

Meeting Title	Regulation Committee		
Date	23.9.20	Agenda item	RC.9.20.14

Annual Report on Digital

Presented by	Cindy Fedell, Chief Digital and Information Officer		
Author	Cindy Fedell, Chief Digital and Information Officer		
Lead Director	Cindy Fedell, Chief Digital and Information Officer		
Purpose of the paper	Update on the Digital Strategy and Services		
Key control	Not a key control		
Action required	To note		
Previously discussed at/ informed by	NA		
Previously approved at:	Committee/Group	Date	

Key Options, Issues and Risks

The Trust approved the digital strategy “From Going Digital To Going Virtual” in September 2018. The Strategy’s main tenets are to take advantage of the technological and data capabilities already delivered and to improve digital maturity within the Bradford district & Craven Place.

Analysis

The Trust has made considerable progress on the strategy on all fronts, outlined in the report. Of particular note:

- Receipt of a Digital Aspirant
- The Digital Team of the Year award at The Digital Health Awards this time last year
- PACS and EPR upgrades.

For operational performance, the services continues to run smoothly. The Clinical Coding service at times struggled to achieve their targets but are now in a better position. The Trust benchmarked its digital services in July 2019 with uniformly positive results looking at digital maturity, adoption of technology and efficiency.

The number and ratings of risks have come down over the years. There is currently 18 High risks.

The cyber assurance metrics remain positive with ISO cyber accreditation. Assurance on the age and capacity of some of the information technology is mixed however plans are progressing, in particular the PABX and Windows 10 upgrades and development of a Cloud strategy. There is now a Green IT Strategy doing relatively well with focus needed on reduction in printing. There were a number of positive Internal Audit reports - strategy achievement, Green IT and cyber security.

The larger, key initiatives progressing are Maternity EPR, PABX upgrade, Place Command Centre, care home digitisation and home monitoring, and consideration of a shared IT service with Airedale Hospital.

Recommendation

The group are asked to note the progress being made.

Risk assessment

Strategic Objective	Appetite (G)					
	Avoid	Minimal	Cautious	Open	Seek	Mature
To provide outstanding care for patients			g			
To deliver our financial plan and key performance targets			g			
To be in the top 20% of NHS employers			g			
To be a continually learning organisation				G		
To collaborate effectively with local and regional partners					G	
The level of risk against each objective should be indicated. Where more than one option is available the level of risk of each option against each element should be indicated by numbering each option and showing numbers in the boxes.	Low		Moderate	High	Significant	
	Risk (*)					
Explanation of variance from Board of Directors Agreed General risk appetite (G)	No change.					

Risk Implications (see section 4 for details)	Yes	No
Corporate Risk register and/or Board Assurance Framework Amendments	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Quality implications	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Resource implications	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Legal/regulatory implications	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diversity and Inclusion implications	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulation, Legislation and Compliance relevance
NHS Improvement: (please select those that are relevant)
<input type="checkbox"/> Risk Assessment Framework <input type="checkbox"/> Quality Governance Framework
<input type="checkbox"/> Code of Governance <input type="checkbox"/> Annual Reporting Manual
Care Quality Commission Domain:
Care Quality Commission Fundamental Standard:
Other (please state):

[illegible]



Annual Report on Digital

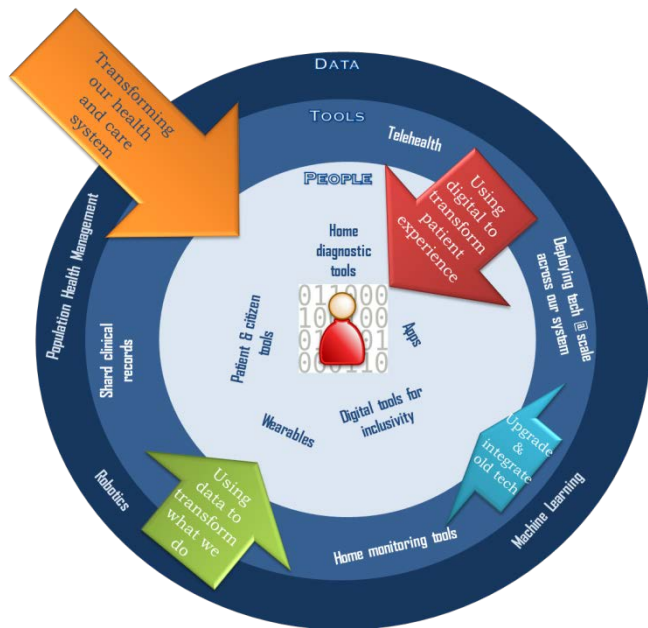
31 August 2020

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I. Situation/Background

The Trust approved the digital strategy “From Going Digital To Going Virtual” in September 2018 which covers a five-year period between 2018 and 2023. The Strategy’s main tenets, supporting the Trust’s Strategy, are to take advantage of the technological and data capabilities delivered through the previous strategy and to improve digital maturity within the Bradford district & Craven Place. The Strategy had nine themes:



