

HWE
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**Hertfordshire and
West Essex Integrated
Care System**

Our Healthier Future
Digital Health and Care Vision 2022-2032

The Digital Future – Fictional Visionary Citizen Stories



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Introduction

The Hertfordshire and West Essex (HWE) Integrated Care System (ICS) provides health and social care to just over 1.5 million people living in Hertfordshire and Essex. GP practices are usually the first port of call for people who are unwell. In Hertfordshire and west Essex we have 135 GP practices serving our communities, along with 295 community pharmacies providing vital medicines expertise and advice on minor illness. Thousands of community and voluntary organisations also help to support our residents. Our area has a number of hospitals and inpatient units to meet people's physical and mental health needs. Watford General Hospital, Lister Hospital in Stevenage and Princess Alexandra Hospital in Harlow are our three biggest 'acute' hospitals. Residents in our area can also access care and support from mental health organisations such as Hertfordshire Partnership University NHS Foundation Trust (HPFT) and Essex Partnership University NHS Foundation Trust and community services from Hertfordshire Community NHS Trust (HCT) and Central London Community Healthcare NHS Trust (CLCH).

Our care pathways and health and care services cross boundaries between places within our Integrated Care System (ICS) and to colleagues in other areas, such as London and Cambridge.

The HWE ICS digital strategy sets out our 10-year vision for developing and delivering digital solutions to better support our residents, improve health and care outcomes, and help us make services more efficient.

The ICS digital strategy provides a vision, mission and strategic principles to help us focus our efforts, make key digital investment decisions and establish strategic programmes of delivery. Finally, we have our digital roadmap and themed delivery plans that set out our journey over the next decade and provide the backdrop to our investments.

The purpose of this document is to bring our vision for digital health and social care to life, through the creation of fictional characters that represent our HWE residents. These digital visionary citizen stories illustrate what delivering on our strategy will actually mean to our residents and staff and show benefits of investing in technology. These are just some examples of the positive impact of digital transformation in HWE but are not designed to be fully exhaustive of our ambitious plans for transformation, system collaboration and improving our overall digital maturity.

This resource complements the ICS Digital Strategy so, for context, it is recommended to read the full strategy first. We also have an animated version of the strategy available. The five themes from the ICS digital strategy, are summarised in the next section to help with referencing back to our overall digital goals for each of the themes. This resource also aims to describe how digital will have had a positive impact on the lives of the characters in the stories by the year 2032.



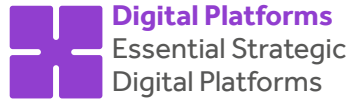
Our Digital Strategy Themes



Digital Collaboration
System Wide
Digital Collaboration

Our goal is to work together to maximise the opportunities to coordinate system wide digital solutions, and provide the right care at the right time, through multi-disciplinary health and social care teams.

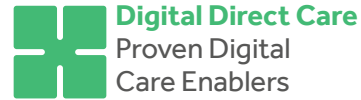
To achieve this, we will work together to adopt a coordinated health and care needs led approach to digital that focusses on local demands, but which is coordinated through place-based digital and care professional networks, including care representatives closer to the resident such as GPs, social workers, pharmacists, optometrists, dentists, third sector organisations and others in the community. This will enable a broader and more holistic approach to digital being adopted in line with our approach to care (e.g. through our Primary Care Strategy).



Digital Platforms
Essential Strategic
Digital Platforms

Our goal is to bring together the essential connectivity, information, intelligence and data for all care settings as needed by service users, residents and care professionals to improve the overall health and well-being of our population.

To achieve this, we will build and then enhance and optimise the key strategic digital platforms we need once for the ICS, or we will develop a fully joined up, interoperable, landscape of local platforms. We will optimise existing digital platforms wherever possible rather than building new replacements.



Digital Direct Care
Proven Digital
Care Enablers

Our goal is to use digital technology to help keep people well in their homes, offer choice and improve their overall life chances through healthcare at the residents' fingertips, at the same time addressing the twin challenges of demand and capacity across the system.

To achieve this, we will use digital technology at scale to bring care closer to our residents in their homes or the places they call home. We will focus on engagement with our users internally and residents in the co-creation of new ways of digital working and make solutions easy to use and with a consistent look and feel.



Digital Innovation
Local Digital Care
Innovation

We will strive to lead digital innovation partnering with AHSNs, universities, and the private sector to identify and adopt new technologies that offer scalable benefits to support our ICS challenges and workstream priorities.

To achieve this, we will pilot digital health and care innovation at smaller scale where there is a potential to grow and deploy this more widely, and we will learn from others using innovative technologies such as Artificial Intelligence, Precision Medicines and Robotics.



Digital Skills
Digital Inclusion and
Workforce Capability

Our goal is to improve the inclusion of our population in accessing their health and care needs digitally where appropriate and will build a digitally confident and skilled workforce.

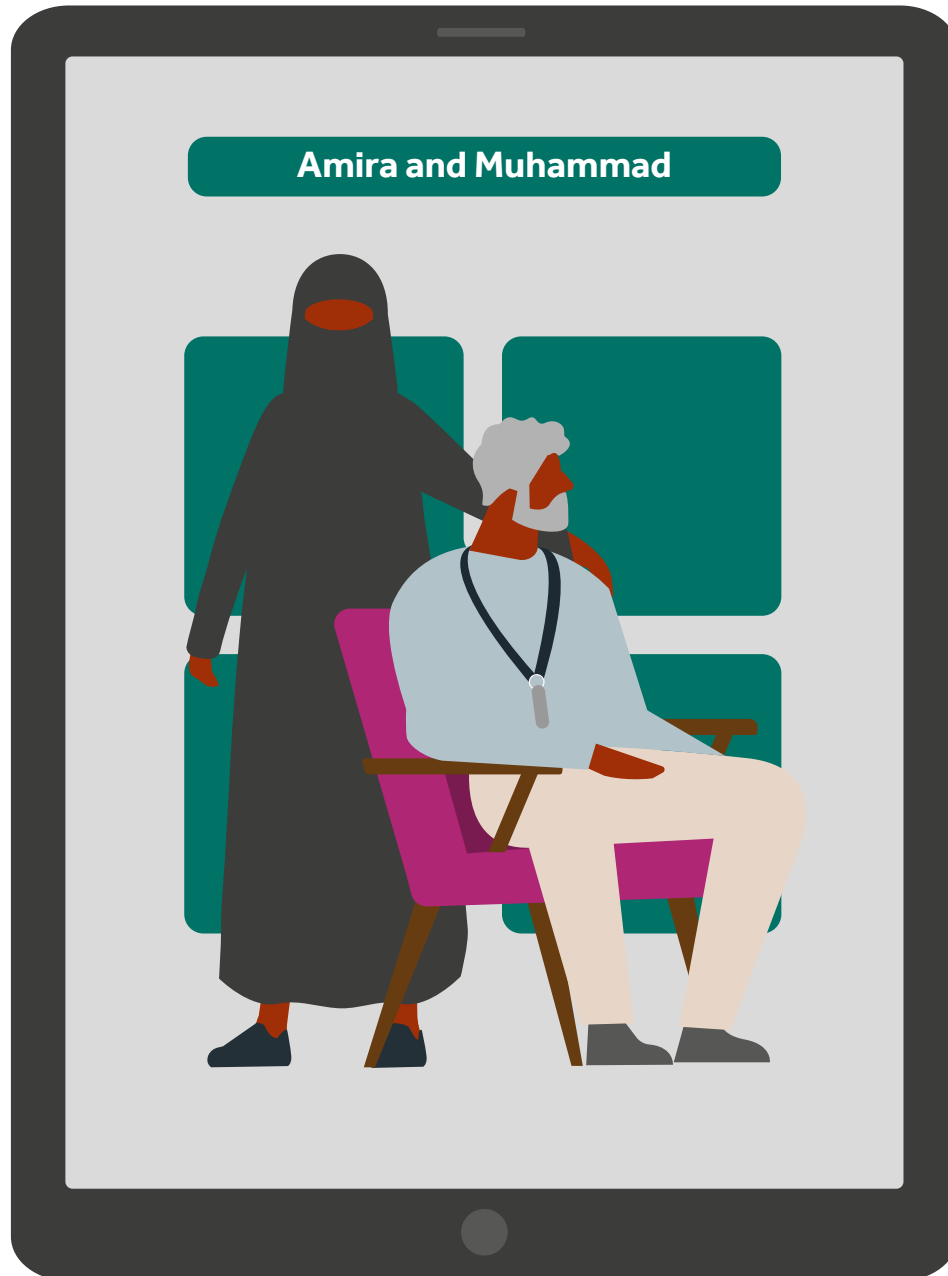
To achieve this, we will develop a coordinated approach with third sector partners and others to address barriers to accessing health and care services digitally, providing access to technology, information and navigation to those least able to access digital services. We will support and train our staff in the use of digital technologies to develop their confidence and skills in using digital tools particularly at the front line. We will strive to build trust in digital solutions for health and care and keep our staff and residents safe on-line.





