Northamptonshire Assistive Technology and Remote Support Strategy

Northamptonshire AT Hub Model

Endorsement -

In recent years, the digital revolution has changed our world. Our long term vision for Health, Social Care and Housing sees huge opportunity for using modern digital technology to transform the way our services are provided.

New assistive technology will play an ever increasing role in supporting healthy and fulfilling lives. This strategy document sets out a vision for how we can use a more preventative approach rather than a reactive approach using the best of the latest technology to support people within Northamptonshire to thrive.

There is an opportunity across Health, Social Care, Housing, other public bodies and voluntary sector (See Appendix 1) to join together around a new "Northamptonshire Assistive Technology Model" building on National Ageing Well Programme priorities in Northamptonshire. Underpinning this is the NHCP's (Northamptonshire health and care partnership) iCAN (integrated care across Northamptonshire) programme.

How will iCAN support the system vision and mission?

Northamptonshire Health and Care Partnership

The aims of the iCAN programme align with the NHCP mission for people to choose well, stay well and live well. We've looked at each of these elements in turn through our pillars; Primary & Community, Discharge and Frailty.

Choose well

iCAN be sure that the right choices are available to me

iCAN be sure that the right services are there to help me look after my own health

Stay well

iCAN be sure that the right services are there to detect, diagnose and treat my illness as early as possible

iCAN be sure that I get the right treatment

Live well

iCAN be sure that the right care and support exists to help me manage

iCAN be sure that the care and support is in the right place for me

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The aims of the iCAN programme alongside principals of the strength based conversation model adopted by adult social are means that there is a significant opportunity for technology to play a prominent role in achieving the best outcomes possible for the people of Northamptonshire. (See Appendix 2&3 for NHCP and ican governance structures)

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The strategy itself was developed with input from Health, Social Care, Housing and a wide range of partners and stakeholders. We are delighted to welcome this assistive technology strategy and look forward to the developments that will follow from it; along with the benefits that flow from people independence living well-connected lives within our communities (See Appendix 2&3)

Summary

Northamptonshire Vision for the use of Assistive Technology

To use a proactive, preventive approach to assistive technology, making the hub(s) the heartbeat, joining services across Health, Social Care and Housing to provide an early response to support people to live where they want to be, stay connected to their local communities, staying fitter and active for longer. With the ability to trigger rapid support at times of rapid deterioration or crisis

Achieving the strategic aims

Prevention and independence
• Using technology in care and support planning
• Using data from the hub(s) to initiate the right response at the right time
• Developing the technology service offer using the latest technologies
• Research new and innovative ways to support different groups of people
Enhancing independence

Supporting the provision of care and support in the right place

Information and choice
• Promoting apps, kits and technology to our people
• Equipping our staff with the skills they need to inform and advise
• Supporting people to use technology
Through co-production creating a menu of digital options recognising the unique needs of each person

