key aspect of the STP moving forward and then this will be a key area to support that work.

With a great deal of the focus of the STP being on improvements of pathways to support getting patients out of hospital more effectively, transfers of care is seen as a key digital capability. Currently there are multiple methods of electronic messaging in place to support this requirement but through 2018-2020 these will move from standard ITK messaging to new FHIR functionality to support improvements in the transfers of care. Early work in social care to enable these electronic flows has been very successful and will expand to cover more work flow processes.



## 5. Assistive Technology

**Summary:** This chapter sets out how Tele-care, Tele-health and Tele-consultation currently support patients, as well as plans to grow Technology Enabled Care Services across the health and social care community.

Projects	Key Milestones
System wide delivery of Tele-care (E.g. Personal Alarms, falls monitors, panic & movement alarms)	2019
Tele-health (remote monitoring of vital signs), FLO for 5 key patient groups	April 2019
eConsultation	Pilots December 2018
Tele-dermatology	Live
Wearables	Ongoing developments
Self-Care Apps & Web tools	Pilots December 2018
Key References and Publications	
<ul style="list-style-type: none"> <li>Everyone Counts: <i>Planning for Patients 2013/14</i> published December 2012</li> <li>The Caldicott 2 Review: <i>To Share or Not To Share</i> published April 2013</li> <li>Information: <i>A report from the NHS Future Forum 2012</i></li> <li>NHS England (2014): 5 Year Forward View</li> <li>National Information Board (2014) Personalised Health and Care 2020</li> <li>NHS Commissioning Assembly (2015) Technology Enabled Care Services (TECS) – Resource for Commissioners</li> <li>Nottinghamshire Health &amp; Care Local Digital Road Map V5 2018</li> <li>The Nottingham &amp; Nottinghamshire Sustainability &amp; transformation Plan 2018</li> </ul>	
Key Ambitions	
<ul style="list-style-type: none"> <li>Providing alternative methods for patients to access primary care</li> <li>Remote monitoring for patients in their own homes or care home setting to anticipate exacerbations</li> <li>Promote and support patient empowerment to self-manage</li> <li>To release capacity in teams and services</li> <li>Keep the population healthy</li> <li>Promote the benefits of tele-care and tele-health</li> <li>Increase use of Assistive technology each year</li> </ul>	

Across Nottinghamshire Healthcare NHS Foundation Trust FLO STH is utilised within community and mental health teams. A review of Assistive Technology was undertaken early in 2018 which informed the CCGs of the suitability of Flo and similar technologies in order to develop a better quality, more cost-effective service to vulnerable people across health and social care. This learning will be an integral part of Nottinghamshire's integrated health and social care programme.

Alongside the traditional use of Tele-medicine applications the CCGs will provide patients with the ability to consult with their GPs using e-consultation capabilities (either video- or Tele-consultation). Typically this will be through the use of telephone, Skype® or other similar technologies. Whilst the CCGs and other organisations in the health and social care community have elected to implement proprietary products, the success of e-consultation facilities will hinge on the flexibility for patients to use their system of choice. It is, therefore,

imperative that the infrastructure deployed into GP Practices and other points of access is sufficiently flexible to communicate seamlessly with a range of products in common use.

The NATT service vision is to join up solutions such as FLO STH with the use of, for example, Skype and has already successfully piloted the use of a virtual ward round between GP surgeries and learning disability teams and care homes. The team have also tested the AliveCor ECG app (highlighted as an NHS Innovation Accelerator) within a Heart Failure setting. The service and knowledge within the NATT team to create and design clinically effective protocols has been transferable to other solutions as technology changes. FLO STH also has interoperability with other systems which will be explored to offer a more integrated approach to Telehealth. Where new innovations are implemented these should be integral to existing clinical systems where required but should not overwhelm clinicians and care professionals with inappropriate volumes of data. The NATT team are leading nationally on the drive to integrate FLO STH with TPP SystmOne and EMIS and this work is currently underway with the NHS Digital. The focus of the NATT service and on how FLO has been deployed is on whole pathways transactions and utilisation of cost effective Technology Enabled Care Services (TEC) and was embedded into a number of the Vanguard programmes as well as across all Nottinghamshire providers with the Better Together programme in Mid Nottinghamshire having already made great progress in this area. The NATT service will work alongside other services such as Self Help UK and the voluntary sector to further roll out TECS and raise awareness amongst patients.

Nottingham Healthcare NHS Foundation Trust has implemented Recap which is a new on line digital resource for patients / carers and supporters to receive digital health information from their health worker. Digital content can be in the form of films, audio, electronic leaflets, APPs, web links, worksheets and more. Healthcare workers can prescribe / send targeted content to support self-care and wellbeing as part of a care programme. Recap supports data and information sharing amongst allied health professionals resulting in a consistency of approach and supports the delivery of integrated services.

NHS Nottingham City CCG and City Council have an Assistive Technology Strategy which will see the successful integration of the Telecare and Telehealth services currently operated separately through the City Council and CCG, in partnership with Nottingham City Homes. The integrated Assistive Technology (AT) Service, effective from mid-2016, provides a range of equipment and service to support citizens and patients with a variety of conditions, needs and risks, promoting a step up step down model for having the right equipment at the right time. An AT vision has been adopted which promotes the provision of AT to support key priority groups. These being:-

- Preventing or delaying a move into residential care;
- Hospital admission avoidance and supporting safe and timely discharges;
- Patients with long term conditions – particularly those with respiratory conditions, heart failure and diabetes;
- Adults with learning disability, including autism;
- Adults with dementia;
- Disabled young people.

The AT vision sets out a target of supporting 10,000 people with Telecare and Telehealth.

NHS Nottingham City CCG was a Vanguard site for providing new care models into care homes. Promotion of Assistive Technology was a key element within the proposals which has care home residents supported by Telecare, Telehealth and Telemedicine with a view to reduce hospital admissions from and support timely discharges back to the care home.

Nottinghamshire CCGs will continue to build on their existing work and will commission a strategic review in 2018 which will inform the CCG of the most appropriate technologies by which their ambitions can be delivered going forward. Initially this will focus on the implementation of e-consultations in order to rapidly support the introduction of these options for patients and to introduce a mechanism by which demand on primary care can be managed more effectively.

