

Breaking through the gridlock

How adult social care tech can
have a whole-system impact



Intro

Headlines around adult social care rarely make for cheery reading, but over recent months they have been particularly bleak.

In October, the annual [State of Care report](#) from the Care Quality Commission (CQC) warned of “gridlock” across the wider health and social care system, with just two in five people able to leave hospital when ready to do so – fuelling huge and dangerous A&E delays.

The condition of the sector in England [has “never been so bad”](#), Sarah McClinton, president of the Association of Directors of Adult Social Services (ADASS), told a conference in November, citing a vicious circle of rising levels of need and shrinking capacity.

The same month, [data analysis by the Guardian](#) revealed that up to one in three hospital beds in some parts of England were being occupied by patients well enough to be discharged, because of a lack of available social care.

Over winter the government has thrown almost three-quarters of a billion pounds at the crisis, with the NHS receiving the

lion’s share of a £700 million pot aimed at speeding up hospital discharge and augmenting the workforce. But social care bosses [have criticised the initiative](#) – which focuses on discharging people into care homes – for neglecting to invest in community services that enable people to recover at home, alleviating pressure elsewhere in the system. There is also very little, to no, focus from the government on preventing people from entering hospital care in the first place.

It was a point expanded upon in January by Lord Crisp, the former head of NHS England, in [a radio interview with LBC](#). He said the government’s focus was too narrow, and called for “radical changes” to where money was being funnelled.

Lifestyle monitoring software, which can prevent people needing residential care when leaving hospital and, even more crucially, avoid people needing to be admitted in the first place, was high on Lord Crisp’s shopping list.



If an acute episode, such as illness caused by an infection, “can be anticipated, if somebody’s keeping an eye on you, you’ll get antibiotics quickly, and you won’t be off your legs and need to come into hospital”, he said.

These kinds of technologies need to form “a big part of the picture” when tackling blockages across health and social care, Lord Crisp added.

Building the evidence base for preventative monitoring is not easy, not least because its greatest benefit is to enable people to live at home with minimal drama – also meaning councils avoid unnecessary spending. The government has issued a series of publications advancing plans to digitise health and social care – alongside

significant accompanying funds – but these have tended to prioritise the NHS. “Social care services and settings are frequently overlooked in the government’s commitments”, a recent [evaluation](#) by the House of Commons Health and Social Care Committee noted.

Nonetheless, local authorities in many areas of England are working to demonstrate ways in which the rapidly advancing field of technology-enabled care can help people who access services – and the staff who work with them.

ADASS interviewed sector leaders and other experts around the country to examine the evidence for who benefits, and how, from innovative use of sensors and related technology – and assess the impact deployment can have across the wider health and social care ecosystem.

Assessing the challenges

During 2022 the government continued to advance its strategy for the digitisation of health and social care services. It published two policy papers in June, with one setting out more detail on its [plans for system transformation](#) and the other, [Data Saves Lives](#), covering the critical role of harnessing data in reshaping services.

Via the NHS Transformation Directorate, it [made available £25 million](#) during the 2022-23 financial year to integrated care systems (ICSs), to support the adoption of technology in care services. This is part of a wider £150 million fund announced in the [social care white paper](#) published in late 2021, and is focused primarily on developing digital care records and rolling out falls-monitoring sensors within care homes.

The funding does also make provision for testing “other care technologies based on local needs to further develop our understanding of what works”. The Data Saves Lives paper, meanwhile, makes explicit reference to supporting the adoption of “room sensors, activity monitors and alarm systems” as means to enable individuals to live independently at home.

Nonetheless, sector experts argue that the government’s perspective remains preoccupied with acute and institutional pathways, and reactive technology,

rather than foregrounding the impact preventative applications could have on the broader system.

“There are clear policy intentions around the use of technology in social care, and there are some really well-established programmes around things like virtual wards and digitising social care records, which a lot of councils will be involved in,” says Abby Vella-Follis, assistant director for improvement in digital and innovation at West Midlands ADASS.

“But there’s a focus on elderly people and care homes, and I don’t know if that fairly portrays the breadth and depth of the social care sector as a whole – or how technology can be used by other cohorts of people, and in other settings, including at home,” Ms Vella-Follis continues.

“The government is pushing out some really good stuff, like Data Saves Lives,” adds Sam Bassett, Suffolk County Council’s digital care and innovation lead. “The trouble is, its initiatives are not truly

integrated – we don't have integrated funding pots, social care is in those pots often as an afterthought and it's always very much focused on care homes, where you've got your most acute level of need.

