

Reference: FOI.ICB-2324/034

Subject: Digital

I can confirm that the ICB does hold some of the information requested; please see responses below:

QUESTION	RESPONSE
<p>SHARED CARE RECORD</p> <ol style="list-style-type: none"> 1. Does the ICB have a single Shared Care Record (SCR)? 2. What is the software solution for the SCR? Please provide the product name (rather than the colloquial name) and the supplier. Where more than one product is used to deliver a shared care record, please include all software used. 3. What is the term (length) of the shared care record contract for each software product used? 4. When do the current contracts end for the software used to deliver the shared care record? 5. Where multiple products are used to deliver a SCR, is there a plan to use a single system in the future? 6. Does the ICB plan to implement a new SCR solution in the next 5 years, either as a replacement to the current solution or as a new capability? 	<ol style="list-style-type: none"> 1. Yes 2. Clinical Portal - Orion Health 3. Contract Term was 1+5+1+1years. This was extended via a contract variation notice and a Procurement Intention Notice (PIN) by a further 2 years. So total 1+5+1+1+2 years 4. Contract expires November 2024. A PIN has been published 5. There is only one product to deliver the Shared Care Record. It is made of a technology stack provided by Orion Health 6. Yes. Current contract expires November 2024.
<p>PATIENT CONTACT MANAGEMENT</p> <ol style="list-style-type: none"> 1. Does the ICB utilise Customer Relationship Management (CRM) software for managing and tracking patient contact throughout a patient's care lifecycle? 	<ol style="list-style-type: none"> 1. No 2. No 3. No 4. No 5. No 6. No

<ol style="list-style-type: none"> 2. What is the software solution for the CRM? Please provide the product name (rather than the colloquial name) and the supplier. Where more than one product is used to deliver a CRM capability, please include all software used. 3. What is the term (length) of the CRM contract for each software product used? 4. When do the current contracts end for the software used to deliver the CRM? 5. Where multiple products are used to deliver a CRM capability, is there a plan to use a single system in the future? 6. Does the ICB plan to implement a new CRM solution in the next 5 years, either as a replacement to the current solution or as a new capability? 7. If no CRM capability is currently in place and there is no plan to implement a CRM solution, how will the ICB deliver a holistic approach to patient contact across its sphere of influence? 	<ol style="list-style-type: none"> 7. No
<p>SOFTWARE INTEGRATION</p> <ol style="list-style-type: none"> 1. Can the ICB please provide the quantity of inbound and outbound interfaces to the Shared Care Record (SCR)? 2. Can the ICB please provide the detail of any guidelines and principles for interoperability when integrating to ICB-manged systems? 3. Can the ICB provide details of any planned future integrations into the ICB digital estate to increase either the quantity or sources of data received into the SCR or to deliver insight and capabilities for population health management. 	<ol style="list-style-type: none"> 1. There are 27 inbound and 6 outbound 2. For Shared Care Records the ICB follows the guidance from the NHS England Shared Care Record Team. The mandatory requirement is documented and is known as "MVS 1.0". Attached 3. There is a roadmap for the ICB's Shared Care Record. This includes data for: Physical Health Checks, ReSPECT+, Care Homes, and Childrens Mental Health. Funding has not currently been identified to take all of this work forward. A business plan for a shared data planning platform is in development that may support the ICB's existing PHM capability

RESOURCING

NOTE: For the purposes of answering the following questions, an 'internal' resource is defined as individuals employed directly by the ICB and 'external' resources means all other resources.

1. Can the ICB please provide an organogram of the ICB's technology team? Please include vacant posts. Where functions or positions are referenced, please identify the quantity of FTE within that function or position.
2. Can the ICB please provide details of the quantity of ICB FTE whose function is to develop and maintain system and data integrations between NHS and non-NHS organisations.
3. How does the ICB currently utilise both internal and external resources to deliver system to system integrations across its sphere of influence? Where external resources are used, please identify whether these are from other NHS organisations or commercial entities.
4. Can the ICB provide details of FTE who have been made redundant since the establishment of the ICB whose primary function was delivering an IT function or capability. Details to include:
 - The quantity of employees.
 - Job title.
5. Will the ICB require external resources to deliver its technology strategy in the following areas:
 - System Integration.
 - Analytics.
 - Application development.

1. Enclosed - Please note that FOI requests and responses are publicly available and therefore personal information has been redacted. The ICB considers the names included in the enclosed document(s) to be personal information and therefore has applied a section 40 (Personal Information) exemption to this information.
2. No ICB FTE positions provide this service
3. This is delivered on a case by case basis, when required. This may involve NHS or commercial services
4. None
5. To be confirmed

<p>STRATEGY & DIGITAL FUNDING REQUESTS</p> <p>NOTE: For the purposes of answering the following question, an 'internal' resource is defined as individuals employed directly by the ICB and 'external' resources means all other resources.</p> <ol style="list-style-type: none"> 1. Can the ICB provide a list of all known funding requests received by the ICB for digital projects. These should include all requests and not just those that have an approved business case. Please include the following detail in your response: <ul style="list-style-type: none"> • The funding request name • The known or estimated funding requirement for each request. • The financial year in which the request will draw down the funding. • Whether the activity required by the funding request will be delivered exclusively by internal resources. Where external resources are used, please identify whether these are from other NHS organisations or commercial entities. 2. Can the ICB please provide a copy of its digital strategy. 	<ol style="list-style-type: none"> 1. The ICB doesn't hold this information - We don't have a list of funding requests received by the ICB 2. Digital strategy enclosed
<p>SOFTWARE DEVELOPMENT</p> <p>NOTE: For the purposes of answering the following question, an 'internal' resource is defined as individuals employed directly by the ICB and 'external' resources means all other resources.</p> <ol style="list-style-type: none"> 1. How will the ICB deliver against its requirements for technology development? Examples of development would be mobile applications to support the patient 	<p>Decisions on resourcing technology development will be made on a case by case basis.</p>

<p>pathway or clinical decision support tools. Please include in your response whether the ICB will contain an in-house capability to deliver software developments and what the scope of that capability will be and whether external resources will also be sought.</p>	
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The information provided in this response is accurate as of 30 May 2023 and has been approved for release by Deborah El-Sayed, Director of Transformation and Chief Digital Information Officer for NHS Bristol, North Somerset and South Gloucestershire ICB.

Annex 1 – ShCR MVS 1.0a

The Minimum Viable Solution for Shared Care Records - MVS 1.0a - is defined as follows.

For the purposes of meeting the Phase 3 letter requirements, a “full shared care record” should be considered as follows:

Timing

For the purposes of planning time horizons the delivery of Shared Care Record MVS 1.0a is targeted at 30 September 2021

1 Participants

Ultimately, shared care records need to include all providers of health and social care in your area, including NHS-funded independent and voluntary sector providers, local authorities, care homes and home care agencies as well as citizens and/or their carers.

The initial focus of MVS 1.0a is on sharing for direct care, therefore you should plan on the basis of getting sharing arrangements in place for those organisations where you think it will deliver the most value quickly.

