

Appendix A

Digital Health & Care in Bradford

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Purpose of the paper	Provide an update on the health and care digital position in Bradford District
Action required	To note

1 PURPOSE/ AIM

- 1.1 This paper outlines the state of the digital health and care in the Bradford District.

2 BACKGROUND/CONTEXT

- 2.1 Bradford District & Craven, defined as one Place by NHS England and part of a total of six Places for the West Yorkshire & Harrogate Partnership (WY&HP integrated care system), in June 2016 produced a Local Digital Roadmap entitled *People First – Digital First*.
- 2.2 The Roadmap outlined an ambitious five year plan through 2020/21 that was aimed primarily at seeing the completion of the strategy to have a “fully interoperable electronic health record” based on two electronic records – SystemOne from TPP and Millennium from Cerner, who are a highly-rated, international supplier of patient record systems.
- 2.3 The Roadmap plan is being executed through each of the local partners and is governed by the Digital 2020 (D2020) Board which reports to the Integration and Change Board. The Digital 2020 Board is comprised of all local partners, including Airedale Hospital NHS Foundation Trust, Bradford District Care NHS Foundation Trust, Bradford District/Bradford City/Airedale, Wharfedale and Craven CCGs, Bradford Teaching Hospitals NHS Foundation Trust, Bradford Institute for Health Research, Bradford Voluntary Care Sector Alliance, City of Bradford Metropolitan District Council, Digital Health Enterprise Zone, University of Bradford and participation from the two key suppliers TPP and Cerner.

2.4 The Roadmap called for progress in the following areas (see diagrammatic representation of all components in Appendix A):

- Records, assessments and plans to ensure that all organisations have digital patient records that are then accessible anytime, anywhere.
- Remote care to allow clinicians to care for patients from anywhere, which expedites clinical decisions and treatment.
- Transfers of care to ensure quick and safe transfer of patient's care between different care settings, i.e., once discharged from a hospital to the care of a GP ensuring the GP has the right information in a timely way.
- Medicines management and optimisation that intelligently helps clinicians by, for example, alerting clinicians to allergies.
- Orders and results management to expedite the diagnostic process as a critical step in diagnosing the patient and developing a treatment plan.
- Decision support to assist clinicians, enabled by digital clinical records.
- Assets and resource optimisation to ensure we use our funding as efficiently as possible.
- Supporting the programmes of work locally and for the West Yorkshire & Harrogate Partnership (the integrated care system), the Yorkshire & Humber Shared Care Record, and the National agenda.

3	CURRENT POSITION
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3.1 The targeted deliverables around Information Sharing and System Capability to enable the above noted progress are mostly complete, on target for completion and, in some areas, ahead of target. In particular a 'shared' electronic patient record is mostly complete with care homes and social care to be added, which are planned for this coming year. The Health Information Exchange, which provides a view into the two patient record systems, is in use for the clinicians at both acute Trusts and in primary care. Technically the access for the Care Trust and social care is in place, with final pieces of work to be done to allow turning this on.

3.2 This shared record enables near seamless transfer of care real time for the contemporaneous clinical record. This improves the person's experience (not

repeating their 'story' at every encounter), improves safety (clinicians are working from a 'single' record with shared information including medication and allergy status) and is a key enabler to transformative pathway redesign across health and care traditional boundaries. Why would a patient with an acute stroke, cared for across two acute providers, and supported by primary and social care not expect their relevant clinical and care information not be available to all professionals in real time?

