Digital Strategy
One Team, Best Care
2018-23
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Yorkshire Ambulance Service NHS Trust (YAS)

The Trust covers nearly 6,000 square miles of varied terrain, from isolated moors and dales to urban areas, coastline and inner cities.

Serving a population of over five million people across Yorkshire and the Humber, we strive to ensure that patients receive the right response to their care needs as quickly as possible, wherever they live.

The Trust receives an average of over 2,700 emergency and routine calls a day. In 2018-19 we responded to a total of 798,968 incidents through either a vehicle arriving on scene or by telephone advice. Clinicians based in our Clinical Hub which operates within the Emergency Operations Centre (EOC) triaged and helped just under 127,500 callers with their healthcare needs.

Our Patient Transport Service made over 934,000 journeys in 2018-19, transporting patients to and from hospital and treatment center appointments.

Our NHS 111 service helped 1.6 million patients across Yorkshire and the Humber, Bassetlaw, North Lincolnshire and North East Lincolnshire during 2018-19.

We abide by the NHS Constitution which establishes the principles and values of the NHS in England. View the full Constitution Document here.

The latest annual report is available to read and download here.

View our latest Care Quality Commission (CQC) report here.

OUR ONE TEAM, BEST CARE STRATEGY

Our Corporate Strategy identifies our key priorities over the next five years. It has been influenced by local demands, national policy and an extensive consultation with staff and stakeholders via locality listening events, engagement workshops and leadership forums.

Our ambition for 2023 is that:
- Patients and communities experience fully joined-up care responsive to their needs.
- Our people feel empowered, valued and engaged to perform at their best.
- We achieve excellence in everything we do.
- We use resources wisely to invest in and sustain services.

Strategy 2018-2023

One Team, Best Care

NHS Yorkshire Ambulance Service NHS Trust

Our purpose is

to save lives and ensure everyone in our communities receives the right care, whenever and wherever they need it

with our core values embedded in all we do

| One Team | Innovation | Resilience | Empowerment | Integrity | Compassion |

Our Vision

By 2023 we will be trusted as the best urgent and emergency care provider, with the best people and partnerships, delivering the best outcomes for patients

Our Ambition for 2023 is that

| Patients and communities experience fully joined-up care responsive to their needs | Our people feel empowered, valued and engaged to perform at their best | We achieve excellence in everything we do | We use resources wisely to invest in and sustain services |

Delivery is directly supported by a range of enabling strategies

| COMMUNITY ENGAGEMENT | PEOPLE | QUALITY IMPROVEMENT | DIGITAL | FLEET | ESTATES | FINANCE |

Patients and communities experience fully joined-up care responsive to their needs

Our people feel empowered, valued and engaged to perform at their best

Our Ambitions for 2023

We achieve excellence in everything we do

We use resources wisely to invest in and sustain services
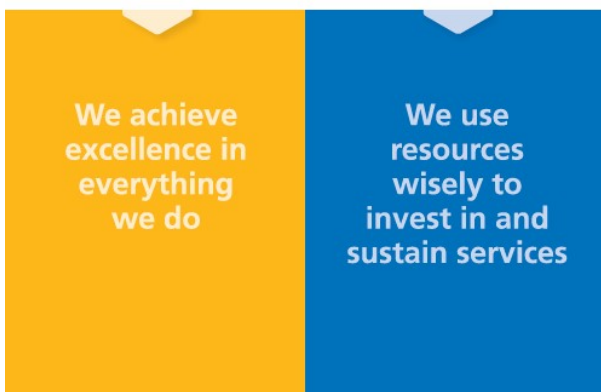
Our Key Priorities

1. Deliver the best possible response for each patient, first time.

2. Attract, develop and retain a highly skilled, engaged and diverse workforce.

3. Equip our people with the best tools, technology and environment to support excellent outcomes.

4. Embed an ethos of continuous improvement and innovation, that has the voice of patients, communities and our people at its heart.

5. Be a respected and influential system partner, nationally, regionally and at place.

6. Create a safe and high performing organisation based on openness, ownership and accountability.

7. Generate resources to support patient care and the delivery of our long-term plans, by being as efficient as we can be and maximising opportunities for new funding.

8. Develop public and community engagement to promote YAS as a community partner; supporting education, employment and community safety.

YAS Digital Strategy on a page

Yorkshire Ambulance Trust Strategy

Trust core values

One Team | Innovation | Resilience | Empowerment | Integrity | Compassion

Our Ambitions for 2023

- Patients and communities experience fully joined-up care responsive to their needs
- Our people feel empowered, valued and engaged to perform at their best
- We achieve excellence in everything we do
- We use resources wisely to invest in and sustain services

Our Digital themes are aligned to the Trust strategic intent

Digital themes

Patients and communities experience fully joined-up care responsive to their needs	Sharing data across the system to improve patient outcomes.
Our People feel empowered, valued and engaged to perform at their best	Providing the right digital services to enable staff to work productively.

We achieve excellence in everything we do	Provide integrated services with reliable, accurate and timely access to information for decision making
We use resources wisely to invest and sustain services	Delivering safe, sustainable & efficient digital services.

Our digital vision

Our digital vision supports Yorkshire Ambulance Service in the journey to become the integrated urgent and emergency care provider for the Yorkshire region.

"Enabling our staff to provide the best urgent and emergency care for patients by delivering innovative, resilient and clinically led digital services"

How will we prioritise?

We will focus on making sure we provide services that enable the success of Yorkshire Ambulance Service in a cost effective way. We will:

- Provide the right tools for clinicians
- Improve communication
- Improve the access to information and data
- Get the basics in place
- Strengthen our partnerships
- Review the active services
- Extend interoperability and integration

Our digital roadmap is establishing opportunities and creating value for different stakeholders within the system

Our Patients

- Easy for patients to interact with YAS and access healthcare services online and Video Consultation.
- Patients benefit by gaining access to safer, customised, efficient care when the clinician already knows their medical history and current medication.
- Paramedics digitally collect patient details removing repetition within the system and improving patient experiences.
- Provide services that support frontline decision making and get the best outcomes.
- E-referrals to other health care providers create a smoother patient journey.

Front-line & Clinical Staff

- Connected clinicians have the ability to view primary care record and send treatment summaries. Full connectivity for clinicians over voice, video and data
- Online access to a comprehensive healthcare record at the point of care.
- Real time awareness of other NHS services available.
- Ability to digitally transfer electronic patient records to hospitals and receive patient outcomes
- Contact centre staff working from home or remote locations.
- Video Calls / Body Cams - to enable remote communication with clinical specialists
- Virtual and online training from anywhere using any device.

Trust corporate staff

- Demand Management, development of analytics to analyse data and highlight potential patterns and causes. Development of predictive demand to ensure appropriate resource levels can be anticipated to meet the trust performance.
- Vehicle and Asset Management. Use digital technology to proactively manage vehicles and assets.
- Use Telematics, to improve efficiency
- Vehicle Preparation. Use of technology to automate checklists and integrate with medicine management and stock-control
- Improved staff experience through automation and collaboration by bringing one click access to audio, webchat and video to any location
- Agile working environment, work from anywhere using any device

System partners

- Together with the NAA we evaluate opportunities for cost efficient synergies through shared best practices systems/infrastructure
- Working with other Ambulance Trusts, partners in emergency services, the wider healthcare system (including GDE, LHCREs and NRLS utilisation), and suppliers.
- We work as strategic partners in population health management, to identify and address local priorities for care delivery. (e.g. preventative care system based on population management and population health).
- Sharing data, to support our commissioners in shaping the right service for the region and working with partners to manage demand across the wider health and social care system
- We will work with our partners to actively seek opportunities for emerging health horizon scanning technology to improve the patient journey and staff experience.

We will adopt the following digital principles to guide strategic decision making

Our Digital Principles

- Collaborating with partners
- Cloud first
- Resilient services
- Paper light
- Leadership
- Innovate with end users in mind
- Data quality and governance
- Interoperability
- Cost effective

OUR SERVICE – WHY WE ARE HERE

Caring for patients with life-threatening and life-changing emergencies is a core priority for Yorkshire Ambulance Service. Our Digital Strategy incorporates how we as an organisation can use digital technologies to provide better experiences and treatment for patients with serious or life-threatening emergency care needs.