It is likely that the introduction of e-consultation capabilities will require hardware enhancements to consultation room IT equipment, since the availability of web cams is not covered under the existing GMS / PMS blue book minimum standards. The added financial pressure of reduced GP IT revenue allocations will mean that consideration may be given to a phased introduction for this capability over a period of up to 3 years.

The CCGs will also consider the evidenced benefits of existing and emerging Tele-care and Tele-health technologies. Where there is clear evidence of positive impacts to quality and patient experience the CCGs will implement such technologies for those patients and / or conditions best suited to realise the projected benefits. It is envisaged this will extend beyond the traditional services designed to support patients with chronic illnesses and could apply to patients with a wide range of conditions and complexities, supported by a range of devices used for the gathering of patient information.

To help improve the patient's ability to self-manage their own health needs the use of this technology may allow patients to text or email their self-taken readings through to the devices taking the readings and asking the patient to answer condition specific questions informing the appropriate clinicians as appropriate. These devices will also support patient education providing the correct advice to allow patients to make informed decisions in order to better self-manage their care reducing unnecessary visits to their GP. The CCGs will also ensure clinicians understand their role in identifying suitable patients.

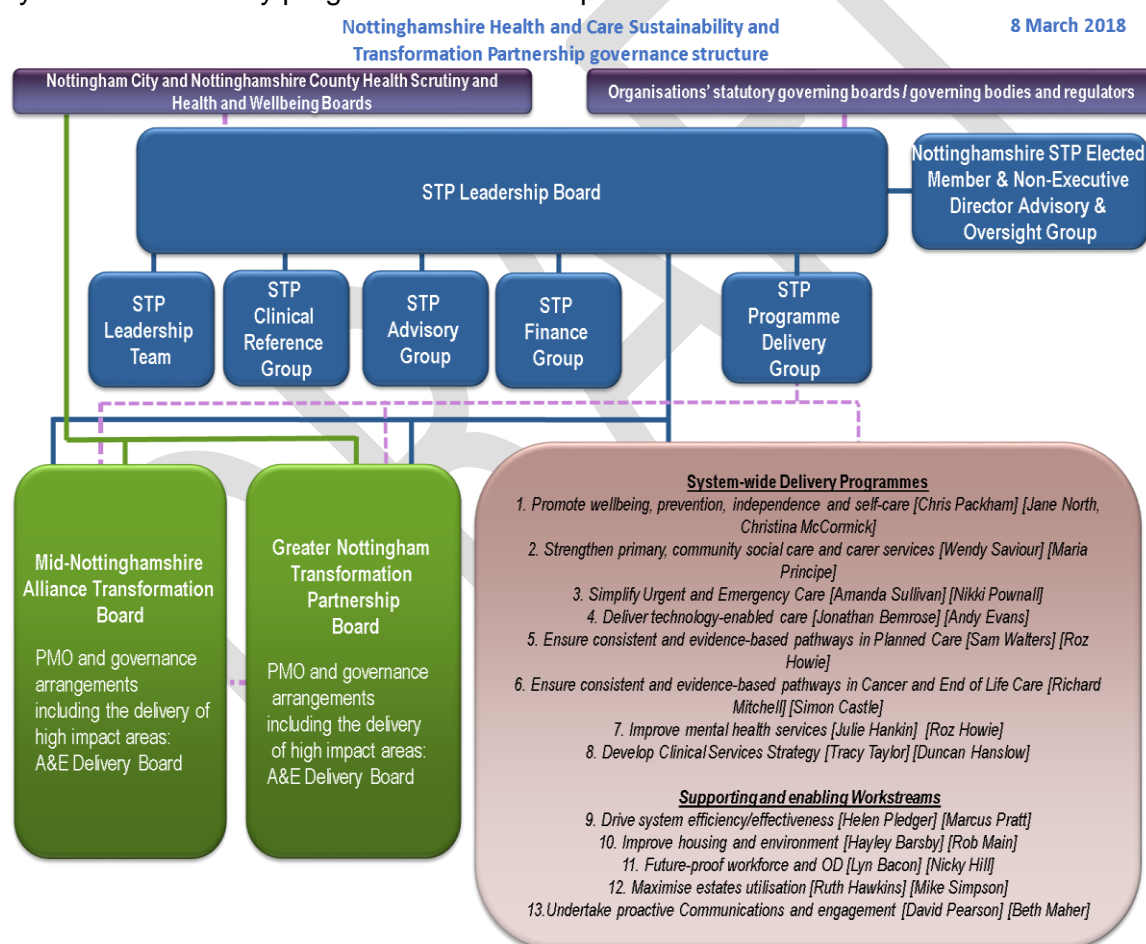
The CCGs along with their member Practices will look at ways that they can utilise these technologies to the benefit of General Practice across the primary care landscape. Exploring innovations in technology that will allow secure remote visual consultations to work alongside, for example, Tele-dermatology to help patients gain access to health care that might be otherwise out of reach, lack the means of transportation or have mobility challenges, enabling patient's access to specialists and clinicians without them leaving their home.

## How will this strategy support the System-wide Delivery Programmes of the STP?

The IGM&T Strategy has been produced in partnership with the STP development team and the supporting local area planners. The Greater Nottingham and Mid Nottinghamshire Better Together Transformation programmes have both been instrumental in guiding the development and alignment to the priority areas identified in the STP, in particular supporting the values and high impact changes.

This document will be the foundation of local Clinical Commissioning Groups strategic plans and will support the development of the Sustainability & Transformation Plan (STP). The Integrated Care System (ICS) will ensure the delivery of STP to both health and care systems across Nottinghamshire and drive the use of new technologies to improve the delivery of care for example enabling new care models and supporting extended hours services where required.

The Technology Enabled Care Workstream (which this strategy supports) is one of eight system wide delivery programmes that form part of the STP.



## System-wide Delivery Programmes

This section outlines some of the key initiatives and benefits that support the STP delivery programmes:

### 1. Promote wellbeing, prevention, independence and self-care

Nottinghamshire will utilise GP Online consultation funding to explore and define a specification for functionality that fully integrates with primary care clinical systems but accessed by the patient via a secure portal like that used for online services. This will include symptom checker / advice to support with signposting, long-Term Condition Management, self-help and simple messaging with care givers.