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Muhammad (Mo), father, age 65, lives on his own in Ongar, west Essex

- Bangladeshi
- Multiple long-term conditions, including heart failure and dementia
- Receives support from social care and the local community nursing team

Amira, daughter, age 28, lives in Chigwell, west Essex

- Bangladeshi
- Married and has a young daughter

Amira and Muhammad's Story...

Amira was worried about her father Muhammad, who lives at home on his own in Ongar, west Essex.

Muhammad has multiple long-term conditions, including heart failure and dementia and is heavily dependent on daily living support from social care and the local community nursing team.

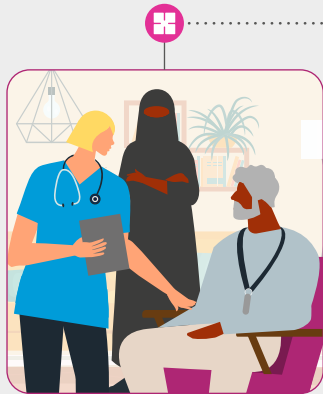
Amira doesn't live with her father but does call in to see him regularly. For her peace of mind, she also has his consent to access his patient records.

On her way to work in the morning Amira calls in to see her father and drop off some shopping. He is still in bed which is unusual for him and he seems distressed and confused.

Amira is concerned and calls 999.



The digital health and care vision for Amira and Muhammad by 2032



Amira phoned 999. The Care Co-ordination Centre (CCC), which reviews the live 999 call cases, is able to see from the shared care record that Mo has a visit from a Community Matron scheduled for the following day and a hospital appointment via video the following week. The call handler brings the Community Matron visit forward to later that morning.

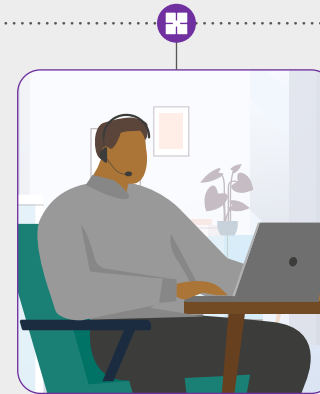


The Community Matron suspected Mo had a urine infection and uploaded the urine dip result along with a message for the GP.

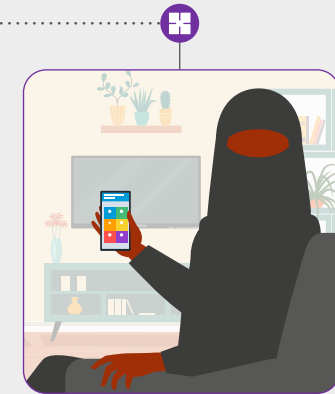
Mo's GP was then able to send an electronic prescription for antibiotics to treat the infection.



The CCC call handler updated the record system to alert the carers to check that Mo had eaten and to arrange an early visit the following day to help Mo get up and ready for the day.



The CCC call handler updated the shared care record to ensure the hospital was aware of the changes when Mo attended his video appointment.



The CCC liaised with Amira and she felt more confident there was support to keep her father safe and well at home. Whilst Amira was aware of the packages of support in place for him through the NHS App, as a family member she also had contact details to check in with the services if she was still worried.

This intervention avoided the additional stress of a trip to the emergency department at the hospital.





How has digital changed Amira and Muhammad's story?



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For Muhammad and Amira

Amira and Mo have always worried that when Mo goes into hospital he will deteriorate and may not come home. Experiencing how the service no longer just takes Mo to hospital but provides the right support at home has been a huge relief for both of them.

Digital Strategy Theme

Digital Collaboration
 Digital Platforms

Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For Clinical Teams and Partners

In an interview with the Health Service Journal (HSJ), the Director for the Care Co-ordination Centre reflected on the last five years. "Critical to the transformation of care has been collaboration between partners not just in the NHS and local authorities, but also the voluntary sector and private sector organisations, which all form part of the multidisciplinary team in the CCC. We have used digital platforms not only to get feedback on services from service users and their families / carers, but also to bring together service users and clinical and social care specialist service user groups. One of our biggest successes is that our CCCs are fully digitised, which has transformed the front door into acute hospitals, in particular emergency departments, preventing admissions and freeing up bed capacity and clinical time for those who really need it".

Digital Strategy Theme

Digital Collaboration
 Digital Platforms

Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For HWE ICS

The Director for the Care Co-ordination Centre continued "The Multidisciplinary Team is able to triage efficiently across all aspects of care and only reach out to Primary Care Network (PCN) Aligned Care Team (PACT) for situational information that digital is unable to provide. This has empowered 999, urgent community response services and paramedics to make better informed decisions on the patient's care pathway and has therefore reduced waiting times for ambulances overall for our community. The co-ordination of health and social care has been dramatically improved, reducing pressure points in the system. Our large-scale digitisation projects have been hugely positive in reducing the strain on the NHS workforce, and have delivered real benefits for our residents' health and wellbeing."

Digital Strategy Theme

Digital Collaboration
 Digital Platforms

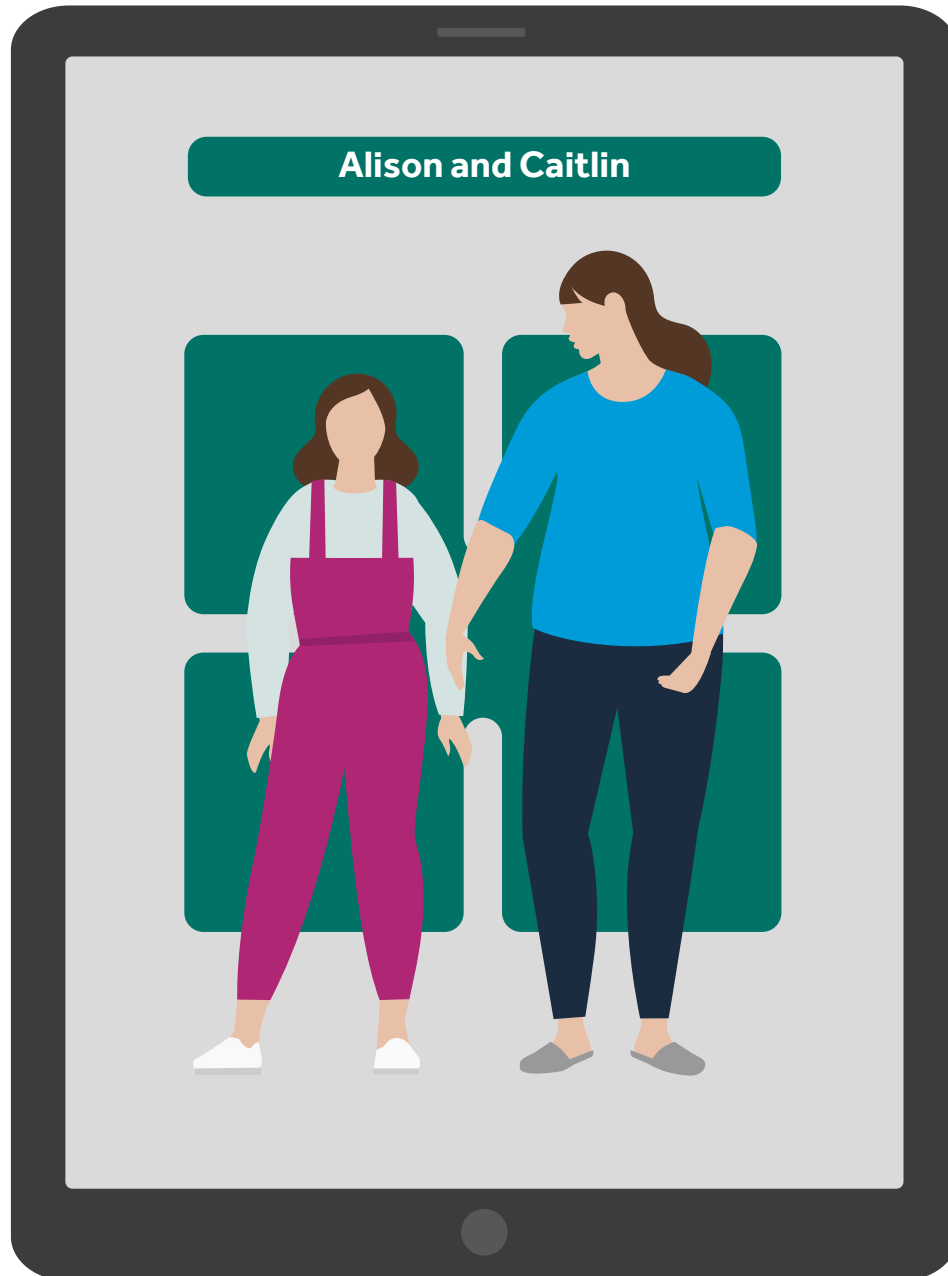
Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance



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Alison, mother, age 45, lives with her daughter in Harlow, west Essex

- White, English
- Single parent
- Heavy smoker, suffers with chest infections, tiredness and lack of energy

Caitlin, daughter, age 12, lives with her mother in Harlow, west Essex

- White, English
- Experiences panic attacks, has an eating disorder and is struggling with low weight
- Supported by the local mental health trust

Alison and Caitlin's Story...

Alison is a single parent and has been struggling with shortness of breath, numerous chest infections, persistent tiredness and lack of energy.

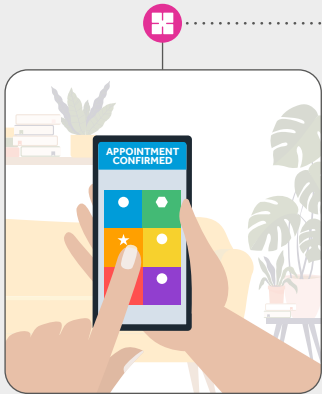
Alison has been a smoker for many years and started to feel concerned that her chest symptoms needed to be checked out. A short time afterwards, she was diagnosed with lung cancer.

Caitlin is supported by the local mental health trust for her eating disorder and is struggling with complications from low weight. She is under a personalised care package co-developed with her family. The package includes physical health monitoring, psychological support and nutritional advice, including the importance of a regular nutritional intake across all food groups.

The day after Caitlin learned about her mum's cancer diagnosis, Caitlin experienced a panic attack.



The digital health and care vision for Alison and Caitlin by 2032



Alison booked an online consultation with her GP via the NHS App for the next day.

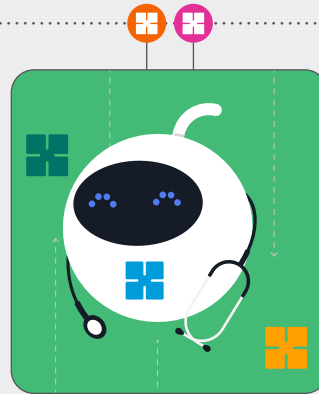
The GP referred Alison for urgent diagnostic tests and sent an electronic request to the ICS Community Diagnostics Centre (CDC).

Alison received a notification the next day inviting her into the CDC for a chest X-ray in two days' time.

Alison decided to talk this through with her daughter Caitlin, who became distressed that her mum's condition could be serious.

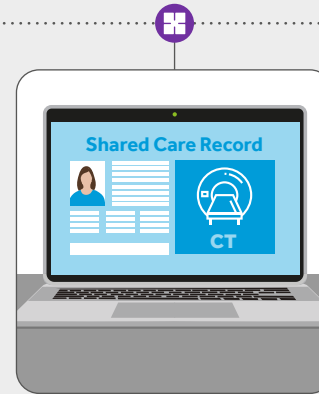


At the CDC, Alison was promptly taken for a chest X-ray. The X-ray imaging service in the CDC uses artificial intelligence (AI) technologies to support diagnosis. AI carries out the analysis of DICOM (digital imaging and communications in medicine) images using deep-learning algorithms. Historically, a consultant would have read the X-rays at the CDC. Now, the CDC uses AI to read the medical images automatically and to identify any abnormalities.



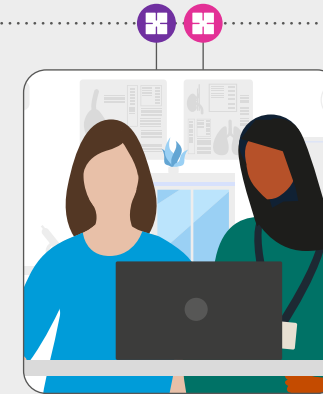
The process of identifying any abnormalities using AI takes about two hours. The results are then verified by a human before the patient is advised.

Alison was given the results that day. Sadly, after the on-duty radiologist had reviewed the report/results provided by the computer, it was confirmed that there were abnormalities in Alison's left lung.

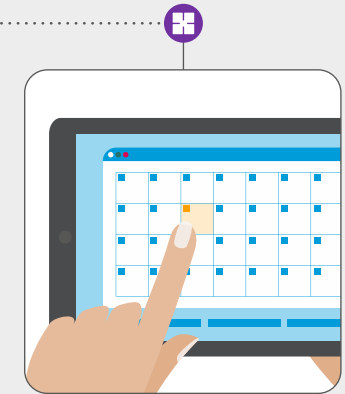


The radiologist organised a second set of investigations, there and then, so that Alison did not have to come back and the results could be shared the same day. Alison was scheduled in for a CT scan that afternoon.

After abnormal findings on the CT scan, Alison was sent for a bronchoscopy and histological diagnosis. Unfortunately, later that month, she was diagnosed with lung cancer.



After her diagnosis, before Alison went home, the care support worker made sure all the information about Alison's diagnosis and care package had been put onto her patient record for her to access via the NHS App, including support groups available to her in the community.



The day after Caitlin learned about her mum's cancer diagnosis, she had a panic attack and reached out to her psychologist using the messaging function within the NHS App.

Her psychologist suggested they meet and discuss how they could help Caitlin with her anxiety, so Caitlin booked an appointment using the NHS App.





How has digital changed Alison and Caitlin's story?



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For Alison

Having access to her own care package meant Alison could access information and watch videos about her condition in her own time without worrying she may have forgotten some of the vital advice and guidance given to her that day.

It was very traumatic for Alison to learn of her diagnosis of lung cancer, but that evening Alison found comfort in talking through with Caitlin her next steps, such as her treatment and care package.

Digital Strategy Theme

Digital Collaboration
 Digital Platforms

Benefit type

- Quality Improvement
 Direct Cost Saving
 Resource / Release or Workforce efficiency and Time
 Cost Avoidance

For Caitlin

After reaching out to her psychologist via the messaging feature in the NHS App, during the consultation the psychologist was able to update Caitlin's care plan with new goal-based outcomes and recommended a mindfulness app to help Caitlin manage her anxiety.

Digital Strategy Theme

Digital Collaboration
 Digital Platforms

Benefit type

- Quality Improvement
 Direct Cost Saving
 Resource / Release or Workforce efficiency and Time
 Cost Avoidance

For Clinical Teams and Partners

Between appointments, Caitlin also shared updates on her progress towards her goals with her care professionals using the NHS App. These updates were automatically incorporated into Caitlin's electronic records, which are shared safely with those involved in her care via the ICS shared care record.