Empowering people

Use of data to future plan for people's care and support

Future proof
• Understanding, testing and using new technology
• Using data and evaluating effectiveness to inform future direction
Building on interoperability capability which promotes intelligent sharing of key information between solutions
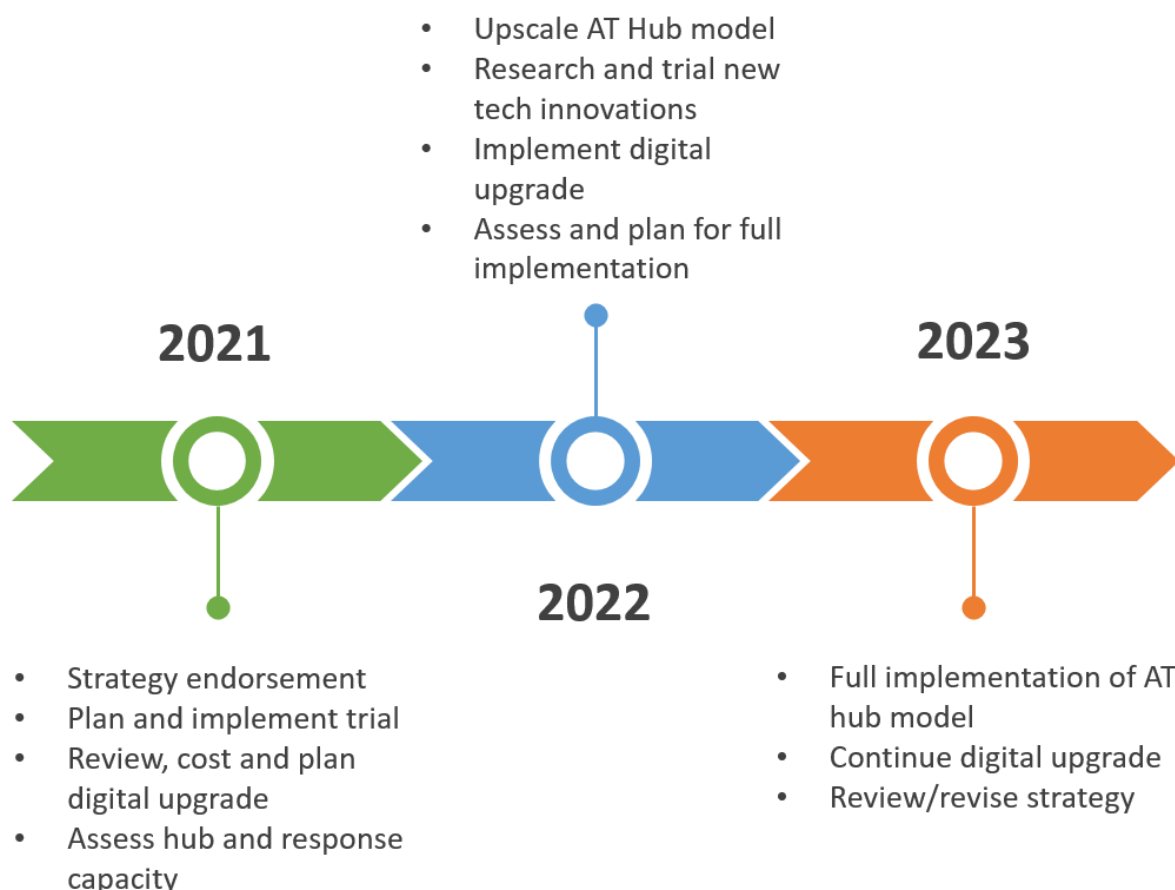Process and practice change
Value
• Understanding the economic costs and benefits and using our resources to achieve the greatest impact
• Investing in assistive technology for prevention to save money in the future
Capturing wellbeing as reported by the user in relation to benefit of technology used
Self care and connection with others

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3 Year Plan

2021

- Strategy endorsement
- Plan and implement trial
- Review, cost and plan digital upgrade
- Assess hub and response capacity

2022

- Upscale AT Hub model
- Research and trial new tech innovations
- Implement digital upgrade
- Assess and plan for full implementation

2023

- Full implementation of AT hub model
- Continue digital upgrade
- Review/revise strategy

Introduction

We live in a fast moving digital world where the use of technology has become common place. All public and partner organisations have embraced the use of technologies in varying degrees and volumes. Much of the use of technology from these organisations has been implemented in isolation specifically to enhance services and efficiencies in delivery to the person they are serving rather than at scale to meet overall population outcomes

There has been growth in telecommunications and mobile phone internet which enables people to be more in control of their own lives. Health prevention is growing, as sensors installed in people's smartphones allow them to measure and monitor their wellbeing and fitness through activity; use of health promoting apps which can promote healthy lifestyles and detect the signs of illness.   Signal strength and coverage continues to improve with superfast broadband and fibre coverage within Northamptonshire at 99%.

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These developments have the power to transform the delivery of Health, Social Care and Housing and align our public services in Northamptonshire as we have never seen or experienced before.

The pandemic has shown us that technology can aid safety and has been actively embraced by cohorts within our society who may previously had some reluctance to engage. We now have a new challenge – to ensure that we do not create digital inequalities within our population

What is AT?

