Starting with Social Care
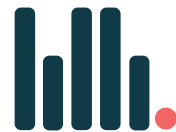## to have a whole system impact

Contents

A system with a hard to solve problem that cannot be ignored

Whether you work in or out of the health and care system, it's hard to ignore all the media attention around the current pressures facing the UK's health and care system, including growing demand from an ageing population, workforce recruitment and retention difficulties and the elective care wait list backlog.

THE TIMES
Record seven million patients on NHS waiting list in England

The Telegraph
The key to ending the vicious NHS circle

The Telegraph
'Perilous' shortage of homecare workers leaves patients trapped in hospitals

BBC NEWS
Care-worker shortage: Woman appalled by lack of support for dying mum

The Telegraph
Fix social care to head off an NHS winter calamity

THE TIMES
Only two in five people can leave hospital when they are ready, according to CQC report

BBC NEWS
Social care: 'The worst it's been in my 36 years in care'

The Telegraph
NHS general practice has passed the point of no return

THE TIMES
Social care waiting list soars 40% in a year

One in three English hospital beds are occupied by patients fit for discharge. Even a 10-day hospital stay can cause elderly patients to lose significant muscle mass, so any unnecessary delays in discharge will affect their ability to look after themselves at home, increasing demand on an already overstretched system.

A system that's
STUCK

A CQC State of Care report in October 2022 described the health and care system as gridlocked. They also questioned the capacity and stability of adult social care and how that is contributing to inequalities in care. Currently it's leaving people stuck in the wrong part of the system, whether they are people whose discharge has been delayed due to adult social care pressures or those waiting for operations who may be using primary or community services. All of this contributes to failures throughout the system - with 999 target response times having failed to be met every month since May 2022, according to the King's Fund Annual Report 2022.

All of this potentially leads to hidden harm for patients and significantly contributes to the growing gap in the demand and delivery of services.

As many as one in three hospital beds in parts of England are occupied by patients who are well enough to be discharged, with a chronic lack of social care meaning many do not have suitable places to go.

Recent analysis by the Guardian of Official Data shows that on average 13,600 beds across NHS England are occupied every day with patients who doctors say are fit for discharge - home or to a care home - equivalent to one in seven beds in acute hospitals in October. **This is ultimately due to failures throughout the wider system, including the lack of face to face GP appointments and a lack of investment in community services to keep people in their own homes.**

It's a circular issue.

Results in...

...Pressure on emergency services
- Shortfall of ambulance drivers
- NHS Waiting list backlogs
- Elective procedures backlog

Results in extreme pressure on hospitals
- Overstretched A&E departments
- Bed blocking and discharge backlogs
- Dr and nursing staff shortages

Results in extreme pressure on social care
- Social care staffing crisis
- Maximum care packages awarded with lack of supporting evidence
- Manual systems
- Lack of funding
- Social care waiting lists backlogs

Results in extreme pressure on primary care
- Increased GP waiting times
- Missed GP appointments
- Incorrect assessments

Results in pressure and risk to vulnerable people
- Vulnerable people, fit for discharge, left in hospital unable to return home
- Risk of increased decline in health as a result of prolonged stay in hospital
- Mounting pressure and anxiety on family and friends
- Increasing risk of being sent to a care home unnecessarily
- Reduced life expectancy
- Increased hospital readmission
- Increased risk of accident and declining health
- Increase in unplanned care events
- Increase in poverty and socioeconomic decline

The cycle needs to break. But where do you start?

Presently, the majority of the government's focus is on the NHS and solving the issues surrounding backlogs and discharge, while social care services continue to have a downgraded peripheral focus.

A recent poll showed 53% of people working in health and social care felt that staff shortages were their biggest challenge

£

Consistent lack of government funding for social care leads to a service in crisis. As such, previous work by the Nuffield Trust has revealed the majority of delayed discharges are down to a lack of social care, be that social care in patients' own homes or placements in a care home, or NHS-funded aftercare.

In November 2022, Sarah McClinton, the President of the Association of Directors of Adult Social Services, said the state of social care in England had never been so bad, with half a million people waiting for help.

"The shocking situation is that we have more people requesting help from councils, more older and disabled with complex needs, yet social care capacity has reduced and we have 50,000 fewer paid carers," she said.

With the combined pressures facing the health and care system, perhaps we should be doing something different? And changing the angle at which we are looking to solve the problem?

Taking a different approach

At Lilli we have worked on, and researched into, the Whole System Impact. By this, we mean looking at the whole health and care system from a different angle to see how tackling the issues in social care first can positively impact the whole ICS ecosystem.

We found that when you start with implementing technology solutions such as remote monitoring in a social care setting, there's a much wider range of impact. You might call it the blast radius, or the ripple effect.