Digital Strategy Theme

Digital Collaboration
 Digital Platforms

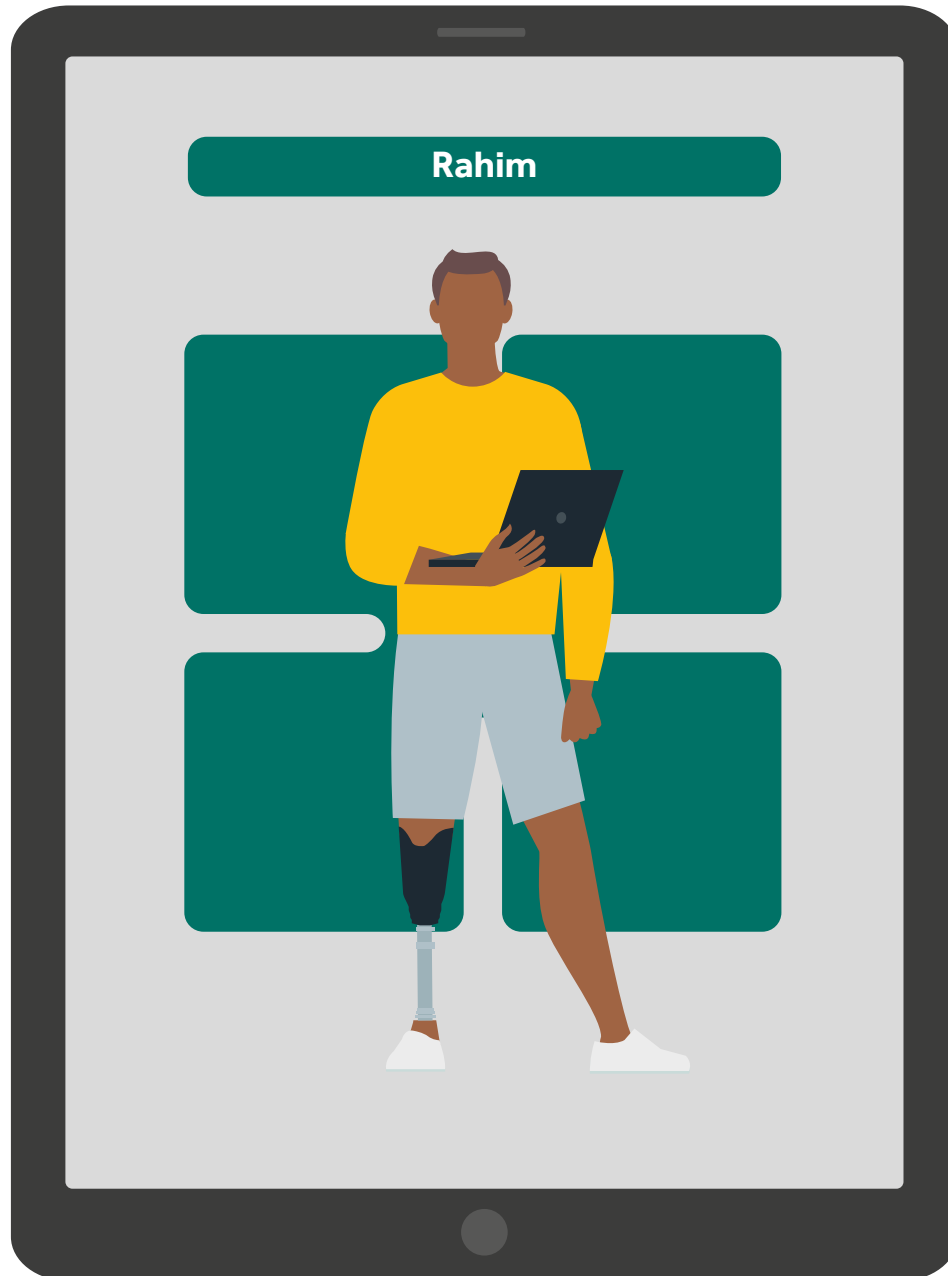
Benefit type

- Quality Improvement
 Direct Cost Saving
 Resource / Release or Workforce efficiency and Time
 Cost Avoidance



LOADING





Rahim, post-graduate student, age 25, lives on his own in Watford, Hertfordshire

- Arabic descent
- Post-graduate student at the University of Hertfordshire
- Had one leg amputated because he had bone cancer as a teenager
- As a cancer survivor, suffers with mental health due to his complex needs

Rahim's Story...

Rahim is a 25-year-old post-graduate student at the University of Hertfordshire. He has complex health needs.

Rahim had bone cancer in his right leg as a teenager. Whilst he is a cancer survivor, he has significant pain management issues which needs ongoing support with a pain management specialist and his GP. He is on complex medication, including controlled drugs, and is disabled as a result of amputation surgery when he was 15.

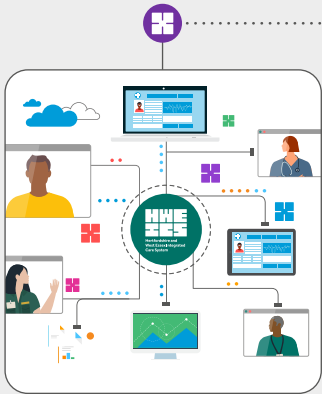
Rahim suffers from anxiety and depression as a result of his conditions.

Rahim has found it hard to keep abreast of the multiple agencies involved in his care, which includes disability support from his university, Hertfordshire Partnership University NHS Foundation Trust for mental health services, his GP in his hometown of Watford, specialist pain services in London, and his oncology consultant at the Mount Vernon Cancer Centre, where he has annual checks.

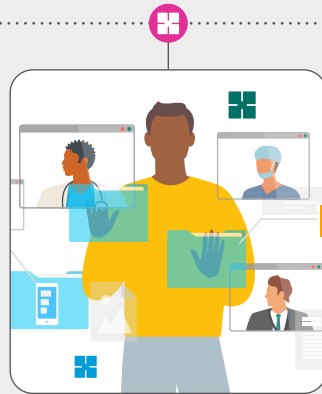
He also struggles with managing his disability benefits and travelling between appointments.



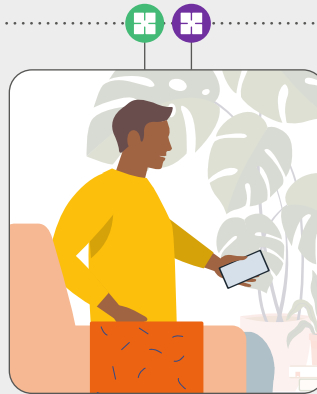
The digital health and care vision for Rahim by 2032



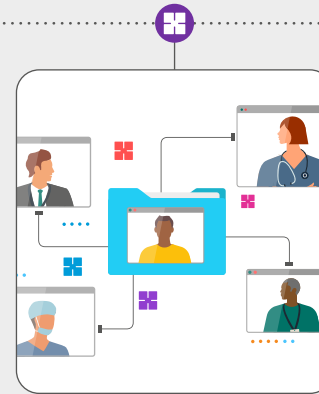
Commenting on the changes he's seen in the last few years, Rahim observed: "My care is complex. In the past, I had to repeat my life story to everyone I met, and travel between hospitals to receive care. That's now a thing of the past."



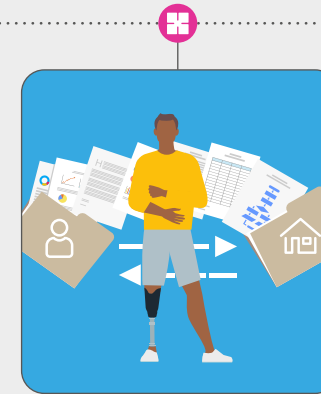
"The care I receive seems much better co-ordinated behind the scenes. For example, I never have to chase people when I feel least able to or turn up for needless appointments to review medication. I understand so much more about the care I receive and the choices I can make."