1. Improving the quality of care and the health of our population **via big and small data**
2. Enabling breaking down traditional care boundaries and developing a **patch-wide patient record**
3. Improving the richness & breadth of **patient interaction** from wellness through recovery
4. Preparing for **citizen-centric** health and care
5. Enabling **multi-way communication** for administrative and clinical care
6. Joining up financial, resource, performance, and **quality information** for timely, holistic views.
7. **Digitisation/Upgrade Roadmap**
8. Electronic Patient Record **Optimisation**
9. Infrastructure **Refresh**.

The Strategy maps into a rolling series of projects and proposed projects that are refined twice annually via the Multi-Year Work Plan, which is then aligned to the Digital 5 Year Capital Plan and the Trust’s Capital Plan. This rolling adjustment method allows the Trust the ability to both refine projects and add or remove proposed projects as needed. For the most part projects added are sub-projects of already approved projects. Should new substantial work be added or funding be required the Trust’s business case process is followed.

The Trust’s Strategy is also supported by the digital services’ operations. Digital services are managed through a robust suite of performance indicators, internal assurance indicators, external assurance reviews and through risk management.

II. Progress to date

Since the inception of the “From Going Digital To Going Virtual” digital strategy the teams across the Trust have made considerable progress. The Multi-Year Work Plan is organised into nine themes as per above. This theme-based organisation facilitates discussion and planning around each themes.

Progress on all themes has been made. Progress on the strategy’s “We Will” statements is noted in the appendix for reconciliation purposes. There are some very significant items to note that span all of the themes:

The awarding of **Digital Aspirant** funds to the Trust. This award is in recognition of the digital maturity progress made to date (the last assessment in October 2017 ranked the Trust 7th in the country) and the ambition to digitise at Place. It is expected from NHS England that the Trust create something new for the NHS that can then be replicated in other Places. To this end the funding is targeted primarily for a Command Centre at Place and to complete the safety aspects of the HIMSS 6 maturity model; HIMSS measures digital maturity of a hospital. Specifically this means scanning medication, blood and human milk for babies at the bedside.

This team were awarded **Digital Team of the Year** at The Digital Health Awards for the NHS this time last year in recognition of their work over the years.

The implementation of the **Command Centre** and the **Electronic Patient Record** are clearly major digital transformation initiatives that have changed the way the Trust works and truly demonstrated the staff’s ability to implement change along with their digital skill set. The current strategy focuses on work post EPR and Command Centre’s initial implementations.

During **COVID-19** the Trust saw a substantial increase in the number of laptops for home working on a prioritised basis, progressing an outstanding element of the strategy. In addition the teams deployed a family – patient communication tool to support limited visiting.

A. Delivery of Strategy

Progress on the delivery of the digital strategy is outlined below by strategic theme.

Strategic Theme 1. Improving the quality of care and the health of our population via big and small data

This theme is intended to progress the use of the wealth of data the Trust and Place now have digitally, primarily due to the transition to an EPR. The key projects and progress are noted below.

- Creation of **real time quality dashboards** – The teams have now stood up several quality dashboards working in partnership with clinical services and the offices of the Chief Nurse and Chief Medical Officer, for example for Maternity Services. Actively using dashboards to show an holistic view of the quality of a service is important to the Trust’s Quality Strategy and the ambition to provide outstanding care. Co-defining and co-designing with clinical services, that takes into account national perspectives as well as our local position and needs, is a best practice approach that the Trust uses. As the team have now created a number of dashboards this project continued development will be overseen as part of routine operations.



- Creation of a **population health management platform** that would put together data from across the Place – This past year the Trust has taken advantage of the nationally-funded Local Health Care Record Exemplar Programme for population health management (PHM). The local programme is the Yorkshire and Humber Care Record (YHCR). The YHCR PHM platform provides hosting of data along with PHM tools. The Trust has moved the Connected Bradford dataset to the platform and is now looking to move other datasets. This has been funded for 5 years.