3.3 In addition there have been several areas where we have moved beyond the Roadmap, for example:

- A transformational pathway re-design for diabetes that includes enabling patients to upload wellness and outcome-focussed goals using mobile apps, including video.
- Advanced the application of population health analytics via Connected Bradford. For example, using multiple pieces of data to enable the identification of people who could be frail to support self-management and avoiding harm.
- Bradford Teaching Hospitals, houses, in conjunction with a number of local partners, operates an Elderly Virtual Ward and Intermediate Care Hub with over 200 beds, caring for people at home who would otherwise be admitted to hospital or remain in hospital longer.
- The new Paediatric Ambulatory Care virtual ward (called ACE) came on line this year. The service works with GPs to allow specialist following of paediatric asthmatic patients at home, improving outcomes and avoiding hospital admission. This service won the Health Service Journal Improvement Award in Emergency and Urgent Care in November 2018.
- Use of early-stage devices to help monitor patients being cared for by the Virtual Ward, for example, door sensors.
- A Joint Information Governance lead was appointed and recruitment is in progress for a Joint IT Architect across Airedale Hospital and Bradford Teaching Hospitals. These appointments facilitate more robust sharing of data and infrastructure.
- Creation of a Security Operations Centre at the Care Trust and steps taken across the patch to become more cyber secure with more partnership working across organisations. The Care Trust and Bradford Teaching Hospitals are now two of

only a dozen NHS organisations with secure email accreditation; the Teaching Hospitals is expected before the end of March 2019.

- The National Institute for Health Research - Yorkshire and Humber Patient Safety Research Centre's digital innovation theme has been created, housed at the Bradford Institute for Health Research. This work is progressing several digital projects to enhance patient safety, for example, computer-assisted clinical risk scoring whereby clinicians will be assisted through previous clinical findings with assessing a patient's clinical risk.
- Continue to analyse our population's data to provide intelligence that local organisations can action through the Connected Bradford initiative at the Bradford Institute for Health Research. Findings have included to date, for example, that most deprived communities in Bradford have highest air pollution rates.
- The Bradford Institute for Health Research (BIHR) have led the development, validation and implementation of the award-winning Bradford Electronic Frailty Index (eFI) which helps calculate an elderly person's risk of disability, impairment, falls and complications of chronic diseases, as well as, their diminishing independence and capability. This is now being used by 98% of all GPs across the country.
- More generally, clinical engagement in digital initiatives has progressed to ensure solutions are helping clinicians to better care for patients in particular for more mobile staff, as part of a more efficient use of estate and accommodating flexible working for employees.
- Continue to be a vanguard for telemedicine in care homes which means care homes have video conferencing access to clinicians to support treatment and care on site to enable quicker triage and clinical advice, and quicker treatment.

3.4 Digital 2020 is currently progressing the following five work streams:

3.4.1 **Shared Care Record** - Completion of the remaining steps to a fully shared care record across health and social care, including completion of the digitisation of care homes and sharing with social care and further advancement of mental health in community settings.

3.4.2 **Business Intelligence** - Progression of a business case to support a real-time population health management system that will provide a tool for staff delivering care

to patients on behalf of multiple organisations, real-time alerting of the need for interventions using clinical data from all electronic patient records, data for improved planning and intelligence that would include views based on communities, and data for applied health research to expedite the work of Connected Bradford.

3.4.3 Innovation – A number of innovations are being explored for application. For example, exploring opportunities to attract funding to support a ‘test bed’ locally to support innovation in diabetes care, use of further monitoring tools for people’s homes to which clinicians can monitor remotely, use of self-care smart apps, and a unique engagement between the Care Trust, TPP, and the University developing patient engagement tools.

3.4.4 Information Governance - Definition and implementation of a more robust information governance service across all organisations. Whilst there is a technically fully shared record in place (see above), the impact of multiple data controllers for each organisation and understandable risk aversion in light of the General Data Protection Regulation (GDPR) means that at the point of care delivery, there is a not seamless sharing of the record. The intention of Digital 2020 is to utilise resources to ensure that a model is implemented for the governance of the shared record. This will be done with standardisation of a Place-based data sharing agreement aligned with best practice, but maximising the full potential of shared care record. Seamless sharing of clinical data will not only support service transformation and clinical delivery, but also give patient level business intelligence to support population health management (see Appendix B).

3.4.5 Infrastructure - Further progression of shared infrastructure and IT skill set where it makes sense to do so. This initiative will see specialised skill set, for example, certified cyber security staff leveraged across organisations and see infrastructure shared or continue to be standardised to ease the maintenance burden, for example personal computer upkeep.