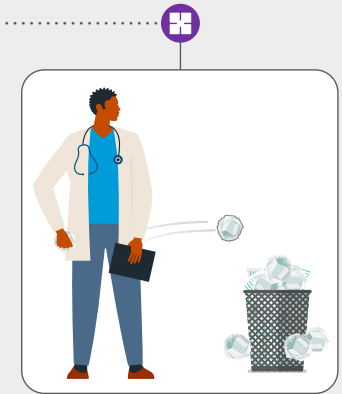
"Most of my ongoing care and monitoring is now delivered remotely via digital tools."



"Information about me is co-ordinated between my specialists in oncology, pain management, mental health, disability services at university, and my GP and pharmacy amongst others".



"The accommodation team were even able to provide me with somewhere appropriate to live without filling in lots of forms about my disability".



"I also make use of the NHS App to keep track of appointments, electronically delivered letters (saving a massive paper chase for state benefits), and so on, which makes life so much easier".





How has digital changed Rahim's story?



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For Rahim	Digital Strategy Theme	Benefit type
Rahim says, "The accommodation team was even able to provide me with somewhere appropriate to live without filling in lots of forms about my disability".	Digital Collaboration	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input type="checkbox"/> Cost Avoidance
He says "In the NHS App, the dashboard summary provides me with a central source of up-to-date information, and I now have a very positive experience of care from all my care teams."	Digital Collaboration Digital Platforms	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input type="checkbox"/> Resource / Release or Workforce efficiency and Time <input type="checkbox"/> Cost Avoidance
Rahim feels that the care he receives is much better co-ordinated behind the scenes. He never has to chase people when he feels least able to or turn up for needless appointments to review medication. He is able to understand so much more about the care he receives and the choices he can make.	Digital Collaboration Digital Platforms	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input type="checkbox"/> Cost Avoidance



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Naomi, five months' pregnant, age 31, married to Tom, lives in Loughton, west Essex

- Black African woman
- Career-focused and regularly commutes into London city to the office
- Works in the banking industry
- Naomi has type 1 diabetes and carries an insulin pump on her belt

Tom, husband, age 34, white British male, lives in Loughton, west Essex

- White, British
- Naomi's birthing partner
- Plans to be the stay-at-home father when the baby arrives
- Keen interest in full participation in the pregnancy

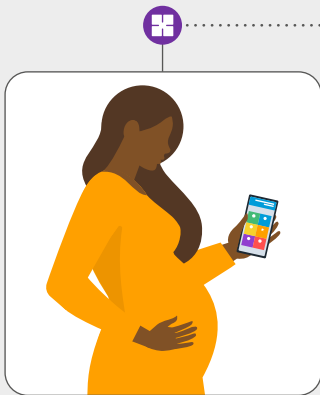
Naomi and Tom's Story...

Naomi is 31 and lives in Loughton in the Epping Forest district of west Essex. She is married and very career-focused, works in the banking industry and regularly commutes into London city to go into the office.

Naomi is five months' pregnant with her first child and has type 1 diabetes. Her diabetes means she doesn't create enough insulin, which leads to high blood sugar levels. Naomi has an insulin pump and wears a wearable device to monitor her blood sugar levels. The tethered insulin pump is a small electronic device that releases the insulin her body needs through the day and night so Naomi doesn't need insulin injections, and the results upload automatically into her clinical care record. The pump has its own controls and Naomi carries this on her belt or on a body band.



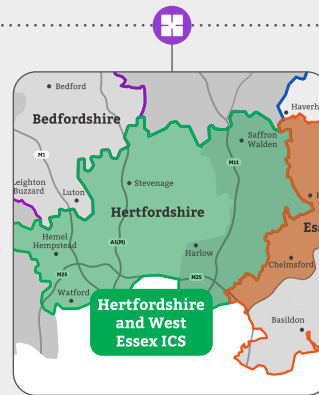
The digital health and care vision for Naomi and Tom by 2032



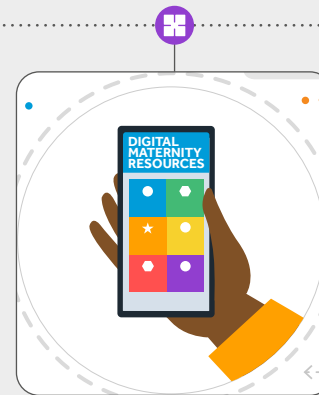
Naomi is under the care of the endocrine department at the Princess Alexandra Hospital for her diabetes but has chosen to receive her obstetric care at the Royal London Hospital as it is close to her work. It is expected that she will give birth to her baby closer to where she lives, so she has had a consultant appointment at her local hospital to ensure the planning is in place for her labour and birth, as well as plans for the care her baby might need after birth because of her condition.



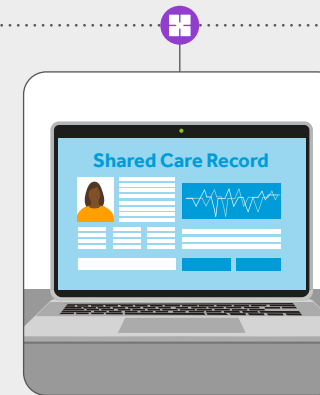
Naomi does not want her work to be affected and has therefore chosen to receive obstetric care at the Royal London Hospital, close to her workplace, rather than at a hospital near her home, as the commute backwards and forwards for appointments would take too much time out of her working day. Luckily, the hospitals have access to her full patient record via the shared care record even though the hospitals are not part of her home patch in HWE ICS.



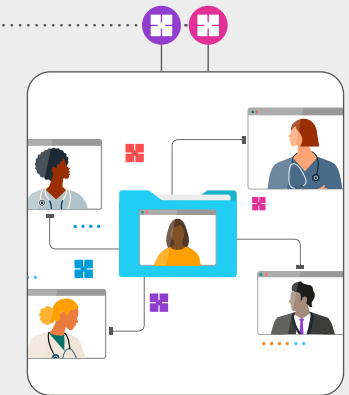
As part of the maternity transformation programme five years ago, which focused on maternity services harnessing digital technology, the HWE ICS and London hospitals invested substantially in electronic, interoperable maternity records to reduce the administrative burden of information recording and sharing.



For people like Naomi, the digital systems also support midwifery with the management of more complex pregnancies through enhanced clinical decision support, alert functionality and a detailed timeline of her health record, which includes her diabetes. It also means that Naomi has access to a comprehensive range of personalised digital resources via the NHS App for advice and educational purposes to support her throughout her pregnancy.



Because Naomi has chosen to receive obstetric care at a hospital that is out of her area, it has been vital to her care that the digital records, language used, and the coding has been consistent across all the care settings and across the two ICS areas.



However, Naomi did have a choice as to whether to share all the information with her local GP. She decided this was for the best, but felt empowered because she was in control of whom she shared this sensitive information with. Her main reason for sharing with her GP was that she then only had to tell her story once, which has made her pregnancy and her condition much easier to manage.





How has digital changed Naomi and Tom's story?



13:58

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For Naomi

Naomi's personal health record is accessible via the NHS App and she has been able to contribute towards her digital patient record relating to her pregnancy.

For example, Naomi has been writing her birth plan via the NHS App, so it is ready for the support team and her birthing partner to access when the time comes.

Naomi feels more confident carrying her personal information around with her on her smart device while she is commuting and leading her busy life. Sometimes she has to attend appointments unprepared because of work pressures and it's comforting for her to know that all the information is in one place and accessible at any time. Naomi can also manage her up-and-coming appointments to fit in with her work meetings and can complete the questionnaires online in the evenings once she has settled at home after her busy day.

Digital Strategy Theme

Digital Platforms

Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For Naomi and Tom

Naomi can share any part of her pregnancy record with her husband Tom, who will be her birthing partner. He can also access her birth plan, which means that when Naomi goes into labour, both Tom and Naomi feel confident it will improve their birthing experience and Naomi's continuity of care.

Digital Strategy Theme

Digital Platforms

Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance



How has digital changed Naomi and Tom's story?



13:58

All Images News Video Maps Shopping

For Clinical Teams and Partners

Digital Strategy Theme

Benefit type



The implementation of interoperable maternity and wider health records means that midwives have instant access to all Naomi's maternity data and diabetes information. Therefore, the midwives working in postnatal care can easily view all antenatal care and delivery details.

