



Wrightington, Wigan and Leigh Teaching Hospitals

NHS Foundation Trust



Caring for our Data
2022 - 2025



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As we move to becoming more data-led and data-driven it's crucial we have good information to inform our decisions and therefore good data quality.”





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Over the last few years the Trust has developed a reputation for being a leader for its innovative use of data and analytics and has a wealth of successes to show for this.”



FORWARD.

Over the last few years Wrightington Wigan and Leigh Teaching Hospitals NHS Foundation Trust (WWL) has developed a reputation for being a leader for its innovative use of data and analytics. The Trust has a wealth of successes to demonstrate this with the most recent being awarded Europe's Best Data Powered Business 2021 by the International Data Corporation (IDC).

This success is a great achievement for the Trust and reflects the hard work over the last few years from ward to board, however we cannot rest on our laurels.

We are seeing growth in the following areas:

- The amount of data we are generating from digitising our records and/or introducing new digital systems.
- The thirst for data and analytics both internally from our people and externally from our partners.
- The technology available to better process, store and/or share data.
- The pressure on frontline services.
- The increased need to predict and plan using real-time data rather than relying on historical trends that may no longer correlate to the post pandemic world.
- The interest in and need to safeguard our data and to protect people's privacy.
- Collaborative working with our health and social care partners.

This strategy sets out our priorities for the next three years and how we look to further improve our recording, use, sharing and safeguarding of our data.

This strategy underpins the Trust's strategy and its digital strategy and therefore should be read in conjunction with these documents. This strategy also includes expectations from the following national strategies:

- What Good Looks Like (NHSX).
- Data Saves Lives: Re-shaping health and social care with data (The Department of Health & Social Care).
- The Future of Healthcare: Our vision for digital, data and technology in health and care (The Department of Health & Social Care).
- The NHS Long Term Plan (NHS England).



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Being able to view an up-to-date shared care record at the time of treatment is imperative for good care.”



INTRODUCTION.

What do we mean by data?

Data can have many different meanings and interpretations, in the Trust and in this strategy, data includes information and records both in digital and paper form.

What types of data do we have?

The Trust has a wealth of different types of data, whether that be structured data such as national diagnosis and treatment codes or unstructured data such as free-text notes, diagnostic scans or even old handwritten paper records.

Where do we get our data from?

The majority of our data is patient data which is obtained from patients during their care. This data is recorded in one of the Trust's many clinical systems. We do also obtain and exchange data with other health and social care providers including GPs or support services such as pathology.

What do we do with our data?

Our biggest use of data is for the provision of health care. Good data is obtained through adhering to good clinical record keeping standards. Being able to view medical history at the time of patients' treatment is imperative for good care. Data is also utilised to measure and improve the care that we provide.

We also share limited data sets with our local and national partners for national statistics, benchmarking, and research, to name just a few uses.

More information is available via our Privacy Notices however we will be showcasing more uses via videos and webinars in the future.

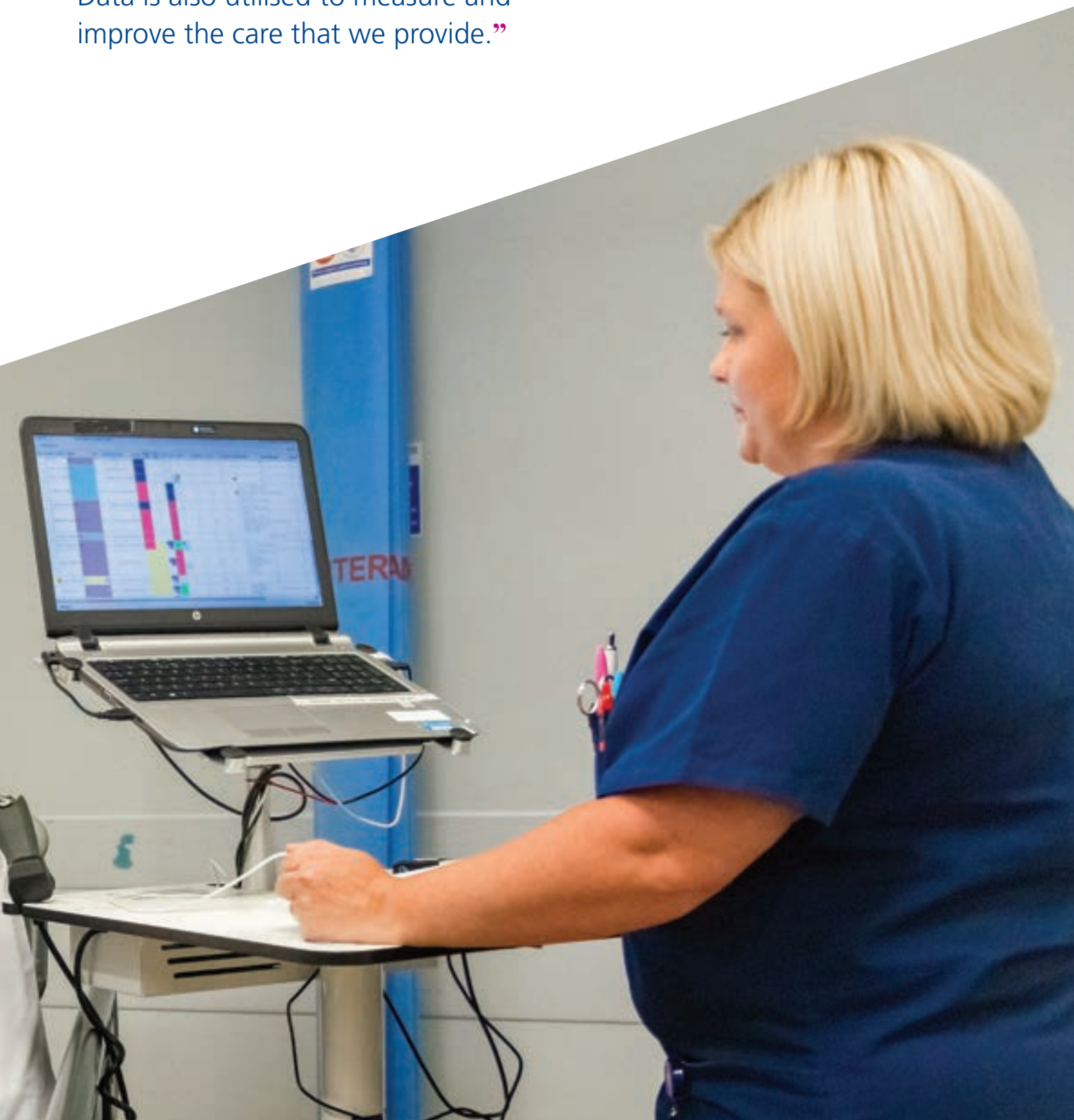
Who regulates the use of our data?