For MVS 1.0a the ***minimum*** requirement is for all NHS Trusts and general practices within an ICS footprint to be connected to a shared record solution.

This should also include social care wherever possible, but we recognise that this may not be possible where local social care organisations do not have sufficient digital maturity. To be clear, local systems should define the scope of their shared care record partners in accordance with local needs.

On an exceptional basis we will recognise that some Trusts may need to be included at a later stage as they currently lack the necessary digital maturity to connect to a shared care record.

2 Data

The [Core Information Standard](#) (PRSB, 2019) sets out the data that professionals and patients felt valuable to share. We expect that shared record solutions should be able to capture and share the “required” items as set out in the Core Information Standard. Note that “required” in this context means that if they are present then they should be shared. Again, if local areas wish to exceed the scope of data shared, this is perfectly acceptable.

Work has completed on a baseline audit of the state of local ICSs against the Core Information Standard.

Recognising the variable nature of this, we are not setting a “compliance target” for September 2021 but we expect to see evidence of local systems progressively increasing the amount of information as defined in the Core Information Standard that they make available for authorised users.

The Core Information Standard will undergo further revision in the light of experience and feedback but for September 2021 the reference point is Version 1.0a.

3 Functionality

Our immediate priority is to support direct care. Therefore as a **minimum** requirement frontline staff should not be required to log-on to separate information systems or portals in order to access the shared record or care plan. Read access to shared record data must be directly from their main operational system.

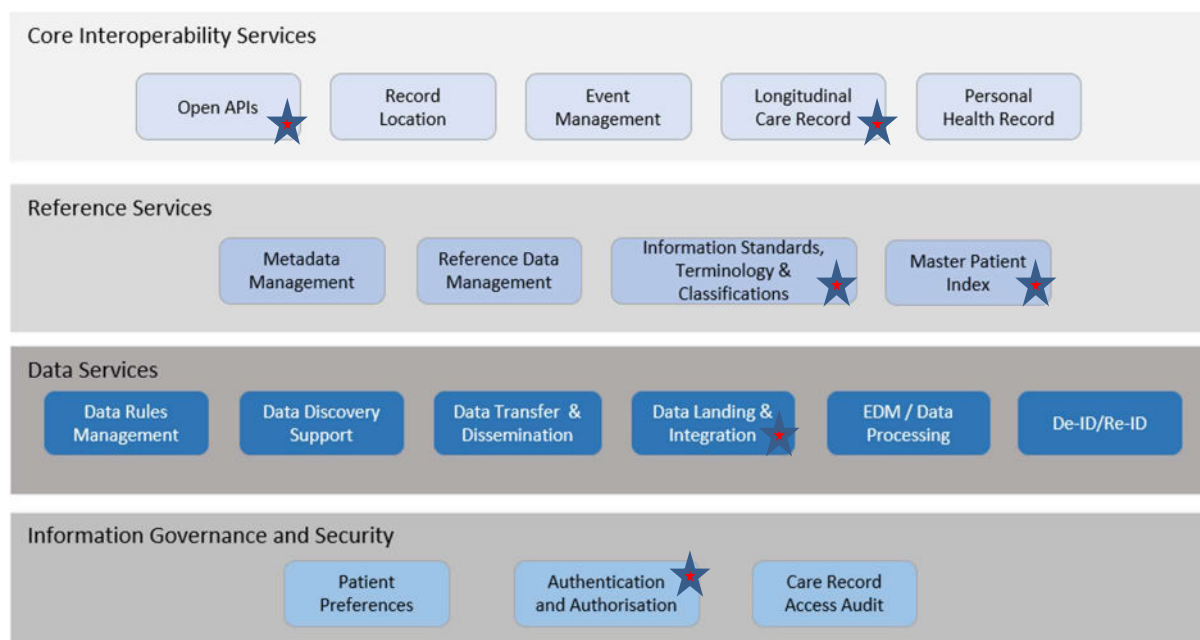
While the long-term goal is to exchange structured, computable data in a digital format, for September 2021 we are setting a **minimum** goal of being able to exchange unstructured data in formats such as HTML or PDF.

While focused on the support of direct care, the data captured in shared records will also be valuable for population health management, improvement and research. To support such uses, as a **minimum** requirement for September 2021, systems should ensure that data from the shared care record is capable of being extracted in a secure manner and of being de-identified in line with agreed standards.

Note that the minimum requirement is to ensure the capability. Any actual extraction must comply with all legal requirements.

4 Capabilities

Plans for local delivery of shared care records, by 30 September 2021, should be focused around delivery of core capabilities required to support direct care.



Latest versions of all capabilities can be found on the Architecture pages of NHS Futures at [https://future.nhs.uk/LHCRE Arch/view?objectId=13241168](https://future.nhs.uk/LHCRE_Arch/view?objectId=13241168).

5 Standards

It is essential that shared care records not only enable the sharing of information within STPs/ICs but also between them. For this reason we would expect plans for the MVS 1.0a to be aligned with the following:

- Adherence with core standards for record structures, terminology, messaging, and cyber security. Such standards are listed in Annex 1.
- Aligned with national and regional target technical architecture: engagement and compliance with the technical capabilities which define a range of architectural components which make up a shared care record service, integration with national components such as the National Record Locator, and publication of APIs to enable better access to information.
- Use of accredited “standards compliant” suppliers such as those on the [Health Systems Support Framework](#)

6 Metrics

There is a need to capture a basic set of metrics to understand the progress – direction and pace – that local systems are going.

This has been discussed with some local systems to ensure that metrics are meaningful and practical to collect.

In the immediate future – and in relation to the September 2021 milestone - we will look to measure

- Breadth – that is the number of partner organisations who have access to a shared care record. We will limit the denominator to NHS Trusts and the general practice elements of Primary Care Networks. We will subsequently review this in context of local authorities and social care providers as well as others.
- Numbers of authorised users with access
- Number of total views and unique user views

7 Future direction - 21/22 and beyond

As shared care records become more widely implemented, we will review our level of ambition, in line with the vision set out in the Long Term Plan, to describe the evolution from MVS 1.0a. This evolution to a MVS 2.0 may include aims for the connectivity of social care providers, the exchange of structured data and the inclusion of care plans.

In particular we know local areas will be keen to adapt and evolve their shared care records to enable population health management; research and innovation; enable citizens to take control of their records and contribute to care plans; drive up data quality; and capture a wider range of data. In response, we will continue to evolve our national support offers.

8 Summary

The Shared Care Record (ShCR) **Minimum** Viable Solution (MVS) 1.0a is defined as one which

1. Involves as a minimum all NHS Trusts and general practice elements of Primary Care

Shared Care Records Programme
Minimum Viable Solution : Version 1.0

Networks within an ICS footprint ^{1 2}.

2. Is capable of capturing and sharing as many of the “required” elements of the Core Information Standard as practical in a unstructured data format.
3. Enables authorised professionals to be able to access the shared record directly from within their primary clinical system ³.
4. Is in place by 30th September 2021.
5. Demonstrates delivery of the core capabilities set.
6. Provides for the extract of data in a secure manner and is being capable of being de-identified in line with agreed standards.
7. Adheres to national standards (see Annex 1).
8. Utilises products and services contained within the Health Systems Support Framework⁴ unless agreed otherwise.