We deliver innovative, resilient, patient and clinically-led digital services that support YAS to provide integrated urgent and emergency care. We provide the digital and data services to support our 24-hour, seven-days-a-week, emergency and healthcare services and our business services:

- **999 service** that receives just under 1 million calls a year resulting in over 790,000 incidents that are responded to with a combination of support ranging from telephone advice to on scene support and transportation.
- **Integrated Urgent Care, delivered through NHS 111.** The service receives 1.6 million calls and these are responded to with a combination of support including telephone advice and onward referral to services within the Yorkshire and Humber region.
- **Patient Transport Service** that supports 944,000 journeys a year.
- **Business services** support that covers: Finance, Human Resources, Estates, End User computer services.
- **Surge support** to support our colleagues in the Northern Ambulance Alliance (NAA) network of ambulance trusts that include Yorkshire Ambulance Service, North West Ambulance Service, North East Ambulance Service and East Midlands Ambulance Service.

We are aligned to the Trust's Strategic Key Priorities

As Digital underpins everything we do we believe the Trust's success will be enabled by the Digital Strategy. We align our key priorities to the Trust's strategic key priorities, in particular:

> **Deliver the best possible response for each patient, first time.**

> **Equip our people with the best tools, technology and environment to support excellent outcomes.**

> **Embed an ethos of continuous improvement and innovation that has the voice of patients, communities, and our people at its heart.**

> **Be a respected and influential system partner, nationally, regionally and at place.**

> **Generate resources to support patient care and the delivery of our long term plans, by being as efficient as we can be and maximising opportunities for new funding.**

WHERE WE ARE NOW

The Trust's services are built on the foundations of our robust infrastructure which has been demonstrated to be highly resilient. The infrastructure has been in place for many years and continually developed, however we need to consider an increasing demand, increased complexity, the significant change in the health and social care system, as well as the changes in our patients' expectations on the services we provide.

The Trust has invested heavily in the development and implementation of digital services; this is based on a clear change and development programme that sets out an investment profile that maximises our use of resources and benefits from our systems. Recent successful projects include the development of the electronic patient record (ePR) and the implementation of our Analytics platform (QlikView) and reports. These have delivered a step-change in productivity and, crucially, have involved the users of the systems in their development. We intend to continue to work in this way, collaborating with the relevant users of our services to ensure that what we do delivers the right functionality in an effective way.

Further successful projects supporting the delivery of our digital objectives and Trust ambitions include:

Patients and communities experience fully join-up care responsive to their needs

- The electronic transfer of patient records between the 999 and 111 according to the patient's clinical need.
- Retrieval of NHS Number has been enabled to 999 and Patient Transport Service. Work is ongoing to integrate NHS Number with the electronic Patient Record (ePR).
- Migration to NHS Mail to move towards a central mail server to allow encrypted communications, access to Skype for Business, enabling instant messaging and presence for staff and the introduction of Skype meetings.
- Launch of the new website with up-to-date web technologies, with increasing accessibility to enhance user experience.
- Development of an interface into the National Record Locator Service pilot, to enable access to the patient's information to support that patient's direct care.

Our people feel empowered, valued and engaged to perform at their best

- Our frontline staff have a variety of digital tools available to them giving them access to patient records, including Summary Care Record, Enhanced Summary Care Record, SystmOne and the Directory of Services. Access to these systems supports our clinicians' decision-making process and enables them to refer patients to the correct health care provider, thus reducing A&E admissions.
- Technology to support remote working has been enabled for NHS 111 clinicians, which provides resilience, and offers flexible working hours, increasing staff retention and making vacancies more desirable.
- GRS app has been rolled out to A&E and EOC staff, which allows access to GRS rotas from personal or Trust smart-phones and tablets. This provides improved accessibility and convenience to staff working remotely without access to a PC.
- Worked with the National Ambulance LGBT network on the design and build of their new website, including social media channels and other marketing materials.

We achieve excellence in everything we do

- 111 online is live in Humber Coast & Vale STP and Harrogate & West Yorkshire STP enabling patients to access NHS 111 digitally.
- GP in-hours direct booking has begun implementation for West Yorkshire and Humber Coast & Vale, and will continue to roll out as part of the Integrated Urgent Care specification.
- To support the delivery of the Trusts' Hub and Spoke model, ICT have developed apps to assist the vehicle preparation and operational teams, and to provide a single view of the vehicle status.
- A new cloud-based service management support desk solution was rolled out successfully for both ICT and HR departments bringing benefits such as knowledge base, asset incident and request management, mobile functionality, enhanced reporting and enhanced design and flexibility.
- QlikView is a data analytics platform which YAS have used to implement a patient level costing application as well as service level operational dashboards, bringing multiple data source together in one flexible self-serve platform.

We use resources wisely to invest in and sustain services

- The enabling of the transfer of 999 calls between Yorkshire Ambulance Service and all other English Ambulance Services.
- Medical Interoperability Gateway has been enabled in Barnsley allowing GP records to be shared electronically with Yorkshire Ambulance Service.
- Established NAA digital work stream to allow EMAS, NWAS, NEAS and YAS to work collaboratively in sharing resources, procurements and improved resilience. Joint NAA procurements and tenders have been taking place in year 18/19, example fleet and Unified Communications.

Our performance

Our IT services are designed to be resilient. We manage and monitor our services against Service Level Agreements (SLAs) agreed with the Trust, and respond to incidents or requests related to a service within Trust agreed response times for the ICT Service Desk.

In 2018 we achieved 89.82% performance against our 90% SLA target. This can be explained by the 41% increase in calls on that same period the previous year due to a Trust migration to NHS Mail and a change of Service Desk software.

Year	Total number of Incident and Requests	Total Resolved Within SLA	SLA Target	SLA Achieved
2018	38579	34651	90%	89.82%
2017	27346	25663	90%	93.85%
2016	29052	29052	90%	94.13%

Delivering changes to our digital services

We have recently had significant success with the bespoke development of our electronic Patient Record (ePR) system as we have worked closely with our Clinical team and frontline staff to understand their business processes and have configured the system to support the ways of working. This has ensured successful adoption of the system. We will continue to focus on user-centred design approach. Our Business Intelligence and Performance team have driven positive change through the development and implementation of the real-time drill-down dashboards that are helping manage our operational performance.

Working as part of the NAA on joint procurement exercises, and with the national digital strategy in mind, we are evolving in the way we change our digital services to ensure that we are working collaboratively to improve productivity and create efficiencies, as outlined in the Carter Report.

Our digital vision

We will continue to provide resilient and core ICT and Business Intelligence services for 999, NHS 111 and Patient Transport Services, and we aim to extend our digital capability to meet the changing demands of our patients, the Trust and our partners over the next 5 years.

We will support the Trust to provide integrated urgent and emergency care to our patients. Our digital vision builds on the Trusts' One Team, Best Care strategy and is as follows:

Our strategy is aligned with the recently developed National Digital Strategy for Ambulance Trusts. As an urgent and emergency care provider, we have considered the digital capabilities required to integrate and align our 999, NHS 111, and Patient Transport Service to establish truly multi-channel and integrated services (see diagram overleaf).
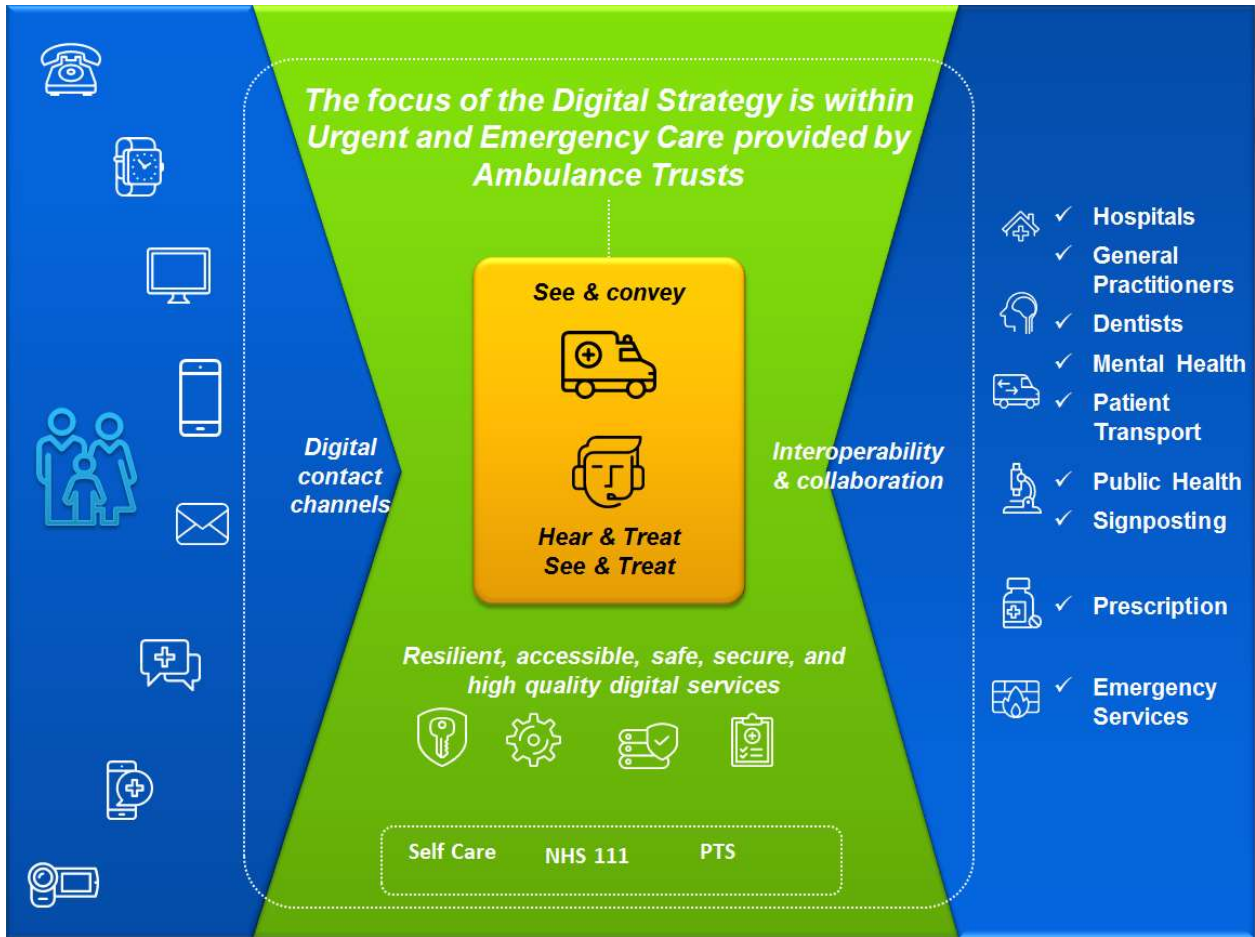
Figure 1: National Digital Strategy

Digital Themes

Sharing data across the system to improve patient outcomes while enabling us to work with our partners in an effective way	**Providing the right digital services to enable people to work productively.**	**Provide integrated services and systems with reliable, accurate and timely access to information to help with decision making**	**Delivering safe, sustainable & efficient digital services, maintaining the resilience of our core services**

Our digital objectives follow four Themes which align with the Trust Ambition.

We have set out how we align to the Trust's strategy in the diagram below.

Trust Ambition

Digital Themes

In order to deliver our objectives we need to focus on making sure we provide services that enable the success of Yorkshire Ambulance Service in a cost-effective way. We will follow the principles below to guide strategic decision making.

Our Digital Principles

Principle	Description
Resilient services	All our critical services will be resilient and cyber secure; meeting the 24*7*365 service requirements within our budget constraints.
Innovate with end users in mind	Our service development will be led by patients, clinicians and staff to ensure they are fit for purpose, easy to use and have a positive impact with those who use them: patients, staff and partners. We will continue to innovate with the end users in mind, and involve them in the development of new services and systems.
Collaborating with partners	We will collaborate across the system and with our supplier to deliver efficient and resilient digital and information services.
Paper light	We will provide systems that enable YAS to move to paper light through digitisation by 2022.
Interoperability	Making sure that the systems that we use are interoperable.
Cloud first	Plan for cloud migration according to the lifecycle of the application/service. Start with the assumption that new services should be delivered in the cloud.
Cost effective	We will use what we have well, making sure that we deliver effective services in a cost-effective way, making use of both YAS and NHS services. Decommission where no longer use and automate where we can.
Data quality and Governance	Our digital services will enable right first time data collection that makes our data quality useful and usable to support reporting and decision making.
Leadership	We will empower our service team to deliver their services whilst able to continuously learn and improve the service and their skills.

What this means for our stakeholders

Investing in our services, explained further in the section: *Getting where we want to be*, will benefit our stakeholders: our patients, our front line staff, our corporate staff and our system partners. We have summarised below how each of our stakeholder groups will benefit by our Digital Strategy.

Our Patients
- Easy for *patients to interact with YAS* and access healthcare services *online* and *video consultation*.
- Patients benefit by *gaining access to safer, customised, efficient care* when clinician already know their medical history and current medication.
- Paramedics *digitally collect patient details* removing repetition within the system and improving patient experiences.
- Provide services that *support frontline decision making* and get the best outcomes.
- *E-referrals* to other health care providers create a smoother patient journey.

Front-line and Clinical staff
- *Connected clinicians* have the *ability to view primary care record and send treatment summaries*. *Full connectivity* for clinicians *over voice, video and data.*
- Online *access to a comprehensive healthcare record at the point of care*.
- *Real time awareness* of other NHS services available.
- Ability to *digitally transfer electronic patient records* to hospitals and receive patient outcomes
- Contact centre *staff working from home* or remote locations.
- *Video calls/ Body cams* to enable remote communication with clinical specialists
- *Virtual and online training* from anywhere using any device.

Trust Corporate Staff
- *Demand Management,* Development *of analytics* to analyse data and highlight potential patterns and causes. Development of *predictive demand* to ensure appropriate resource levels can be anticipated to meet the Trust *performance.*
- *Vehicle and Asset Management*. Use digital technology to proactively manage vehicles and assets.
- Use *Telematics* to improve efficiency and quality
- *Vehicle Preparation.* Use of technology to automate checklists and integrate with medicine management and stock control.
- *Improved staff experience through automation and collaboration* by bringing one click access to audio, webchat and video from any location and any device as well as improve work flow.
- *Agile Working environment* work from anywhere using any device.

System Partners
- *Together with the NAA* we evaluate *opportunities for cost efficient synergies* through shared best practices systems/infrastructure
- *Working with other Ambulance Trusts, partners* in emergency services, the wider healthcare system (including *GDE, LHCREs* and *NRLS* utilisation), and suppliers.
- *We work as strategic partners in population health management*, to identify and address local priorities for care delivery. (e.g. preventative care system based on population management and population health)
- *Sharing data,* to support our *commissioners* in shaping the right service for the region and working with *partners* to manage demand across the wider health and social care system
- We will work with our *partners* to actively seek opportunities for emerging health *horizon scanning* technology to improve the patient journey and staff experience.

Internal pressures, opportunities and mitigations (SWOT)

We have identified the strengths, weaknesses, threats and opportunities to our services.

Strengths

- ICT and Business Intelligence continue to provide resilient core services.
- ePR for 999 is working well, with high quality and with good user experience.
- User driven design: BI and performance team have driven positive change through performance management and created useful dashboards. Involving the users to capture real needs and requirements have made this a success.
- Skilled ICT and BI Specialists
- Resilience of Infrastructure and Design
- Extensive and established Mobile Communication Technology
- 24/7/365 Operational Cover
- Virtual Call Centres across three sites
- Flexible and Home Working Technology

Weaknesses

- IT perspective: Systems supporting 999 are fit for purpose today, but not necessarily fit for the future.
- Different systems in different operational service lines with little connectivity between the systems
- Lack of comprehensive business engagement support across all our core services and corporate functions
- Capacity to support the new health economy
- Lack of capacity planning for IT projects
- Connectivity – challenges around connectivity and communication – e.g. some parts of the estate is lacking solid connectivity or access to IT
- Gap in management structure across the ICT function / succession planning
- No formal data governance structure in place therefore creating an inconsistent approach across the Trust to data control
- Lack of KPI hierarchy at a Trust level linked to strategic objectives increases the reporting burden due to multiple reports being created.

SWOT analysis

Opportunities

- Opportunity to utilise systems we have in place in a better way – e.g. fleet and estate (bespoke software to support these functions that could do more).
- Opportunities for synergies and cost efficiency through stronger partnerships and increase collaboration.
- Expectations of new ways of accessing and interacting with services are creating the basis for more efficient demand management and can improve partnership working.
- Expanding the use of digital technology to create safer, efficient and reliable patient journeys.
- Improved access to Analytics and increase knowledge through digitalisation and upskilling of management staff to interpret the information using exception based reporting.
- Offering YAS infrastructure to Y&H region e.g. Unified Comms
- Review, rationalise and update reports to deliver exception based reporting at the right level of the organisation.