The Trust has a number of different committees that oversee the use of data, ultimately, we abide by the UK Data Protection Act and General Data Protection Regulations (GDPR). The Trust completes a Data Security Protection Toolkit (DSPT) assessment annually on how it meets the National Data Guardian's 10 Data Security Standards to evidence that personal information is handled correctly.



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Data is also utilised to measure and improve the care that we provide.”



OUR DELIVERY PRIORITIES.

We will Improve...

Our Data Quality by:

- Working on prevention rather than cure, developing our "Get It Right First Time" approach.
- Continuing to improve our Data Quality app to enable us to highlight issues or gaps in our data.

The Trust's understanding of data including its potential, literacy and regulation. We will achieve this by:

- Producing more bitesize literature and webinars on data related topics.
- Using clear and consistent language when explaining data, methodologies or regulation.
- Working closely with system owners to ensure that they are fully engaged when developing our data's potential.
- Continuing to achieve the NHS Data Security Protection Toolkit standards.

Our Data Sharing will include

- Identifying opportunities to increase data sharing with partners.
- Improving the means and timeliness of data sharing.

Our transparency by:

- Making more data available to the public in statistics and anonymised datasets.
- Developing a real-time view of our programme plan detailing what we are working on, why and when.
- Providing more comprehensive Privacy Notices on how the Trust uses data and who it is shared with.
- Promoting patients choice for sharing information.

We Will Integrate...

More Data and Analytics into the Trust's decision making processes by:

- Continuing to develop and iterate apps where data is hidden, complex or time consuming to digest.
- Consolidating the number of apps and simplifying our reporting hub to make it quicker and easier to find what is needed.
- Increasing the awareness of the Trust's apps and how they can support decision making.

More with our frontline services, working closer together to improve our context, insights and utilisation of data and analytics. We will recognise excellence via a new data champions programme.

More predictive and what-if capability into apps to enable planning and preparation for the future.

Further with our academic partners and suppliers on:

- The promotion of the data professions within healthcare.
- Expanding the number of work experience placements.
- Looking for more collaboration and research opportunities.

We Will Innovate...

- By transforming the Trust's Data Warehouse so it's less focused around discrete events and instead more focused on patients, to better support direct care and wider population health decisions.
- By transitioning our data and analytics to the Cloud so that we can process more data, refresh data quicker and more frequently, as well as increased data sharing with our people and partners.
- By implementing Robotic Process Automation (RPA) to improve data quality and data sharing by automating data flows, not only between our different digital systems but also to our partners.
- By implementing our first Artificial Intelligence use-case.
- By designing a new interactive Data Protection Impact Assessment (DPIA) to make it quicker and easier for our people to complete when making changes to what or how data is recorded, used and/or shared.
- By developing reports and risk stratification tools that aid the localities population health and health inequalities agendas.

1. DATA ANALYTICS.

Being able to translate raw data into meaningful and insightful analytics is probably the biggest reason and benefit of recording data second only to clinical record keeping.

Analytics supports making the right decisions and ensuring patients receive the best possible care. Analytics enables us to gain knowledge from data including identifying trends, opportunities and areas of improvement. Analytics can also help to predict and plan for future events.

Our analytics and apps produced to date have predominately supported operational and strategic decision making, however as we now have rich digitised clinical records, we want to introduce more to support real-time clinical decision making as well as research.

What will our patients, community, partners, and people experience?

- Our people will have the analytics to improve their insight and understanding of the organisation.
- Our patients will be happy knowing their data is supporting the organisation to make data-led decisions.
- Our partners will have access to our analytics for transparency and to inform their planning and decision making.



Our delivery priorities will include

- Making more analytics available via self-service so you get answers to your questions when and where you need them.
- Increasing our use of predictive and what-if analytics to better help the organisation plan and prepare.
- Working more closely with our frontline to improve our context, insight, and utilisation of analytics.

2. DATA QUALITY.

Accurate, timely and complete data are just 3 of the 6 key elements of data quality that underpin information. As we move to becoming a more data-led and data-driven organisation, it is crucial we have good information to inform our decisions and therefore good data quality.

Over the last few years, we have made great strides in providing data transparency, highlighting invalid

data and where improvements can be made. We will continue to build on this as well as working more closely with the organisation on prevention of errors and a Get It Right First Time (GIRFT) approach.

What will our patients, community, partners, and people experience?

- Our patients are happy that their clinical records accurately reflect their care.
- Our people are confident their decisions are being made on robust data.
- Our partners are assured that they have access to high quality data.

Our delivery priorities will include

- Working with the organisation on prevention rather than cure; ensuring there is clear and concise guidance and accountability for data entry.
- Working with Information Asset Owners to ensure systems minimise mistakes being made.
- Continuing to develop our Data Quality app to enable the highlighting of gaps and/or issues with our data.
- Implementing Robotics Automation to enrich our data, data quality and data sharing.

UNIQUENESS

The assurance that data is not duplicated in our source systems.

Example: On our clinical systems, each patient should have a single record with all of their outpatient attendances, inpatient admissions and A&E visits linked.