## **2. Strengthen Primary, community and social care, and carer services**

Nottinghamshire is addressing the priority areas by utilising tested best practice methodology to ensure that information sharing, analytics; electronic workflow and infrastructure are available to support the new care models. Significant progress has already been made towards digital enablement, paper free transitions of care and paperless at the point of care. Many areas of the National Informatics Board and NHS England Roadmap objectives that are required have been delivered or are underway. These projects will enable 'digital by default' across the health and social care community. Given the current status and future plans Nottinghamshire is well placed to meet the 2020 objectives.

## **3. Simplify urgent and emergency care**

To support improvement in Urgent and Emergency Care across Nottinghamshire there have been a number of developments. Deployment of the SCR and Medical Interoperability Gateway (MIG) to support the sharing of GP patient records and the Emergency Care Solution (ECS) to support sharing of Ambulance Service information. The deployment of these systems have supported clinicians across urgent and emergency care providers by providing them access to timely and key medical information – enabling them to make more informed clinical decisions when treating patients and benefit patients by allowing them choice to visit the most appropriate clinical setting. Nottinghamshire has also used these systems to support extended hours working, offered by GP Federations and locality working as part of Prime Ministers Challenge Fund, GP Access and Vanguard initiatives.

## **4. Deliver Technology-enabled care**

Nottinghamshire's Sustainability and Transformation Plan has identified Technology Enabled Care as one of its high impact areas. The key themes and activities to support the delivery of technology enabled care have been identified as Information Sharing, Infrastructure, Citizen/Patient Access to Information, Digital Maturity and Assistive Technology; these themes directly correlate with the enabling work streams supporting the delivery of Nottinghamshire's LDR.

## **5. Ensure consistent and evidenced based pathways in planned care**

Through the work of the Data Leadership Alliance and projects such as F12 and Ardens best practice quality standards will be implemented across General Practice. These improvements will support initiatives that span all sectors of care through the use of national technology such as the e-Referrals Service (eRS) as well as supporting other key projects such as identification of any gaps in care through GPRCC. Having quality data across the health and care system will allow better understanding of the issues that need to be addressed alongside better management of the system.

## **6. Ensure consistent and evidenced based pathways in cancer and end of life care**

The Medical Interoperability Gateway (MIG) has been rolled out across Nottingham to support information sharing across Out of Hours, Secondary Care, Community Services, GP Federation(s) and Mental Health Services using the Detail Care Record data set plus an additional End of Life care dataset bought in line through the Electronic Palliative Care Co-ordination System (EPaCCS) available to all primary and community care providers as well as a number of third party care providers across Nottinghamshire that have access to TPP SystemOne GP and Community Records with benefits being monitored during 17/18 for future improvements. In 2018/19 enhancements will be made to this system to implement the RESPECT form requirements and enhance the system to deliver better integration. The



learning from the EPaCCS delivery will inform learning to support development of similar systems to support the Cancer pathways

## **7. Improve mental health services**

The availability of mental health information across health organisations has been a challenge but with the introduction of the Nottinghamshire Health and Care Portal this will be addressed. It will allow clinicians to see mental health information alongside physical health information. This will help improve the quality of care for patients with mental health conditions whilst also reducing the amount of time needed to communicate issues between clinicians sharing the care of patients.

## **8. Develop clinical services strategy**

As the models of care change the flow of information to support these new pathways will be a vital enabler. The GP record remains the most mature digital record at the heart of patient care. This strategy introduces new technology that will not only allow the sharing of records across the different sectors of care but also introduces improve transitions of care to allow better joined up and co-ordinated care. Information from GPRCC will also be used to support and shape CCG and ICS thinking on the best configuration of clinical services.

## **Supporting and Enabling Work streams**

### **9. Drive system efficiency/effectiveness**

With the technology implementation that this strategy brings there are many opportunities to redesign health and care to be more efficient and effective. With examples including; assistive technology reducing the amount of home visits, mobile access allowing more efficient use of time, proactive identification of patients who require interventions to better use of information for service design, there are many ways in which IGM&T can support transformational change.

### **10. Improve housing and environment**

Simple pieces of information can often influence the decision a clinician makes. The housing and environment that patients live in can be a positive or negative factor in their lifestyle and health. Through GPRCC and eHealthscope information from a wider set of resources will be made available to support decision making and save time. The ability to identify individuals who have social care or lifestyle intervention needs and share this type of information can impact significantly on patients. This is the ambition.

### **11. Future proof workforce and OD**

Better information will allow a better understanding of the resources required to support the health and care system. In General Practice the use of templates will support clinicians other than GPs to maintain high levels of clinical record keeping and data quality. Safety controls built into clinical systems and alerts all combine to support the shift of clinical duties from one staff group to another, reducing the burden on GPs and allowing new and innovative ways of working to be implemented. The changing model of General Practice to support extended hours and practices working in federations will all contribute to a changing workforce, supported through technology.

As Assistive Technology finds its place in business as usual processes it will change the way that the workforce interact with patients and allow the use of resource in different ways. In line with the move to more self-care supported by technology this will further create opportunities for improvement in the utilisation and efficiency of the workforce.

In addition to the support that technology can give it is important to consider the additional requirements that staff will have in learning to adopt these opportunities. Additional training and support alongside change management will be required to ensure the benefits are realised.

## **12. Maximise estate utilisation**

The CCGs have developed their 10 year Estates Strategies, both technological and estates planning will be essential to enable the improvement and expansion of joined-up out of hospital care for patients and accelerating investment for infrastructure to build stronger more efficient health and care services across Nottinghamshire. With the delivery of mobile technology and flexible working the relationship between technology and estate has never been more interrelated. As delivery plans for the estates strategy develop it is essential that IGM&T is engaged from the beginning to deliver the greatest benefit from the technology this strategy delivers.

## **13. Undertake proactive communications and engagement**

Communicating the intentions of this strategy will be key, alongside the ambitions of the Local Digital Roadmap and other important strategies in the STP. Technology will help share messages with citizens and patients through traditional methods such as web technologies but also explore how social media and other technology developments can improve communications and engagement. In addition to the requirements of communicating the objectives of the strategy improvements of communications can also present opportunities for new ways of working. Over 90% of the population now have regular access to email, moving from paper to electronic letters and providing access to letters from patient held records can reduce cost and support patients in self-care.