Threats

- 24*7 expert system and IT advice is a challenge, with concentration of knowledge.
- Ongoing challenge to attract, train and retain teams with the right digital skills.
- Complex coordination of digital demands.
- YAS operates in a complex environment spanning multiple organisational units within the NHS – each of these have slightly different requirements and targets to consider.
- Pace of refresh in technology arena.
- YAS to be able to deal with evolving maturity from STPs and ICSs
- Not being able to meet every STPs/ICSs demand due to staff capacity and priorities.
- Cyber security threat

GETTING TO WHERE WE WANT TO BE

We will achieve our Digital vision by continuing to provide strong foundations while enhancing key services.

- Strong foundations: Use digital technology to enable resilient, efficient, effective, cyber secure and sustainable services
- Enhancements: Embrace new digital technologies that improve patient outcomes, and enable the gateway to the wider healthcare system in the region

We will focus on the four strategic themes as highlighted in our strategic vision and through participation in the national and regional initiatives. The sequencing of these activities and projects is described in the roadmap and further details are in the supporting appendices.

Our Digital priorities

Our priority focus is on making sure we provide digital services that enable the success of Yorkshire Ambulance Service in a cost-effective way. We have established our priorities to fit with our themes which are to;

- **Sharing data across the system to improve patient outcomes**, enabling us to work with our partners in an effective way
- Providing the **right digital services to enable people to work productively**.
- Provide **integrated services and systems** with reliable, accurate and timely access to information to help with decision making
- Delivering **safe, sustainable and efficient digital services**, maintaining the resilience of our core services and creating the capacity to develop new ones

We will:

Figure 2: Digital priorities

Get the basics in place	Make sure to provide system resilience and the right bandwidth across the regions.
Provide the right tools for clinicians and back office staff	Provide the right tools for clinicians, back office staff allowing them to navigate through the system in an efficient way. For example, complete the implementation of ePR across the whole of the region.
Improve the access to information and data	Exploit our BI and analytics platform for forecasting and modelling capabilities. Develop a core set of reports and dashboards that help support real-time decision making
Review the active services	Review the active services and retire and ultimately decommission the systems we no longer use.
Extend interoperability and integration	Extend the interoperability and integration of our systems automating transactional activities where that is possible.
Strengthen our partnerships	Strengthen our partnerships (e.g. National, Northern Ambulance Alliance, NHSE/D, Digital boards across the region).
Improve communication	Improve the communication capabilities, with tools like video, chat, to enable staff to work in an agile productive way.

External factors that influence our strategy

National and regional digital agendas will continue to influence our digital strategy and we are active participants in these debates. We have considered these agendas in our strategy and will exploit opportunities that arise e.g. additional investment, taking a role as a pilot site or shaping policy to influence the outcome as we enhance our services and meet the needs of our Patients, the Trust and our Partners. Moreover, there are changes in policy that are creating demand for changes to the services that we provide, for example:

- Carter Review of Ambulance Trusts
- Ambulance Improvement Programme
- Ambulance Response Programme
- Ambulance Radio Programme
- Introduction of the Northern Ambulance Alliance
- Five Year Forward View
- Development of the National Digital Ambulance Strategy
- Local STP/ICS agenda and digital roadmap example LHCRE
- Utilising existing national enablers, for instance, standards, recommendations such Global Digital Exemplars (GDEs)
- Increasing demand, increased complexity, patient expectation, and efficiency.
- NHS Long Term Plan
- Political Influence (Government, EU)

Trust Digital key strategic programme

The Trust's digital strategy focuses on the delivery of seven strategic programmes. The Trust has adopted an approach of assessing the preferred approach, reviewing if it should be commissioned nationally across the ambulance sector, through the NAA, regionally across the ICSs, or stand alone as a Trust:

National Collaboration

1. Emergency Services Mobile Communication Programme (Digital Ambulance)

Emergency Services Mobile Communications Programme **ESMCP** is responsible for ensuring the next generation of emergency services communications. The purpose of the national programme (ESMCP) is to replace the existing national radio and communication network delivered by Airwave. This new mobile communication network will be utilised by the three emergency services and other organisations that currently use the Airwave network.

The ESMCP will deliver the following:

Emergency Services Network (**ESN**): with the objective of being "Better, Smarter, Cheaper" through a single national contract for radio communications services.
Control Room Solution (**CRS**): programme will deliver replacement Integrated Command and Control Solution (ICCS) capability into Emergency Operations Centers.
Mobile Device Vehicle Solution (MDVS): programme will deliver replacement mobile data capability.

Regional Collaboration

2. *Yorkshire and Humber Care Record* (LHCRE Local Health Care Record Exemplar)

A Local Health Care Record provides a single view of the patient's record from the 74 organisation and 725 GP practices in Yorkshire and The Humber. The programme has ambitious objectives for sharing health and care records across the region and nationally.

YAS is a key player in supporting and delivering LHCRE across Yorkshire and Humber with YAS adopting the role of both data provider as well as consumer.

- The YAS ePR application will facilitate electronic transfer of urgent and emergency care data between the ambulance service, hospitals, GPs, mental health and social care providers.

- YAS staff will be able to receive patient outcomes as part of the clinical quality improvement for the frontline staff providing better patient care, closer to home.

- Through LHCRE access to the patient care record including SCR, EOF and care plane will be available to all YAS frontline staff and clinicians within 999 and NHS 111 as well as access to social care and mental health providers.

- Our patients will be able to access and manage their own health record through LHCRE **Population Health** service including set their own data sharing preferences and manage their appointments.

Appendix D for more details

Northern Ambulance Alliance

3. Fleet

The collaborative procurement exercise for the new Fleet system across the NAA has allowed us to transform the way we work, build in resilience, share expertise and best practice and has resulted in an estimated £1m saving across the three ambulance services. This has been the first step towards a collaborative NAA and will lay the foundations for further joint ventures such as a single CAD.

We will be able to use modern technology and mobile solution to allow our fleet and medical device engineers to work to effectively from any location, and to manage and track assets through an asset management system, using RFID tagging for equipment within the ambulance. We will also expand the use of telematics to the 999 service to improve efficiency.

4. Unified Communications

The newer Unified Communications platforms offer a Unified Communications environment, which provides a seamless user experience of different modes of enterprise communication (voice, instant messaging, video conferencing etc.). Unified Communications enables effective remote and mobile working within a "virtual call centre" for 999/111 and the rapid availability of specialist clinical advice from any location, all of which supports the Trust's Urgent and Emergency Care strategy.

Yorkshire Ambulance Service has worked with the NAA to standardise specifications thereby building resilience across a range of Trusts, and to complete a tender exercise to strengthen our buying power.

Unified Communications platform represents an opportunity to both:

- Carry out a controlled replacement of an ageing system, essential to the operation of YAS 999, NHS 111 and PTS services.

- Future-proof the communications technology used by the Trust to enable and support its Urgent and Emergency Care strategic plans (Hear & Treat, See & Treat, 111 Home Working etc.).

5. UEC/ IUC (Integrated CAD for 999, 111 and PTS)

The NHS Five Year Forward View explains the need to redesign urgent and emergency care services in England for people of all ages with physical and mental health problems, and sets out the new models of care needed to do so. The urgent and emergency care review details how these models of care can be achieved through a fundamental shift in the way urgent and emergency care services are provided to all ages, improving out-of-hospital services so that we deliver more care closer to home and reduce unnecessary hospital attendances and admissions. We need a system that is safe, sustainable and that provides high quality care consistently.

Connecting and integrating all urgent and emergency care services together to improve referral pathways between urgent and emergency services.

The ambition, working with NAA partners, is to develop a single CAD system to support 999, NHS 111 and PTS. This will provide safe, resilient and efficient support for the patient, increasing Hear and Treat scenarios (when calls are successfully completed without dispatching an ambulance vehicle response. This may include advice, self-care, or a referral to other urgent care services) and reducing See and Treat scenarios (which provides focused clinical assessment at the patients location followed by appropriate immediate treatment, discharge and/or referral), providing the best outcome for the patient first time.