ACCURACY

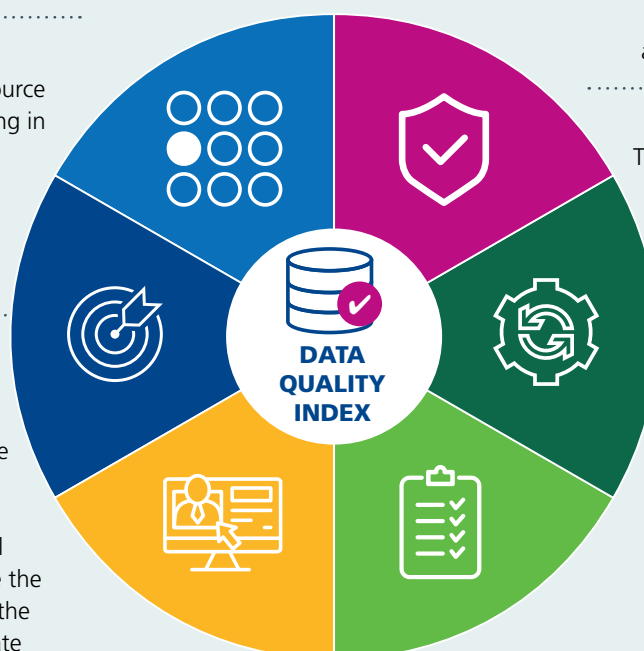
The assurance that data on our source systems matches what is happening in the real world.

Example: On our clinical systems, each patient should have the correct clinic recorded against their outpatient appointments.

CONSISTENCY

The assurance that information is consistent between different systems, and that there is a degree of logical coherence between different data items.

Example: On our different clinical systems, each patient should have the same date of birth recorded, and the date of birth should never be a date in the future.



COMPLETENESS

The assurance that data exists on source systems.

Example: All patients should have a consultant recorded for each admission they have on our systems.

TIMELINEES

The assurance that data is up-to-date and available to be used.

Example: Patients seen by a doctor on a ward round should have their clinical records updated as the doctor is making the ward round.

CONFORMITY

The assurance that data conforms to the expected format.

Example: Patient telephone numbers should be numeric and should be 11 digits long.

3. DATA & INFORMATION GOVERNANCE.

Data Governance is the process of managing the availability, usability, integrity, and security of data based on internal data standards and policies on how data should be used.

Information Governance is the strategic framework within the Trust that secures and utilises data and information. Underpinning this framework is the Trust's adherence to the Data Security Protection Toolkit (DSPT), compliance and understanding of our responsibilities within data protection legislation, and proactive publishing of information. It is imperative that we do not lose sight of any information and as such acknowledge a responsibility to our patients, people, and partners.

Effective data and information governance ensures that data is trustworthy, is used appropriately and consistently across systems and the organisation.

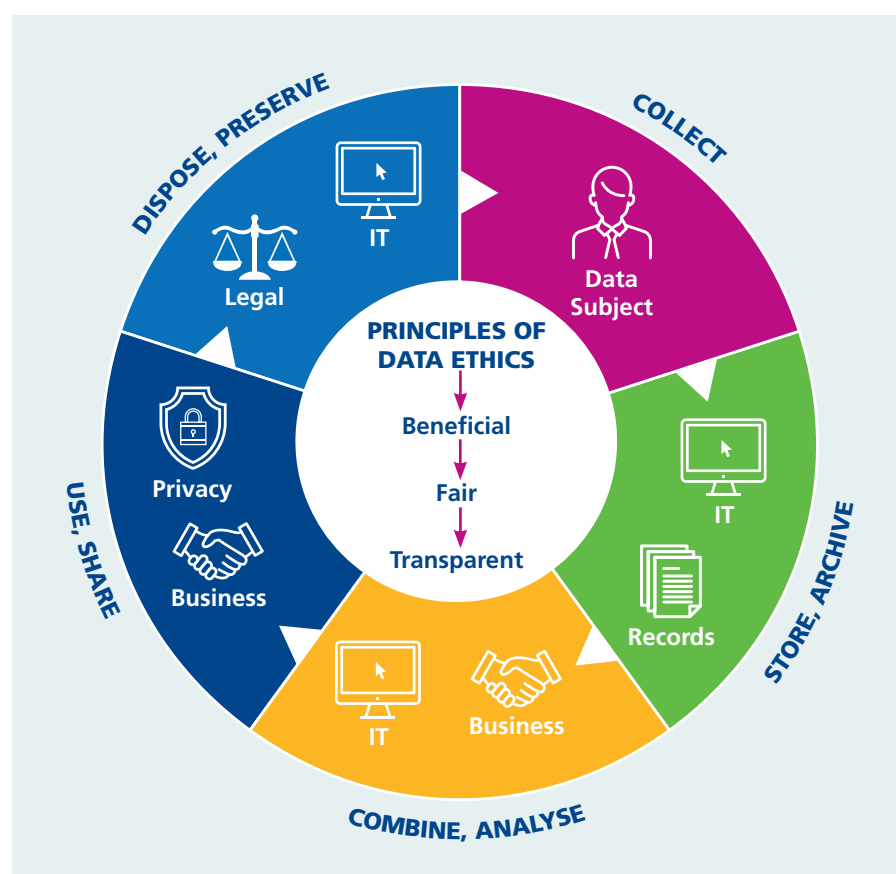
These areas are more relevant than ever, not only as society becomes more data driven but also to ensure that we remain compliant with data protection regulations.

What will our patients, community, partners, and people experience?

- Our people will know what data systems and processes they are accountable for.
- Our patients will be assured that their data is kept secure and used and shared appropriately.
- Our partners will have better access to data to enable improved decision making and care across the system.

Our delivery priorities will include

- Implementing more tools and guidance that empowers the organisation on making the right decisions in areas including data sharing.
- Ensuring data, record keeping, systems and outputs have clear accountability.
- Continue to develop our audit trail of how information is used in the organisation (also known as a Record of Processing Activity or ROPA).
- Achieving full compliance against the Data Security Protection Toolkit for mandated and non-mandated assertions.



4. DATA LITERACY.

Data literacy is the ability to read, work with, analyse and communicate with data. It is a skill that empowers people at all levels of the organisation to ask the right questions of data, build knowledge, make decisions, and communicate meaning to others.