¹ Some Trusts may not be sufficiently digitised by the MVS Target Date and may be excluded by exception.

² Acknowledging that some Trusts do not relate solely to one ICS e.g. Ambulance Trusts and Specialist Trusts

³ Dependent on ability of Trust vendors to be able to provide in-context links and so may be excluded by exception.

⁴ Local programmes receiving national funding are expected to use HSSF or agree the rationale for exception.

Annex 1 Standards

1 STANDARDS AND TECHNICAL REQUIREMENTS:

1.1 Standards include, but are not limited to:

- Information governance and security standards that make clear what data may be shared, for what purpose; and what protections are required to keep that data secure.
- Clinical standards enabling clinicians to safely exchange data with each other with a common understanding of the meaning of the data.
- Technical standards that will allow systems to talk reliably and securely with each other using common standards for data and transmission.
- Use of national services, such as the National Record Locator Service
- Implementation guidance standards.

2 INFORMATION STANDARDS NOTICES:

2.1 Solutions must comply with any Information Standards Notices published, from time to time, by the Data Coordination Board.

2.2 Further information is available online at: <https://digital.nhs.uk/data-and-information/information-standards/information-standards-and-data-collections-including-extractions/publications-and-notifications/information-standards-notices>.

3 CYBER SECURITY AND INFORMATION GOVERNANCE STANDARDS

- 3.1 Cyber Essentials Plus, as detailed by the National Cyber Security Centre: <https://www.cyberessentials.ncsc.gov.uk/> or higher levels of adherence to equivalent standards. Third party suppliers of solutions accredited on the 'scaling innovation' section of the Health Systems Support Framework shall, as a minimum, show accreditation of Cyber-Essentials, along with evidence of alignment to the Cyber-Essentials Plus principles. Where third party suppliers of solutions are able to evidence ISO27001 and ISO27002 certification this should also be supported by evidence of good practice technical controls (such as are defined in Cyber Essentials Plus). In all cases, the scope of the certification must be appropriate and cover all relevant areas of an organisation within an Integrated Care Systems.
- 3.2 The process, people and technology standards from the 10 Data and Cyber Security Standards, including the standards and Leadership Obligations as defined in the National Data Guardian's review of data security: <https://digital.nhs.uk/about-nhs-digital/our-work/nhs-digital-data-and-technology-standards/framework/beta---data-security-standards>
- 3.3 All organisations that have access to NHS patient data and systems must use the Data Security and Protection Toolkit (DSPT) to provide assurance that they are practicing good data security and that personal information is handled correctly.

- 3.4 Compliance with the Data Security and Protection Toolkit (DSPT). DSPT is an online self-assessment tool that allows organisations to measure their performance against the National Data Guardian’s 10 data security standards (detailed above): <https://www.dsptoolkit.nhs.uk/>
- 3.5 Where applicable, the solutions shall comply with the Protecting Bulk Personal Data principles and the 15 good practice measures for the protection of bulk data held by digital services, as detailed by the National Cyber Security Centre: <https://www.ncsc.gov.uk/collection/protecting-bulk-personal-data>
- 3.6 Where applicable, third party suppliers of solutions shall comply with the Cloud Security Guidance on how to configure, deploy and use cloud services securely. Including the details and context for the 14 Cloud Security Principles and technical implementation: <https://www.ncsc.gov.uk/collection/cloud-security?curPage=/collection/cloud-security/implementing-the-cloud-security-principles>
- 3.7 Solutions must comply with all of the standards listed in the ‘Local Health and Care Records – Information Governance Framework for Integrated Health and Care’.
- 3.8 Solutions must also align with the principles specified by the Information Governance Alliance (IGA) related to safe keeping patient information when:
- Using instant messaging in all clinical settings.
 - Using videoconferencing for patient consultations in all clinical settings.
 - Using mobile devices, cameras, mobile phones and tablets, in all clinical settings.
 - Using own smartphone or tablet device, including Bring Your Own Technology (BYOT) or Bring Your Own Devices (BYOD).
- 3.9 As detailed here: <https://www.nhs.uk/information-governance/>

4 INTEROPERABILITY STANDARDS

- 4.1 Solutions shall be required to publish the meta-data including data quality rules, processing rules, and data specifications information to support the Standards’ development. Until the emergent standard is approved for national use, solutions shall be required to map the data according to mapping rules and meta-data information published via the Authority. Where a Standard is to be changed or new or emergent standard is to be developed or introduced by the Authority, NHS England, NHS Digital or any other relevant organisation, the Authority will engage in relation to such change or new or emergent standard through a competent standards framework management organisation with the intention that the solution will be able, through such standards framework management organisation (such as INTEROPen (<http://www.interopen.org>) to comment and engage with the Authority and/or NHS England, NHS Digital or any other relevant organisation (as applicable) on the potential impact on the Supplier’ provision, or the Authority’s receipt, of the Deliverables.
- 4.2 Solutions shall operate in accordance with the interoperability standards set out below:
- NHS Number to be available at the point of care
 - SNOMED CT implemented across all settings of care, including National Pathology Test List.

- Dictionary of Medicines and Devices (dm+d) implemented across all venues of care
- Utilisation of GS1 standards for barcoding
- Utilisation of ICD10 for the classification of diseases
- Implementation of FHIR based specifications: when making documents or records available across care settings this should be done under Digital First Guidelines and implementing FHIR based specifications including generic Send/Receive message capabilities, Transfer of Care specifications, FHIR based Pathology messaging and CareConnect / GP Connect requirements where relevant
- Utilisation of Unified Codes for Units of Measure (UCUM) to represent all units of measures in clinical systems and across messaging products
- Staff and citizen facing identity services adopt use of FIDO and related public key-based specifications
- Staff and patient facing service applications support OpenID Connect for single-sign-on and enable NHS Login, compliant with identity verification and authentication standards for digital health and care services
- Open APIs for access to clinical services and patient records support OAuth2
- Telehealth Interoperability - Interoperability Standard, Telehealth - Standards for telehealth interoperability
- Telecare Device Communication - Interoperability Standard, Telecare, Telehealth - Standards for inter-device communication
- European Health Insurance Card (EHIC) Spine - Data Collection Interoperability Standard, Patient Information Maintenance - Introduce changes to GP Solutions that enable capture of supplementary GMS1 form fields, such as EHIC card numbers and send the information onto the Spine on a routine basis.

5 TECHNOLOGY AND DIGITAL SERVICES PRACTICE

- 5.1 Solutions shall (when designing, implementing and delivering the Deliverables) adopt the applicable elements of HM Government's Technology Code of Practice as documented at <https://www.gov.uk/government/publications/technology-code-of-practice>

6 INFORMATION STANDARDS COMPLIANCE

- 6.1 Solutions shall at all times comply with the NHS Information Standards to the extent that such standards are relevant. The NHS Information Standards are documented online at <https://digital.nhs.uk/data-and-information/information-standards> as updated from time to time.
- 6.2 Where relevant solutions shall ensure that they comply with the NHS Clinical Information Standards at <https://digital.nhs.uk/about-nhs-digital/our-work/nhs-digital-data-and-technology-standards/clinical-information-standards> to ensure that information about the health and care of individuals can be securely shared and compared across the health care sector.