Digital Platforms

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For Clinical Teams and Partners

Digital Platforms

Digital Collaboration

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

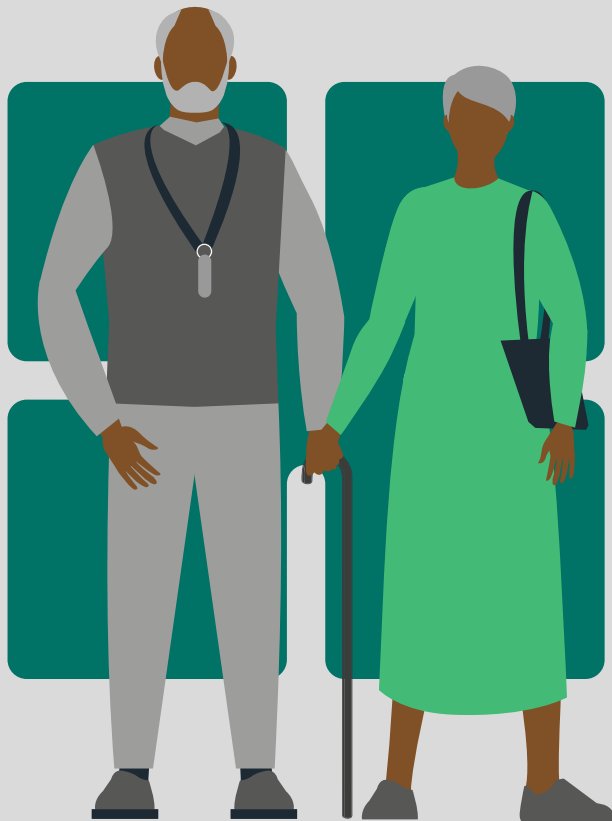
Being able to give secure digital access to other health and care professionals such as her local community midwife, her GP and the hospitals, has been crucial to the management of Naomi's diabetes during her pregnancy.



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Patrick and Linda



Patrick, age 75, lives in Nazeing, a village near Harlow

- Black Caribbean
- Suffers with breathing difficulties because of severe COPD
- Experiencing worsening eyesight
- Recently experienced a fall
- Independent and likes getting out of the house and socialising

Linda, wife of Patrick, age 70, lives with Patrick

- Black Caribbean
- Patrick's full-time carer in their home
- Likes shopping, having time to herself, space and independence

Patrick and Linda's Story...

Patrick is a 75-year-old pensioner who lives with his wife Linda in Nazeing, a village near Harlow.

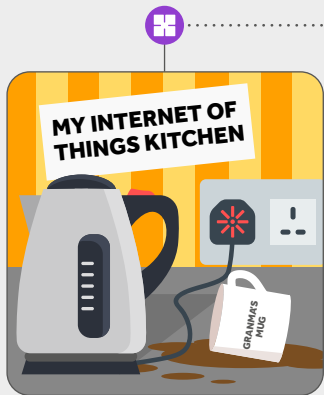
Patrick suffers with breathing difficulties because he has severe COPD. Recently, his eyesight has worsened and he has had a fall.

Linda loves her independence and enjoys going shopping and out for coffee. She has experienced feelings of anxiety and is overwhelmed by Patrick's condition.

Their home village is remote and rural. They love living in the village but it has limitations in terms of amenities.



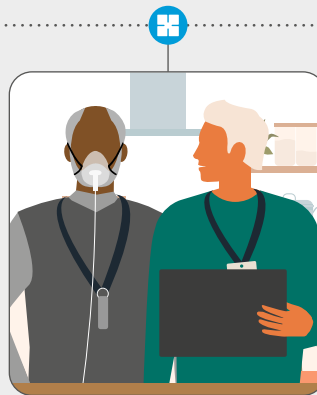
The digital health and care vision for Patrick and Linda by 2032



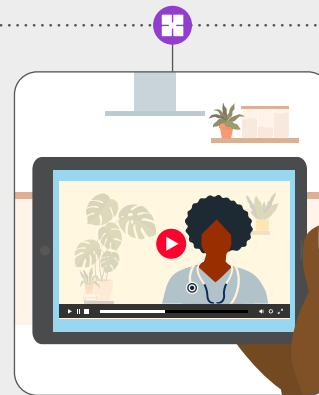
Over the past few years, Patrick has benefited from a range of services delivered digitally to him. This has kept him well and at home.



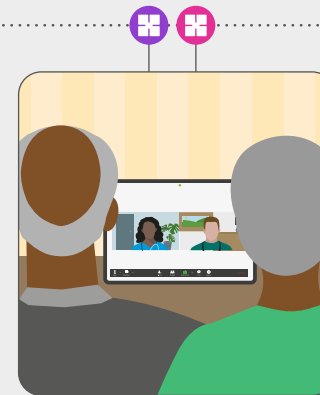
The introduction of good broadband in the village has helped enormously because Patrick accesses the NHS App at home, mostly via his mobile smartphone. Likewise, Linda accesses online health resources from her iPad.



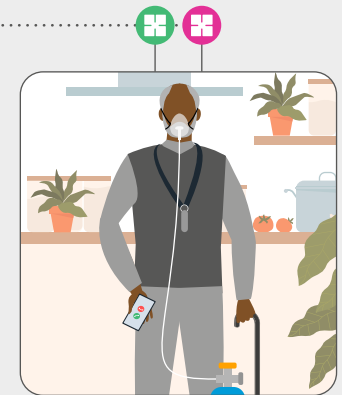
Initially, Patrick needed extra support from the voluntary sector in digital training and guidance, but now often uses technology to interact with the consultants in the hospital and accesses his own patient record information via the NHS App on his mobile phone.



The NHS App holds tailored, personalised information on Patrick's record to help him understand his COPD condition. He likes to access this information and read the self-help guides, and particularly likes the short video clips that help him self-manage his condition.



Patrick has frequent video calls with his support team to make sure he's well. During the video calls his medicines can be adjusted if needed following a discussion with his specialist in the Princess Alexandra Hospital. Patrick doesn't have to phone his GP because his GP and pharmacist are electronically notified of any changes.



Recently, Patrick has been provided with virtual ward care for his acute respiratory infection. This involves Patrick being monitored at home via Hospital at Home and includes the monitoring of pulse and oxygen saturations via wearable devices. Hospital at Home is face-to-face care delivered by a multidisciplinary team based in the community.





How has digital changed Patrick and Linda's story?



13:58

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For Linda	Digital Strategy Theme	Benefit type
<p>The Internet of Things home sensors are to check that Patrick is still moving around the house. This allows Linda to go out and feel comfortable leaving Patrick, knowing he is monitored and the care team will be alerted if he falls. Linda had been overwhelmed with the amount of care she was providing. But these days, Patrick's COPD remains stable, and he is receiving more mental stimulation through improved communication and interactions with those around him.</p>	Digital Direct Care	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input checked="" type="checkbox"/> Cost Avoidance
For Patrick	Digital Strategy Theme	Benefit type
<p>Twelve months since his fall, and following his cataract surgery, Patrick is enjoying his time participating in events and get together as part of the social prescribing scheme. Patrick is very independent and enjoys getting out of the house and regularly visiting his friends at the local library and attending group exercise classes and Tai Chi.</p>	Digital Direct Care	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input type="checkbox"/> Resource / Release or Workforce efficiency and Time <input type="checkbox"/> Cost Avoidance
For Patrick and Linda	Digital Strategy Theme	Benefit type
<p>Linda says that Patrick's wellbeing has improved and they both have a better quality of life. Linda has less stress, less worry and has time to go shopping.</p> <p>Linda said "Years ago, keeping my brother well was a real nightmare and we could never get hold of anyone to help when he was feeling unwell. I'm sure that didn't help in his final years. Nowadays, I feel reassured that my husband's health is looked after in a way that's almost invisible to us and that really enables us to get on with life."</p>	Digital Collaboration	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input type="checkbox"/> Resource / Release or Workforce efficiency and Time <input type="checkbox"/> Cost Avoidance
For Patrick and Linda	Digital Strategy Theme	Benefit type
<p>Patrick feels at ease, knowing that his health is being monitored and proactive care planning is in place to help prevent any more falls. Patrick also has a remote monitoring wearable device, which has motion sensors that Linda can monitor when she goes out.</p>	Digital Direct Care Digital Collaboration	<input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input checked="" type="checkbox"/> Cost Avoidance



How has digital changed Patrick and Linda's story?