Unfortunately, external research has shown:

- Only **17%** of UK workers are confident in their data literacy skills.
- **67%** of UK workers feel overwhelmed or unhappy when working with data.
- This unhappiness has created a culture of data overload in many organisations, which nearly half (**47%**) report has contributed to workplace stress.
- **21%** of UK workers waste at least an hour a week procrastinating over data-related tasks.

We want to provide a safe space and resources for our people to improve their data literacy, so they feel happier and more confident working with data.

What will our patients, community, partners, and people experience?

- Our people will understand the importance of data.
- Our people will feel more confident when working with data and empowered when making data related decisions.

Our delivery priorities will include

- Consolidating and simplifying our reporting.
- Produce more bitesize literature and webinars on data related topics.
- Using clear and consistent language when explaining data, methodologies or regulation.
- Recognising excellence via a new data champions programme.



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5. DATA PRIVACY.

Maintaining Data Privacy, collecting, storing and using data appropriately is one of the organisation's top priorities.

As well as educating the organisation on this we have implemented a system called "FairWarning" which enables us to monitor our clinical systems to ensure that they are being used appropriately.

Data protection legislation requires that the collection and processing of personal data is fair, lawful, and transparent.

In the UK, the legal frameworks covering how person identifiable data must be looked after and processed are the UK General Data Protection Regulations (GDPR) and the Data Protection Act (DPA).

This means there must always be a valid lawful basis for the collection and processing of data as defined by legislation.



What will our patients, community, partners, and people experience?

- Increased visibility of how patient data is used to support health and social care.
- Our people will be confident sharing data safely when appropriate and required.
- Our partners will be confident that the Trust is a secure and safe collaborator to share data with.

Our delivery priorities will include

- Increase engagement with our patients and people on how data is used.
- A more comprehensive suite of Privacy Notices that covers all the Trust's departments.
- A visible development process regarding to privacy by design with a more transparent Data Protection Impact Assessments route.



6. DATA SCIENCE & ARTIFICIAL INTELLIGENCE.

Data Science and Predictive Analytics are no longer dreams of tomorrow. At the end of 2019 the Trust recruited its first ever Data Scientist. This paid dividends during the pandemic as we were able to model the effects of COVID-19 and project the future impact on the weeks ahead of time. However, Data Science is not only useful during times of crisis, but there are also many other opportunities to expand our predictive capabilities using Data Science, for example, the provision of capacity and demand models and the creation of time to event models for patient discharges.

One area of Data Science that we have yet to explore is Artificial intelligence (AI). The goal of AI is to use computer algorithms to make conclusions based on input data. This is done using techniques including Machine Learning (ML), Deep Learning, Computer Vision and Natural Language Processing (NLP).

Adopting these AI techniques will enable us to support clinicians with prognoses, diagnoses, and treatment plans. Deep Learning could be used for radiology image analysis for tasks such as tumour detection, for example. In addition to this, our large Electronic Patient Record (EPR) datasets could be leveraged to build ML models which could guide both the patient and clinician through the patient pathway. Overall, there is a large pool of structured and unstructured data and we need to leverage the capabilities of AI to realise its full potential in the Trust.

Whilst AI brings many opportunities, the use of AI in healthcare is relatively new and many things need to be considered. A key consideration within AI is ethics. Any Healthcare AI practice should put all patients and people first. This means that it is our responsibility to, for example, minimise representation bias within any of our algorithms. As a Trust, our goal is to

not only implement AI for the good of our patients, but to also do this ethically leading the way for other NHS organisations wishing to implement AI in the future.

What will our patients, community, partners, and people experience?

- Our organisation will have a good understanding of the potential and benefits of Data Science / AI & ML.
- Our people will have access to more predictive information to assist them in their planning.
- Our patients most in need of our care will be highlighted to clinicians.

Our delivery priorities will include

- Growing our predictive and what-if scenario planning capability.
- Implementing our first Artificial Intelligence use-case.
- Expanding our partnership working with academic and industry partners.



7. DATA SHARING.

The Health and Social Care system is made up of many different providers with different expertise. Sharing data in an efficient, secure, and timely manner is key for the continuity of care.

We also share data which is anonymised or aggregated with partners and commissioners to support research, the planning of local services and for quality assurance.

Over the next three years we will look for opportunities to increase our data sharing so that our organisation and the wider Health & Social Care system have better informed data to support decision making. We also want to improve the efficiency and timeliness of data sharing safely utilising new technologies including the Cloud.

When using data for planning and research purposes we always aim to use anonymised or aggregated data but there are occasions when this can have a detrimental effect on outcomes. We will always ensure that we justify the use of identifiable data in these cases. For those patients that do not want their data being shared in these instances they can opt out via the National Data Opt Out programme.



What will our patients, community, partners, and people experience?

- Our patients will experience the benefits of a more co-ordinated Health and Social Care system and less of a need to answer the same questions or provide the same information on multiple occasions.
- Our people will have access to more external data to inform the decisions they make and the care they provide.

Our delivery priorities will include

- Increasing our data sharing with our Health & Social Care partners.
- Improving the transparency of how data is used and shared.
- Promoting the National Data Opt Out programme to patients who don't want their data to be shared for secondary care purposes.
- Developing best practice methods with our partners to enable better sharing of data.



8. DATA VISUALISATION.

Data Visualisation is the specialism of converting and portraying raw data in graphical form. The Trust has led in this area for the last few years, producing visual apps from data that was hidden, complex or time consuming to digest. These visual apps are instead quick and easy to use and support the organisations “single version of the truth” and decision making from ward to board.

Whilst we are committed to continuing our work and success in this specialism, we recognise there is a need to consolidate and centralise reporting to help our people to find the right app, more quickly and easily.

We also recognise the need to share more information and analytics with our partners. We will be making more use of the Cloud to help achieve this.



What will our patients, community, partners, and people experience?

- Our people will know what apps are available and how they can be used to support decision making.
- Our patients will see more data being published by the Trust in visual forms.
- Our partners will have appropriate access to our apps.

Our delivery priorities will include

- Continue to develop and iterate apps where data is still hidden, complex or time consuming to digest.
- Increasing the awareness of the Trust's apps and how they can be used to support informed decision making.
- Transitioning the Trust's apps to the Cloud so they are easier for people to access, anytime, anywhere along with sharing these with our partners.