## **How will we deliver this strategy?**

### **Digital Maturity**

From April 2016 CCGs were accountable for the development of Local Digital Roadmaps for their communities as part of their authorisation framework. This means that they need to set IM&T vision and strategy, agree plans to ensure digital maturity, drive integration, establish standards and maintain over all budgetary oversight. Primary care providers will continue to have a choice of high quality solutions, tailored to local need, underpinned by a commitment from the NHS England to support the development of a world-class information and technology infrastructure across health and care. This will be measured through the Primary Care Infrastructure Assessment Framework.

Other sectors do not work in the same way and information systems and infrastructure are provided by the organisation's themselves. The digital maturity of these sectors will also be assessed through the Digital Maturity Assessment Framework annually. Plans are in place to support the fast-moving changes needed to meet the local and national requirements by 2018/19. However, these will require additional financial support to achieve the scale and pace required. The CCG will ensure these opportunities are fully embraced in order to support a suitable level of Digital Maturity that meet the intentions of this and other strategies in line with local transformation and vanguard plans.

In order to focus on the successful adoption and to ensure that Nottinghamshire providers of care are making the most of the opportunities that the digital enablement can bring a Change Management Toolkit and Framework has been developed and will support the increased utilisation of technology to support care.

### **Change Management**

Effective organisations are underpinned by successful, resilient and well-supported IT systems. For Nottinghamshire CCGs to continue their success they must be supported by high quality, resilient, responsive and cost-effective IT services. The increased reliance on IT and the probable extension to the hours within which primary care services are accessible to patients means that the CCGs' IT service providers must respond to cover the broader scope and time required and meet the rising customer expectations.

The CCGs will review the arrangements for IT support in 2017/18 and ensure fit for purpose, appropriate and cost effective user support is in place to underpin the ambitions of this strategy.

Through the revised GPSoc contracts, the Primary Care Development Centre and local provider arrangements, the CCGs will ensure training is provided to all Nottinghamshire Practices. CCGs recognise the importance of training and its vital contribution towards best and efficient use of clinical systems and IT and supported by Connected Nottinghamshire will also review plans as part of the Local Digital Roadmaps to ensure suitable change management and training is built into plans for all users across all providers.

In order to support Nottinghamshire's local plans to achieve a fully digital and integrated health and social care economy a change management and benefits realisation model has been developed to support organisations across Nottinghamshire, effectively embed change, and fully enable the benefits change projects to be realised.

Focusing on the measurement of successful adoption and change management aspects this Workstream will drive up the digital maturity of organisations to ensure that Nottinghamshire providers of care are making the most of the opportunities that the digital enablement can bring. A Change Management Toolkit and Framework has been developed and will support the increased utilisation of technology to support care. Progress of this and the other Workstream areas will be reported regularly to the IT Management Board.

The Nottinghamshire change management and benefits realisation model has been developed from a hybrid of different change and benefits models bringing together the best areas to develop a tailored model to support a standard approach across the health and social care economy in Nottinghamshire. Alongside the model sits a framework and toolkit which is currently being piloted in a number of stakeholder organisations across the Nottinghamshire footprint on both clinical and technologically driven projects. The framework and toolkits aims to be fully tested and implemented to wider stakeholder groups in 2017/18. Connected Nottinghamshire will be supporting the deployment and integration of the toolkit into stakeholder organisations and aims to support the development of the workforce cross organisationally by providing support and training to enable the change model to be successfully implemented.

### **Information Governance**

The strategic aims will be delivered in line with Information Governance requirements including the legislative and regulatory obligations relating to the processing of information. All new system changes and developments will be done so within a framework which ensures necessary safeguards are in place for the appropriate use of personal sensitive and corporate sensitive information. The Records and Information Group (RIG) will act as the lead for system wide development of Information Governance principles to support the sharing of information for direct care and secondary use through the development of guidance notices, the principles by which Nottinghamshire health and social care providers will be directed. This will be supported by recognition of the importance of engagement and alignment of the group members by the CCGs in commissioning services. Oversight and



assurance will be provided to the CCGs' IGM&T Committee and the IT Management Board to manage any risks to confidentiality and/or information security.

The RIG has developed a Nottinghamshire wide consent model and a guidance note on using data for non-direct care, guidance notes are aligned to regulatory good practice and national guidance notes which ensure consent and data used for purposes other than direct care also conforms to legislation and best practice. The CCGs will support the review of these local guidance notes on an annual basis (as well as ad-hoc where necessary).

In order to promote privacy by design the production and review of Privacy Impact Assessments (PIA) has now become an essential and useful part of an information and technological related project. The CCGs will ensure the use of these and maintain an oversight of the content and quality of these through the CCGs' IGM&T Committee and the IT Management Board.

Furthermore, in line with the requirements of DSCNs 14/2009 and 18/2009, the CCGs' IM&T Clinical Safety Officer will continue to undertake formal assessments for any local changes to existing software applications or new ones being implemented as part of local developments.

Key areas to provide assurance of Information Governance and overall compliance will include assurance that the following are in place:

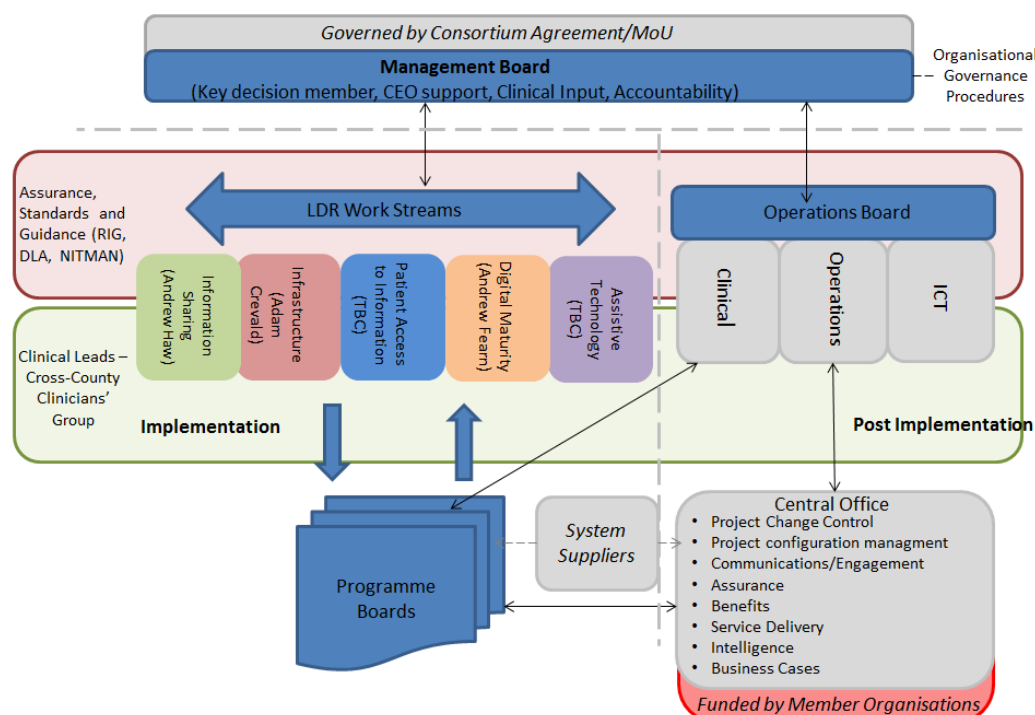
- Robust policies, systems and processes are embedded in any project or new development;
- The rights of patients and service users are respected at all times;
- Privacy impact assessments will be built into all new processes to ensure any privacy concerns are highlighted at project initiation stage (and where there is a significant change to an existing information system or process) and must be approved by one or more Caldicott Guardians and organisational SIROs;
- Risk assessments are carried out for all projects which will balance identified IG risks against the introduction of any new risks associated with the cessation of existing processes;
- The confidentiality, integrity and accessibility of data is not compromised;
- Developments and projects are delivered in accordance with the Information Governance framework and standards as set out in the Information Governance Toolkit or equivalent standard (including but not limited to risk assessment processes, access controls and business continuity);
- Equality Impact Assessments and Quality Impact Assessments will be completed as required for all new pieces of work;
- The vision is delivered in line with the joint health and social agenda and involvement with wider stakeholder and partners;
- Compliance with national, regulatory and local best practice and guidance;
- There is close working with the nominated informatics provider.

During 2018 the RIG will review and provide assurances that previous guidance, policy and principles issued are still compliant under the General Data Protection Regulations (GDPR) regime, The National Data Guardian Review recommendations and are aligned to any national and regulatory guidance issued.

Further work will be undertaken in relation to cyber security by NHIS and monitored through the IGM&T Committee to ensure that the Cyber security standards are aligned with the National Data Guardian for Health and Care Review of Data Security, Consent and Opt-Outs 2016 and there is a local Cyber Security Strategy and Framework across Nottinghamshire.

## Governance

Delivery of the strategic aims will be overseen by the IGM&T/ IT Management Board and CCG Governing Bodies. Regular updates will be presented to these groups from the Connected Nottinghamshire Board which will help to direct the implementation of the strategy and ensure successful delivery. The CCG Chief Officers and Health and Well Being Boards will sign off plans on an annual basis and ensure co-operation across organisational boundaries of health and care organisations.



## Resources

In order to deliver these strategic aims significant resources will be required in order to deliver against the ambitions of the STP and LDR. Some of these resources are already in place however there will be a need for additional resources in order to support digital transformation including resources to support the five work streams of the LDR to enable delivery at the pace and scale required. It is vital that clinical leadership is in place to support each IGM&T initiative (with representation from all CCGs). These will be transitional resources and will vary over time. Resource requirements will be identified within the Local Digital Roadmap plans on an annual basis and will indicate where funding is available and where there is a shortfall. Where there are shortfalls the CCG and STP will co-ordinate efforts to access funds to support these requirements.

## Finance

It is acknowledged that health and care organisations are working in an increasingly challenging financial environment, cost savings and efficiencies are affecting the NHS and Local Authorities across the whole health and care economy.

Nottinghamshire has been agile in the use of local and national funding to make best use of support wherever it might come from and whatever the form it may be in (capital or revenue). This has helped Nottinghamshire move forward as it has. With the necessary change in pace required to support the STP changes and new care models it is clear that additional “stimulus” funding is required. To support delivery of this strategy and drive efficiencies there is a requirement for new funding and innovative use of existing funding for both Capital and Revenue investment. Where possible joint procurements will be utilised through the use of the Midlands Accord, procuring systems and solutions exploiting scales of economy in order to reduce the financial burden on individual organisations and maximise cost savings.

It is anticipated that applications for funding will be submitted against a number of national, regional and local finance schemes. These include but are not limited to; GP Information Technology fund, Primary Care Transformation Fund, Local Digital Roadmap/National Technology Fund, Developing Digital Maturity Fund, Vanguard support, Better Care Fund Pioneer scheme, Care Act Trailblazer scheme, Primary Care Access fund, Academic Health Science Network funding and other opportunities as they arise.

As part of the controls for each project, identification of finance and controls on expenditure will be managed by the project lead and reported to the appropriate programme board or IGM&T meeting. In addition to this each project will have a benefits evaluation, including return on investment and value for money calculation (where appropriate). These controls will provide assurance to each project board attributed to the individual CCG area.

With national policy changing to move more responsibility for IGM&T to the CCGs it is recognised that additional financial pressure will need to be considered. The Health and Social Care Network (HSCN) and GP Public Wifi projects are examples of projects that have to be implemented but that only have limited financial support (two years). This approach must be balanced against limited revenue locally. In order to ensure IM&T projects are affordable and linked to transformation and improvement locally projects will be prioritised annually with CCGs.

Connected Nottinghamshire will lead on the development of financial plans and bids (where appropriate) in order to obtain funding to support the ambitions of this strategy. Annually a finance plan will be produced to demonstrate affordability of the IGM&T initiatives. As part of this work Nottinghamshire will explore the approach across organisations (primary care, secondary care, social care) to centralised procurement (locally or through the Midlands Accord) to strengthen activities in areas such as: IT service estate, infrastructure, service desk support, service management and change management. This approach will create an overall benefit through ‘economies of scale’ which in turn will help reduce the finance and efficiency gap.