Assistive technology refers to devices or systems that help maintain or improve a person's ability to do things in everyday life. These can assist with a range of difficulties, including problems with memory and mobility.
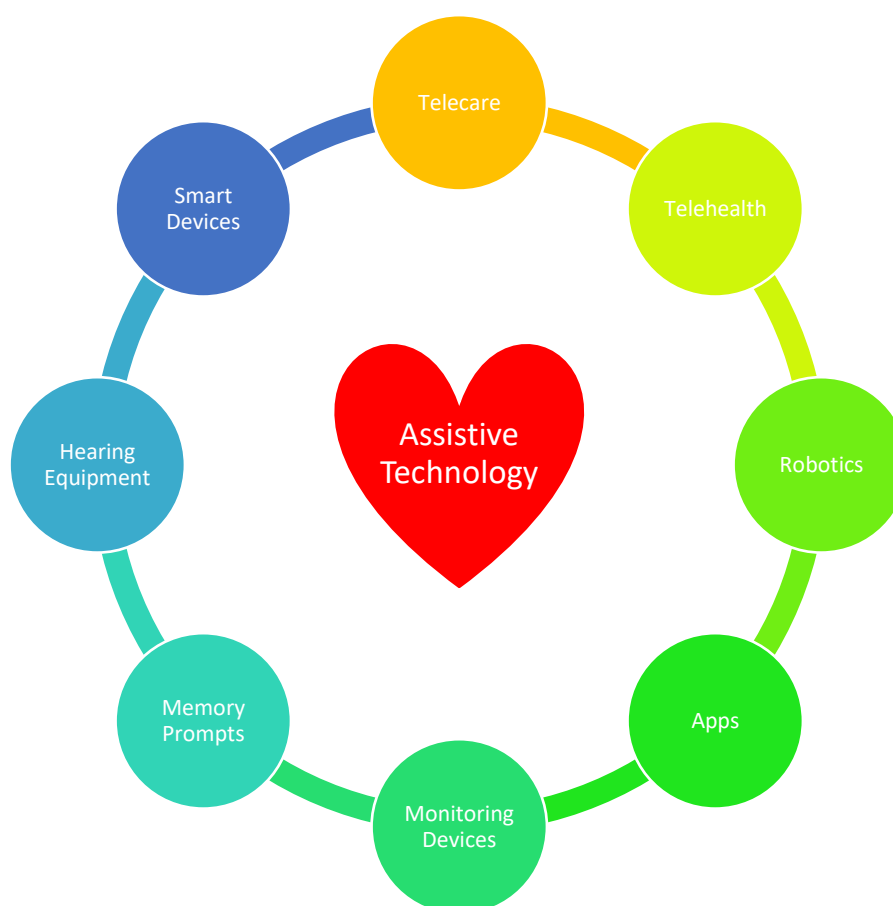
Elements which come together within the Assistive Technology umbrella include:

Telecare – group of devices that link directly to a 24h monitoring centre and lead to an emergency response.

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Telehealth – Health data gathering devices that provide information on various readings allowing proactive approaches to take place through the identification of needs and escalation to the appropriate services.

Robotics – The constant expansion in the field of robotics means that this technology will start seeing an increased use in the future through exoskeletons, artificial intelligent companions and daily living devices.

Apps – With the increase use of smartphones and tablets apps, companies started to cater towards people with disabilities and creating apps that support people in communicating, anxiety, reminders, guided conversations etc.

Monitoring devices – Passive devices that provide information about the person activity or location whilst at home or when accessing the local community.

Memory prompts – reminders to prompt the person to complete tasks throughout the day, for example, medication, drinking water, eating, etc.

Hearing equipment – safety and quality of life devices for hearing impaired people.

Smart Devices – Google Home or Amazon Alexa can provide good alternatives to more complex environmental control devices and the ability for a person to use their voice to control some aspects of their life such as calling for help, talking to friend and family, turning lights on and off, closing curtains or blinds etc.

Benefits of Technology

Improved quality of life for people through AT	Reduce social isolation for people
Raise awareness of partner services	Reduction in ambulance calls and A&E visits
Support Hospital discharges	Cost avoidance

Benefits of Technology

Improve quality of life – Supports people to achieve their outcomes improving their health and wellbeing and maintain independence for as long as possible

Reduce Social Isolation – The hub will make proactive wellbeing calls to identified groups of people, link people with partner organisations, charities, libraries, events, to promote community based approaches and support services. This includes the provision of targeted on-line support groups e.g. Dementia Choir

Raise awareness of partner services- Promotion of county wide services through the 3 conversation model and iCAN approach and the extended functionality of a Northamptonshire Health and Care Directory

Reduction in ambulance calls and A&E visits – Achieved by working proactively and avoiding crisis situations through the use of data, wellbeing checks and early warning indicators when person is self-reporting as feeling unwell. Use of response services instead of blue light services for less urgent and complex interventions.

Supporting Hospital discharges – Through iCAN and National Ageing Well Programme including provision of additional monitoring equipment with direct links back to hospital Consultants during the first few days following return to place of usual residence

Cost Avoidance – Delivery of cost avoidances to both social and health care

Current Situation

There are numerous commissioned assistive technology services across Northamptonshire offering various types of technology ranging from health monitors, telecare, trackers, hearing equipment, monitoring devices and smart devices. these services are commissioned by various partners across health, Social care and Housing. Private partners also offer an array of technology solutions.

Much of the existing telecare offers are largely analogue based which will need to move to digital platforms by 2025.

The services provided across the public sector in Northamptonshire are generally seen as successful arrangements with well established, tried and tested approaches. Health Social Care and Housing would like to build on the successes and extend the use of this technology from a reactive approach to a preventative approach meeting needs at a much earlier stage. It also aims to harness the benefits of newer forms of technology.