"We want to stop people getting into other acute pathways," Mr Bassett goes on. "The community and preventative bit is where you can get massive economies of scale, but it's more difficult because it's more people to influence."

Despite the establishment of ICSs, differences of approach at local level can also be stubborn to bridge. [A report](#) by The King's Fund, a health and care think-tank, published in autumn 2022 argued that interoperability – a much-used buzzword around health and social care integration – needs to be thought of not just as a tech problem. Instead it should consider "how people, systems and processes talk and work together across organisational structures and professions, supported by technology," the publication said.

Pritesh Mistry is a digital technology fellow at the King's Fund who co-authored the

report. He says that while it's too soon to see the thorny issue solved, he is heartened to see the document "being used in some ICSs [with] leaders picking it up and actually feeding it into their strategies and business cases".

With [ADASS's 2022 spring survey](#) revealing a consistently high proportion (65%) of adult social care directors prioritising investment in technological solutions, some believe the current situation is one in which NHS colleagues are playing catchup.

"I think over time the join-up on digital between health and care will definitely improve, and we can benefit from working jointly with the NHS," says Steph Downey, service director for integrated adults and social care services at Gateshead Council.

"But equally, I think we [in social care] in many respects are much further forward in terms of remote monitoring," Ms Downey adds, noting that sometimes clinicians are only comfortable with deploying tech into care homes.

"They're quite comfortable about it there because there's a workforce onhand – trying to convince them to put technology in somebody's home and monitor them remotely is much more of a challenge," she adds. "But [it's also] a great opportunity."



'This feels really powerful'

Gateshead is one of a group of local authorities in the North East that are forging ahead with trials of advanced remote monitoring technology, which uses artificial intelligence (AI) to map people's lifestyles at home and spot subtle signs of potential decline.

Building on around five years of small-scale reactive sensor tech pilots, the authority is now employing a proactive system that can, within two weeks, provide enough data to accurately assess the size of the care package someone needs. This is one of several key outcomes being evaluated during the trial, which is expected to enable more people to remain living independently rather than having to enter residential care.

"Because we've got delays in sourcing support at the moment, we've got a lot of people who are sitting with their cases open to a worker, and therefore we've got bottlenecks," says Ms Downey. "If we can manage to use that care [resource] more proactively, that should mean a reduction in time for people to progress through the waiting list, and most importantly that people get the care they need in the right place and at the right time."

Neighbouring Sunderland City Council is evaluating the same system but in a different setting – people who are being discharged from a community bed setting but who have not previously been in hospital.

"We're working with that specific pathway because experience tells us it is one where we need to be able to work at speed," explains Emma Anderson, the council's head of therapies.

"It's a place where people's needs haven't necessarily stabilised – we're assessing to make sure the care packages that we're putting in place are correct," Ms Anderson says. "And last but not least, it's a place where there are high levels of concern around somebody's welfare, if they are moving back to a home environment."

Since 2018, Sunderland has experimented extensively with digital solutions – largely based on high-street tech, monitored by family members, although it also worked with a local firm to develop a bespoke dashboard for professionals. "For us it's been in keeping with the whole strengths-based way in which from a social care perspective we want to work with people," says Ms Anderson. "It's about giving them something they can manage themselves, that can enable them to achieve a degree of independence."



The new systems, she goes on, offer “the potential to take us to a place where we can use data preventatively” to prevent customers reaching a crisis. “That feels really powerful for us, and that for us is absolutely the place we need to get to,” Ms Anderson says.

Evidence-based decision-making

In North Tyneside, the North East local authority where pilots are most advanced, the lifestyle monitoring technology has been deployed in several pathways, with initial evaluations appearing to confirm its potential (see box).

“We were focusing on people at risk of going into 24-hour care,” says Alison Tombs, North Tyneside’s assistant director for wellbeing and assessment.

“We’ve prevented people going into residential care, we have reduced some care packages, we’ve maintained some people in their own home – or we’ve increased their package, while preventing a more significant crisis.”

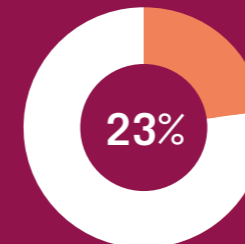
Headline figures – North Tyneside pilot (six months)



7,132 – the number of additional carer hours generated for North Tyneside in just six months.