### **Midlands Accord:**

In order to support the digital agenda on a larger scale Nottinghamshire has been working with other LDR footprints across the midlands which have enabled the development of the ‘Midlands Accord’. The Midlands Accord is a concept of a co-operative across the health and care community spanning the whole of the midlands geographical area, with an aspirational goal of a mature digital economy across health and social care in order to reduce the inefficiencies and improve patient experience. By developing how interactions occur across this wider integrated footprint, it will assist organisations where there are cross boundary implications and those organisations who work across multiple local footprints. It aims to harness the collective power of scarce resources and expertise and allow greater influence in the direction of development for national assets.

### **Conclusion**

Whilst it is recognised that there is an increasing financial burden on health and care organisations, by being innovative in how current and new technologies are utilised efficiencies can be driven not only in primary care and commissioning but in within the wider health and care economy.

Supporting the ambitions of strategic plans through the STP and LDR, the CCGs will deliver digital solutions to enable; The Right Information, To be available at the Right Place, For the Right Person, To make the Right Decisions, At the Right Time Always which will support a reduction in the Health and Wellbeing, Care and Quality and Finance and Efficiency gap across Nottinghamshire.

In the delivery of this strategy the CCG will improve communication across health and care providers by integrating services to reduce duplication and errors and make health and care more holistic. The CCGs will promote the right culture that places the patient at the heart of everything that they do, which will encourage innovation and transformation.

Although Nottinghamshire has made significant progress across all health and care providers and commissioners in improving information sharing and infrastructure to support transformation in the last three years, further delivery of change must be performed at pace if clinical benefits are to be realised, and, the improvement in quality and patient experience felt by members of the public. To operate at this pace the CCGs will need to act decisively and support their IT service provider and other Nottinghamshire health and care providers. There is a desire and willingness to work together across organisational boundaries with mature governance arrangements in place but it is recognised that some (change and benefits management) will need further development to cope with the change of scale and pace required to ensure the key deliverables and milestones identified within this strategy can be met.

## Appendix A: Current position of the delivery work streams

### Information sharing

Information sharing between organisations across health and care and third sector is fundamental to deliver an integrated way of working and ambitions of the five year forward

view. Information should be recorded once at first contact then shared securely between care providers in order to improve efficiencies and patient care. Nationally defined standards will allow information to move freely between services and organisations in the local health community with data sharing remaining confidential, safe and secure and improve public confidence in local services and in the information itself.

The CCG, in agreement with other organisations has successfully rolled out Phase 2 of Interoperability Gateways (MIG) and the first phase of the Nottinghamshire Health and Care Portal, which will allow data from GP Practices operating different clinical system to be viewed by appropriately authorised staff, (which have a 'legitimate relationship' with the patient), in other agencies such as emergency departments, community and social care whilst also ensuring data can flow back to these care providers enabling them to make better, informed decisions about care.

The Medical Interoperability Gateway (MIG) has been rolled out across Nottingham to support information sharing across Out of Hours, Secondary Care, Community Services, GP Federation(s) and Mental Health Services using the Detail Care Record data set plus an additional End of Life care dataset bought in line through the Electronic Palliative Care Co-ordination System (EPaCCS) available to all primary and community care providers as well a number of third party care providers across Nottinghamshire that have access to TPP SystmOne GP and Community Records with benefits evaluated during 17/18 for future improvements.

The majority of Community Care providers use TPP S1 eDSM and MIG to support shared records access and GP records now provide 97% availability across Nottinghamshire.

With greater collaborative working across silos of care, shared access to all direct care information is essential. For this reason technology referred to as "Portal" technology is required. Nottinghamshire made a decision to support the provision of this service by Nottingham University Hospitals using the CareCentric set of technologies. From 2017-2020 this forms the main information exchange for sharing of direct care information across Nottinghamshire health and care providers.

The Graphnet CareCentric Portal has been adopted as Connected Nottinghamshire's Strategic Solution for a Community Portal; the initial phase is complete which allows interoperability across primary care, secondary care and social care settings.

Private healthcare providers are engaged within the local Connected Nottinghamshire Programme and dialogue on going in relation to their requirements and input. Both Ramsey Hospitals and BMI Hospitals are working toward national targets as part of the NIB roadmap and are aware of Nottinghamshire's plans for information sharing and integration.

SCR has been fully uploaded to the National Spine from GP systems across Nottinghamshire since 2015. Following a parallel project in the middle of 2015 to improve GP record sharing (via the Enhanced Data Sharing Model eDSM) as of February 2017 Nottinghamshire now have approximately 97% of patient records available to be viewed via eDSM and/or MIG.

The GP Repository for Clinical Care (GPRCC) has been developed to support risk stratification, identify gaps in care and help care co-ordination providing a new centralised repository that allows an agreed set of data to flow from GP systems, community systems, mental health and acute provider systems. The user facing platform of this repository is called e-Healthscope and used to support integrated working across Multi-Disciplinary Teams with care planning and areas such as clinical audit/outcomes.



In order to support GP practice MDT meetings and Local Area Teams providing care for patients; the data of elderly patients receiving a social care service flows into the e-Healthscope system thereby providing a more holistic view of both health and social care services these elderly patients are in receipt of, and, if they are still living at home or in a care home.

The GP Repository for Clinical Care (GPRCC & e-Healthscope) project is now in phase 3 of deployment with this third phase changing the focus to consider additional clinical use cases and wider audiences.

## Infrastructure

The CCGs were given delegated responsibility for GP IT Systems and infrastructure, clinical systems, IT support and maintenance, networking, information governance support for primary care, software licences and hardware management which allows the direct influence of the Primary Care systems.

The CCGs hold a Service Level Agreement (SLA) between their informatics service provider and the GP Practices. This SLA identifies and details all the elements necessary to maintain IT services. It provides a framework for the provision of specified services including operational support, desktop support, network support, application support, programme management and business change, training and telecommunications, where locally agreed and funded. The CCGs will continue to review this service against national guidance within the GP IT operating model to ensure value for money in GP IT investment.

GP Systems of Choice (GPSoC) provides practices with a choice of systems from GPSoC Framework suppliers in line with the requirements of the GMS contractual agreement. NHS Digital is in the early stages of designing a new GP IT delivery model to succeed the current GPSoC framework that expires in 2018. The new model aims to facilitate the more effective delivery of GP IT.