Ambition

Our ambition for Northamptonshire is to connect Health, Social Care and Housing through the use of modern assistive technology, having it beat strongly at the heart of our services rather than a pulse on extremities of our organisations. Assistive technology has often been treated as an add on to services something that is thrown in on the side to give us some additionally rather than thinking it as a core component of the whole system.

Our ambition is, aligned to holistic care planning all of our older population and those who are younger with frailty will be offered technology solutions to aid them. By 2025 we expect 50% of our older population to have some form of technology linked to our central monitoring hub. This will give a coverage of circa 70,000 persons.
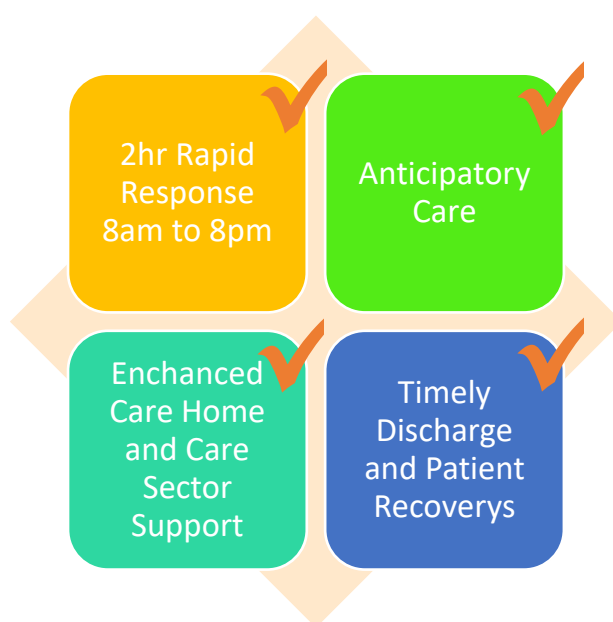
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We aim to use a new central hub(s) as the heartbeat of the preventative AT strategy, joining up technology around the county, using it to know and understand the needs of our people, maximising and personalising the use of assistive technology with the people that use the services. We will also aim to incorporate the best of all latest technologies and approaches to deliver the New "Northamptonshire AT model" and implement the required changes to be digital ready by 2025.

We recognise the diverse range of solutions available within the market and intend to work with a number of different providers to ensure the best products and personalised solutions are available for our population. All suppliers we work with will be required to support the ambitions of the Northamptonshire Health and Care Partnership, support research and evaluation, including using data to support population health management, the building of an evidence based practice, and will be expected to work collaboratively to ensure timely access to information and minimise multiple log-ins for those monitoring and delivering care.

The Northamptonshire AT model, will support the delivery of the National Ageing Well Programme priorities in Northamptonshire and deliver on the iCAN digital program using the principals of the strength based conversation model. The Northamptonshire AT Model will build upon the existing tailored offer to working aged adults to incorporate the latest evidenced based practice to maximise the opportunities for independent living.

National Ageing Well Priorities

2hr Rapid Response 8am to 8pm

Anticipatory Care

Enchanced Care Home and Care Sector Support

Timely Discharge and Patient Recoverys

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The AT Strategy

Key point	Description
Prevention	Use of Technology Enabled Care (TEC) and telehealth to identify and prevent 'crisis management' situations supporting customers to avoid the need for more intensive forms of care and promote their independence across all working age adults and older persons
Digital & Data	Use of data provided by TEC's to target customer groups with specific interventions and provide a known customer/known needs approach. Using the single care record to support this
Future Proof	Digital ready technology in line with the digital switch over from analogue to digital.
Partnership	Look for opportunities across Health, Social Care, Housing, Voluntary Sector and their partners to design approaches and work collaborations including response services
Value	Understand the social and economic costs and benefits of TEC's and targeting resources accordingly; use TEC's to meet the challenges of rising demography and increasing complexity.

Prevention - Use of existing Telecare Control rooms to create a Hub where customer information is gathered through the use of TEC devices. The hub(s) approach will be based on a wraparound model of AT support and will provide regular proactive wellbeing calls to people with the intent to find information about a specific need or just a general proactive conversation and provide a proportionate response to emerging and changing need

The test and learn process during year two will inform the future accommodation requirements of the core hub function. Aligned to the new Rapid Response clinical triage function and primary care there is significant opportunity to consider co-location of these elements. Virtual links will also be essential to the Mental Health Hub, Police and Fire HQ and the primary care out of hours' hubs.

There will need to be dedicated digital back up capabilities both with servers and second delivery / access site for the hub in the event of unforeseen local environmental issues or cyber-attacks.

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This approach will allow both Health, Social Care and housing to identify early signs of deterioration which might require input from their professionals and reduce the number of people who receive crisis management interventions across both sectors. The aim of this approach will be to know more people and know their needs, see diagram below.