4	NEXT STEPS
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4.1 Beyond the boundaries of the Bradford District, the Bradford District and Craven Place and West Yorkshire & Harrogate Partnership have continued to mature digitally, supporting programmes of work across the geography. The Yorkshire Imaging Collaborative has progressed with image sharing technically functioning and has expanded to cover the integrated care systems of West Yorkshire and Harrogate

Partnership and now the full Humber Cost and Vale Partnership. In addition the region has secured one of five sites in the country for development of a Yorkshire and Humber-wide Shared Care Record. This Shared Care Record will utilise the work on the Bradford District & Craven Shared Care Record to create an ability for clinicians to care for patients across the geography and Yorkshire and Humber.

4.2 The NHS released a Long Term Plan in January 2019. There has also been a national review recently completed; the Topol Review. Each of these national documents provide guidance and direction for Place-based plans.

4.3 The NHS Long Term Plan sets out five major practical changes to the service model. One of those five is “digitally enabled care will go mainstream across the NHS”. This will include using digital to;

- Empower people, e.g., to own their own health records and have the choice to access services digitally starting with the NHS App.
- Support health and care professionals, e.g., more community based staff to have better access to mobile digital services so they can spend more time with people.
- Support clinical care, e.g., enable fast easy access to specialist advice and guidance for GPs or direct access to investigations.
- Improve population health, e.g., use data to improve planning of care needs, predict risks and intervene early and to ensure that people get the right help at the right time.
- Improve clinical efficiency and safety, e.g., decision support and artificial intelligence.

4.4 The Topol Review focusses on preparing the healthcare workforce to deliver the digital future. The key recommendations are around building a digitally-ready workforce with Board-level digital leadership, creating of capacity to evaluate new technologies and utilising academia for a digital curricula. The review included the base requirement of shared electronic patient records.

4.5 Several of the Digital 2020 organisations have recently updated their digital strategies. These updates, along with the national updates outlined above, will be leveraged to compile an updated roadmap/digital strategy for the Bradford District and Craven Place. Additional key themes from across the Place will focus on:

- Using artificial intelligence to analyse our data we can assist in determining when patients would do better with other interventions than coming into the hospital;
- Using tele-medicine and technology to ‘see’ patients where they are and help them manage their conditions better outside of hospital with and without our virtual help;
- Using home monitoring instead of in-hospital monitoring to keep people at home; and
- Preparing our staff and our citizens for use of digital tools in health, wellness and care.

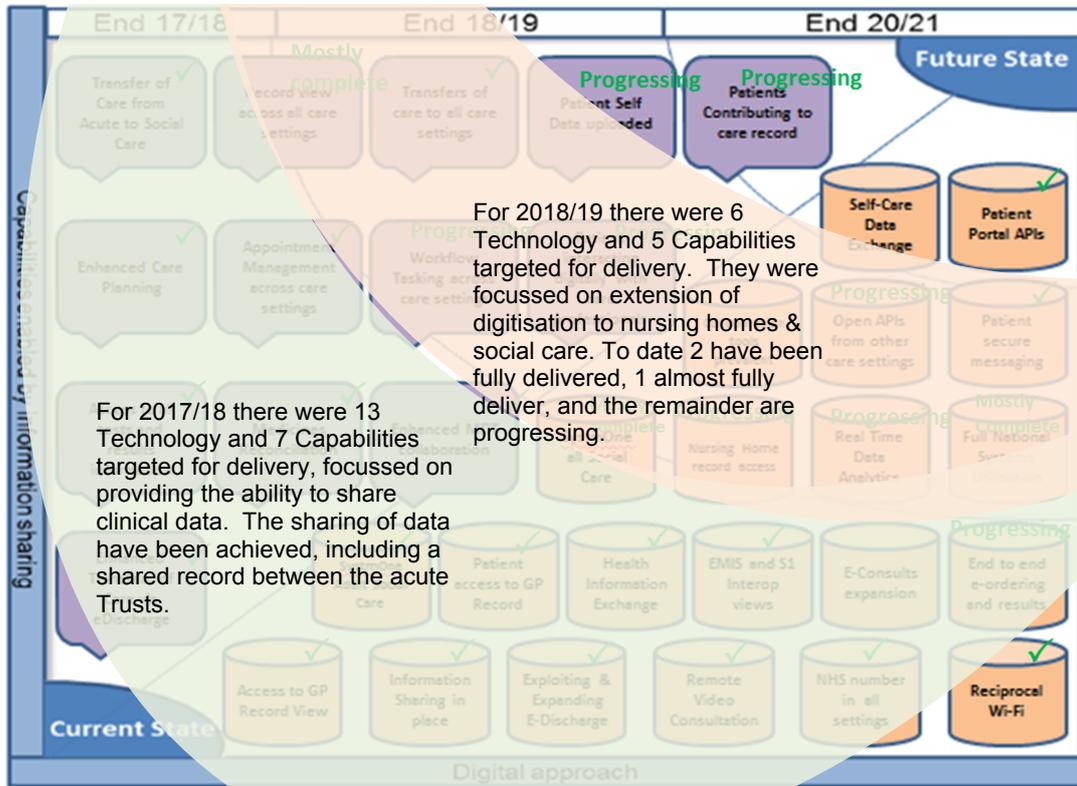
5	RECOMMENDATIONS
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5.1 The Overview & Scrutiny Committee are asked to receive this update.