Trust Level

6. ePR (electronic Patient Record)

The deployment of an ePR solution will allow the Trust to Transform their care through the use of enriched patient data and automation of processes to access the wider health and social care system. An end-to-end ePR solution will source patient information enabling a clinician to make a safe and balanced diagnosis at the point of care; and to take appropriate action such as onward referral or safe discharge at scene.
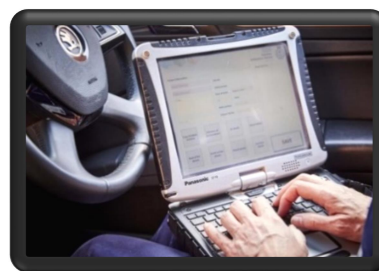
Finally, the ePR solution is intended to provide the basis for a holistic solution to access relevant patient information for informed decision making, record the interaction and deliver the information to the appropriate health and social care partners for onward care of the patient. Delivering this will achieve the aims of the Five Year Forward View in particular relating to the aspiration and need to have interoperability across health and social care organisations.

7. Support YAS staff through automation, lean process and virtual working

Staff will be equipped with the use of modern technology to enable them to work effectively:

- Our **PTS** staff will be issued with personalised smart device to allow them to have access to PTS apps, training and YAS systems.
- **Ambulance Vehicle Preparation** team equipped with mobile devices and apps (Checklist, Deep Clean) to allow them to navigate across the YAS systems and audit all their actions (e.g.-Medicine management, stock management and asset management)
- **Community First Responders** will be provided with digital technologies (e.g. messaging, location-tracking, apps) to identify and notify the most relevant First Responders when an incident occurs
- **999 staff** will have access to latest mobile devices to allow them to access patient information, emails, rostering system, e-training, video conferencing, intranet and Trust Apps, and to transfer data effectively

Through the Lean Process and Virtual Working programme aims to provide the digital tools to achieve an environment where:

- Staff are enabled and empowered to work effectively from any location making it easier to deliver care.
- There are flexible and accessible options for team collaboration and meetings, for accessing key systems, and for Virtual training delivery.
- Work processes are economical and waste-free, and approvals are transparent and trackable.

- Paper-light approach and reducing printer use.
- Staff time is freed up from low value activities, and YAS resources are used effectively.
- Provide access to online and mobile apps.
- Improve data quality and save time through direct data transfer between systems.

8. Data Analytics

Over the next five years the Business Intelligence team will transform data analytics and performance reporting by utilising cutting edge analytics systems. This platform will allow intuitive, insightful and interactive self-serve style reports alongside a business partner approach in providing intelligence across the trust.

Each key service line will have a BI Business Partner in place with the skills and knowledge to support business planning and modelling.

Exception-based reporting utilising statistical control charts will provide managers with the key intelligence to inform actions and reduce the reporting burden by streamlining the information managers receive.

Improved analytics will help drive many different aspects of the corporate strategy moving away reactive reporting creating more value by driving strategic outcomes.

Alongside the data analytics platform, staff will be trained on the latest techniques and learn best practise from other trusts including forecasting and predictive methods.

The Data Governance Strategy will be led by Business Intelligence to support of stakeholders responsible for reporting including an ongoing programme of activities that facilitates the improvement of data quality.

BI Maturity Model

What might happen?

Predictive Analysis

- Predictive Analysis
- Regression Analysis
- Correlation Analysis
- Statistical Analysis
- What if Scenarios
- Strategic Analysis
- Business Case Development
- Forecasting
- Demand Management

Can we change?

Cross-process and Functional

- Integrated Analytics
- Multiple Sources of Data
- Multiple Hierarchies
- Advanced Cause and Effect
- Exploratory analysis
- Analytics Tools

Why is it happening?

Advanced Analysis

- Historical Trending
- Benchmarking
- What and Why
- 'As is' vs 'As Was'
- Big Data
- High Performance Reports and Mapping

What is happening?

Consolidated Reporting

- KPI Reports
- Basic Trending
- Adhoc Analysis
- Process Specific
- FOI

Basic Data & Analysis

- Single Source
- Simple list reports

Transactional

Increasing Business Value

Strategic Decisions

Our digital roadmap

Our priorities have helped us to define our digital roadmap (see below). This has enabled us to balance our ambitions and propose a roadmap that is realistic and cost-effective.

We have balanced the need to maintain the foundations and live services with the need to exploit new technologies that support our front-line services. We recognise the need to exploit the programmes and investment to our system more broadly and we plan to participate and pilot services that are being delivered through the national programmes.

Additionally, and in line with Our People Strategy, we are investing in developing our people so they have the skills and training to enable them to support the new services as these are deployed throughout the Trust.

The detail and relative priority of our ambitions is set out in the next section where we describe our digital objectives theme by theme.

Figure 3: Our digital roadmap establishes opportunities and creates value for our stakeholders
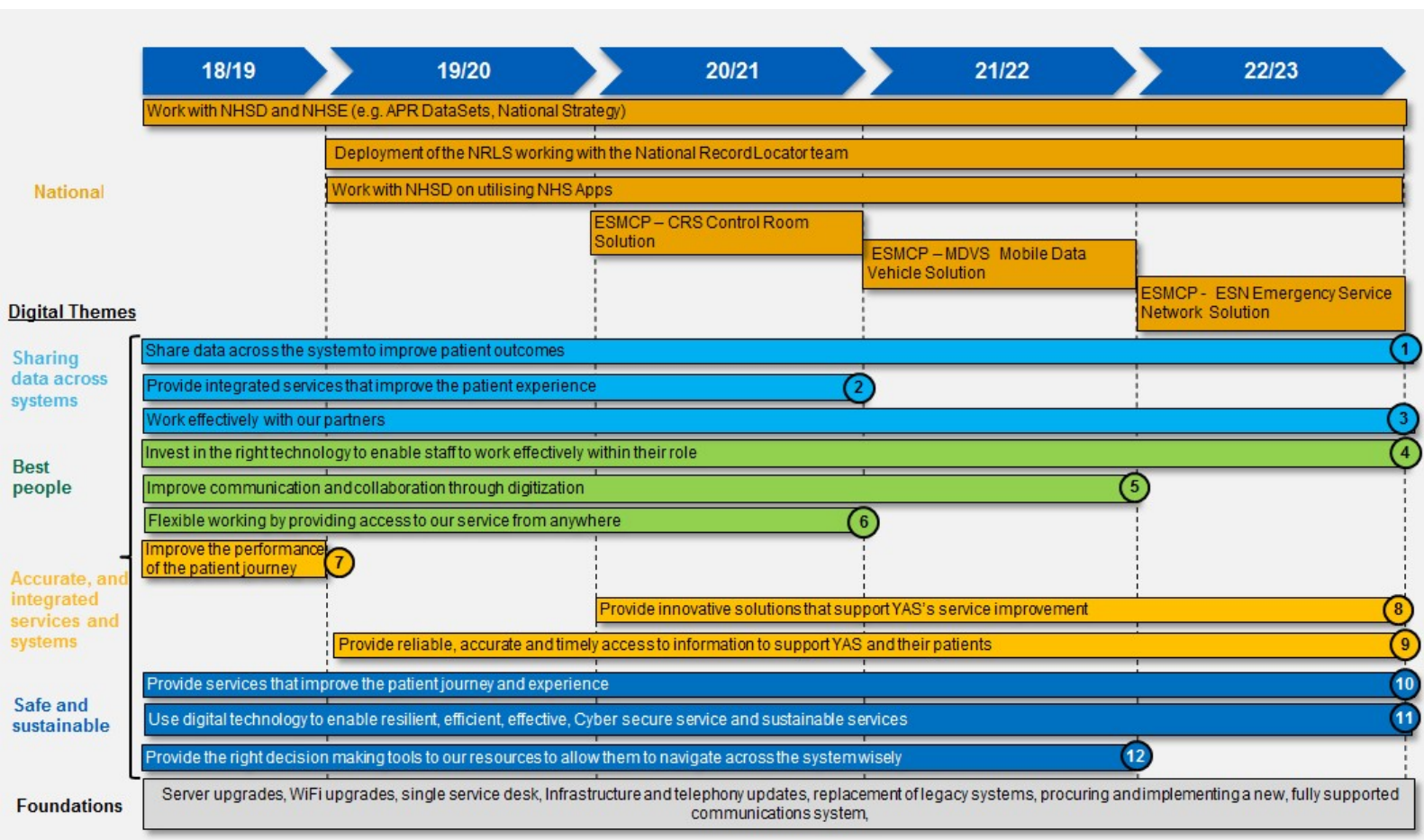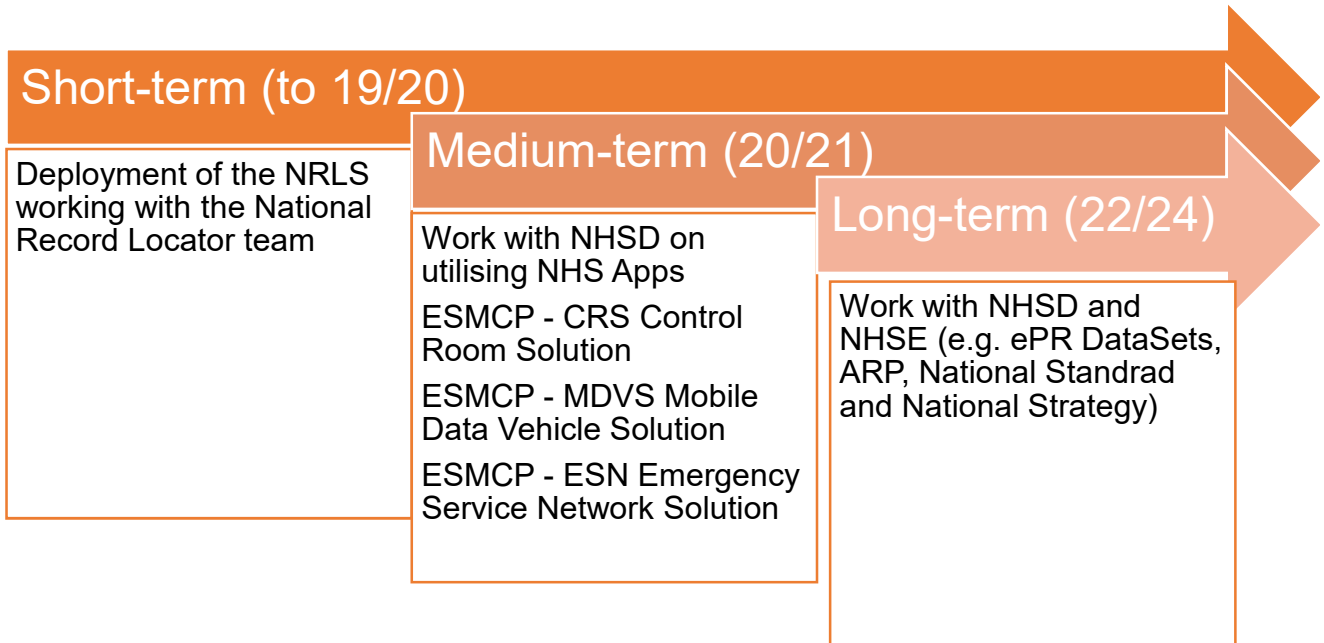
National initiatives