Northamptonshire Integrated Care Approach - "Know the Person, Know the Need"
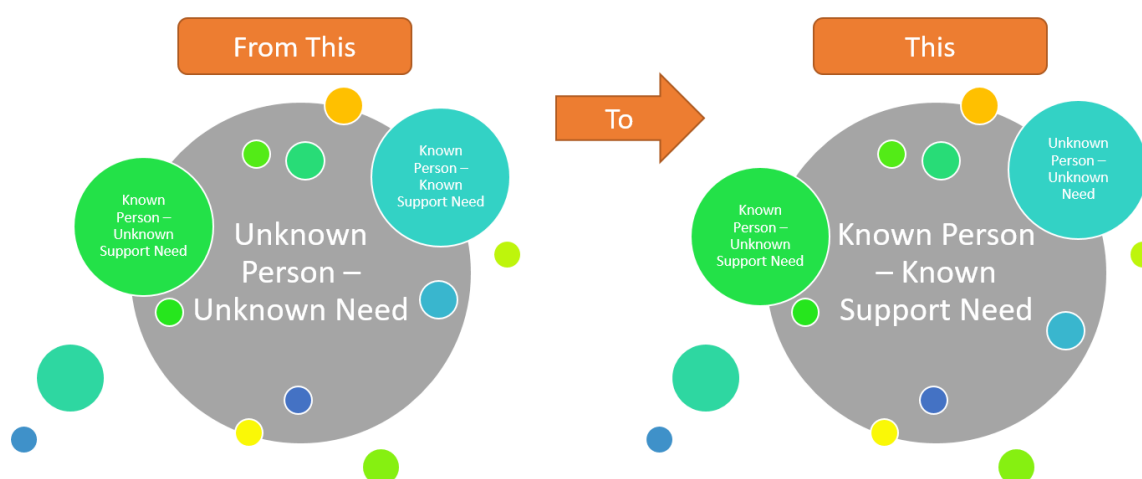
The Hub will be able to target specific groups of people with specific questions or reminders, identify 1st signs of vulnerability or deterioration and when information gathered requires further intervention, inform the appropriate teams and partners.

Responder services are a fundamental part of the TEC's and we aim to link community response resources when a visit is required.

The hub will provide potential opportunities to provide a single access point for health and social care to further integrate services.

Digital and Data - TEC devices can provide a wealth of data that can provide opportunities to improve or transform provision of services.

Telehealth in conjunction with a proactive approach has an increase benefit for Health and Social Care in identifying people that require input prior to crisis and therefore reduce the need for long term interventions or emergency admissions.

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Devices that provide activity monitoring information such as, GPS trackers, Canary, Brain in Hand, Embrace etc. can have rules and alerts being triggered to the hubs and emergency calls made to the appropriate responders.

Future proof - Continue development of new technologies requires constant exploration of TEC solutions. Our aim is to identify, test and deploy new TEC's that provide a solution for the needs of the people of Northamptonshire.

Partnership - To maximise the benefits and opportunities provided by TEC's and bring these to as many people as possible. The new Northamptonshire AT model will be delivered in partnership with NHS, Public Health, Voluntary and Community Sector and housing groups.

Value - Many studies have demonstrated the value in preventative approaches through the use TEC's.

The Barcelona model white paper and the Airedale reports, both link the use of TEC's to savings and cost avoidances, to both Health and Social Care, by reducing emergency admissions, A&E contacts and provide cost avoidances thorough the preventative approach.

Value in promoting self-care and self-help – For people across the age spectrum who have low level needs, do not require monitoring and would benefit from advice and information, the strategy would promote, and encourage the use of mainstream technologies in everyday life. The AT strategy will also aim to build a body of expert evidence based practice of technologies (through evaluation and research) that can produce effective outcomes for people to use in their lives.

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Operational Vision – "Northamptonshire AT Model"

A proactive hub as the heartbeat, making proactive wellbeing calls, monitoring and analysing numerous devices and data, engaging with people.

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Timely Response – the hub will connect with local services sharing data and signposting in a timely way to ensure people receive the right response at the right time.