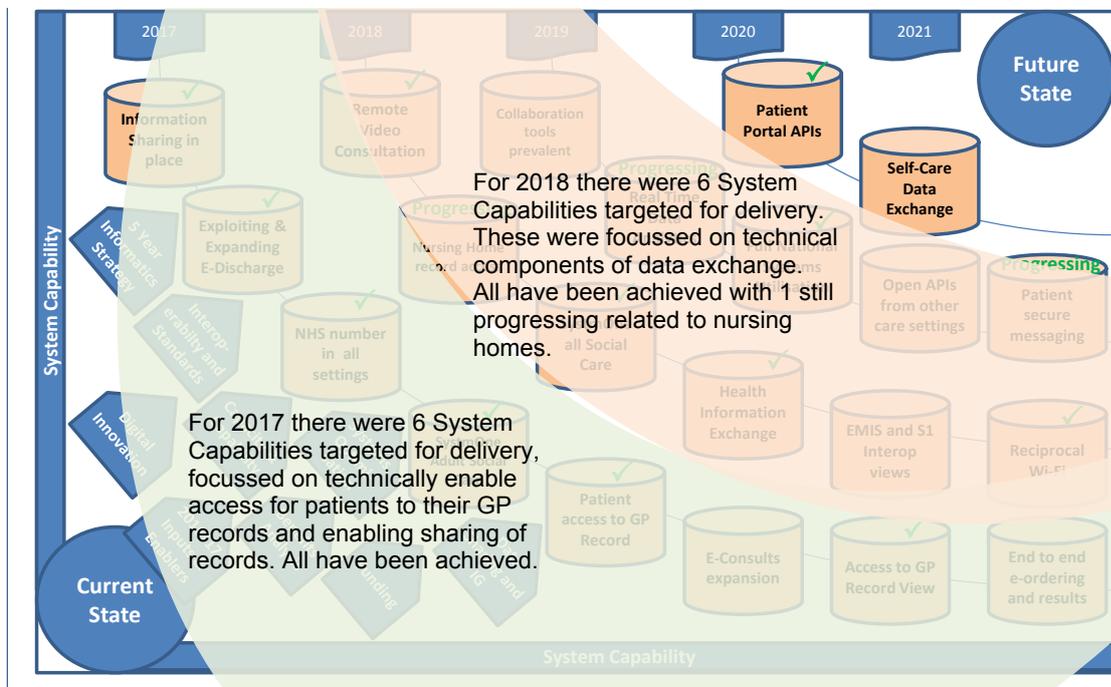
6	Appendices
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Appendix A: Bradford District & Craven 2016 Local Digital Roadmap current state against plan

Current status of Information Sharing Plan



Current status of Capability Plan



Appendix B: Schematic representing future state for governance of the shared record