In addition the Place conducted an analysis skills assessment (using a Public Health England tool) to review the collective analytic skill set in the patch. The conclusions were that there is significant resource and opportunity as a patch. This work has catalysed discussion between the Research Institute, the CCG and the Council. The next strategic step in PHM will be to use more real time but un-coded data, which is being explored with the groups mentioned.

- The use of **Artificial Intelligence** has progressed through the Command Centre work. In addition the Head of Clinical AI, Dr Tom Lawton, continues to explore various applications. Currently he is exploring AI-predicted A&E visits.

Strategic Theme 2. Enabling breaking down traditional care boundaries and developing a patch-wide patient record

This theme is focusing on digitally enabling an integrated care system within Bradford district and Craven. There are quite a few initiatives whose objectives relate to supporting integrated care. This past year the Place released its interactive digital strategy that can be found here – peoplefirst-digitalfirst.org. This site outlines the current and expected digital offering, and acts as a calling card for potential partners. This has spurred interest by clinicians and suppliers alike for which innovative proposals are being developed.

- **Regional Imaging and the Yorkshire & Humber Care Record** – Work within the Yorkshire Imaging Collaborative, which has been led by this Trust since inception, has seen all Trusts in West Yorkshire and Harrogate have the ability to view into each other's PACS for patient safety reasons. The Collaborative has been awarded £6.2M which will put a solution in place that for radiologists to report on any image from any Trust. This funding is expected shortly. The Imaging Collaborative is increasingly being seen and treated by NHS England/Improvement as the network for Yorkshire speaking on behalf of the Trusts.

The Trust also actively participates in the Yorkshire and Humber Care Record and was one of the pilot sites. This programme will see all regional Trusts exchange key clinical data (export/import) via the Care Record, for example, allergies and safety alerts across all of Yorkshire and Humber (the three Integrated Care Systems - West Yorkshire and Harrogate, South Yorkshire and Bassetlaw and Humber Cost and Vale). The Trust has completed the proof of concept connection and is now underdoing the technical readiness assessment to complete the permanent work.

- **Health Information Exchange (HIE) and exchanging tasks with SystmOne** – The Health Information Exchange is software in the EPR that allows Trust clinicians to view into primary care's EPR from within a patient's record and vice versa; this work is ongoing. The Trust along with our partners in the patch are actively progressing customisation of this interface



for our clinicians by clinical services. Considerable work has been done to customise the interface for Stroke for which we share patients with Airedale Hospital.

In addition to the HIE the Trusts and EPR suppliers are committed to working together to further exchange data to support workflow, for example, the exchange of tasks between the EPRs.

- **Nursing home EPR** – A lesson from COVID-19 has been the importance of digitising care homes for both a medication safety perspective and also simply to have clinical data available digitally from offsite. The Trust (and patch) is expected to be awarded funds (£300k) to do this work. Digitising care homes will fill a much-needed hole in digital records across the patch for safer and more efficient clinical care.

Strategic Theme 3. Improving the richness & breadth of patient interaction from wellness through recovery

This theme is intended to improve the patient experience through improved richness of communication. The Trust is starting to make strides in this realm digitally.

- **Non-letter communications with patients** – This programme of work is looking to provide a richer patient communication experience with the aims of addressing current barriers around language, inclusivity and ease of interaction. The Trust has made progress on several fronts. This past year the plaster room went live with QR codes (bar codes) on plaster casts that, when scanned, provides after care advice in different media formats. There is already a lot of interest in this method for other service and purposes.

Just recently, an initiative led by the Transformation Team, saw the Trust transition to digital letters which means patients can now download their letter instead of waiting for the post if they prefer.

The Trust currently uses a two-way text messaging service for appointment reminders. It is currently exploring a wider use of SMS text messaging. As a patch we are also working with a start up company and NHS England to develop an app for medication guidance in different languages. Funding is expected by NHS England.

- **Tele consultations** – As with most if not all Trusts across the country, the Trust significantly ramped up use of tele/video consultation appointments at the start of COVID-19 courtesy of a national pilot. A return to in-person appointments is not expected where it not specifically warranted, pending business case approval next year.
- **Patient – family communication** – This programme was also expanded quickly during COVID-19 with the release of our FamilyView application along with the provision of tablets to the wards for this purpose. This builds off the Trust's award-winning BabyView system.

Strategic Theme 4. Preparing for citizen-centric health and care

In this theme the Trust aims to promote digital service outside of the hospital walls and more focussed on supporting health digitally.