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For Clinical Teams and Partners

Digital Strategy Theme

Benefit type



The social prescribing team has access to a wealth of digital resources. This has enabled the team to support Patrick since his first fall by putting proactive interventions in place, including strength and balance training and a group Tai Chi exercise class. In addition, the council is fitting grab rails around the house.

Digital Collaboration

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For Clinical Teams

Digital Strategy Theme

Benefit type



The GP was able to refer Patrick to the community optometrist to check his eyes and was able to provide the optometrist with the right level of information about Patrick, such as his medication history, via the shared care record. The community optometrist diagnosed Patrick with cataracts, and he received expedited NHS cataract surgery through a nearby cataract surgery provider.

Digital Platforms
 Digital Collaboration

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance



LOADING



Cheung, Helen and Camile



Cheung, GP, age 38, lives in remote Great Wymondley, Hertfordshire

- Chinese descent
- Chooses to have a greener way of life so has no car, only a bicycle

Helen, patient, age 52, lives in Letchworth, Hertfordshire

- White, English
- Single parent with one daughter
- Multiple long-term conditions
- Disabled

Camile, Helen's daughter, patient, age 19, lives in Letchworth, Hertfordshire

- White, English
- Attends the School of Life and Medical Sciences, University of Hertfordshire
- Studying for an MSc in Artificial Intelligence and Robotics

Cheung, Helen and Camile's Story...

Cheung is a GP and lives in Great Wymondley, a village in Hertfordshire.

Choosing to have a greener way of life, with no car and only a bicycle, he has made a life choice about his career with the NHS and combines working remotely via online consultations and travelling to surgery or patient visits on his bicycle. His consultation hours are flexible because of the increased use of online consultation technologies in place across the ICS. He mainly works part-time for a salaried GP surgery and in the extended-hours service.

Helen is one of Cheung's patients. He sees her regularly and has access to her records whenever and wherever he is working. Helen has multiple long-term conditions and is disabled. She monitors her conditions herself from home.

Helen has a daughter, Camile, who is a student at the School of Life and Medical Sciences at the University of Hertfordshire. She is studying for an MSc in Artificial Intelligence and Robotics but makes time to visit her mum regularly. Camile wants to be a data scientist in the NHS when she leaves university.

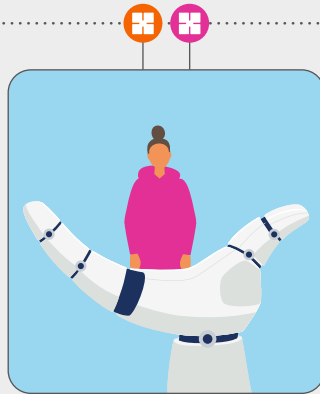


The digital health and care vision for Cheung, Helen and Camile by 2032

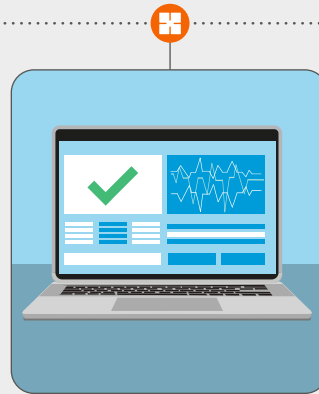


The voluntary sector has given Helen a recycled smart phone and iPad to help her input her vital signs at home. This is because Cheung enrolled her onto the ICS digital-enablement scheme

Helen accesses pharmacy support to monitor her vital signs and social care services for an individualised care package. This helps Helen to live independently. Cheung regularly monitors Helen's health and care record via the shared care record view. Cheung proactively talks to Helen using online consultation software and chat facilities to ensure she feels comfortable that her GP practice is fully aware of her current condition.



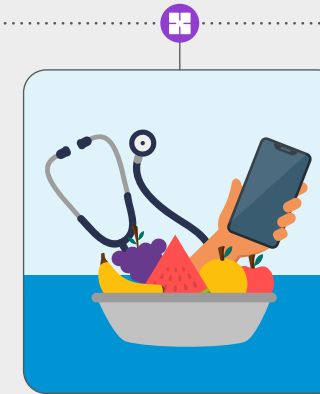
Camile told her mum about a recent alliance between health and social care in the HWE ICS, and University College London and Cambridge University and their associated teaching hospitals. Camile was actively involved in an 'at scale' trial of artificial intelligence technologies to identify more efficient approaches to providing health and social care than those provided historically. She explained to her mum that artificial intelligence is the simulation of human processes by computers and can offer decision support for specific tasks.



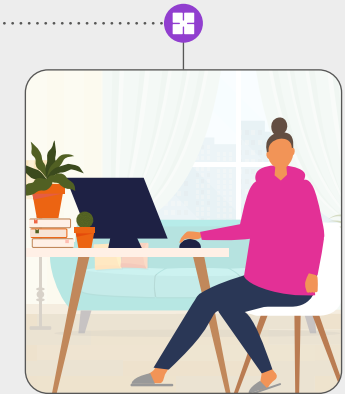
At the moment, the alliance is focusing on mammograms – they haven't replaced the human entirely but there are two reviewers in place: one clinician and the other a computer/AI system. If they disagree or both agree there is a problem a second clinician will review the mammogram.



Camile also told her mum about the data science team in HWE ICS, which is proactively making future commissioning decisions about healthcare for residents who have multiple long-term conditions (MLTC). The team has completed a multimorbidity project, analysing population health management (PHM) data. The data from the whole HWE ICS is held in one platform – so covers primary care, community, mental health, acute, maternity, social care and prescriptions.



The study looked at the progression of key long-term conditions in terms of time between conditions and the sequence of their accumulation and identified the factors and conditions that have the most significant impact on MLTC progression. This helped the team to understand the impact of a lifestyle intervention on the development and progression of multimorbidity, the focus being to put more resources into the diabetes-prevention programme, which includes supporting lifestyle interventions.



Camile had been an observer in this study because it was so close to home – her mum was experiencing MTLC, and Camile wanted to understand more about the lifestyle interventions that could support her.





How has digital changed Cheung, Helen and Camile's story?



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For the HWE Population	Digital Strategy Theme	Benefit type
<p>Camile told her mum that the ICS communications team had interviewed a patient called Daniel, who'd participated in the study. He'd been borderline diabetic when they put him onto the existing diabetes prevention programme and it has transformed his way of life by providing the education he needed about his diet and exercise routine. He said "I've got information to prevent me getting type 2 diabetes and it's reduced the risk of blindness, kidney disease, ulcers, a stroke or heart attacks as a result. I enjoy life more than I ever have and love being outdoors in the fresh air! It's so refreshing to hear that the ICS is looking to put more resources into the diabetes programme as a result of the data science work".</p>	<ul style="list-style-type: none"> Digital Platforms Digital Innovation 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input checked="" type="checkbox"/> Cost Avoidance
For Helen	Digital Strategy Theme	Benefit type
<p>Helen accesses pharmacy support to monitor her vital signs and social care services for an individualised care package to help her live independently.</p>	<ul style="list-style-type: none"> Digital Direct Care Digital Platforms Digital Skills 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input checked="" type="checkbox"/> Cost Avoidance
For Camille	Digital Strategy Theme	Benefit type
<p>Camile is really enjoying working in the data science space, being involved in a collaboration between health and social care with universities and colleges. As a result of her exposure to working in the health and care sector, she knows this is where she wants her career to lie.</p>	<ul style="list-style-type: none"> Digital Skills 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Quality Improvement <input type="checkbox"/> Direct Cost Saving <input checked="" type="checkbox"/> Resource / Release or Workforce efficiency and Time <input type="checkbox"/> Cost Avoidance



LOADING





Neha, Aisha and Ali

Neha, daughter, age 28, lives on her own in Watford, Hertfordshire

- Pakistani
- Works in ICS procurement, heavy laptop user, travels to different locations with work

Aisha, mother, age 68, lives on her own in Epping, west Essex

- Pakistani
- Receiving end-of-life/palliative care at home
- Loves to have her family around her

Ali, father, age 72, lives in Broxbourne, Hertfordshire

- Pakistani
- Permanent residency in a care home

Neha, Aisha and Ali's Story...