The key to our ongoing success is playing our part in the national initiatives. We have set out below the key projects that will do this.

Our National Projects

The NHS is investing in a number of national initiatives that the Trust can benefit from. We are piloting the National Record Locator and are active in Yorkshire and The Humber. Additionally, we are continuing to shape the EMCP requirements for the next Emergency Radio Service and will work with NHSD and NHSE in the ePR Data Sets.

Short-term (to 19/20)

Deployment of the NRLS working with the National Record Locator team

Medium-term (20/21)

Work with NHSD on utilising NHS Apps

ESMCP - CRS Control Room Solution

ESMCP - MDVS Mobile Data Vehicle Solution

ESMCP - ESN Emergency Service Network Solution

Long-term (22/24)

Work with NHSD and NHSE (e.g. ePR DataSets, ARP, National Standrad and National Strategy)

Digital Theme 1: Sharing data across the system to improve patient outcomes while enabling us to work with our partners in an effective way

We are a gateway for our patients to access the wider systems of care in our geography. To ensure that our patients get the best possible care we will share data across the system, in a safe and governed way, to improve patient outcomes while enabling us to work with our partners in an effective way. Over the next five years our integrated services will improve our stakeholder experiences through automatic call transfer, access to patient records, end-of-life (EOL) care plan, electronic prescriptions. We are active within our system and will continue to find ways to share data with our stakeholders as well as finding ways to share costs through co-location of our estate and through single procurement of communications systems, shared telephony and shared CAD.

Key projects

Patients and communities experience fully joined-up care responsive to their needs	Our people feel empowered, valued and engaged to perform at their best	We achieve excellence in everything we do	We use resources wisely to invest in and sustain services

Digital theme 1
Sharing data across the system to improve patient outcomes while enabling us to work with our partners in an effective way.

Share data across the system to improve patient outcomes	Provide integrated services that improve the stakeholder experience	Work effectively with our partners
• Access to patient outcome measures from receiving location (through ePR or through integration with other Healthcare Providers) • e-transfer of care (ePR) with the receiving location • Defib fully integrated with ePR • Work as strategic partners in population health managements, to identify and address local priorities for care delivery through LHCRE	• Mobilisation of IUC (direct booking, Senior Clinical Module, e-prescribing, IVR, CP-IS, electronic call advice, ED validation, Local CAS, enhanced address UPRN) • Electronic referral to other healthcare provider through LHCRE	• Single YAS care record to be integrated with LHCRE • Offer YAS infrastructure to CAS services and GPs as income generation

Digital Theme 2: Providing the right digital services to enable people to work productively.

We provide the right digital services to enable people to work productively so we play our part in attracting, developing and retaining our highly skilled workforce. We recognise the importance of working effectively and have targeted the implementation of services to support paperless working by 2020. We also recognise that our mobile workforce need to work anywhere and we will work towards this objective over the next five years.

We recognise that our own staff need to keep their skills current and to this end we will invest in the development of our staff.

Key projects

Patients and communities experience fully joined-up care responsive to their needs	Our people feel empowered, valued and engaged to perform at their best	We achieve excellence in everything we do	We use resources wisely to invest in and sustain services

Digital theme 2
Providing the right digital services to enable people to work productively.

Invest in the right technology to enable staff to work effectively within their role	Improve communication and collaboration through digitization	Flexible working by providing access to our services from anywhere
• Enhance PTS Crew experience by providing personalised smart device to allow access to YAS infrastructure (Email, eLearning, Datix, GRS Apps, Intranet) • Single Sign On • New and improved devices – new channels for receiving information. Examples: vehicle and wearable technology / body cameras • ePR Phase 1 • Procure and commission the new mobile devices for frontline staff	• Video capability for virtual meetings. • Provide automation and improve workflow, waste from the system using technology i.e. Electronic Document Management System, to enable, for example, e-signature for e-authorisation, e-form.	• Enhance access for clinicians 999/111 to work from home though UC • Enable online training for staff members on any device (YAS provided or BYOD)

Digital Theme 3: Provide integrated services and systems with reliable, accurate and timely access to information to help with decision making

We will provide integrated services and systems with reliable, accurate and timely access to information to help with decision making. We will ensure that patients can access our systems directly where this makes sense, such as enabling them to book online for our Patient Transport Services.

Building on our recent successes with the implementation of our Electronic Patient Record System we will invest in the latest technologies; initially exploring how AI and IVR can be integrated into our systems.

Growing on our initial investment we will continue to build our analytical capacity within the Trust. We recognise that we have a lot of data available to us and we need to exploit this facility by providing additional operational reporting as well as using the data to proactively manage our services.

Key Projects

Patients and communities experience fully joined-up care responsive to their needs	Our people feel empowered, valued and engaged to perform at their best	We achieve excellence in everything we do	We use resources wisely to invest in and sustain services

Digital theme 3
Provide integrated services and systems with reliable, accurate and timely access to information to help with decision making.

Improve the performance of patient journey	Provide innovative solutions that support YAS's service improvement	Provide reliable, accurate and timely access to information to support YAS and their patients
• Improved Hospital Handover Data Recording via joint working with 999 / Hospitals to understand issues and identify actions. Review use of Handover screens vs automated arrival times. • Provide access to patient EOL/Care plan through LHCRE or NRLs • Call Handovers – flexibility / resilience in queuing and routing of calls	• Implement Medicine Management system • Implement RFID Asset Management solution • Implement Stock Management solution • Call Automation using Natural Language Processing and/or Chatbots to entirely automate some aspects of calls	• Developments of key dashboards across the Trust including EOC/999/111/AVP/MH/ePR/PTS/CIP/Hub & Spoke/Telematics

Digital Theme 4: Delivering safe, sustainable & efficient digital services, maintaining the resilience of our core services and creating the capacity to develop new ones.