- **Self-care** – The Trust has made some progress in self-care. The Trust is using the Orcha platform. In this platform our clinicians review and validate apps. Once validated clinicians



can then recommend the apps as part of their care plans. In Bradford the CCG sponsors a customised Orcha site for all of the apps used locally.

- **Patient's own record** – The Trust and Place are working with the Yorkshire and Humber Care Record to evaluate options and adopt a patient held record. The Bradford patch has now explored several options with all, bar one, requiring a commitment to a single supplier. More recently a supplier that provides a 'front door' to all others is being explored. The Place will need to come to a conclusion on the way forward.
- **Home monitoring** – The key project in this category is the trial of the TytoCare devices in the ACE programme. The ACE programme have completed a formal pilot. Initial feedback on the review will be very useful for clinical adoption of any new kit into a clinical service. This project will act as the base for how we can deploy other kit. There has been significant interest in the Tyto kit across the country.

During COVID-19 the Trust also deployed personal COPD kit. A review of this deployment is to be done.

As part of Phase 3 bids our Place may receive funds to further deploy home monitoring kit.

Strategic Theme 5. Enabling multi-way communication for administrative and clinical care

Communication is a key theme that was raised during the development of the digital strategy. This theme is intended to progress all forms of communication: people to people, people to IT, and IT to IT.

- **Mobile EPR** – One of the Trust's strategic suppliers, Nautilus, has provided the Trust with a mobile view of key elements of the EPR. This mobile view is accessible and read-able on a phone. Validation of the app was primarily completed pre-COVID 19. The teams have now restarted the project with final clinical testing underway. The mobile EPR should roll out before Christmas this year.
- **Scan for Safety** – This programme is being run through the West Yorkshire Association of Acute Trusts (WYAAT). The Trust is working jointly with Airedale Hospital to run a joint project to take best advantage of the collective resources. Together our Trusts are prioritising supply management in line with the other acute trusts but also clinical safety of scanning bar codes for medication, human milk and blood. In this scenario the scanning of the product, patient, staff member and linked to the request provides a 'closed loop' of safety. This also aligns to the Digital Aspirant Programme work stream on achieving the safety elements of HIMSS 6.
- **Robotics** – Last year the Trust spent considerable time exploring possibilities of using software robots. Robots execute a pre-programmed set of tasks, for example, move patients from one list to another. Various possibilities were explored from feasibility, cost and safety perspectives. The Trust approved the business case this past summer. The business case starts very conservatively and will start with less risky endeavours. It is expected that robots will create significant savings over the year as more and more routine work is automated.

Strategic Theme 6. Joining up financial, resource, performance, and quality information for timely, holistic views

Complementary to the theme around using data, this a supporting theme to ensure the Trust continues to progress the infrastructure in terms of making available, in a joined up way, more and more datasets.

- **Command Centre at Place** – Command Centre for the Place could arguably sit under many themes in the strategy. The Command Centre at Place, as noted above, is being funded through the Digital Aspirant Programme with the intention of doing something in the Place that supports integrated care. With a broad definition open to the Place, the district could make use of a Command Centre for clinical care directly, resource management or operational efficiency, among others. To date interviews and a workshop have been held to define the scope. Agreement on scope is expected to be reached at a broad level in early October 2020 to facilitate more detailed scoping and execution. This is a two year project that could significantly transform integrated care in the district.
- **Data warehouse improvement** – Although this may seem obvious the ongoing development of the data warehouse is key to all of the aims of the Trust around use of data and information. There is a rolling plan annually that sees the Trust add data feeds to the data warehouse. Ongoing improvement of the data infrastructure is needed for both the provision of information but also the quality of the information. Automated feeds also remove human error and provide assurance around data integrity. Much of the progress of data quality kite marks comes from automation – from when data is entered as a by-product of care to when information is presented for decision making and assurance.

Strategic Theme 7. Digitisation/Upgrade Roadmap

This theme ensures that areas that are not digitised or where further digitisation is needed, is captured for completion. Upgrades from legacy information systems are also included in this theme.

- **Clean up of scope leftover from EPR implementation** – Post implementation of the EPR there were a handful of items that were due to complete shortly after. These were clinical safety elements for updating most notably the introduction of the sepsis bundle, the move to NEWS2, going live with the HIE. These items have all been completed.
- **Digitisation of areas that are not digital** – This work supports the ongoing upgrade of information systems. Included here is the expected transfer of Maternity to the Cerner EPR. For reference remaining modules would then be Intensive care units device integration in the EPR and Theatres. This year and next are important years for the Trust as it is expected that Maternity will fully transfer from the legacy information system to the Cerner EPR.