12 – the number of full-time equivalent carers enabled to be redeployed each day based on the hours the monitoring technology saved.



23 – the percentage of people accessing services who avoided entering 24-hour care as a result of the lifestyle monitoring system.



£132,575 – total cash North Tyneside council saved during the pilot by monitoring just 40 people accessing services.



North Tyneside are forecasting savings between £3.3m and £13.4m of actual cash saved per year depending on the speed of rollout and with potential additional avoidance costs ranging between £5.3m and £21.5m per year.



Ms Tombs explains that the short-term impact of the technology has been restricted by a severe lack of capacity in the local domiciliary care market, limiting the numbers of people who can be safely kept at home.

“But what has been really important is that it’s enabled staff to make targeted decisions about where people most need support,” she says. “It’s much more evidence-based decision making, about targeting your resources in the right place for people.” Practitioners, she says, have “felt able to respond in ways they perhaps wouldn’t have done otherwise” (see box).

Ms Tombs’ comments are echoed by Dave Miles, development manager for Nottingham on Call at Nottingham City Council, which has been trialling a similar setup. As with North Tyneside, the Nottingham pilot, which focuses on people being discharged from hospital, has been constrained by a shortage of home care packages. But preliminary assessments of data suggest the technology, which has been tweaked to also deliver emergency night-time alerts, has enabled approximately 40% of participants to return home rather than going into residential care. Across Nottingham City Council this could potentially free up 43,800 bed days per year, or the equivalent of 120 bed days per day. “Health, as part of the multidisciplinary discharging team, were pushing for residential and social care

were able to say, no, actually, we want to get them home and this is how we’re going to do it,” Mr Miles says. He adds that large majorities of the people accessing the pilot and their carers have been happy with the outcomes.

“There’s a report going to go back up into the integrated care system about [the technology’s] impact,” Mr Miles says. “But in the city, what we’re saying is, how can we keep this going?”

‘I had the evidence to support my argument with a GP, that resulted in the identification of three broken ribs’

“I have found it really beneficial,” says Lisa Hope, a community wellbeing officer at North Tyneside Council of the impact lifestyle-monitoring sensor have had on people she works with – and her ability to support them.

She cites two examples from the roughly six months her service has been using the most recent system North Tyneside

is trialling. The first involved a man in his nineties with dementia, whose neighbours were repeatedly claiming he was “out wandering, knocking on doors, not coming back from the shops”.

Ms Hope installed sensors in the man’s home and discovered he was in fact following his regular routine of visiting a local supermarket before calling in on someone he knew in the neighbourhood. While this friend was sometimes having to help him find his way home, due to the estate’s confusing layout, sensors proved conclusively that he was not wandering at night and was mostly living “pretty independently” at home.

“We were able to keep him at home for about another six months before his dementia did unfortunately take a dramatic dip,” Ms Hope says, adding that the technology provided reassurance to the man’s in-laws in the South of England.

“He didn’t have a huge care package, he was still pretty much doing his own tasks and was walking his little dog – which was his life.”

In a separate instance, Ms Hope says she was able to use data from sensors installed in an elderly woman’s sheltered flat to demonstrate unexplained changes in her night-time routine after a fall, which initially seemed to have left her unscathed.

When she subsequently looked unwell, health professionals presumed this was down to a decline in her dementia and said she should go into residential care. But Ms Hope was able to argue for more physical health checks, based on the fact she was no longer settling at night, which picked up that she actually had three broken ribs.

“I had the evidence to support my argument with the GP and say, I can clearly see there’s something not right,” Ms Hope says. “I feel remote monitoring software should be implemented as a first port of call, at the front door, because then even before you get to do an assessment, you’ve got that evidence of what that person’s routine is.”





“I had the evidence to support my argument with the GP and say, I can clearly see there’s something not right.”

“I feel remote monitoring software should be implemented as a first port of call.”

- Lisa Hope, Community Wellbeing Officer



‘We know we are keeping people out of hospital’

A hundred miles southeast of Nottingham, Suffolk County Council has taken a very different approach to the incremental pilot projects being put into practice elsewhere.

In 2019, Suffolk began the process of procuring a new digital care service, eventually finalising it in 2021 after the pandemic forced a pause. Unusually, it has been commissioned countywide as a full-scale partnership between the council, a digital infrastructure provider, a change management consultancy – to help staff with the transition – and a healthcare monitoring firm.