9 DIGITAL, DATA AND TECHNOLOGY STANDARDS

- 6.3 Solutions shall at all times comply with the NHS Digital, Data and Technology Standards as outlined online at <https://digital.nhs.uk/about-nhs-digital/our-work/nhs-digital-data-and-technology-standards>
- 6.4 Solutions need to be prepared to comply with current and future versions of the NHS Digital, Data and Technology Framework, also documented online at the website listed in clause above.
- 6.5 Solutions shall comply with the NHSX Standards Framework within a reasonable timeframe following publication of such requirements.

10 OPEN DATA STANDARDS & STANDARDS HUB

- 6.6 Solutions shall comply to the extent within their control with UK Government's Open Standards Principles as documented at <https://www.gov.uk/government/publications/open-standards-principles/> as they relate to the specification of standards for software interoperability, data and document formats in the IT Environment.
- 6.7 Solutions shall ensure that all documentation published is provided in a non-proprietary format (such as PDF or Open Document Format (ISO 26300 or equivalent)).
- 6.8 Solutions shall ensure that all documentation describing the data sourced or utilised within the IT Environment, including but not limited to meta-data including data specifications, data quality rules, and processing rules are published and updated regularly to promote bottom-up standards creation process. Solutions shall also ensure the consistent mapping to national or emergent standards during the standards development phase which will be published on the Standards Hub.

7 TECHNOLOGY ARCHITECTURE & INTERNET FIRST STANDARDS

- 7.1 Solutions shall produce full and detailed technical architecture documentation for all relevant elements in accordance with Good Industry Practice. Documentation produced in compliance with TOGAF 9.1 or its equivalent shall be deemed to have been produced in accordance with Good Industry Practice.
- 7.2 Solutions shall adhere to the NHS Internet First policy, that states all new digital services should operate over the internet. Existing services should also be updated to do the same at the earliest opportunity and ideally by March 2021:
<https://digital.nhs.uk/services/internet-first>

11 ACCESSIBLE DIGITAL STANDARDS

- 7.3 Solutions shall comply with (or with equivalents to):
- the World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI) Web Content Accessibility Guidelines (WCAG) 2.0 Conformance Level AA; and
 - ISO/IEC 13066-1: 2011 Information Technology – Interoperability with assistive technology (AT) – Part 1: Requirements and recommendations for interoperability.

8 SERVICE MANAGEMENT SOFTWARE & STANDARDS

- 8.1 Solutions shall reference relevant industry and HM Government standards and best practice guidelines, including the following and/or their equivalents:
- ITIL v3 2011, ITIL v4 with 12 months of release or equivalent;
 - ISO/IEC 20000-1 2011 “ITSM Specification for Service Management”;
 - ISO/IEC 20000-2 2012 “ITSM Code of Practice for Service Management”;
 - ISO 10007 “Quality management systems – Guidelines for configuration management”; and
 - BS25999-1:2006 “Code of Practice for Business Continuity Management” and ISO/IEC 27031:2011, ISO 22301 and ISO/IEC 24762:2008 in the provision of “IT Service Continuity Strategy” or “Disaster Recovery” plans.
- 8.2 Solutions shall make use of software that complies with Good Industry Practice including availability, change, incident, knowledge, problem, release and deployment, request fulfilment, service asset and configuration, service catalogue, service level and service portfolio management. If such software has been assessed under the ITIL Software Scheme as being compliant to “Bronze Level”, then this shall be deemed acceptable.

9 ENVIRONMENTAL STANDARDS

- 9.1 Third party suppliers of solutions should warrant that they have obtained ISO 14001 (or equivalent) certification for their environmental management and shall comply with and maintain certification requirements throughout the Term. Third party suppliers of solutions shall follow a sound environmental management policy, ensuring that any products are procured, produced, packaged, delivered, and are capable of being used and ultimately disposed of in ways appropriate to such standard.
- 9.2 Third party suppliers of solutions shall comply with relevant obligations under the Waste Electrical and Electronic Equipment Regulations 2006 in compliance with Directive 2002/96/EC and subsequent replacements (including those in compliance with Directive 2012/19/EU).
- 9.3 Third party suppliers of solutions shall (when designing, procuring, implementing and delivering the Deliverables) ensure compliance with Article 6 and Annex III of the Energy Efficiency Directive 2012/27/EU and subsequent replacements.
- 9.4 Third party suppliers of solutions shall comply with the EU Code of Conduct on Data Centres’ Energy Efficiency. Third party suppliers of solutions shall ensure that any data centre used in delivering the Deliverables are registered as a participant under such Code of Conduct.
- 9.5 The Supplier shall comply with the Authority and HM Government’s objectives to reduce waste and meet the aims of the Greening Government: IT strategy contained in the document “Greening Government: ICT Strategy issue (March 2011)” at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/155098/greening-government-ict-strategy.pdf

10 IT HARDWARE SAFETY STANDARDS

- 10.1 Solutions shall comply with those BS or other relevant standards including the following or their equivalents:
- any new IT Hardware (including printers), shall conform to BS EN 60950-1:2006+A12:2011 or subsequent replacements. In considering where to site any such IT Hardware, solutions shall consider the future working user environment and shall position the IT Hardware sympathetically, wherever possible;
 - any new audio, video and similar electronic apparatus required for the delivery of the Deliverables shall conform to Standard: BS EN60065:2002+A12:2011 or any subsequent replacements;
 - any new laser printers or scanners using lasers, required for the delivery of the Deliverables, shall conform to either of the following Standards: BS EN 60825-1:2007 or any subsequent replacements; and
 - any new apparatus for connection to any telecommunication network, and required for the delivery of the Deliverables shall conform to Standard: BS EN 41003:2009 or any subsequent replacements.
- 10.2 Where required to do so, the third party suppliers of solutions shall perform electrical safety checks in relation to all Equipment supplied in accordance with the relevant health and safety regulations.