The WYAAT Trusts are in the process of securing funds for eRostering and eJob Planning for consultants.

The Trust also participates in the pathology digitisation project under WYAAT that, much like Radiology, will see pathology samples digitised. This work is in progress but in its early days with technical standards not yet fully developed.

- **Integration with EPR** – With multiple information systems supporting unique needs, integration is important to mitigate any clinical miscommunication. This past year the Trust has been exploring some basic integration with the Yorkshire Ambulance Service’s new EPR. Further integration is expected in the coming years with the Talk Before You Walk national initiative. The Trust is currently working with Cardiology to define their complex work processes and needs to then formulate a plan to better integration with the Cardiology specialised IT and the EPR for diagnostic results and scheduling,
- **Upgrades** – The Trust manages a rolling list of upgrades, hardware, software and end user kit. A number of more minor upgrades are done every year according to the plan. No upgrades have slipped outside of the support timeline. This year the Trust completed two major upgrades – PACS (diagnostic images’ store) and the EPR. Both upgrades completed successfully with only minor issues.

The Trust participates in the Regional Pathology Programme that will see the LIM upgraded with a new Regional LIM. The Trust is well represented digitally via the CDIO WYAAT representative on the Board and the Programme Manager on the LIM Board.

Strategic Theme 8. Electronic Patient Record Optimisation

Optimising the EPR and other existing tools is a focus of the Trust that aims to not only ensure the Trust leverages the tools for which we have invested but also to ensure adoption and best use of the tools. The areas of focus have been:

- **Saved not Signed** - A campaign ran this past year to ensure that documents in the EPR are appropriately saved, then signed and not just saved. Signing a document (albeit electronically) is part of a code of conduct.
- **Out-patient streamlining** – The Trust and an external company worked together to job shadow in some out-patient areas that have a high throughput of patients each day. The teams were ensuring that the EPR method of access and use was effective and efficient.
- **Junior doctor standardised use** – One of the Medical Informatics Officer, Dr Liz Brierley, spent many months this past year examining inconsistent clinical use, reasons for that use and resolution to a standardised method. This work has been successful with learning on both sides.

Strategic Theme 9. Infrastructure Refresh

The final theme intends to ensure that the supporting infrastructure is kept current. Keeping current is needed to be ensure IT services are stable ongoing.

- **PABX** – After several years of planning, the Trust is in the process of upgrading its legacy PABX. The PABX is the internal telephone exchange. The upgrade is a major step forward to near complete digital telecommunications, which is called VOIP - Voice over Internet Protocol.
- **Cloud** – In the past year the Trust has been exploring a move to public cloud. Currently a private cloud is in use for the EPR and eRoosting information systems. Moving to a cloud

service has several advantages around maintenance and cyber security, however finding the balance between risk, cost, and volume of move is complicated. Also a number of lessons are being learned from other organisations around what functionally works well and not well in a cloud service. This year the Trust is expected to approve a partial move to public cloud to mitigate the aged data centre components investment costs.

B. Delivery of Operations and Internal Assurance

From a service delivery perspective, the Trust continues to provide stable digital services. The section provides a high-level snapshot of the position of the service metrics and the profile of four key areas – cyber, kit age/capacity, green IT and data quality.

Service metrics

The services monitor monthly a suite of metrics on performance and internal assurance to ensure the services are functioning within their agreed metrics and to provide perspective on key areas, respectively.

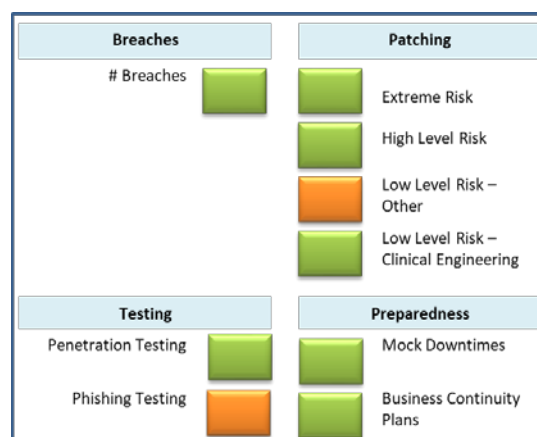
Service	# Performance metrics	# Assurance metrics
Overarching	NA	10
Clinical Informatics	To be added	9
Business Intelligence	16	9
Going Digital	See projects' status	0
Information Technology	30	29
Information Governance	To be added	8

The Trust continues to run fairly smooth operations with most metrics consistently being met. The key exceptions are:

- Clinical Coding Service Level Agreement** – the service struggled at times with a mismatch between workload and staffing. Considerable work was done to support the service. The service is now much more stable, has clear capacity and demand knowledge and is now working to achieve a short end of month close date of 5 days.