Neha works in the ICS procurement team. Her role requires her to be mobile as she travels to various locations and offices.

Neha joined the ICS six months ago. Her background was in purchasing for a retail company so she was unfamiliar with procurement software and remote-working technologies. Neha's role is to liaise with all the providers across the ICS when a digital requirement / tender is planned.

She really likes going to the gym after work, but also has to make regular visits each week to see her mum, Aisha (who is receiving palliative care / end-of-life support at home). Neha often chooses a base that is convenient to visiting her mum, who lives in Epping. Neha also visits her father Ali, who lives in a care home in Broxbourne in Hertfordshire, which is a 50-minute car journey away.

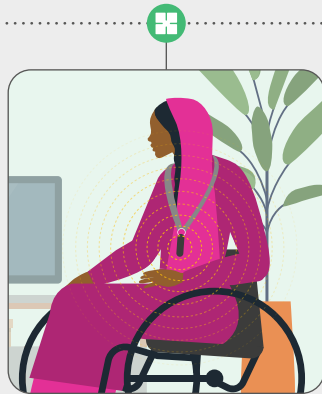


The digital health and care vision for Neha, Aisha and Ali by 2032

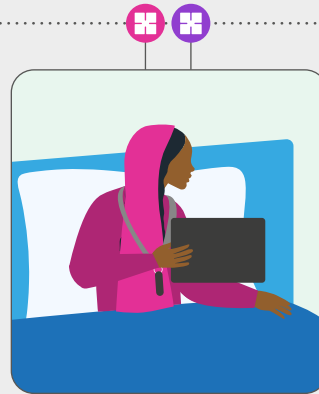


The ICS supports a flexible working policy. Neha lives in Watford, Hertfordshire but has a choice of buildings to work from, including a social care county council office and a local hospital site, in addition to her main base within the ICS, which is in Welwyn Garden City.

When she joined, she enrolled onto five different digital training programmes by choice, ranging from how to connect her device to the cloud infrastructure where all the shared resources were held, a training programme on cybersecurity and how to use the procurement systems.



On the days that Neha does not visit her mum Aisha at home, Aisha still wants her independence. Her home is kitted out with smart home devices and she has a wearable device that transmits signals to the health care team – it is even configured to indicate whether the medicine cabinet has been opened. Neha uses her smartphone to control automatic thermostats and lights in order keep her mum warm and her bedroom well lit.

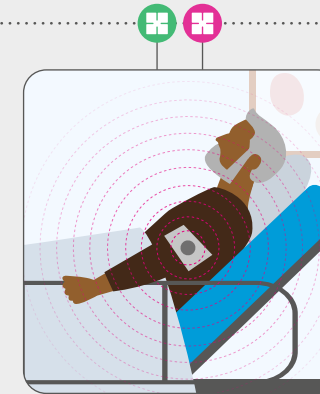


Neha and Aisha use FaceTime to talk. If Neha is in the gym or at work, there are also various social care and palliative care services available for Aisha to access, including direct messaging and group chats and online consultations should Aisha need to speak to someone about how she's feeling. This helps prevent Aisha from feeling lonely and helps her keep in touch.



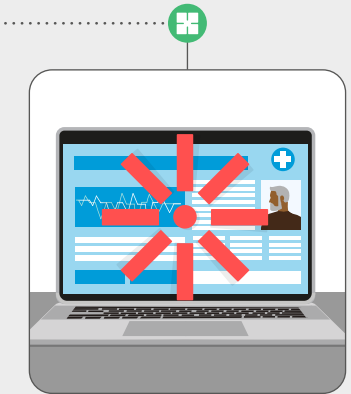
A few weeks ago, Neha called 999 as she feared her mum's condition had deteriorated.

Neha thought the paramedics would take Aisha to the emergency department, but when the paramedics looked up her full patient record, they were able to see that the best care for Aisha would be from the hospice-at-home team, so they arranged a visit.



Unfortunately, Neha's father Ali is also unwell and has been in a care home for about a year.

The care homes and domiciliary care facilities across the HWE ICS all have access to one telehealth solution. The box installed in the care home uses Bluetooth technology to connect wearable devices that measure residents' vital signs, such as blood oxygen, blood pressure, temperature, pulse rate, respiration rate and consciousness.



The telehealth technology in the care home also records photos, and performs multiple assessments and questionnaires relating to its residents. Any signs of deterioration or illness are identified early for a clinical response or carer support.





How has digital changed Neha, Aisha and Ali's story?



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For Neha

Neha regularly takes her laptop to one of the local sites near where she is based that day so she can work from an agile working site. She sees this as a perk of the role, providing her a better work/life balance. The Integrated Care Board (ICB)'s flexible working policy was one of the benefits that attracted Neha to come and work for ICB in the first place.

Digital Strategy Theme



Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For Aisha and Neha

Aisha doesn't want to die in hospital but at home. Neha feels happier knowing her mum's wishes are registered on the shared care record. She also knows that her care is focussed on symptom control and keeping her mum as comfortable as possible. Neha also has peace of mind that her father is being monitored and well cared for.

Digital Strategy Theme



Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For Clinical Teams and Partners

Overall, the technology in care homes for Ali's support significantly improves communication with support teams, helps identify any residents with sepsis, really helps the weekly ward rounds and prevents unnecessary GP and ambulance call outs and hospital visits. This data is automatically recorded into the electronic patient record (EPR) and into the ICS's out-of-hours 111 centre.

Digital Strategy Theme



Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance



How has digital changed Neha, Aisha and Ali's story?



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For HWE ICS

The HWE ICS recently won a Digital Health and Care Workforce Capability award for the way it has addressed workforce challenges around the use of digital in an inclusive manner. It provides the right level of training and support to its workforce and provides platforms to share ideas and embrace digital technology.

The community nurse attended the awards ceremony and on receiving the award on behalf of the ICS said, "Digital is not a replacement for human contact and face-to-face interaction with our residents; however, it has transformed the way in which we communicate with our population, providing choice and personalised care. It's had a really positive impact on digital inclusion and addressing the health inequalities in our area around access to health services, social care support, healthcare information and voluntary support services that are available to our residents."

Digital Strategy Theme



Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For HWE ICS

The ICS stakeholders understand that there is a lot of economy of scale, shared learning and efficiencies of shared programme resource and benefits to be had when joint procurements take place. In any HWE ICS digital procurement, a social worker tends to be involved right from the start because of the complexity of their role and their work in the community.

This approach was implemented from learnings taken from the Social Care Institute for Excellence (SCIE) and the British Association of Social Workers (BASW), the professional association for social work and social workers. The ICS stakeholders all contribute financially and recognise that the ICS needs to do this to support joined up working and care pathways. It also makes life simpler for the workforce across the health and social care system if everyone is on the same system.

Digital Strategy Theme



Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

For HWE ICS

When chatting to her work colleagues, Neha speaks highly of the care her parents receive and feels really proud to work for the ICB. "There is some great collaboration work that truly informs decision making across multiple care givers and agencies that are involved in my mum's and dad's care, particularly as all of the social care records are digitised and shared in the same way as all health records. Their care givers have access to a complete chronological patient/resident record across all care settings."

Digital Strategy Theme



Benefit type

- Quality Improvement
- Direct Cost Saving
- Resource / Release or Workforce efficiency and Time
- Cost Avoidance

**HWE
IES** Hertfordshire and
West Essex Integrated
Care System

Our Healthier Future
Digital Health and Care Vision 2022-2032

The Digital Future – Fictional Visionary Citizen Stories



LOADING