According to Mr Bassett, the digital care and innovation lead, it is estimated Suffolk’s technology-enabled care offer, which includes a suite of devices but like other areas includes AI-based lifestyle monitoring, has prevented well over 300 people from entering residential care (see box). The service is already estimated to have saved Suffolk more than £10 million, against an initial three-year target of £5 million.



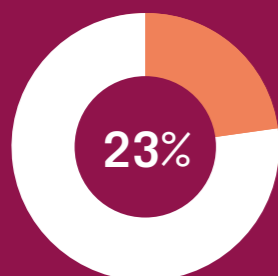
Headline figures – Suffolk care technology service (2.5 years)



2,500 – the total number of people to have received a care tech package since service started in 2021.



329 – the number of people kept out of residential care settings.



23 – the percentage of people accessing Suffolk's adult social care services who have an active care tech package.



£10.2m – total savings generated by the service, £8.6m avoidance and £1.6m cashable.



More than 1,900 in the county had an active package involving care tech at the time of writing. "It influences all aspects of practice – it could be if you're frail, if you've got a physical disability, if you have mental health problems, if you've got learning disability – there are lots of opportunities," Mr Bassett says.

Unlike many local authorities, Suffolk was not already heavily invested in a legacy telecare system, Mr Bassett explains, which he says was an advantage. "People often try to iterate on what they know, and I think this is probably where we've been really fortuitous, not having an entrenched service," he says. "We've tried to reflect on, how can we do things better, what would be a good thing to do?"

The service specification was premised on creating a uniform offer across Suffolk and on embedding technology in all service

areas as "one of the ways we provide care to people, not something distinct and separate," Mr Bassett goes on. He acknowledges that culture change within the county is a work in progress and that he expects Suffolk's service to take three to five years to reach its full potential.

"We have a statutory duty to give people a good level of care and independence, and this is an enabler for that," he says. "Longitudinal population health and system-level changes are difficult to evaluate and measure, but we know we are keeping people out of hospital and getting people discharged more quickly and safely. We also know people with care technologies are deferring other types of support from the health and social care system."



‘Giving back a little bit of power’

“Practitioners are now feeling much more confident and more able to actually explore [the potential of digital solutions],” says social worker Lloyd Sparkes of the change enabled by Suffolk County Council’s digital care service.

“We don’t just utilise one piece of technology, and we often try our best to create, almost a digital network around a person to try to meet their needs,” adds Mr Sparkes, who works with people with a diagnosis of autism or learning disability.

Sensors are a key part of Mr Sparkes’ toolkit. He cites a recent example of where the technology has enabled him to work “productively” with an autistic and partially sighted man who had historically been reluctant to engage with services, but had recently gone into temporary accommodation – an unfamiliar environment.

“Now we’ve got him to agree to us installing these sensors in his property, we can virtually complete welfare checks,” reducing the need to carry out unwelcome – and time-intensive – visits, Mr Sparkes says. “It’s also giving him back a little bit of power to say, if you let us work with you on this, we won’t have to bother you as much – and he likes that.”

Mr Sparkes adds that reports that Suffolk’s tech partner is able to run based on sensor data are invaluable in terms of freeing up his day.

“We have to acknowledge that we live in a care market that is buckling under its own weight,” he says. “We need to alleviate the time that practitioners spend on tasks – such as looking through care notes – which absorb all their capacity.”



Whole-system potential

Around the country, evidence is building to show the impact that monitoring technology can have on the wider health and social care ecosystem.

Fiona Brown is a former director of adult social services (DASS) at Sunderland City Council who is now the chief care officer at Lilli, a remote monitoring tech company that has been running pilots in local authorities around England. Ms Brown believes the data coming out of such partnerships gives cause for confidence that tackling issues in social care using technology can be seen to directly and indirectly impact the whole system.