Internal assurance metrics















Profile - Cyber security - The Trust continues to actively monitor metrics associated with cyber security for example, the quickness of releasing patches. Cyber security is important as a cyber attack could significantly impact the operations of the Trust. The cyber metrics remain relatively positive. This past year the Trust successfully gained ISO accreditation for cyber security. The Trust also drafted and approved a Cyber Security Strategy. The current cyber security scorecard is as follows:



Profile - Equipment age and capacity

The profile of the age and capacity of all of the Trust' information technology is presented below. A number of the red rated areas are due to be remedied in the next few months with the current work:

- **PABX age** – this project is underway and will complete by early 2020/21.
- **Data Centre age** – a number of components are getting to end of life. This position is part of the picture and rationale for the Cloud plan that is in development and expected to be ready for consideration in November 2020.
- **End User kit** – is being replaced with the Windows 10 roll out currently. This is a two year plan

Age		Capacity	
Data Centres			
% Data Centre <= 6 yrs old			Storage Area Network
			File servers
End User			
% Desktops > 5 yrs old			
% Tablets/ Laptops > 4 yrs			
% Print/Scan/ Copiers > 5 yrs			
Telecommunications			
% PBX > 4 yrs			Private Branch Exchange
% Mobile phones > 3 yrs			Smartphone
% Smartphone > 3 yrs			% Wireless
Aged Paging System			
% Wireless equip <= 7 yrs			

Profile - Green IT - This past year the Trust formally began considering environmental sustainability as it relates to IT. The Trust recently drafted and approved a Green IT Strategy. The Trust is doing relatively well with these metrics and needs to focus on reduction in the use of printing. The scorecard is as follows:

Data Centre		Devices	
Data Centre Power Consumption (KW/H)			Users / Device Ratio
% Virtualisation (Servers)			Device Lifespan (years)
Cloud Adoption (number of hosted systems)			Savings from Power
			Devices Purchased/ Disposed/ Recycled
			Average Consumption/ Device
Paper		Digitisation	
% Pull Print Adoption (v Push printers)			Digitisation plan (via Strategy) progress

Profile – Data Quality - Ongoing improvement plans around intelligence - data quality, clinical coding and business intelligence are monitored and are progressing satisfactorily. These support the ambition of being information-led. This past year this has been supported by the production and use of a Data Quality Framework. The Trust's current data quality profile is shown below.

	1 Initial	2 Developing	3 Defined	4 Performing	5 Optimal
People					
Process					
Technology					

C. Benchmarking the Services

The Trust benchmarking its digital services last in July 2019, which is the most current data available. The benchmarking looked at:

- Digital maturity
- Adoption of technology
- Efficiency of the services.

Digital Maturity

This is compiled using a self-assessment tool deployed by NHS England. This tool measures how well providers in England are making use of digital technology to achieve a health and care system that is paper-free at the point of care.

The Trust currently ranks 7th in the country for digital maturity. For the two categories of digital maturity the Trust ranks 1st in the Readiness category and is in the top quartile (77%) for Capabilities.

Adoption

Benchmarking is performed by reviewing the 16 UK Cerner Sites that are on the same version as the Trust.

The Trust ranks highly against peers across the six metrics. For Total Alerts Fired the less alerts fired means that compliance with using EPR is high, but shows as a low Client Rank.

Metrics	Daily Average	July 2019	Average	Median	Top 20%	Client Rank
Total Alerts Fired Alerts	15,295	474,141	847,705	691,077	307,171	10 of 15
Allergies Documented Allergies	242	7,512	6,873	5,274	9,674	1 of 15
Chart Opens Charting	57,425	1.8M	1.4M	1.2M	1.8M	2 of 16
CareCompass Opened Clinical Tasks	1,899	58,873	63,643	21,964	157,535	4 of 13
Dynamic Documents Documented Documentation	1,098	34,042	18,394	310	6,607	3 of 15
Order Sets (Total Workflows) Workflow: Order Sets	306	9,479	6,141	3,371	9,760	1 of 15

Current work is being focussed on the use of the CareCompass (a nursing tool) to improve compliance and ensure assessments are performed in a timely manner. New benchmarking will be undertaken now that the EPR upgrade has been completed.