12 STANDARDS FOR PROVIDERS OF ONLINE SERVICES

- 10.3 Third party suppliers of solutions shall, where applicable, comply with the standards and guidance set out in the joint letter from the regulators to providers of online primary care services dated 24 August 2017, which may be accessed at:
http://www.cqc.org.uk/sites/default/files/20170824_joint_letter_providers_online_primary_care.pdf
- 10.4 Where services fall within the scope of the Digital Assessment Questionnaire (DAQ) third party suppliers of solutions must commit to completing the DAQ process:
<https://digital.nhs.uk/services/nhs-apps-library/guidance-for-health-app-developers-commissioners-and-assessors/how-we-assess-health-apps-and-digital-tools>

13 STANDARDS FOR MACHINE LEARNING, ARTIFICIAL & AUGMENTED INTELLIGENCE

- 10.5 Solutions shall, where applicable, comply with the principles of the Department of Health & Social Care Code of Conduct for data-driven health and care technology dated February 2019, which may be accessed at <https://www.gov.uk/government/publications/code-of-conduct-for-data-driven-health-and-care-technology/initial-code-of-conduct-for-data-driven-health-and-care-technology>. Third party suppliers of solutions shall:
- Understand users, their needs and the context;
 - Define the outcome and how the technology will contribute to it;
 - Use data that is in line with appropriate guidelines for the purpose for which it is being used;

- Be fair, transparent and accountable about what data is being used;
- Make use of open standards;
- Be transparent about the limitations of the data used and algorithms deployed;
- Show what type of algorithm is being developed or deployed, the ethical examination of how the data is used, how its performance will be validated and how it will be integrated into health and care provision;
- Generate evidence of effectiveness for the intended use and value for money;
- Make security integral to the design (keep systems safe by safeguarding data and integrating appropriate levels of security); and
- Define the commercial strategy (within the existing Intellectual Property principles of HSSF).

10.6 Guidelines and standards supporting

- The empowerment of buyers in the public sector, to evaluate suppliers, confidently and responsibly procure and implement AI technologies for the benefit of citizens.
- AI Standards as set in the Data Ethics Framework, which outlines principles to guide the design of appropriate data use in the public sector. Developing AI systems in-house should refer to the guide to using Artificial Intelligence in the Public Sector:
<https://www.gov.uk/government/publications/draft-guidelines-for-ai-procurement/draft-guidelines-for-ai-procurement>
- All technology projects and programmes should follow the Technology Code of Practice detailed above.

11 STANDARDS SPECIFIED BY THE MHRA

- 11.1 Solutions shall, where applicable, comply with the standards and guidance set out in Medicines and Healthcare products Regulatory Agency (MHRA) which can be accessed at <https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency>.

12 CLINICAL RISK MANAGEMENT STANDARDS

- 12.1 Solutions shall, where applicable, comply with the following standards set out at <https://digital.nhs.uk/services/solution-assurance/the-clinical-safety-team/clinical-risk-management-standards>:
- DCB0129: Clinical Risk Management: its Application in the Manufacture of Health IT Systems.
 - DCB0160: Clinical Risk Management: its Application in the Deployment and Use of Health IT Systems.

13 PRSB CORE INFORMATION STANDARDS

- 13.1 Solutions shall, within 6 months of its endorsed publication date, comply with all of the standards listed in the Professional Record Standard Body (PRSB) – Core Information Standards to be published online at <https://theprsb.org/standards/coreinformationstandard/> or such other address as is communicated.

14 LHCR PROGRAMME TECHNICAL CAPABILITIES

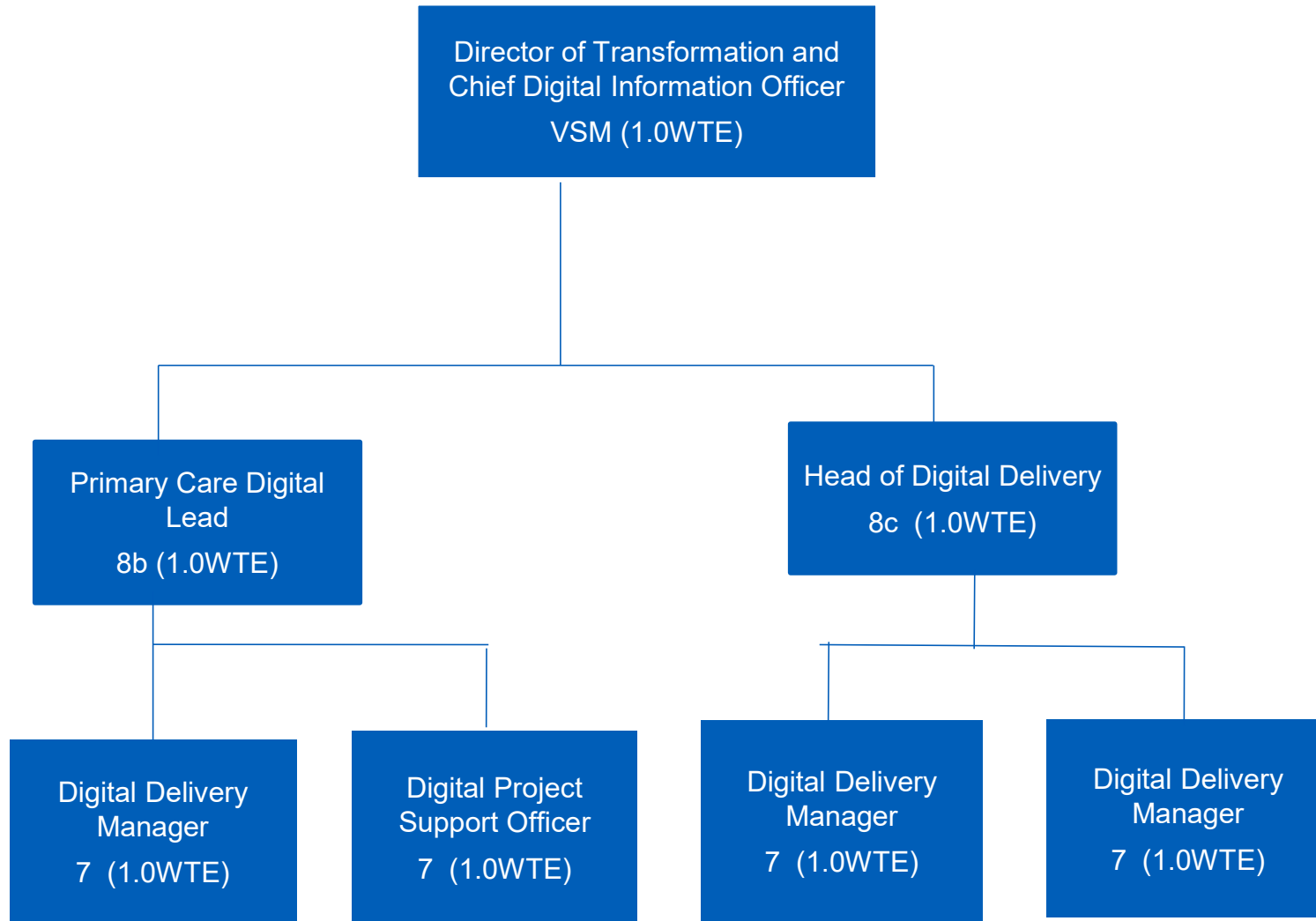
- 13.2 The Supplier solutions shall, where applicable, adhere to any technical capabilities that enable the following within a LHCR:

- Core interoperability services:
 - Open APIs
 - Record location
 - Event management
 - Longitudinal Care Record
 - Personal Health Records (PHRs)
- Reference services:
 - Metadata management
 - Reference data management
 - Information standards
 - Master patient index
- Data Services:
 - Data rules management
 - Data discovery support
 - Data transfer and dissemination
 - Data integration
 - Data processing
 - De-identification/Re-identification
- Information governance and security
 - Patient choices
 - Information governance implementation
 - Authorisation and authentication
 - Care record access audit
 - Cyber security
- Analytics

14 OTHER STANDARDS:

- 14.1 Any other standard that third party suppliers of solutions believes would be relevant to deliver solutions, including (but not limited to) the inclusion of the NHSX Standards Framework, when published.