9. DATA WAREHOUSING.

The Trust's Data Warehouse enables us to centralise data from hundreds of different systems and sources. Having data in one central place makes reporting, analytics, and external submissions easier and more comprehensive and supports our "single version of the truth".

Due to significant growth in the amount of data and number of digital systems being used in the Trust, the Data Warehouse has become slower to refresh than we would like. To overcome this issue, we will transition our Data Warehouse to the Cloud so we can utilise the power of "Cloud Compute" to enable us to refresh our data quicker.

The transition to the Cloud will also enable us to:

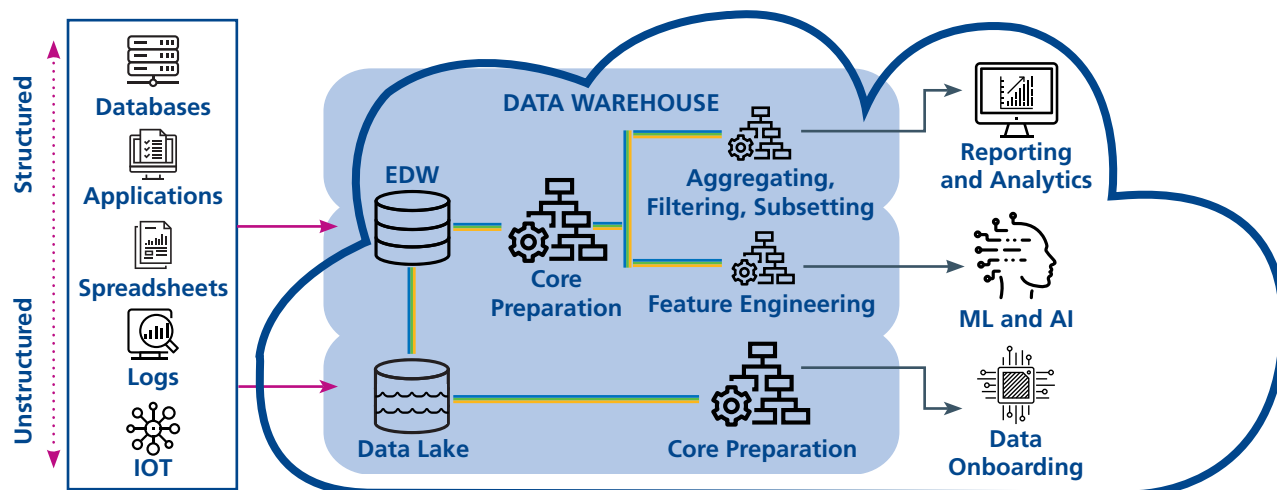
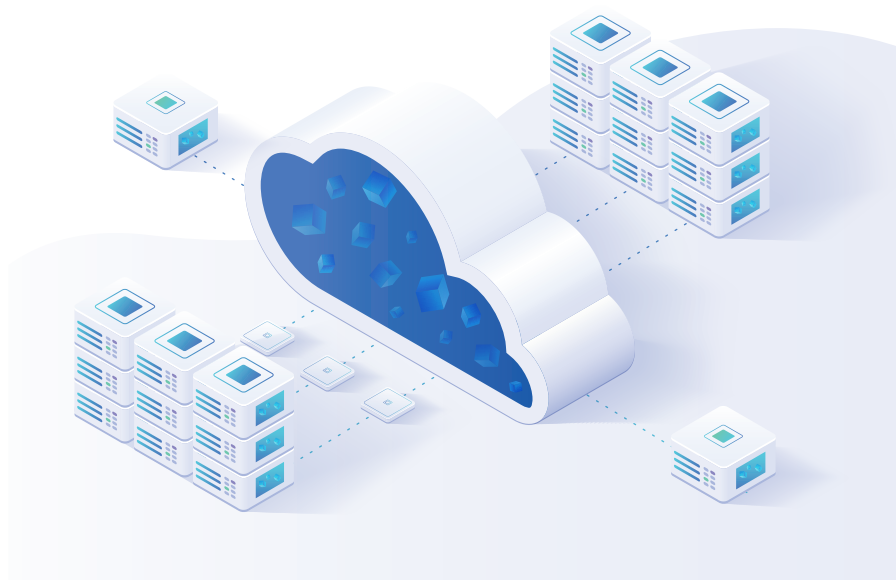
- Store and process unstructured data such as free text documents or images, this will support Data Science and Machine Learning.
- Better share data with our partners.

What will our patients, community, partners, and people experience?

- Our people will see data being refreshed more consistently and frequently.
- Our people will have appropriate access to more holistic patient reporting.
- Our partners will have access to more timely data.

Our delivery priorities will include

- Transitioning the Data Warehouse to the Cloud so we can refresh more data, more frequently.
- Starting to transform our Data Warehouse so it's less focused around discrete events and instead more focused around our patients to better support direct care and wider population health decisions.



10. HEALTH INEQUALITIES.

There are systematic and unjustifiable differences in the health of certain groups of people: for example, people living in different regions of England or those with different levels of income.

Some groups of people:

- live longer than others
- are more prone to particular conditions
- experience poorer health than others
- have a better experience of care than others.

Health inequalities is the term that is used to describe this concept and Public Health England defines this as:

“Avoidable and unfair differences in health status between groups of people or communities.”

Unfortunately, Wigan borough is no different and Wigan’s life expectancy is almost 3 years below the national average. There is also a life expectancy variation of approximately 10 years depending on which area of the borough you live in.

These health inequalities can impact on the Trust’s care such as the timeliness of when someone is fit enough to undertake surgery.

Data plays a key role in reducing inequalities, from identifying and highlighting areas of inequality to monitoring changes from interventions being put into place.