We will continue to provide safe, sustainable and efficient digital services. A key focus for us is maintaining the resilience of our core services to ensure the safe and effective provision of the Trust's front-line services to patients. We will continuously improve these services to make sure that we can create the capacity to develop new services to meet the changing demands that the system and our patients place on our services

Key Projects

Patients and communities experience fully joined-up care responsive to their needs	Our people feel empowered, valued and engaged to perform at their best	We achieve excellence in everything we do	We use resources wisely to invest in and sustain services

Digital theme 4
Delivering safe, sustainable & efficient digital services, maintaining the resilience of our core services.

Provide services that improve the patient journey and experience	Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Provide the right decision making tools to our resources to allow them to navigate across the system wisely
• Clinical Advisory Service (Integrated 111 & EOC) • Provide video consultation for clinicians to allow collaboration with colleagues across the health care system • Multi-channel access to control centres using phone, web apps and video. • Intelligent Dispatch decision support / AI to assist with resource matching. Use of external feeds such as traffic-based routing • Senior Clinical Module in EOC • New Clinical Hub with integration to ePR • Identification of frequent callers and providing them with targeted support • Provide clinicians access to patient records through GP connect/LHCRE, e-referrals • Implement HCP module for 999	• Phase 2 AVP - fully integrate with YAS • Phase 3 AVP - integrate with medicine management, stock management and operation systems • Integrated CAD 999/IUC/PTS dispatch/clinical triage system implementation • Roll out of Telematics in 999 • Implement a new Unified Communications system • Upgrade all YAS data links with high bandwidth to support Video Conferencing • Procure and commission a new voice recorder • Provide infrastructure to support hot desks and virtual call centres	• Provide access to NHS Number from the (ePR) through Mini Spine service • Fully integrated DOS with ePR to frontline staff • Electronic referral from ePR and 111 to Clinical Hub • JRCALC fully integrated ePR • Access to Summary Care Records through LHCRE • IUC Reports and Digital Integration with other Services • Reconfigurations Data and Mapping Model • Work with partners to develop data sharing to improve access to real time information including NECU for 111, NHS Digital and others.

ACHIEVING OUR STRATEGY

Our Digital Strategy is ambitious and we believe it is achievable as long as we maintain focus on the areas that will deliver most benefit to the Trust overall. There are a number of external influences, policy and national programmes, on our digital strategy and we will need to maintain the balance to exploit the opportunities that these make available whilst ensuring our effort is focused on maintaining resilient services whilst delivering targeted improvements to these.

Implications for the Trust to consider

This strategy sets out a clear vision and ambition, captured in a digital roadmap spanning over the next five years. This vision will necessarily require funding and this digital strategy will follow, where possible, key principles for funding purposes:

1 We will operate with a stable headcount and fixed pay costs over five years.
2 We will move towards revenue projects rather than capital projects as we are moving gradually to a hosted solution.
3 We will endeavour, wherever appropriate to ensure all projects are self-funded based upon the cash-releasing business benefits gained across the Trust.

However, the vision may require additional input and investment from the wider Trust:

1 We will require Trust leaders to support prioritisation exercises with the ICT and BI teams to ensure greatest business benefit.
2 We will require suitable funding where projects/programmes are not fully funded.
3 We will require suitable funding for projects/programmes which are deemed of critical importance.
4 Full estimates and costs will be prepared to support five-year and ongoing in-year business planning throughout the life of this strategy, ensuring that the programme of work proposed delivers against the Trust's strategic objectives.

Assurance and Governance

Board assurance on the delivery of digital strategy priorities will be provided through the Transformation Programme Infrastructure Board and the business plan. All projects and programmes will be delivered using Trust project governance processes, and regular updates on progress will be provided via the Infrastructure Programme Board and wider Trust Management Group. The Digital Management Group will oversee day to day delivery of the Digital functions and ensure that ICT and BI resources are appropriately targeted to support delivery of the strategy.

Appendices

Appendix A

Details of the project roadmap to deliver the key eight programmes

1. Emergency Services Mobile Communication Programme

Digital Objective	Project/Core deliverable	Years				
		18/19	19/20	20/21	21/22	22/23
National	Control Room Solution (CRS)			x		
National	Mobile Device Vehicle Solution (MDVS)				x	
National	Emergency Service Network Solution (ESN)					x

2. Local Health Care Record Exemplar (LHCRE)

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
National	Deployment of the NRLS working with the National Record Locator team	x	x	x	x		
National	Work with NHSD on utilising NHS Apps	x	x	x	x	x	
Share data across the system to improve patient outcomes	Access to Patient outcome from receiving location (through LHCRE)	x	x	x			
Share data across the system to improve patient outcomes	e-Transfer of care (ePR) to any receiving location LHCRE	x	x	x	x	x	
Work effectively with our partners	Single YAS Care Record to be integrated with LHCRE	x	x	x			
Provide integrated services that improve patient outcomes	Electronic referral to other healthcare provider through LHCRE	x	x	x			
Share data across the system to improve patient outcomes	Work as strategic partners in population health management, to identify and address local priorities for care delivery through LHCRE	x	x	x			
Improve the performance of patient journey	Provide Access to patient EOL/Care plan through LHCRE or NRLs	x	x	x			
Provide services that improve the patient journey and experience	Frequent Callers - identification of frequent callers and providing them with personalised and targeted support. Work with NHSD		x	x	x		
Provide the right decision making tools to our resources to allow then to navigate across the system wisely	Access to **Summary Care** Records through LHCRE		x	x	x		
Provide services that improve the patient journey and experience	Provide clinicians access to patient records through GP connect/LHCRE, e-referrals	x	x	x			

3. Fleet

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
Invest in the right technology to enable staff to work effectively within their role	New fleet management system		x				
Provide innovative solutions that support YAS's service improvement	Implement RFID Asset Management solution			x	x		
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Roll-out of Telematics for 999			x	x		

4. Unified Communications

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
Work effectively with our partners	Offer YAS infrastructure to the CAS services and GPs as income generation			x	x		
Flexible working by providing access to our service from anywhere	Enhance access for clinicians 999/111 to work from home through UC		x	x			
Improve communication and collaboration through digitization	Video capability for virtual meetings.	x	x				
Invest in the right technology to enable staff to work effectively within their role	**New and improved devices** New channels for receiving information **Examples:** vehicles and wearable technology / Body cameras					x	x
Provide innovative solutions that support YAS's service Improvement	Call Automation –using Natural Language Processing and/or Chatbots to entirely automate some aspects of calls					x	x
Provide services that improve the patient journey and experience	**Control centres Unified Comms** Provide video consultation for clinicians to collaborate with colleagues in operations centres, care homes, and with remote clinicians across the wider health system			x	x		
Provide services that improve the patient journey and experience	**Patient - Unified Comms** Multi channel access to control centres using phone, web apps, video and ability to move between them				x	x	
Provide services that improve the patient journey and experience	**Intelligent Dispatch** decision support / AI to assist with resource matching. Use of external feeds such as traffic-based routing					x	x
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Contract award for Unified Comms	x					
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Implement a new Unified Comms system		x				
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Upgrade all YAS **data links** with high bandwidth to support the Video Conf, working from anywhere download (Defib Data, Vehicle Camera)	x	x				
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Procure and commission a new voice recorder to support the UC solution	x	x				

5. UEC / IUC (Integrated CAD for 999, 111 and PTS)

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
Provide integrated services that improve patient outcomes	**Mobilisation of IUC** (direct booking, Senior clinical Module, e-prescribing, IVR, CP-IS, electronic call advice, ED validation, Local CAS, enhanced address UPRN)		x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients	Developments of key dashboards across the trust including EOC/999/111/AVP/MH/ePR/PTS/CIP/Hub & Spoke/Telematics	x	x	x			
Provide reliable, accurate and timely access to information to support YAS and their patients	Improved Hospital Handover Data Recording via joint working with 999 / Hospitals to understand issues and identify actions. Review use of Handover screens vs automated arrival times.	x	x	x			
Improve the performance of the patient journey	**Call Handovers** – flexibility / resilience in queuing and routing of calls (eg transferring to other emergency services, other ambulance trusts, 111 or other NHS services)					x	x
Provide services that improve the patient journey and experience	Clinical Advisory Service (Integrated 111 & EOC)			x			
Provide services that improve the patient journey and experience	**Senior Clinical Module** (access to DOS, E-referral, Direct booking) EOC			x			
Provide services that improve the patient journey and experience	Implement HCP Module for 999		x				
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	**Integrated CAD 999/IUC/PTS** dispatch/clinical triage system tender and **implementation**			x	x		
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	IUC Reports and Digital Integration with other Services	x	x	x			
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	Reconfigurations Data and Mapping Model to support future reconfigurations working closely with finance	x	x	x	x		
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	Work with partners to develop data sharing to improve access to real time information including NECU for 111, NHS Digital and others.	x	x	x	x		