Digital Team



Digital Strategy

2023–25

Start here >



Our digital strategy

Introduction

Welcome to our Digital Strategy 2023-5. In this document, we set out our vision for how digital transformation can support our drive to improve the health of our local population.

Informed by our understanding of the context we operate in, our care and clinical priorities, national guidance and our principles, we present our digital priorities and the key workstreams we will use to make these plans a reality.

All of our work is focused on delivering better outcomes for the people, staff and carers that we support.



Our vision

Our vision is for BNSSG to become an exemplar for a digitally advanced ICS.

This vision provides the clarity and direction for our whole digital strategy – every decision we make, each priority we set and all the actions we take are in service of delivering this.

To achieve this vision we will work collaboratively across the BNSSG system to optimise our use of design, data and modern technology to make ground-breaking improvements for the health and well-being of our population.

There are six aspects to our digital vision:

- 1 The benefits and opportunities of digital and data are embedded in our integrated design process.
- 2 We have a robust collaborative digital infrastructure that allows frictionless working for our staff across the full range of care settings.
- 3 We avoid duplication by integrating and reusing systems, architecture, shared services, support and expertise.
- 4 The experience of integrated seamless care for the person is underpinned and enabled by digital functionality and infrastructure that supports staff working.
- 5 Digital first channels are available for our citizens, empowering them to self-serve and make choices about their care journey.
- 6 Our integrated data-sharing and planning platform helps us to make the right decisions for people and our system.



Challenges and opportunities:

We have the opportunity to design a system-wide strategy that responds directly to the needs of our citizens and balances the pressures we face to create better outcomes for the people we serve.

Digital transformation and new technologies will be key enablers in delivering new models of care.

Key opportunities:

Making collaboration easier by improving information and data sharing

Using data analysis to predict healthcare needs

Using technology-enabled care to provide support to people in their own homes

Critical challenges:

Our health system is under huge pressure due to the rising demand for health and social care, resulting in slow patient flow through the system

Limitations in funding mean that we have to prioritise carefully and think differently to achieve our goals

There are systemic inequalities in health outcomes across our system that must be addressed, associated with ethnicity, deprivation, learning disabilities and autism



Clinical and care priorities

Five clinical and care priorities

1

Health and care practitioners will share information securely to enable informed decisions about peoples' care

2

We will inform and empower, patients, families and carers

3

Care pathways will be designed for the person and work across organisational boundaries

4

We will improve BNSSG health and care services through population level insight

5

We will build robust and reliable infrastructure, access and security to enable all citizens and staff to access digital health and care services

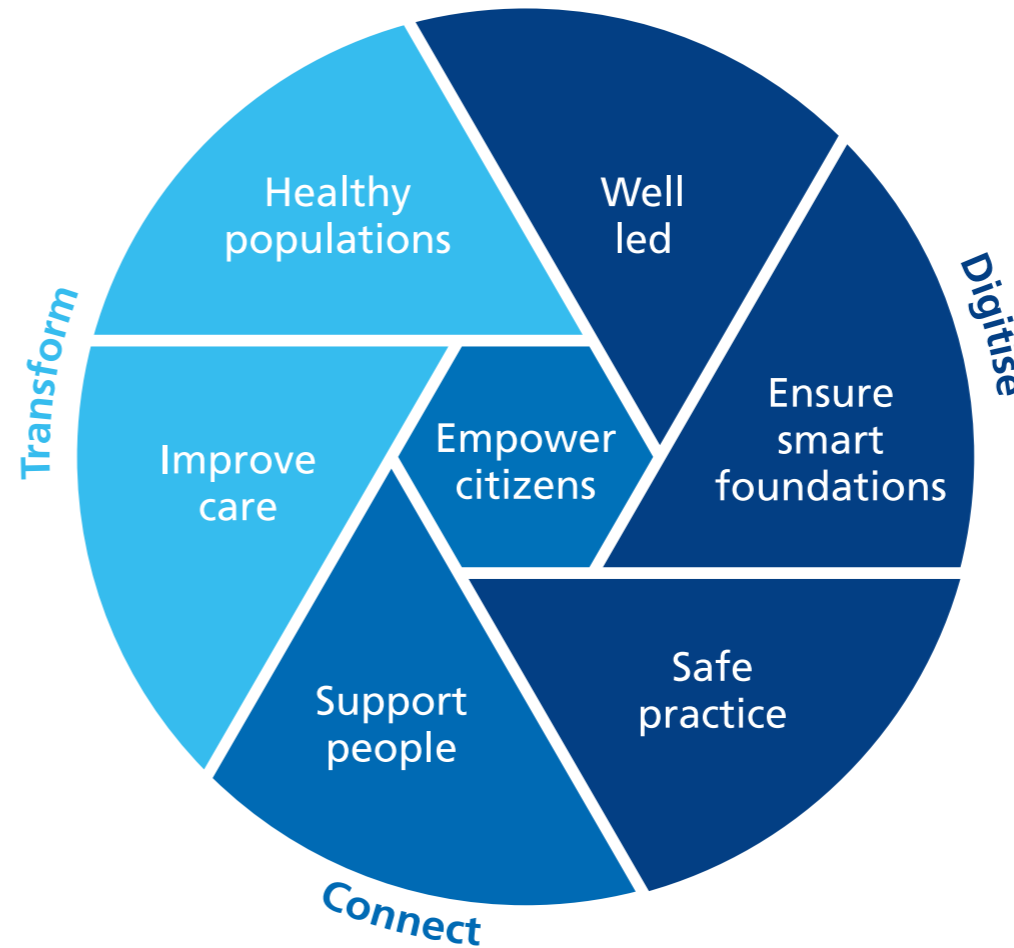


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- 4. What good looks like
- 5. Digital principles
- 6. Our system priorities
- 7. Our strategic themes
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What good looks like

The NHS's *'What Good Looks Like'* framework sets out seven digital capability success measures for Integrated Care Systems to judge themselves against.

Meeting and exceeding these measures will ensure our digital delivery improves the outcomes, experience and safety of our citizens.



The published framework contains details for each of these seven success measures. [Link to transform.england.nhs.uk](https://transform.england.nhs.uk)

[Framework link >](#)



Digital principles

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As a newly-formed ICB comprising a diverse set of partners, each with different individual strategies and aims, we recognise the need to establish a clear way of working as a system to deliver the health outcomes our population deserve.

To facilitate and inform us on that journey, we have developed two sets of principles. The first set are for the system as a whole, for when our partner group are working together. The second set are for each partner, expressing the role they will all play in driving system-wide success.

We will be holding ourselves – and each other – to account against these principles.