Cyber security remains an important consideration in all technology enabled projects. Nottinghamshire adopt robust processes in data security and IT security. The UK Government 10 Steps to Cyber Security is used as a tool to assess readiness and compliance with best practice. The CCGs have achieved an acceptable level of IG toolkit compliance (including partners) and several pieces of additional assurance work have taken place, relating to shared information tools, in the last 12 months. Nottinghamshire is also engaged with accredited independent third party suppliers to conduct exercises such as PEN/Vulnerability testing when delivering or changing technical infrastructure and Privacy and Security Impact Assessments are undertaken on new technology implementations. The layered approach to security is embedded within all providers with; endpoint, network and perimeter security deployed across the range of services. All of these embedded processes ensure Nottinghamshire is well placed to work to ensure NHS Digital and UK Government requirements are met.

Nottinghamshire wish to remain agile in their approach to integration and interoperability with a developing and emerging market place for these technologies. It is recognised that it is important to make use of the best available technology whilst not becoming tied into anyone system long term. This approach should drive value for money, ensure greatest return on investment and support competition between suppliers.

Secondary care providers have made good progress in replacing their key patient administration systems. Both acute secondary care providers have delivered systems to support electronic observations and have developed early plans to support the move to

digitalisation. Both local providers are part of the East Midlands Radiology Consortium (EMRAD) and will be sharing the Picture Archiving and Communication System (PACS) solution offered as a service through Nottingham University Hospitals.

Nottingham City Council have now successfully replaced their IT system with Liquid Logic and have plans to interoperate with health care systems and Nottinghamshire County Council have additional interfaces added to their information system to allow messages and information to flow bi-directionally.

Community providers continue to improve the use of mobile working with support from the nurse technology fund in 2015; this now means that most community clinicians have remote access to patient records when at the patient's side regardless of the location. Through the use of TPP SystmOne further developments in the use of shared records with primary care have been achieved. With the advent of care coordination teams' community providers have implemented a range of interim solutions in order to gain access to wider health and social care records.

In addition Nottinghamshire County Council has made great progress in mobilisation of their workforce with 1,600 tablet devices now deployed to front line social care staff. This solution enables social care staff to have the right information at the point of service delivery and has been achieved through the implementation of TotalMobile. This product forms part of the Council's "integration platform" which supports the message exchange between health and social care to support discharge planning and reduction of Delayed Transfers of Care.

Nottinghamshire Healthcare NHS Foundation Trust provides mental health services across Nottinghamshire and wider. They have Rio7 as their primary information system but also use eCPA (document management) and PCMIS to access patient information. They have also made progress on the implementation of technology to support mobile access to records with the implementation of a local portal product with Viper360 which also has MIG viewing capability embedded to better support clinical staff building on their Ensemble integration engine with a connection into CareCentric to further support patient care.

## Improving Citizen Access to Information and Care Records

A vital part of our approach is to digitally enable citizens: using health and care IT to help the public use technology to support their health and wellbeing choices, and enable self-care.

Nottinghamshire CCGs have successfully rolled out a number of national programmes such as the Summary Care Record, Electronic Prescription Service, GP2GP, and Patient Online. All promote and support the greater use of digital technologies in primary care and underpin integrated care within our IGM&T strategy.

Back in March 2016 the GP contract stipulated that GP Practices are required to provide patients with a view of their coded data from within the clinical system. Practices were tasked to ensure their information is up to date and accurate ensuring records of medication, allergies and adverse reactions from the patients GP records are recorded onto the national spine. This can then be accessed in the appropriate clinical settings with the appropriate access rights and with patient consent to support clinical care.

All GP Practices within Nottinghamshire offer patients the option to book appointments and order repeat prescriptions online through SystmOne or EMIS patient access. CCGs will encourage practices to promote this service to their patients.

## Digital Maturity



Nottingham IT Managers (NITMAN) is an infrastructure group whose members span across health, social care, provider organisations and third sector partners. The objectives of this group is to, where possible, align organisations strategically across areas such as unified communications, system authentication, Wi-Fi and mobile working at all sites across Nottinghamshire.

Nottingham City Council and Nottinghamshire County Council have made good progress with the matching of social and health care records using the NHS number as the key identifier with now over 90% of NHS numbers now known, this supports the integration of health and social care data across Nottinghamshire health and social care providers.

The enhanced data sharing model (eDSM) is the data sharing model that has been introduced for TPP SystmOne sites which enables the safe sharing of patient information to support patient care on a consent basis. All practices live with TPP SystmOne have access to this data sharing function and are supported by the development of a local Consent Model and policy guidance developed by the Nottinghamshire Health and Social Care Records and Information Group (RIG). Patient records in SystmOne practices are available to be viewed via systems such as the Medical Interoperability Gateway (MIG) by clinicians in urgent and emergency settings thereby greatly improving the speed of informed decisions and better patient experiences and outcomes.

Nottingham City Council built the requirement for integration into the procurement process ensuring that their system will interoperate with health systems to support digital transfers of care and both local Authorities have taken part in the Local Government Associations Digital Maturity Assessment and findings from this will influence priority areas moving forward.

## Assistive Technology

The CCGs have their transformation strategies embedded within the STP for the life of this strategy, with a number of vanguard projects delivered across Nottinghamshire. These transformational programmes recognised there is a shift from secondary care to primary and community care delivery and a need to keep more citizens, supported and healthy in their own home. IGM&T is crucial in providing the tools to assist in the delivery of effective health and care services and enable the delivery of seamless, accessible care, improved outcomes, reduce inequalities and improve quality and capacity in the local health and care economy.

Several pieces of work are underway that use technology to support care delivered outside of traditional care settings and that support self-care by patient/citizens. Nottinghamshire has a number of projects underway utilising TeleCare devices in patient's homes in the Greater Nottingham area which include self-care applications and a Tele-dermatology service. Alongside this another initiative using 'Flo' (which is a text messaging 'Telehealth' service to patients) is used widely in the Mid Nottinghamshire area is supporting key cohorts of patient such as those with early heart failure and COPD diagnosis. Benefits from these systems include: reduced nurse home visits information, supporting avoidable hospital admissions, reminder of appointments, reminders for medications and also a 'how do you feel today' questionnaire supporting mental health conditions assessment. In addition to Telehealth local authorities have made significant progressing in Tele-monitoring to support people living at home longer along with Tele-consultation pilots now in place to improve the care of patients in Care Homes and support the Care Homes Vanguard work.