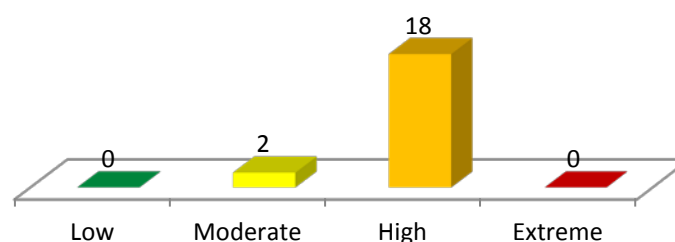
Efficiency

There are several indicators recently released in the Model Hospital that relate to Information Technology benchmarking. In this context IT Services is strictly defined as hardware and software and their direct support and does not include Business Intelligence, Going Digital, Clinical Informatics Teams or Information Governance.

- **Digital Maturity of Enabling Infrastructure** - defined as the extent to which providers have the underlying infrastructure in place to support the capabilities outlined. The Trust score is 93% which is in the upper quartile. An area of improvement was for all clinical systems to have a business continuity/disaster recovery plan. It is expected that once this factor is addressed the score will improve as its now been done.
- **Cost per £100m turnover** - the cost of the IT functions per £100m of trust turnover during the period. This metric enables comparison of the IT function cost across different-sized trusts. The Trust scores very well (£1.87M) against the peer median (£2.27m) and national median (£2.47m)
- **WTE per £100m turnover** - the whole time equivalent (WTE) number of staff in the IM&T functions at the end of the period, per £100m of trust turnover during the period. Against our peers (median 40.0) and nationally (median 37.2), IT is potentially understaffed by at least 10 WTE (26.8).
- **Cost per trust WTE** - the absolute cost of the IM&T function per trust whole time equivalent (WTE) staff member during the period. This metric reports the cost per trust WTE for the IM&T function and provides a common basis for comparing the cost of this function between different organisations. The Trust (£1,485) benchmarks well for total IT costs peer median (£1,611) and national median £1,852).
- **Pay cost per function WTE** - the average pay cost per whole time equivalent (WTE) staff member in the IM&T function, at the end of the period. The Trust benchmarks high (£39,576) for pay costs against number of staff (national median £34,607). In IT staff tend to be more senior, which generate a higher average cost per WTE.
- **Cost of IT per device**- the total combined cost of the Data Centre/Hosting, End User Devices and the IT Service Desk sub-functions, during the period, per IT end user device (excluding printers) supported in a trust. The Trust benchmarks positively (£103 vs peer £229 and national £245) with low costs per device noting the Trust has a relatively high number of devices. This is a result of standardised kit.

D. Risk

The current risk profile of the digital services is noted below. The number and ratings of risks have come down over the years with the execution of the digital strategy and the associated investment.



Today the highest ranking risks, rated 12, are:

- Use of **instant messaging** by Trust employees – this is being mitigated with communication and a high level of awareness of information governance. Longer term this will be mitigated of a secure instant messaging service. The Trust is exploring options along with potential funding from the centre this year, however deployment may be next year.
- **Endorsement of diagnostic results** in the EPR Message Centre – this is being mitigated with education.
- **Impact of COVID 19** on EPR work – This has been assessed. Critical work has been expedited. This risk is expected at this time to be closed or down-graded in this year.
- **Telephony failure** – This is the risk around the aged PBX (internal telephone exchange). This project was paused during COVID 19. Work began again last month and is progressing quickly with an targeted end date at the end of the financial year.
- **Aged paging system** – This risk is around the age of the equipment. The equipment is under a support plan and alternatives are currently being explored.

Three of the current High rated risks should come down in score or be closed at the end of this financial year or early next year.

III. Expected progress this year and next

This year and next the Trust is expected to continue to progress the “From Going Digital to Going Virtual” strategy. A number of small and medium initiatives will continue and be monitored through the Digital Report.

The larger, key initiatives as described earlier in this report that the Trust is progressing are:

1. Transition from the legacy maternity information system to the EPR, subject to approval.
2. Completion of the PABX upgrade which will remove one of the High rated risks.
3. Development of a Command Centre at Place.
4. Move into homes and home care with the digitisation of home care and further home monitoring
5. Although not strictly a project outlined in the strategy the collaboration between the two acute Trusts in the district is maturing with a shared service being considered.

IV. External Assurance

A number of Internal Audit reports were undertaken recently on both the digital strategy achievement and on key areas of the digital services – Green IT and Cyber Security. The findings of those audits are noted below.