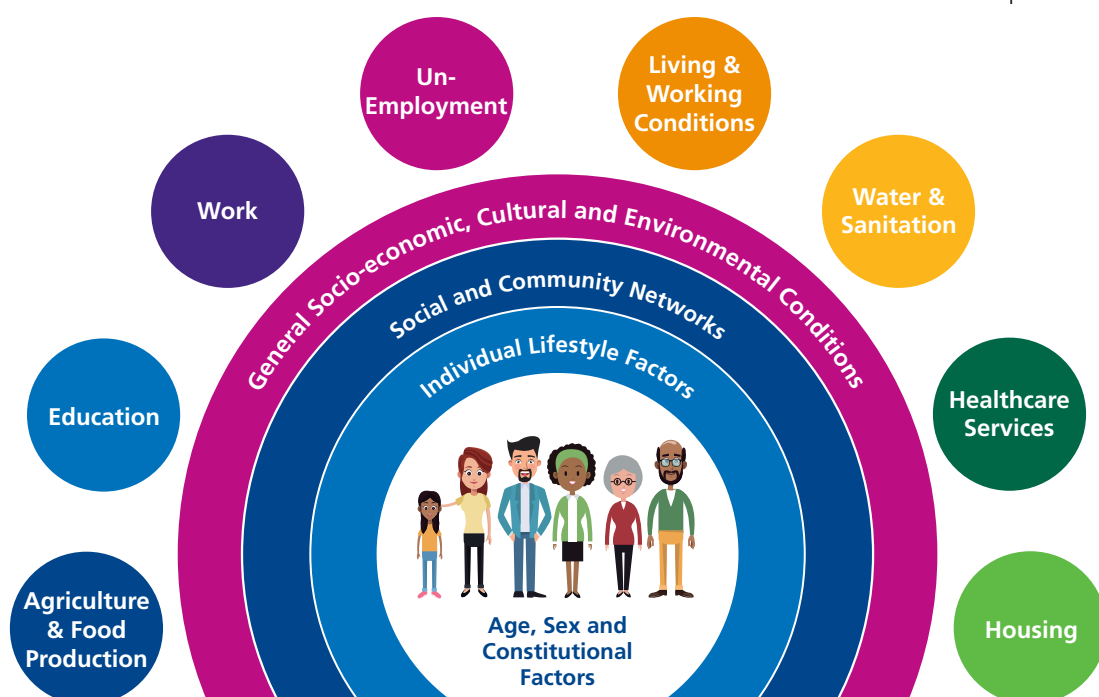
Over the next 3 years we plan to highlight and publish more information on our health inequalities and increase our work with our people, partners and the public to reduce these differences.

What will our patients, community, partners, and people experience?

- Our patients will recognise the Trust’s transparency on health inequalities.
- Our people will have a better understanding of health inequalities in Wigan Borough.
- Our partners will see the Trust playing an active part in reducing health inequalities.

Our delivery priorities will include

- Analysing and publishing more information by health inequalities groups to identify and reduce any areas of inequality.
- Working with the public and our partners on reducing complex or long-term health inequalities.



11. POPULATION HEALTH.

Population Health is an approach that aims to improve physical, mental health outcomes, promote wellbeing, and reduce health inequalities across an entire population. This includes focusing on the wider determinants of health.

Population Health is heavily dependent on data to help understand the current health needs as well as predicting the locality's future needs. Data can also be used to design more joined up and sustainable health and social care services to make better use of public resources.

We will use historical and current data to understand what factors are driving poor outcomes in different population groups. We will then use this data to design new proactive models of care to improve health and wellbeing today, as well as in 20 years' time. This could be by stopping people becoming unwell in the first place or where this isn't possible, improving the way the system works together to support them.

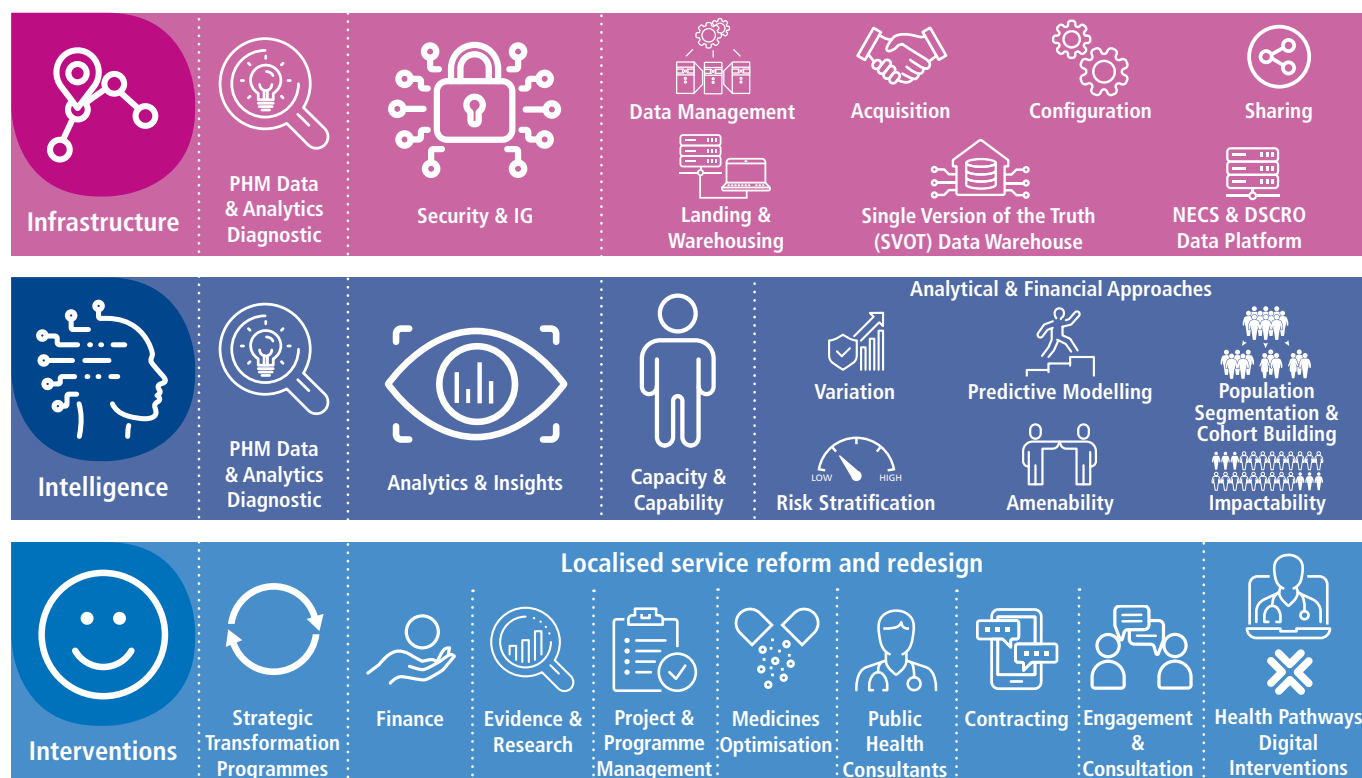
Working with our NHS and Health and Social Care partners along with other public services will be key to the implementation of Population Health.