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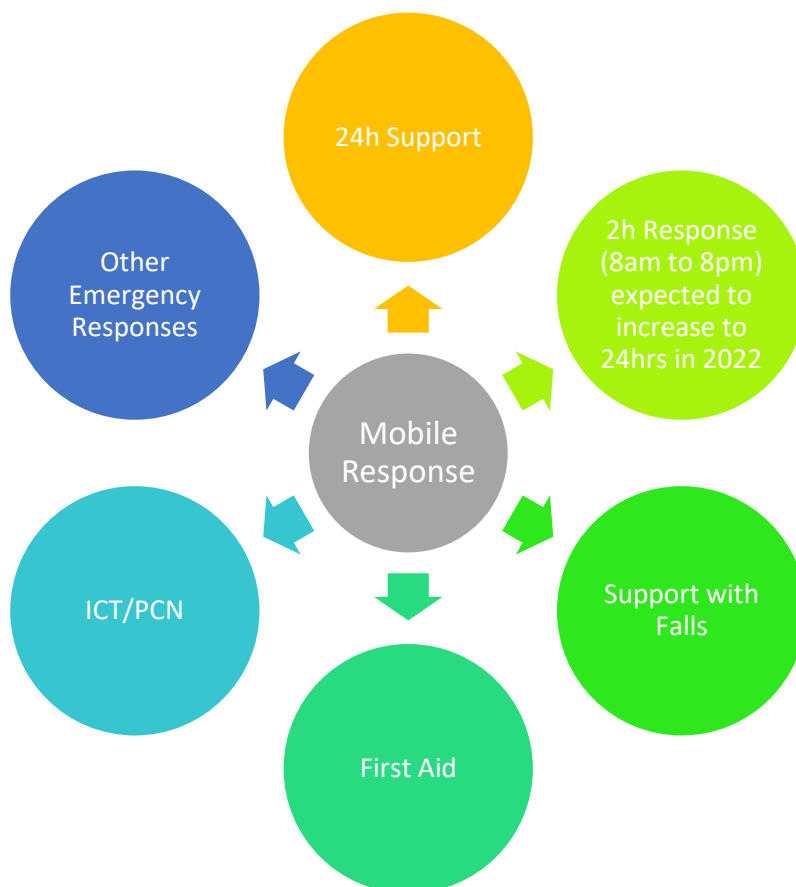
For our supported persons this will be a key part of their overall support offer. The wider elements of which are highlighted in the visual below.

In 2025 I will have

Assistive Technology to maintain my independence

Proactive remote monitoring and reassurance that support is quickly available if I need it

Befriending if I want this

Personalised Equipment to help me self manage my health

My personal holistic plan shared with who I choose and reviewed regularly with me.

Backed up with timely access to specialists as my needs change

Free Wifi & digital platforms

Access to range of local community activities and support groups (in person or virtual)

My go to named person from my local integrated team

Mavis

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Northamptonshire AT Model - 3 Year Plan

Year 1

- Northamptonshire AT Strategy to be endorsed across system partners
- Communicate the new Northamptonshire AT Strategy
- MAP Acute/Community AT & response Services
- Plan & Implement trial of the Northamptonshire AT Hub Model
- Research and report on findings of Northamptonshire AT Hub Model
- Implement new learning
- Research and trial new tech & innovations
- Review, Cost, Plan, apply for funding for Digital Upgrade
- Assessment of hub capacity for wider implementation (65%)
- Assessment of response service capacity for wider implementation (65%)
- Plan wider implementation and apply for funding as required (65%)

Year 2

- Implementation and upscale of the Northamptonshire AT Hub Model (65%)
- Research and report on findings of the Northamptonshire AT Hub Model
- Implement new learning
- Continue to research, trial and implement as BAU new tech & innovations
- Implement Digital Upgrade
- Further assessment of hub capacity for full implementation
- Further assessment of response service capacity for full implementation
- Plan full implementation and apply for funding as required

Year 3

- Full Implementation of the Northamptonshire AT Hub Model
- Research and report on findings of Northamptonshire AT Hub Model
- Implement new learning
- Continue to research, trial and implement as BAU new tech & innovations
- Continue Digital Upgrade
- Review, revise and communicate 3 Year Northamptonshire AT Strategy