A. Digital Strategy

In April 2020 the Internal Auditors were asked to review the delivery of the Strategy. The objective of the review was to provide assurance that the Foundation Trust has adequate arrangements in place to implement a Digital Strategy and to monitor the progress and effectiveness of its implementation.

The Auditors provided a Significant assurance opinion as below.

Significant	<p>The Foundation Trust's current strategy 'From Going Digital to Going Virtual' covers a five-year period ending in 2023. The Going Digital & EPR Programme Board provides direction and assurance over the implementation of the strategy. Individual projects are in place supporting the delivery of the strategy and are regularly monitored to ensure the implementation of the strategy is being continuously progressed. Recommendations have been included to address issues identified during the audit including: ensuring completeness of information in the Multi-Year Work Plan and updating the Terms of Reference of the Programme Board. The meeting of the Going Digital & EPR Programme Board in January 2020 was not quorate as it was attended by less than a half of the Board members.</p>
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There was two primary but non-urgent action item related to supporting incomplete information in the Multi-Year Work Plan and discrepancies between the Multi Year Work Plan and the Informatics Performance Report due to timing delay in updating the Multi Year Work Plan. This has now been completed.

B. Green IT Strategy

In February 2020 Internal Audit completed a review of the Trust's Green IT Strategy, which was developed earlier in the year. The objective of the audit was to provide assurance that adequate controls are in place to achieve a successful reduction in energy consumption and to make progress in delivering a more sustainable provision of IT services.

The Auditors provided a Significant assurance opinion as below.

Significant	<p>The review found that an IT Sustainability Strategy is in place. There are appropriate governance arrangements in place to ensure oversight and assurance of progress against the strategy is reviewed. A number of positive initiatives have been introduced within Informatics to reduce the Foundation Trust's energy consumption and carbon footprint.</p> <p>However, the review confirmed that weaknesses were evident which require management attention. This relates to the process for the consistent recording and monitoring of the Data Centres power consumption.</p>
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	Additionally IT asset tag details need to be recorded onto the Disposal spreadsheet and also by the disposal contractor to allow for both the verification of assets being removed of the IT asset register and that confirmation the asset was erased of all sensitive data.
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The report noted two key actions that the Trust has partially completed – ensuring the asset log is kept current (complete) and providing data on the power consumption in the Data Centres.

C. Cyber Security Position

In June 2020 the Internal Auditors were asked to review the cyber security position of the Trust. The overall objective of the audit was to provide assurance to the Foundation Trust that it has effective systems and processes in place, which are being adhered to, in order to appropriately manage cyber security risks.

High	The review has confirmed that overall there are effective control mechanisms and governance arrangements in place for cyber security, with processes in place to manage the response to the increased cyber security risks posed. Of the 10 steps assessed, sufficient evidence was provided to be allocated a High assurance opinion.
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V. Appendix: We Will Statements status



From “going digital” to “going virtual”

*Our new digital strategy: part of a Place-based digital strategy
2018-2023*

To provide outstanding care for patients

- We Will
- ☐ Provide information on the safety of our patients right now
 - ☐ Enable interactive patient communications to care for cohorts of long term patients in different ways and see patients in virtual settings or not at all
 - ☐ Provide a richer patient communications to respect the diversity of our population
 - ☐ Use technology for health promotion and monitoring to keep patients well and avoid coming into the hospital for care
 - ☐ Enable self-coordination of care, including a Patient Portal
 - ☐ Prepare for the consumerisation of diagnostic devices, recognising more and more monitoring will be done in the home

To deliver our financial plan and key performance targets

- We Will
- ☐ Join up information for a holistic view of services
 - ☐ Use artificial intelligence and machine learning to learn about the need for follow-up visits, among other topics

To be in the top 20% of employers in the NHS

- We Will
- ☐ Improve staff experience by further streamlining tools and adding to the tools available to staff
 - ☐ Ensure remaining functionality in the EPR is turned on
 - ☐ Ensure all legacy systems are upgraded to the EPR standard

To be a continually learning organisation

- We Will
- ☐ Use big data to inform front-line care & drive improvement
 - ☐ Use artificial intelligence and machine learning to learn about how we provide services and about the care we provide

To work effectively with local and regional providers

- We Will
- ☐ Provide one, transparent record across the care continuum
 - ☐ Reduce duplicate record keeping across organisations
 - ☐ Provide the facilities to coordinate care across organisations
 - ☐ Provide the tools for real time population health management with our partners

Key

Complete Progressing Not progressing on plan