What will our patients, community, partners, and people experience?

- Our patients will see more communication and services personalised to them and their conditions.
- Our people will see conditions quantified at a locality level rather than only those known to them and their service. This will help discussions in the locality on how/where patients are best treated.
- Our partners will see and be part of an increased collaboration on Population Health.

Our delivery priorities will include

- Working with our partners on the design and development of population health reports.
- Updating the locality's risk stratification, making data timelier and more accessible across the system.



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12.

PROGRAMME MANAGEMENT.

The Trust is subject to continuous change. There are often many dynamic drivers for change including innovations in technology, working practices and increased demands from our regulatory bodies. These changes frequently require data and therefore requires the skills of the Data Analytics and Assurance Team to facilitate and/or implement the change.

With the increase in demand for data both inside and outside the Trust, this is currently exceeding our current capacity and resource levels, therefore the introduction of the programme function has been an integral overarching theme facilitating transparency, assurance, accountability along with ensuring that new work requests align with corporate objectives.

Programme Management in the team can be defined as the coordination, planning, management and execution of multiple related projects and activities to deliver benefits and outcomes related to corporate objectives. Where there is change, there will always be complexities, risks, and interdependencies to manage therefore the adoption of a true programme management environment will enable the team to turn corporate and strategic objectives into new products and/or service capabilities to deliver transformational change in the Trust.

What will our patients, community, partners, and people experience?

- Our people will have visibility of the team's projects including what we are working on and when. They will also understand why and how projects and programmes add value to the Trust.
- Our patients will benefit from the projects and programmes that we deliver.
- Our partners will be communicated with through regular, timely and appropriate methods to ensure transparency and accountability.

Our delivery priorities will include

- Development of a real-time transparent project reporting app that can be accessed by key stakeholders at any given time along with the communication of good practice methods and processes to support continuous improvement in the Trust.
- Wider sharing both internally and externally of the successes of the team's projects and programmes through case studies and webinars.



13.

RECRUITMENT & RETENTION.

The world's new thirst and dependency on data unfortunately means data professionals are in very high demand, meaning recruiting and retaining people with the required knowledge, skills and values is incredibly difficult.

This demand and competition for the best talent leads to gaps in the team and the support it can provide whilst vacancies are being recruited to. We will address this issue by working with our Health and Social Care partners and Academic & Industry partners on ways we can better support the promotion of the profession and individuals into data related careers and local employment.

Regarding retention, our staff engagement scores are good but like anything there's always room for improvement, therefore we will be increasing our efforts by working with the team on how we provide the most conducive environment.



What will our patients, community, partners, and people experience?

- Our people will feel part of the WWL family, developed and invested in but overall enjoy working for the Trust.
- Our patients will benefit from having the best talent and support ensuring their data is of high quality, used appropriately and leads to the most informed decisions.
- Our partners will recognise our efforts in promoting and supporting the data professions and the development talent.

Our delivery priorities will include

- Continuing to develop our Staff Engagement programme working with our own "Team Phoenix" and the Trust's Staff Engagement team.
- Increasing the profile of data within healthcare and its different skillsets to support the attraction of new talent into the profession.
- Providing more opportunities for students and/or people looking to start a career within the data profession ranging from short-term work experience placements to full employment.



14.

CASE STUDIES.

TITLE: HIGH INTENSITY USERS	
WHAT/WHY:	<p>As detailed in section 10, Health Inequalities, some patients need and use Health and Social services much more than others. This unfortunately applies to Unscheduled Emergency Care.</p> <p>In 2021, 89 patients attended the Trust's Accident and Emergency Department more than 12 times, this frequency of attendance cannot be pleasant or healthy for the patients.</p>
HOW:	<p>To help reduce the number of patients frequently attending unscheduled care the team developed a Frequent Attender app which highlights the patients that are attending unscheduled care the most. Given that the data refreshes every five minutes, this enables interventions to be made within minutes rather than hours, days or even weeks.</p> <p>The Frequent Attender app is also hosted in the Cloud and is therefore accessible to our Health and Social Care partners to ensure that patients have the right level of support in place to further reduce their need and utilisation of unscheduled care.</p>
BENEFITS:	<p>✓ Despite only being released recently, the app has already been praised by our Health and Social Care partners as it has highlighted patients in need of their support and intervention.</p>

TITLE: COVID FORECASTING	
WHAT/WHY:	<p>COVID19 could have brought an unknown and unprecedented demand on the Trust and its hospitals. National forecasts of the pandemic were produced but there were no local versions being created. This left localities and organisations blind to the possible impact of COVID19 on their services.</p>
HOW:	<p>Fortunately for the Trust, we recruited our first ever Data Scientist, before the start of the pandemic. This is a relatively new profession that blends statistics, programming and domain knowledge to extract new insights from structured or unstructured data.</p> <p>At this time, the team were also testing a technology that enabled data to be recorded directly into Qlik (the technology the Trust uses to create dashboards) rather than presenting existing data. This meant that whilst changes to clinical systems were being designed, developed and tested, the team were able to add the ability for frontline workers to annotate who had tested COVID positive to an existing app within a few hours thus removing the need for manual recording including spreadsheets and/or paper.</p> <p>Using new tools and techniques the Data Scientist was able to use the newly recorded COVID data to forecast the likely demand on the hospital including the number of intensive care beds likely to be needed in the future.</p>
BENEFITS:	<p>✓ Provided the organisation with sophisticated real-time forecasts.</p> <p>✓ Provided the organisation with time to plan and prepare for the demand before it hit the hospital.</p>

TITLE: DISCHARGE TRACKER

WHAT/WHY: It is essential that the flow of patients continues at a manageable rate to enable as many patients as possible to be seen whilst maintaining the highest levels of patient safety.