NHS England's National Technology Enabled Care Services TECS implementation group meeting (September 2015) reported that the national TECS work plan is being reshaped to align with the National Information Board work streams so that it is a more unified strategy which will have political support, funding and resources. The LDR will provide a plan that

includes how organisations are moving along the digital maturity of TECS. Support will be available from the East Midlands Academic Health Science Network (EMAHSN).

Across Nottinghamshire there is variable uptake on the use of Tele-care and Tele-health services within services across health and social care. The LDR will support further spread and adoption of services deemed most appropriate and cost effective with evidence on patient outcomes required.

The implementation of Florence Simple Tele-health (FLO STH) has been commissioned by the Nottinghamshire Clinical Congress (six CCGs) since 2012. The Nottinghamshire Assistive Technology Team (NATT) programme has contributed significantly to the Quality Innovation Productivity and Prevention (QIPP) agenda, including the integration of health and social care services across provider organisations. Over 2400 patients have now utilised FLO STH across Nottinghamshire and alongside publications, two evaluation reports have been commissioned and findings shared. The NATT service has been an operational service since April 2015, continuing on the growth and success of the number of patients utilising FLO STH since the inception as a project in 2012. The FLO STH service is currently being utilised across care settings and pathways such as:

- Hypertension Management
- Heart Failure
- COPD
- Diabetes
- Asthma
- Ascites Management
- Medication optimisation and compliance

There are over 140 different local protocols in use across primary, acute, community, mental health and social services.

## Appendix B: Glossary

<b>Community of Interest Network (CoIN)</b>	Connects together multiple Trusts to network their services more efficiently.
<b>Comprehensive Geriatric Assessment (CGA)</b>	A multidimensional and usually interdisciplinary diagnostic process designed to determine a frail older person's medical conditions, mental health, functional capacity and social circumstances.
<b>Nottinghamshire Health and Care Portal</b>	A proposed tool that will give a detailed view of care provided to individuals from multiple care settings in Nottinghamshire to assist in the specific, direct delivery of clinical and social care.

<b>Desktop on Demand</b>	Provides a user with access to their desktop interface from any device and from any network.
<b>East Midlands Radiology (EMRAD)</b>	Is a consortium of seven NHS trusts within the East Midlands working together, hosted by Nottingham University Hospitals NHS Trust. Together they aim to create a clinical network, providing timely and expert radiology care for patients across the East Midlands regardless of their location, which will be seen as a national benchmark for new models of clinical collaboration within NHS radiology services.
<b>E-consultations</b>	Consultations between patient and Clinician other than face to face via the use of technology, email, audio visual, or telephone.
<b>eDSM</b>	Is the enhanced data sharing model that has been introduced for TPP SystmOne sites which enables the safe sharing of patient information to support patient care on a consent basis.
<b>Electronic Prescription Service (EPRS Release 2)</b>	Enables prescribers, such as GPs and practice nurses, to send prescriptions electronically to a dispenser (such as a pharmacy) of the patient's choice.
<b>GP2GP</b>	Enables patients' electronic health records to be transferred directly and securely between GP practices that use different clinical systems.
<b>GP Access</b>	The system which allows GPs to view certain hospital information including discharge letters from certain NUH services, and allows booking of x-rays.
<b>GP Systems of Choice (GPSoc)</b>	Provides practices with a choice of systems from GPSoc Framework suppliers in line with the requirements of the GMS contractual agreement.
<b>GDPR</b>	General Data Protection Regulations – legislation which governs the protection of data and privacy rights of individuals
<b>Interoperability</b>	The capacity for different computer systems to 'talk to each other'. It is a key theme in published policy documents, including the NHS Future Forum report 'The Power of Information'
<b>Medical Interoperability Gateway (MIG)</b>	Allows access to care data from GP practices operating either clinical system. This can then be viewed through a number of ways including full integration with the GP system and through a web browser.
<b>Missed appointment management system</b>	Tools or functions in place to better manage missed appointments such as text appointment reminders and email reminders.
<b>Mobile working</b>	The ability to work anywhere and at any time to access and update information from a supported mobile device.
<b>NotIS</b>	An internal NUH system which has been developed into a clinical portal which allows GPs to view certain hospital information including discharge summaries.
<b>Online appointment booking/repeat prescriptions</b>	Remote online access to a GPs appointment system enabling patients to book appointments and/or order repeat prescriptions
<b>Patient access to GP records</b>	Will allow patients to view their own GP records online.
<b>Portal</b>	Brings a range of health indicators together in one place. Providing quick and easy access to hundreds of indicators, it's a valuable information resource for all health and social care professionals.
<b>Primary and acute care systems (PACS)</b>	A whole system integration of primary, community, secondary, mental health, social and third party sector services provision new models of care.
<b>Privacy Officer</b>	When GP practices are able to view SCRs for patients that are not

<b>(Summary Records)</b>	<b>Care</b>	fully registered as part of delivering care; a local privacy officer will need to be in place to ensure there is a mechanism for monitoring SCR accesses by that organisation and that those accesses are legitimate.
<b>Section 2 request</b>		A Section 2 Notification is a request by hospital ward staff for an assessment of a patient where it appears that he or she may need social care services when discharged from hospital.
<b>Section 5 Notification</b>		A Section 5 Notification is notification by hospital ward staff that a patient who will require social care support services is medically ready for discharge from hospital.
<b>SNOMED CT</b>		A standardised, multilingual vocabulary of terms relating to the care of the individual and enables the representation of care information consistently, reliably and comprehensively as an integral part of the electronic care record. The use of SNOMED coding will support the recording of information to enable decision support such as care pathway management and drug alerts to support care of individuals and of populations.
<b>Summary Records (SCR)</b>	<b>Care</b>	Provide healthcare staff treating patients in an emergency or out-of-hours with faster access to key clinical information about their medication and allergies.
<b>Sunquest ICE</b>		Provides the ability to request tests electronically, receive results electronically including other results for that patient requested elsewhere.
<b>Tele-care</b>		Support and assistance provided at a distance using information and communication technology.
<b>Tele-health</b>		The remote monitoring of patients' vital signs, usually as part of a treatment plan for a long term condition.

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