ICB Digital Principles

- 1 We will always act in the best interests of the system as a whole, putting the needs of our people at the centre of our decisions
- 2 We will be an independent arbiter to manage competing demands
- 3 We will dedicate leadership and resources to support our system partners, to create the best environment for our workforce and the best outcomes for our citizens
- 4 We will foster a culture of collaboration and trust between all system partners
- 5 We will empower collective decision making
- 6 We will define success at a system level, and share performance data to better understand our impact

System partner principles

Each system partner commits to:

- 1 Make a clear **organisational contribution** to support the system achieve its priorities and deliver system first benefits
- 2 Sign a BNSSG **digital alliance strategic agreement (DASA)** which will underpin the digital strategy and make formal the shared focus and commitment of each organisation
- 3 Establish appropriate project and programme **governance** processes, delegated authority, gateway reviews and standardised methodology, which enable the successful implementation of system priorities
- 4 Drive the values of **shared accountability, mutual respect, support and collaboration**
- 5 **Provide dedicated leadership and system wide resources** to support the system deliver its objectives
- 6 Improve the **pace of decision making**, allowing the system to respond and adapt to changing events quicker
- 7 **Focus and commit to a clear and agreed set of priorities** that directly enable our system ambitions
- 8 **Provide investment** which acknowledges the potential Digital has to support system financial sustainability, under a spend to save delivery approach



Our system priorities

Digital teams from across our system have come together as a single group to explore and agree on how we can best work together to support our citizens.

Our discussion and assessment have led to the creation of three clear priorities for our digital transformation activity:

These priorities allow us to align our core activity, projects and resources to deliver for the people of the BNSSG system as a whole.

1

Designing a digitally enhanced ICS

- a. Driving up digital and data integration opportunities
- b. Establishing population health platform and tools
- c. Increased collaboration and learning
- d. Digital development leadership and training
- e. Embedding collaboration and shared system development
- f. Developing a culture and environment for innovation

2

Developing digitally empowered citizens

- a. Improving information sharing between citizens and health and social care providers
- b. Focusing on citizen engagement and digital inclusion
- c. Implementing more citizen-based technology and shared care tools to enable greater choice
- d. Providing more digital channels and services
- e. Providing more support to citizens to improve their digital literacy
- f. Embedding co-production and human-centred design in partnership with our citizens

3

Delivering digitally enabled care

- a. Providing seamless and timely information sharing between all health and care providers
- b. Ensuring care pathways work across organisational boundaries to support shared caseload and care planning
- c. Releasing time to care, developing new models of care and digitally enabled pathways
- d. Improving access to population health management insight
- e. Improving our digital infrastructure and security, through single sign-on; common cyber standards;
- f. Enhancing our electronic patient records interoperability



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Our strategic themes:

Theme 1: Digitally enabled community health and care

- a. Enable locality partnerships
- b. Re-procure Electronic Patient Records (EPR) systems
- c. Address gaps in digital maturity

[Theme 1 detail >](#)

Theme 2: Supporting our workforce

- a. Release time to care
- b. Develop new models of care
- c. Enable digital confidence

[Theme 2 detail >](#)

Theme 3: Using data better

- a. Connect care
- b. Improve care traffic control
- c. Enhance population health management

[Theme 3 detail >](#)

Theme 4: Connecting the person

- a. Increase access to digital first services
- b. Citizens become a partner in care
- c. Address digital inclusion

[Theme 4 detail >](#)



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Theme 1. Digitally enabled community health and care

Enable multi-disciplinary teams working in the community and support place-based partnerships and integrated models of care.

This theme is focused on delivering three strategic outcomes for the system

Theme 1

Theme 2 >

Theme 3 >

Theme 4 >

a. Enable locality partnerships

Key projects and activities which support the delivery of this outcome include:

Read Write Care Plan project will enable an interoperable digital care plan with read and write capability that can be integrated with ICS clinical systems. This will accelerate care for those most in need, reduce admissions and conveyances for those at the end of life, release time to care for hospital staff and improve care in the community, across a broad range of clinical pathways

Implement a new clinical management tool to enable locality partnership working, including managing patient workflows, bed management and reporting on where a patient is on their journey

Roll out an Advice and Guidance solution to enable dynamic clinical advice guidance, soft hand-over, referral of a patient onto an agreed pathway, and reporting across a number of pan-ICS services

b. Re-procure Electronic Patient Records (EPR) systems

Key projects and activities which support the delivery of this outcome include:

Shared Care Record system re-procurement with improved functionality, which will release time to care by providing accurate and live data feeds, leading to improved patient care and outcomes

Mental health EPR re-procurement with enhancements that enable greater pan-ICS collaboration and interoperability

Primary care EPR re-procurement with enhancements that enable greater pan-ICS collaboration, and support faster data sharing between ICS EPRs, leading to improved patient care and outcomes

Community EPR re-procurement to promote improved working across community, primary care, mental health and acute pathways

c. Address gaps in digital maturity

Key projects and activities which support the delivery of this outcome include:

Our ICS Digital Executive will ensure robust design authority, finance oversight and cyber security governance, which will embed metrics to ensure minimum standards of digital capability across the system are achieved or exceeded

Digital Maturity in Care Settings project will improve the digital maturity of care organisations, helping them to use ICS health clinical systems and solutions. This will reduce admissions and conveyances due to providing the right care in the right place, and will release time to care for staff and improve patient care

VCSE Digital Action Plan will identify and bridge gaps in digital maturity across the sector, enabling our VCSE partners to engage with our system to effectively support our ICS priorities



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Theme 2. Supporting our workforce

Using digital to release time to care, create frictionless working and drive new pathways and models of care that help support the workforce shortages we will continue to face.

This theme is focused on delivering three system-level outcomes:

Theme 1 >

Theme 2

Theme 3 >

Theme 4 >

a. Release time to care

Key projects and activities which support the delivery of this outcome:

Provide our workforce with the tools to work anywhere across the BNSSG locality hubs and buildings network, ensuring our digital infrastructure is set-up to accommodate this. For example, providing accessible fixed wire or Wi-Fi at any site and an easy to access network connection from all sites to allow staff to connect to necessary networks

Deployment of a virtual desktop that will enable all relevant BNSSG staff access to clinical and operational systems required to deliver a specific service

Development of standardised and agreed digital practices and operational processes to ensure the safe, efficient and consistent operational use of shared solutions, whilst also improving frontline staff experience and adoption of new digital systems

A single order communications solution will enable all clinicians to easily locate – or be automatically presented with within their EPR – a patients test results, saving time which will release time to care for patients

b. Develop new models of care

Key projects and activities which support the delivery of this outcome:

Healthier Together at Home project will enable the remote home care of our citizens through a single team, supported by a consistent set of digital tools. This will reduce admissions and conveyances, reduce the length of stays in hospital, release time to care and improve patient care

c. Enable digital confidence

Key projects and activities which support the delivery of this outcome:

Implementation of our Digital Workforce Plan, focusing on pan-ICS digital training and development for clinical and care staff

Our Digital Academy will deliver workforce development programmes which upskill our staff and develop a pool of digital healthcare professionals who can progress into digitally focused roles in the future

We will conduct an ICS wide care home staff training audit, which will inform the design and delivery of a corresponding upskilling programme that will increase digital confidence in staff working across social care



Theme 3. Using data better

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Improving clinical decision making by embedding population health management and developing a system-wide platform to make data and analytics more available to support key decisions.