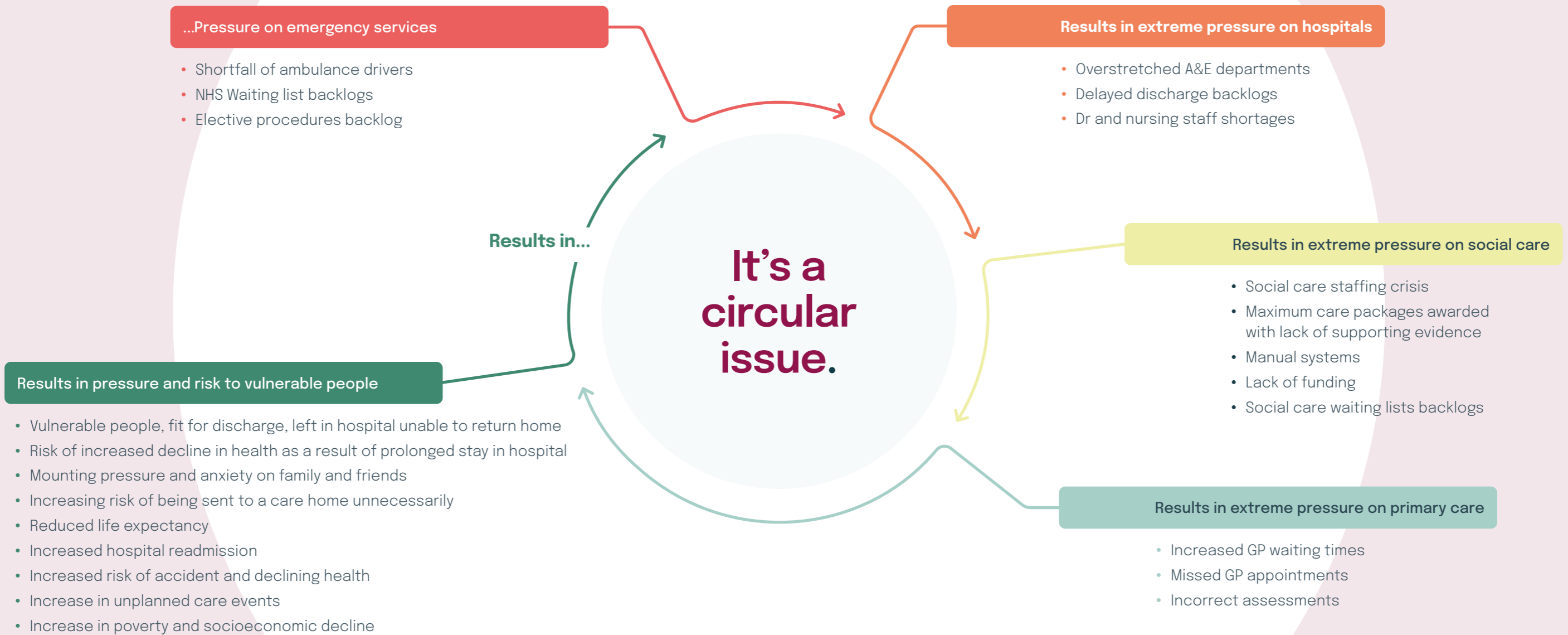
“The outcomes Lilli has worked with its partners to produce will give ICSs access to the data needed to demonstrate the whole-system impact,” she says. “Take the data a primary care network holds on a patient’s frequency of visits to a GP, their medication and hospital admissions and overlay that against the types of data highlighted throughout this report and you’re presented with a clear whole-system impact evidence base for the implementation of a simple yet very effective technology solution.

“We know big transformation projects are hard to get underway, but that doesn’t need to be the case with the types of technologies we and others are providing,” Ms Brown adds. “It’s about making small incisions across the board in incremental

steps – for example, we’ve already shown we can support local authorities to use data and technology to ensure that care packages are the right size.”

The impact of reducing the average package from 16 hours a week to 14 could give a local authority with 2,000 people who draw on care and support more than £3 million of savings or – more importantly in the current climate – a 14% increase in commissioned care hours capacity, according to Ms Brown.

“Quality of life is an incredibly important barometer for delivering care,” she adds. “Technology and the data it produces can vastly improve the experience for someone who draws on care and support, as well as helping frontline teams, and delivering efficiencies to managers that can transform their service and deliver capacity capabilities they can’t achieve within current budgets.”



Building the weight of evidence

Dr Mistry of the King's Fund agrees that the argument for technology deployed in social care having a potential ripple effect across the wider health and social care system is "sound". But, he believes, "the weight of the evidence is not there yet – single or a few instances are helpful but robust evidence helps identify the value of the technology and who it benefits to avoid worsening care".

"You also have organisations that are well-staffed, with the right leadership, who have a culture where they're embracing change, and so they're able to get the most out of their technology," he adds. "But they might not be representative of other organisations."