When patients are well enough to leave hospital, other factors can often cause delays to them leaving. Many of these delays are caused by teams not having accurate and timely information in an easy to consume manner. After years of experiencing patient discharge delays and staff spending hours extracting information from the Trusts systems, the incentive for the Hospital Discharge App evolved.

HOW: Using a combination of operational experience and technological knowledge and skills, the team were able to collaborate with the unscheduled care team to produce a purpose-built app that provides the teams involved with a patient's discharge, the required information to enable them to make informed decisions at the right time thus reducing delays. Making use of the Qlik Cloud technology has also meant that this data can be shared with other departments in the Trust and our partners to support joined up working in Health and Social Care.

BENEFITS:

- ✓ Users have near real time information to make discharging decisions.
- ✓ No requirement to pull reports together - saving hours of administration time.
- ✓ Able to share information with external partners via the Qlik Cloud.

TITLE: MORTALITY REPORTING

WHAT/WHY: The team are an integral part of the Trust's mortality group which monitors deaths and explores opportunities to reduce mortality rates.

HOW: The Analytics team scrutinise a range of internal and external data including benchmarking with other Trusts to identify areas of variation and opportunities for improvement. The team have developed a Mortality App to facilitate easier accessibility, more transparency and to provide insight of mortality data for other departments in the Trust. The next iteration of the mortality app will include Indices of Multiple Deprivation, to further highlight areas of variation across the borough.

BENEFITS:

- ✓ Analysis of the Trust's deaths and performance against national performance measures to support Trust and Borough wide improvement initiatives.
- ✓ The Trust's Summary Hospital-level Mortality Index (SHMI) has reduced from being the 2nd worst nationally to within the expected range.

TITLE:	SUBMISSION OF OUT OF HOURS DAILY SITREP MANDATED RETURNS
WHAT/WHY:	During the pandemic, regional and national partners mandated daily sitrep submissions (used to monitor building pressure within the NHS) at weekends and bank holidays; these submissions would usually have been a burden on the Senior Manager on Call / Operational lead.
HOW:	<p>The DAA team voluntarily took over submitting the mandated daily sitrep submissions from front line staff every weekend and bank holiday as needed.</p> <p>The team did further automation to data extracts, creating validation processes to ensure that the data was consistently reported to portray an accurate picture of the Trust's pressures to NHS England.</p>
BENEFITS:	<ul style="list-style-type: none"> ✓ Release time for front line staff to focus efforts on patient care, rather than an additional administrative burden. ✓ Ensures regional and national bodies have accurate & timely data to make key decisions on.
TITLE:	DATA QUALITY (DQ) APP
WHAT/WHY:	<p>Data Quality is crucial, otherwise the decisions could be made on an out of date, incomplete or inaccurate information.</p> <p>The NHS "Get It Right First Time" approach is key to addressing and preventing Data Quality issues from occurring but to do that better visibility of where there are issues was required.</p>
HOW:	<p>The Data Quality team worked with the Clinical and Operational teams to design a Data Quality app; a dashboard that centralises and summarises Data Quality issues from different electronic systems into a single app.</p> <p>Operational teams can use the app to address issues, monitor changes and improvements in recording practices but ultimately assume themselves their data and decisions made it are of high quality.</p> <p>The Trust will continue to identify and develop new metrics and also add new source systems to ensure the Trust has the most complete data from ward to board.</p>
BENEFITS:	<ul style="list-style-type: none"> ✓ Users have visibility of gaps or issues in the data and are then able to resolve them. ✓ The Trust have a clear picture of data quality across organisation. ✓ High Data Quality helps ensure Clinical, Operational and Strategic decisions are based on the most complete, accurate and up to date data.

TITLE:	OVERALL WAITING LIST VISIBILITY
WHAT/WHY:	<p>In line with national monitoring standards, the Trust ensures that patients on an 18 Week Referral to Treatment pathway are at the forefront of its waiting list reporting. However, the RTT Waiting List is only responsible for approximately 30% of acute episodes of care that are being waited for within the Trust. Following the emergence of the COVID-19 Pandemic in 2020, NHS Trusts were restricted in the amount of scheduled activity that they could undertake – resulting in huge waiting list backlogs across a variety of areas. At that point, the Trust only had full assurance of who was waiting for Treatment on an RTT pathway.</p>
HOW:	<p>To help identify any hidden waiting lists, and to ultimately aid the Trusts recovery from the pandemic, the DAA Team set out to create an All Patient Waiting Lists App. To do so, the Team first had to investigate where there were potential gaps in the Trusts waiting list data, by mapping out all the acute waiting lists and recording systems used by the Trust. This required engaging with the Divisions to understand where they believed there may be gaps in our existing data, as well as us ensuring that current recording processes in each area were allowing them to display the full view of the demand they were facing.</p> <p>Once we had completed the mapping process, we began creating a new table in the Data Warehouse that could store the sheer volume of waiting list data that we capture, without any detrimental effect to the processing speed of an app – an issue which we were experiencing in the 18 Weeks app using a fraction of the data required for the All Patient Waiting Lists App. Simultaneously, the Team further engaged with the areas which we had gaps.</p>
BENEFITS:	<ul style="list-style-type: none"> ✓ Provides staff with visibility of patients on planned elective waiting lists. ✓ Centralises waiting list data from dispersed IT systems into the one, central place. ✓ Allows clinicians to monitor their patients by clinical priority and when they need to be reviewed. ✓ The app has also been instrumental in the monitoring of the clinical priority of patients waiting for elective treatment – highlighting what a patient's priority is, when it was assigned to them and when it should subsequently be reviewed. This has ensured that patients have waited for the most appropriate amount of time in relation to the rest of the waiting list.