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Appendices

Appendix 1

Our Partners

Aim to have the following partner organisations sign up to the AT Strategy;
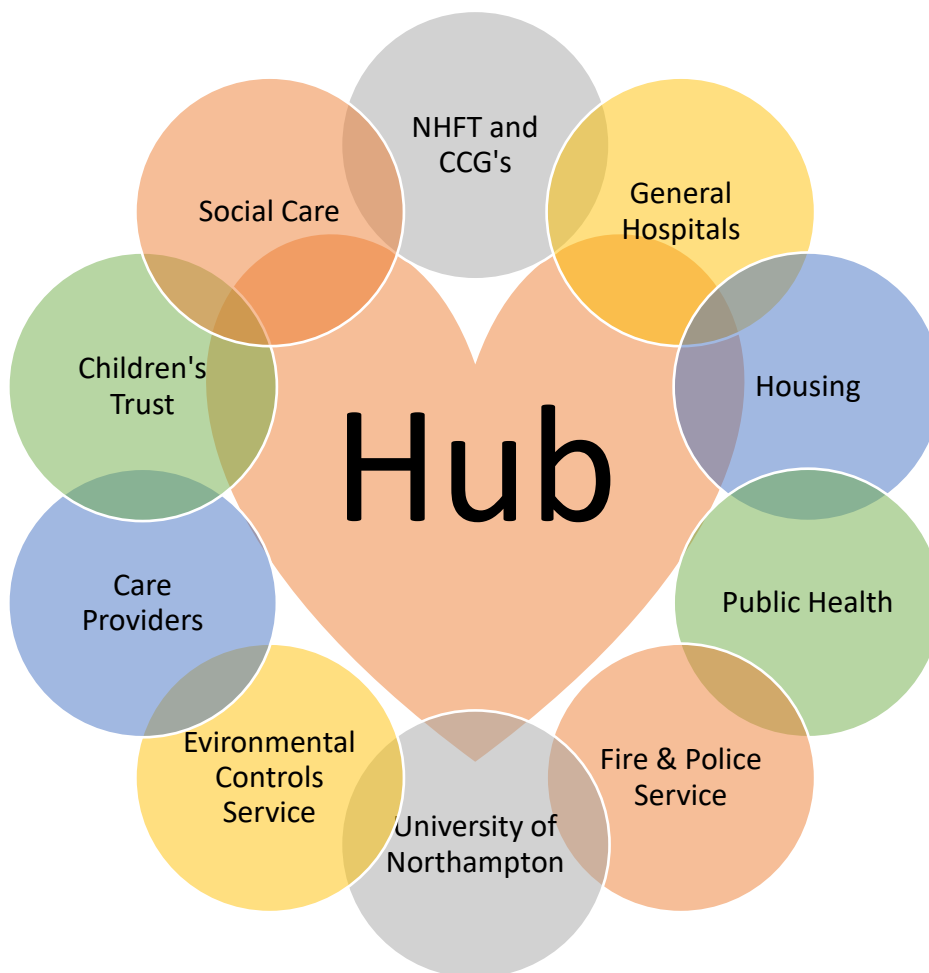
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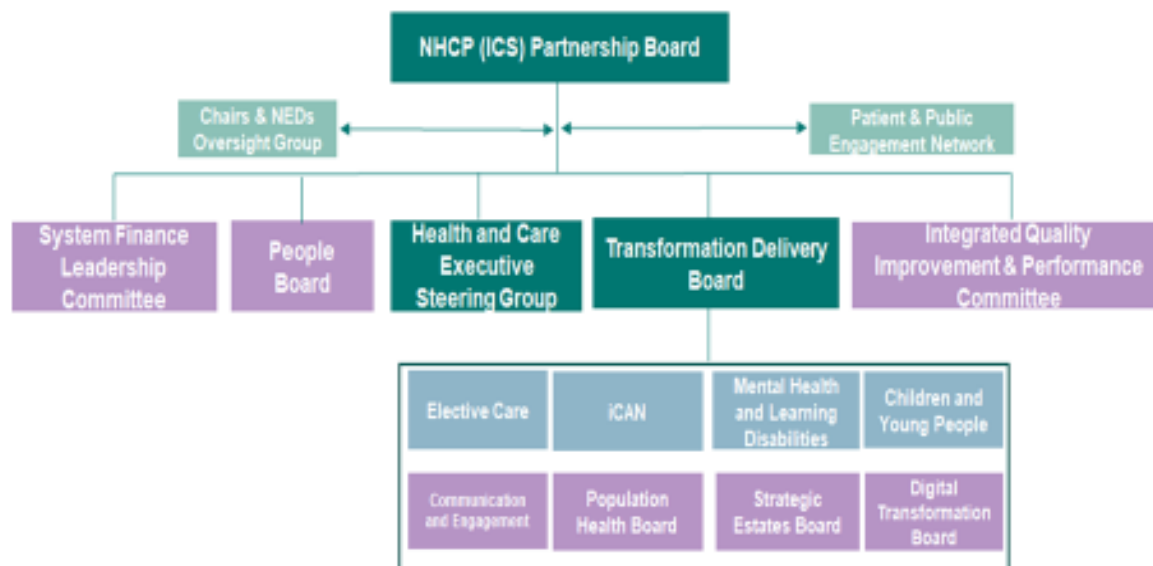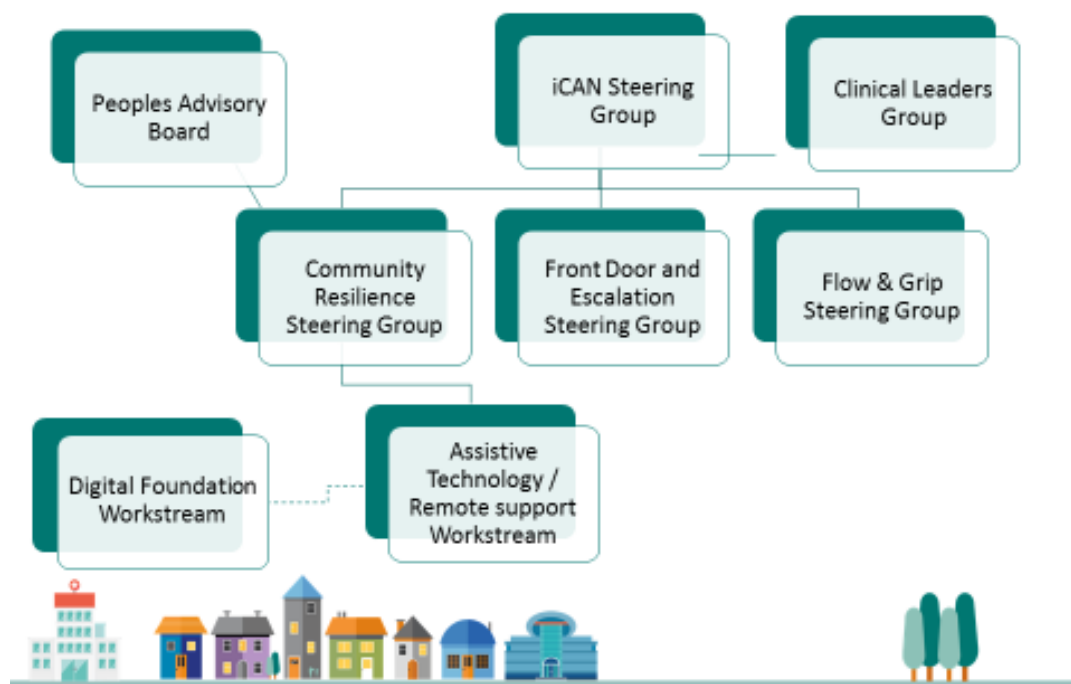
Appendix 3