Senior local authority figures cite a number of other key challenges – aside from the ever-present one around managing culture change within organisations – that must be overcome in order for lifestyle monitoring to fully make its case in terms of whole-system impact.

One is around improving procurement processes to enable people to purchase the right technology, at the right time, to scale up pilots more easily and to facilitate developing and co-producing solutions alongside providers.

A second relates to digital inequalities. In terms of people accessing services, Ms Anderson points out, the high levels of deprivation in places like Sunderland translate into "significant digital poverty" that limits where Wi-Fi dependent tech can be used. At organisational level, meanwhile, many health and social care providers struggle to recruit in-house data analytics specialists, who can attract far higher wages in the private sector. This results in a massive imbalance of digital expertise and capacity from area to area.



Linked to these factors is the looming question of where, and when, technology is rolled out at scale and – for longer term applications – all the data it produces goes. There is broad consensus that families and carers will have access to dashboards and play a key role in keeping an eye on people accessing services; less so, in many areas, about which professionals should be monitoring alerts that do not constitute an emergency. February's report by the Commons Health and Social Care Committee warned that nationally, progress on interoperability across ICSs remained "poor".

"There is so much interesting work going on, but getting the kit in is only one part," says Julie Harrison, commissioning manager for strategy and integration at Birmingham City Council. The city, which is Europe's largest local authority, is in the early stages of commissioning a brand-new tech-enabled care services, as part of which it has been in discussions with Suffolk and its partners as well as NHS colleagues within local ICSs. "The question is, what do you do with all that rich information, and who does what?" asks Ms Harrison.

Readymade answers to important questions such as Ms Harrison's would be extremely helpful. But given the uneven progress around health and social care digitisation to date, turbulence in government over the past 18 months and a general election beginning to loom, the sector cannot rely on a centrally formed strategy emerging within the timeframes needed to meet its challenges.

This report has underlined the huge positive impact that lifestyle monitoring technology deployed as part of a care package can have on people's outcomes, as well as the capacity and savings it can deliver for the wider sector. The establishment last year of the 42 ICSs offers an opportunity for health and social care to mobilise and harness the opportunities that technology presents to deliver impact across their systems. Doing so will not be easy – but in order to make the most of the huge potential on offer, the place to start is adult social care.

Key takeaways:



The condition of the adult social care sector in England has “never been so bad”, trapped in a vicious circle of rising levels of need and shrinking capacity, Sarah McClinton, president of the Association of Directors of Adult Social Services (ADASS) warned in late 2022.



Lifestyle monitoring software implemented in a social care setting has been flagged by Lord Crisp, former head of NHS England, as key for preventing hospital admissions and accelerating safe discharge, but government plans have prioritised the NHS over social care, with a focus on acute and institutional pathways.



A share of £700m government funding was focused on discharge into care homes – drawing criticism for neglecting to invest in community services that enable people to recover at home, therefore alleviating pressure elsewhere in the system.



Outcomes of remote monitoring technology that are now being evidenced are speeding up the allocation of accurate care packages and enabling people who draw on care and support to maintain their independence. This remote monitoring data is enabling social workers to move towards a model of preventative care and evidence-based decision making.



The impact of reducing the average package from 16 hours a week to 14 could give a local authority with 2,000 people who draw on care and support over £3m of savings or a 14% increase in commissioned care hours capacity, which right now is operationally more vital.



The data coming out of pilots gives increasing cause for confidence, demonstrating that tackling issues in social care by implementing and integrating remote monitoring technology can be seen to directly and indirectly impact the whole system. With the evidence that has been produced, ICSs can now access the data needed to inform and reassure them of focusing their attention on prioritising the issues in social care.



Senior local authority figures interviewed for this report cite a number of key challenges – aside from the ever-present one around managing culture change within organisations – that must be overcome in order for lifestyle monitoring to be fully adopted. Procurement processes also need to be updated, to embrace new ways of working, digital inequalities that create barriers to large scale access should be tackled, and ICSs must consider how to responsibly process and respond to the rich data that monitoring software provides.

This think piece report is designed to stimulate debate and discussion and as such it does not necessarily reflect the views of ADASS. The report is sponsored by Lilli but ADASS retained editorial control over the content.

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Lisa Hope, community wellbeing officer, North Tyneside Council

Sarah McClinton, president of the Association of Directors of Adult Social Services (ADASS)

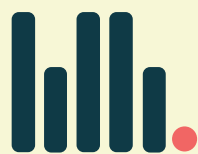
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