This theme is focused on delivering three system-level outcomes:

Theme 1 >

Theme 2 >

Theme 3

Theme 4 >

a. Connect care

Key projects and activities which support the delivery of this outcome:

Our re-procured shared care record will consume and present key clinical and population health management data to enable better clinical decision making and support improved patient outcomes

Enhancement to our EPR systems across the ICS will lead to improved communication between inter-organisational teams. For example, the acute Patient Administration System project will enable greater access to North Bristol NHS Trust and University Hospitals Bristol and Weston NHS Foundation Trust Patient Administration Systems (PAS), simplifying clinical communication across pan-ICS pathways

b. Improve care traffic control

Key projects and activities which support the delivery of this outcome:

A Care Traffic Control programme will develop a platform that provides real-time assessments of activity, patient flow and the cross-system impact of initiatives across BNSSG, supporting system-wide, evidence-based decision making

A shared data and planning platform (SDPP) will make data easier to find, understand and use, improving our ability to manage patient flows across the system

c. Enhance population health management

Key projects and activities which support the delivery of this outcome:

Our Population Health Management Intelligence Hub will allow us to understand more about how people with different needs interact with the various healthcare services, and identify opportunities for prevention, and to improve and better co-ordinate the delivery of healthcare across our region to support operational and clinical decision making

Continuous development of our Population Health Management Academy curriculum and advanced modules will improve our workforces' understanding of how to turn linked health and care data into improvements in frontline service delivery



Theme 4. Connecting the person

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Creating a programme of citizen-first digital to drive up self-service and empower the person.

This theme is focused on delivering three system-level outcomes:

Theme 1 >

Theme 2 >

Theme 3 >

Theme 4

a. Increase access to digital first services

Key projects and activities which support the delivery of this outcome:

Home First Care solutions will allow more citizens to remain at home when receiving support or when their condition is being monitored, providing clinical readings via devices or apps, that are reported (and acted upon) via an interactive dashboard

Technology Enabled Care in Hospitals project will deploy technology-enabled care solutions within Discharge to Assess pathways, so staff in acute wards are confident and able to accelerate discharge and support citizens' recovery at home by deploying technology enabled support. This will reduce the length of stays, release time to care and improve patient care

Technology Enabled Care in Care Settings project will deploy technology-enabled care tools across care homes in BNSSG, including acoustic monitors, point of care testing and falls, predictors.

b. Citizens become a partner in care

Key projects and activities which support the delivery of this outcome:

Digital Patient project will allow patients in acute and mental health settings to interact with clinicians regarding their outpatient care, including: appointment information, digital correspondence, virtual consultation and information collection

A new citizen interaction portal will support citizen's care journey to promote shared decision-making and person-centred care. For example, the Autism Discovery project will improve the experience for parents and carers of children waiting for an autism diagnosis

We will enable citizens to access the appropriate advice and support through clinically assured apps and platforms (such as ORCHA), to enable them and to manage ongoing conditions

c. Address digital inclusion

Key projects and activities which support the delivery of this outcome:

Increase citizen uptake by embedding user centred design into all digital projects. For example, our BNSSG User Experience Lab will use of human-centred design as to ensure we consider digital inclusion and factor in health inequalities and diversity into the projects we take forward

Promote the use of apps to support citizen's health management. For example, we are piloting the deployment of Hear Me Now app to improve take-up of annual health checks and self-care for people with learning difficulties

Ensure our Digital Inclusion Strategy is consistently applied across all aspects of digital delivery including: improving health literacy, increasing citizen self-care competence and providing access to technology and data to tackle data poverty



Digital Infrastructure

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We will create a BNSSG-wide collaborative Digital Alliance that joins up key systems to deliver cost savings by removing duplication and creating shared services and resources, creating greater value across the whole system.

Projects of immediate focus for the Digital Alliance:

Primary Care IT support options review

Digital Patient project

Support options for Connecting Care

Review of system-wide architecture, shared services and software

Creation of a single diagnostics hub

Create a single digital shared services hub in partnership with or to replace the CSU

Build on the existing joint Cyber Team and organisational commitments to enable greater collaboration and reflect the security we need for an integrated approach



Digital Innovation

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In partnership with the Academic Health Science Networks, Bristol health partners, the University of Bristol and the University of the West of England we will create a Digital Accelerator and Innovation Hub to test new technology and models of care.

We will develop a pipeline of digital innovation that ensures we are able to use new developments in technology to deliver better care and outcomes for our population.

The Digital Accelerator and Innovation Hubs will:

Be clinically led with key clinical innovators at the helm.

Engage with professional and clinical teams across our system to ensure that ideas for technology-led improvements are taken through a robust and structured methodology that ensures both pace of development and a strong connection to the existing digital infrastructure in the system.

Be a joint endeavour linking the medical effectiveness capability across the system and technology-enhanced care teams in local authorities.

Bring together the significant resource within our system to drive up the levels of innovation moving from research into practice, including Tech Assistive Labs, Living Labs and Robotics Hubs.

Develop international partnerships to draw learning from experts across the globe to support our ICS systems and its citizens.

Secure external to maximise the impact for our citizens.



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Key Outcomes

We believe that this strategy will deliver a better experience for the three key groups of people we serve – staff, people and carers.

Improved experience for our staff

As a professional I will:

- Have more time to spend with the people that need to see me the most
- Be able to communicate quickly and easily with colleagues
- Have confidence that the information I am looking at is accurate
- Be able to update and share my findings, insights and agreed changes to a person's care plan
- Be able to see the outcome for the person and understand how I have contributed
- Have the tools and the training to consider the health of the wider population to influence and drive improvement
- Feel confident that if I have new ideas on how technology can help us to improve I will be heard

Improved experience for people

As a person engaging with the system, I will:

- Be able to make a choice about using digital services to access my information, get advice, and communicate with the team supporting me
- Be cared for in the location most appropriate to me and my needs
- Understand better what the clinician said after my consultation by viewing my notes and sharing this with my carer
- Feel safer knowing my needs can be monitored whilst I am at home
- Feel more able to make decisions about my own health and care by feeling a part of the team not just a recipient of care
- Feel like you actually know me as I won't need to repeat the same information that I have already told somebody else
- Be able to avoid potential problems by having access to advice about important aspects of my care

Improved experience for carers

As a carer I will:

- Not spend as much of my time having to go to health and care establishments
- Feel better supported by health and care professionals through bespoke advice and guidance
- I will be aware of what clinical teams have said, what medications are prescribed and when appointments are due, so I can plan my needs around this information
- Be able to plan for my caring duties better by being able to reschedule appointments and having access to the required information from my smartphone
- Feel more assured that technology is supporting the person I am caring for, when I am not around to be caring directly