6. Electronic Patient Record

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
National	Work with NHSD and NHSE (e.g. ePR Datasets, ARP, National Standard and National Strategy)	x	x	x	x	x	
Share data across the system to improve patient outcomes	Defib fully integrated with ePR		x				
Invest in the right technology to enable staff to work effectively within their role	ePR Phase 1	x	x				
Invest in the right technology to enable staff to work effectively within their role	Procure and commission the **new mobile devices** for the frontline staff		x	x			
Provide the right decision making tools to our resources to allow then to navigate across the system wisely	Provide access to **NHS Number** from the (ePR) through Mini Spine service		x				
Provide the right decision making tools to our resources to allow then to navigate across the system wisely	ePR fully integrated with **DOS**			x			
Provide services that improve the patient journey and experience	Develop a new Clinical Hub, fully integrated with ePR		x				
Provide the right decision making tools to our resources to allow then to navigate across the system wisely	Electronic referral from ePR and NHS 111 to Clinical Hub		x				
Provide the right decision making tools to our resources to allow then to navigate across the system wisely	JRCALC fully integrated ePR		x				

7. Paper Light / Agile Working

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
Flexible working by providing access to our service from anywhere	Enable online/virtual training for staff members on any device (YAS provided or BYOD)	x	x	x			
Invest in the right technology to enable staff to work effectively within their role	Enhance PTS Crew experience by providing personalised smart device to allow access to YAS infrastructure (Email, e-learning, Datix, GRS Apps, Intranet)		x				
Invest in the right technology to enable staff to work effectively within their role	Single sign-on					x	x
Improve communication and collaboration through digitization	Provide automation and improve workflow, remove waste from the system using technology i.e. Electronic Document Management System, to enable, for example, e-signature for e-authorisation, e-form		x	x	x		
Provide innovative solutions that support YAS's service improvement	Implement Medicines Management system			x	x		
Provide innovative solutions that support YAS's service improvement	Implement Stock Management solution			x	x		
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Phase 2 AVP - fully integrate with YAS Phase 3 AVP - integrate with medicine management, stock management and operation systems			x	x		
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Roll out YAS Wi-Fi to all the remaining stations remote sites (33)	x					
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Provide infrastructure to support hot desks and virtual call centres						

8. Data Analytics

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
Invest in the right technology to enable staff to work effectively within their role	Build analytical capacity within the Trust	x	x	x			
Provide innovative solutions that support YAS's service improvement	Forward Planning – analytics and simulation based on rich historical data	x	x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients.	Full Functioning Data Analytics Platform Set Up with procurement options understood and market tested for the best possible solution	x	x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients.	Data Governance Structure in Place incorporating trust wide tools to improve accountability and reliability of data (SOPs, Data Quality Logs, Procedures)	x	x	x			
Provide reliable, accurate and timely access to information to support YAS and their patients.	Developments of key dashboards across the trust including EOC/999/111/AVP/MH/ePR/PTS/CIP/ Hub&Spoke/Telematics. Review and rationalise existing reports with a view to move to exception based reporting.	x	x	x	x		
Improve the performance of the patient journey	Improved Hospital Handover Data Recording via joint working with 999 / Hospitals to understand issues and identify actions. Review use of Handover screens vs automated arrival times.	x	x	x			
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	Workforce Reporting transformation - improved reporting on ESR and access to information	x	x				

Appendix B
Business as Usual
Detail of roadmap to deliver other business as usual ICT and BI projects

Digital Objective	Project/Core deliverable	Years					
		18/19	19/20	20/21	21/22	22/23	23/24
Provide integrated services that improve patient outcomes	Implementation of LAT2 (Lower Acuity Transport) to automatically transfer calls between 999/PTS		x	x			
Work effectively with our partners	Work with the community through YHSPN to enable GovRoam and exploit opportunities to join any regional tender which may impact on YAS		x	x	x	x	x
Work effectively with our partners	Work with NAA on a common or shared CAD / telephony platform Work very closely with NHS Digital and NHS England, CIO across the region. Work with the National Ambulance Service to share best practice and expertise	x	x	x	x	x	x
Work effectively with our partners	Support YAS **Charity** and provide them with Charity Apps	x					
Flexible working by providing access to our service from anywhere	Migrate all of our staff to Microsoft 365 (provide communication tools such as team hub, instant messaging, team sites, enterprise social -Yammer, skype for business and one drive) or virtual desktop			x			
Invest in the right technology to enable staff to work effectively within their role	Single YAS Service Desk			x			
Invest in the right technology to enable staff to work effectively within their role	Support the procurement and implement the new risk management system		x				
Improve communication and collaboration through digitisation	ICT Service Desk	x					
Improve the performance of the patient journey	PTS patient online service, for example PTS change booking/online booking		x				
Provide reliable, accurate and timely access to information to support YAS and their patients	SOPs / Procedures in place for reporting and standardised across the Trust	x	x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients	Data Governance Structure In Place incorporating trust wide tools to improve accountability and reliability of data (SOPs, Data Quality Logs, Procedures)	x	x	x			
Provide reliable, accurate and timely access to information to support YAS and their patients	Improve and enhance access to data through data warehouse	x	x	x	x		

Category	Description						
Provide reliable, accurate and timely access to information to support YAS and their patients	Build analytical capacity within the Trust and formalise the relationship between BI and the rest of the trust including a business partner model.		x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients	Forward Planning – analytics and simulation based on rich historical data		x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients	Full Functioning Data Analytics Platform Set Up with procurement options understood and market tested for the best possible solution from a specification agreed by the trust		x	x	x	x	
Provide reliable, accurate and timely access to information to support YAS and their patients	SOPs / Procedures in place for reporting and standardised across the Trust	x	x	x	x		
Provide reliable, accurate and timely access to information to support YAS and their patients	Define the Trusts data governance framework and data quality policy with a data strategy including an appropriate data model and KPI reporting hierarchy in place based on the Trust strategic objectives.	x	x	x	x		
Provide services that improve the patient journey and experience	Enhance **CFR** by providing fully enhanced software for job allocation and tracking		x				
Provide the right decision making tools to our resources to allow then to navigate across the system wisely	Enable Child protection service (CP-IS) across 111 and 999		x	x			
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Cyber Security, Continue to monitor and improve our security, Implement the recommendations of the "Cyber Essentials", developing and maintaining mature information security management aligned to security standards	x	x	x	x	x	x
Use digital technology to enable resilient, efficient, effective, cyber secure service and sustainable services	Migrate all our devices to **Windows 10**	x	x				
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	Workforce Reporting transformation - improved reporting on ESR and access to information	x	x				
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	PLICS - Quarterly submission set up and data integrated in to reporting	x	x	x	x		
Provide the right decision making tools to our resources to allow them to navigate across the system wisely	PTS Consortia Packs Redeveloped and aligned to contracts	x	x				

Provide the right decision making tools to our resources to allow them to navigate across the system wisely	Contract Negotiations Support - modelling approach agreed and adapted to suit contracts	x	x	x	x	x	x

Appendix C

The digital strategy has been drafted with full engagement with all of the relevant stakeholders and feedback has been incorporated in this document:

1- Four Digital workshops with all YAS stakeholders
2- One-to-one interview with each directorate
3- One-to-one session with operational managers group (DMB)
4- One-to-one session with YAS Academy team
5- Draft strategy shared with the commissioners (presentation only)
6- Key strategic projects shared with CIOs across the region (Presentation Only)
7- Draft strategy shared with associate directors and heads of department through business plan forum
8- Three strategy sessions with TEG members
9- ICT and BI have been engaged through the development of the strategy

Appendix D

LHCRE is made up on the following components;

A. Improving Care: Expands the use of existing shared health, care records across the regions and linking up existing shared record.

B. System of Systems

Single view the patient record, will provide an aggregated, normalised, de-duplicated record for access through apps based on interoperability standards (FHIR8) , and will make that record available securely in real time to other third party solutions and other local health and care record solutions.

C. Patient Held Record – (PHR)

Patients and carers empowered to manage their own care by having access to and control of their own health records.

D. Population Health Management (Data Ark)

Integrated health record and population health solution which provide populations solutions for people, who may have multiple 'disease conditions'