Appendix 4

Remote Patient Support – draft visual

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Virtual Ward - Doccla
- Could support person in acute phase or recovery in own home or 24 hr care setting

Person in Care Home
Docabo / Yellow Bracelet / Patient Knows Best

Person in Own Home =
(Virtual Care Home Model)
Docabo / Whazn / Doccla / Yellow Bracelet / lifelines

Person in Own Home –
(maintain inpdendence)
Docabo/ Canary /Lifelines / Accurex / Pulse Ox / BP units

Patient Story Link

Remote Monitoring Hub (Core Staffing Northamptonshire West UA – supplemented with partner staff – able to oversee multiple equipment feeds)

Expanded to deliver Barcelona Model Approach of proactive and reactive support to extended population cohort

Linked to the GPA hosted platform of self help resources, approved guidance / tips, on-line masterclasses, ... Potential to link to on-line GP capacity

Hospital Consultant

Family / Carers

Welfare Support Workers / Care Co-ordinators / Befrienders

Primary Care Out of Hours

Rapid Response Services

Specialist Nurses / Therapists

GP Frailty leads & PCN Frailty Clinics

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Appendix 5

Current AT Provision Map – currently incomplete

Organisation	Service Offer	Commissioning Organisation	Provider
Assistive Technology Team	Countywide	CCG	NHFT
Call Care	Countywide	WNC	WNC
Vitalink	Corby	NNC	NNC
Grand Union Housing	South Northants	Grand Union Housing	Grand Union Housing
North Northamptonshire	Kettering	NNC	NNC
Greatwell Homes	Greatwell Homes Properties, Wellingborough	Greatwell Homes	Greatwell Homes
Longhurst Group	Longhurst Group Properties, East Northants	Longhurst Group	Longhurst Group
Beep Assist	Futures Housing, Daventry	Futures Housing Group	Futures Housing Group
Electronic Assistive Technology Service (eats)	Countywide	CCG	Lincolnshire Community Health Services, NHS
Yellow Bracelet	Countywide	CCG	CCG

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Appendix 6

Current Response Provision Map – currently incomplete

Category	Service Offer	Commissioning Organisation	Provider
ICT	Countywide	CCG	NHFT
START	Countywide	WNC	WNC
Social Care Response Service	Countywide	WNC	WNC
Rapid Response Team	Countywide	CCG	NHFT
Call Care Emergency Response Service	Northampton Partnership Homes	WNC	WNC
Night Sitting Service	Countywide	WNC	WNC

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