The Dorset Vanguard and Digitally Transformed Dorset Project:

Meds management in the One Acute Network

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In September 2015 NHS England selected fifty Vanguards to develop blueprints for new models of care as part of its five year forward plan for sustainable patient care. One of these vanguards is Dorset with 3 acute facilities that include Dorset County Hospital NHS Foundation Trust, Poole Hospital NHS Foundation Trust (PHFT), The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust (RBCH) and the Community & Mental Health Trust: Dorset Healthcare NHS Foundation Trust. This Vanguard is now aligned to the Dorset Sustainability and Transformation Plan which has 3 major programmes and 2 enabling workstreams (see diagram below).

Highest need
People with complex needs

Moderate need
People with Moderate or recurred health needs

Lowest need
Whole Population

Tier 3
One acute network of services

Tier 2
Integrated Community Services

Tier 1
Prevention at scale

Digitally Enabled Dorset

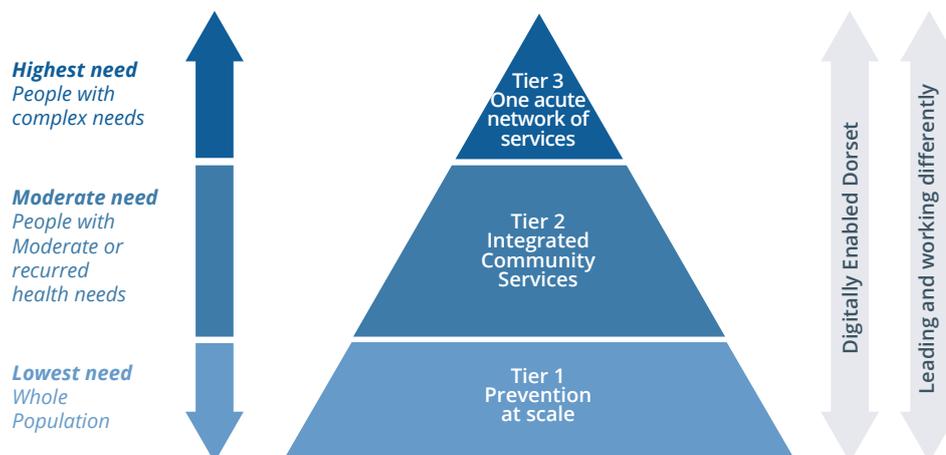Leading and working differently

Figure 1: Excerpt from the Dorset STP

At the core of the Health Informatics workstream - known as *Digitally Transformed Dorset* - is the Shared Care Record Programme. This is a multi-service venture aimed at creating a regional shared data platform for all Health and Social Care organisations in Dorset and will be designed to deliver a seamless, high quality, consistent and affordable service to all people across the county.

One NHS in Dorset

As 'One NHS' suggests, the Digitally Transformed Dorset (DTD) project is about closing the information gap by linking up community, primary and acute networks in support of all the STP Tiers. The creation of One Acute Network that enables hospitals to better meet their seven days a week availability targets and achieve the same best practice outcome no matter which facility is delivering care – with speed, efficiency and long-term clinical and financial sustainability.

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At the heart of the DTD is the creation of common hardware, utility, connectivity and software platforms wherever possible. As IT Director in charge of the Shared Care Record – one of the strategic components of DTD – my remit is to develop a regional health and social care record; the core of which is the Orion IDCR (Integrated Digital Care Record) that will ultimately include interfaces with between 70 and 100 different clinical and social care applications.

Creating the Shared Care Record

The challenge to standardisation, however, is that even if hospitals have the same scope of services there are inevitable variants; some are rural while others are urban and those with specialities will have different clinical systems and core bespoke technology. It's a balancing act between aligning processes vs. respecting different requirements which calls for collaboration and negotiating a common way of working. Fortunately all of Dorset's four acute and community care IT directors are in agreement that collaboration is the way ahead.

A Common Medicine Management Platform

When it comes to a common platform we are a step ahead in some key areas including medicines management: three of our Trusts are already using JAC's pharmacy system. The next logical step is the prescribing process and JAC's EPMA (electronic prescribing, and medicines administration system) has been in production at Dorset County for the past two years.

In August 2016, following a formal procurement, RBCH and PHFT chose JAC's new web interface version of EPMA, with PHFT launching its pilot in October 2017, with a data feed into the new IDCR planned in due course.

The method of integrating or consolidating the separate instances of JAC EPMA in Dorset will be evaluated and implemented towards 2019 once the system has bedded in at RBCH and PHFT. We expect the achievement of an integrated/consolidated EPMA service will give us the opportunity to see how the One Acute Network can work in reality and in parallel to these changes Dorset HealthCare will consider its preferred solution to Electronic Prescribing and Administration of Medicines. It is hoped that, over time, we will be able to achieve a single medication record that covers the full continuum of care. This initiative also acts as a proving ground to validate the importance of working with standardised platforms.

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For the acute Trusts, as a minimum, a standardised JAC-based medicines management environment means that clinicians have a common set of functionalities and ways of working. Wherever they are working within the acute network, when a nurse or doctor accesses the system with a single logon they are presented with the same information in the same format and the same familiar look and feel.

Besides simplifying the training process, this consistency of presentation has care-critical implications. Consider medical alerts. Say for example a patient's medication has been missed and an alert pops up as a yellow triangle at the top left of the screen. If that is how and where a user expects to see it, if on a different system an alert suddenly appears as a red triangle on the bottom right it might not be noticed. A common methodology not only means less errors and better outcomes, it simplifies the life of busy clinicians.

Satisfying seven day working mandates while ensuring there is no variance of the quality at the point of care means working smart with available resources, seconding clinicians to network Acutes on rota or in response to an emergency. If a visiting specialist is able to log into the same familiar system wherever they are, with access to patient histories and all the real-time medication data they need, including any drug intolerances, then resource distribution is made more efficient with significant economy gains and no disruption to care.

Governance and Real-time Data Capture

A standardised application environment merged with a common care record also has major implications for governance & patient safety. In the case of medicines administration, it means prescription regimes can be reconciled in real-time and the patient's care journey – which may involve multiple facilities – can be processed more quickly and with greater accuracy (no more unreadable prescription forms!) from the point of hospital admission to home or community care.

The electronic environment clearly streamlines the audit process, but these are at best periodic (at RBCH we conduct some 200 a year). In reality there are possibly tens of thousands of things going on at any given time and immediate data visibility enables clinicians to monitor their patients' status across the county's 1500 acute beds at anytime from anywhere. Consider our earlier missed medication scenario, a not uncommon occurrence if ward nurses on drug grounds are interrupted and on return have forgotten where they left off. The patient may then theoretically, for example, go into theatre ill-prepared yet the system has caught the omission and thus avoided a potential adverse impact. This gives us a safety assurance like never before, in fact in the light of EMPA one wonders if the CQC may need to review its questions.

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The shared care record also has huge implications for medical research and the availability of a large medicines database should make us attractive to pharmaceuticals since it can identify best-fit clinical trial candidates against a wide range of parameters, of course with appropriate consent models.

So how is Dorset's vision designed to deliver on the Department of Health's Five Year Forward View and the 2020 Health and Personalised Care plans? Hopefully this piece gives a few useful indicators in terms of care quality, operational efficiency and financial sustainability. Some benefits are already being realised while others are as yet a gleam in our eye. In the past two years one thing is overwhelmingly clear: it is through collaboration, consolidation and sharing that we are going to make One NHS and the One Acute Network a reality that benefits all and provides a blueprint to others.