So what is the effect across the whole system?
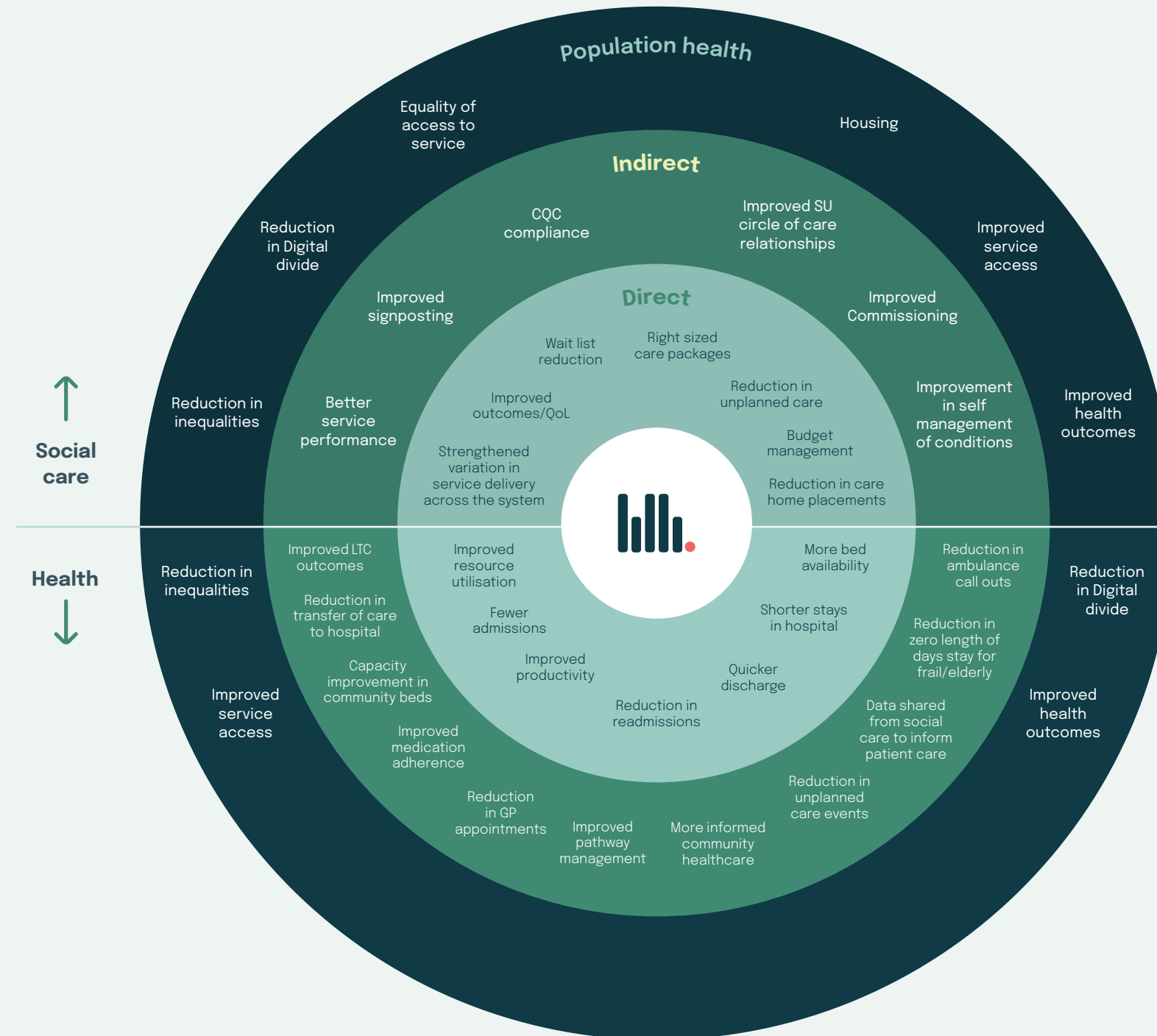
The Whole System Impact diagram shows a range of positive impacts in social and health care that could be found from deploying technology solutions in social care first. For each sector, there are direct, indirect and population health impacts such as;

- Accurate and safe hospital discharge – freeing up beds
- Fewer GP appointments – reducing backlogs
- Right sizing of care packages that can be monitored and amended – increasing the system capacity
- Reduced A&E Admissions due to fewer falls – reducing waiting times and staff shortages
- Allowing the vulnerable to return home safely, sooner – improved quality of life
- Overall costs reductions and time saving throughout the entire ICS ecosystem

"There's clearly a direct impact that can be seen from deploying a technology solution in social care first"

Nick Weston, Chief Commercial Officer, Lilli.

245+

Healthcare professionals attended our Whole System Impact theory/methodology webinars

*The issues could broadly be broken down into two areas;

01.

The chaos theory - the mounting pressure on the system and those working in it, coupled with the multi dimensional challenges they are facing - makes it incredibly difficult to see what problem to solve first and where to start in doing so.

02.

Spoilt for choice - the health and care system is not short on tech solutions, but with little time and mounting pressure, it's not easy for procurers to accurately evaluate what will be the right choices and how they can positively impact the whole system, not just a silo within it.

*details and key findings are outlined further in a later section - Breaking down barriers.

Testing the market

We launched our Whole System Impact theory/methodology in November 2022 across a series of webinars attended by over 245 Healthcare professionals from across ICS, NHS and Adult Social Care. We received an overwhelmingly positive response and lots of useful feedback to help us support and progress this agenda further within social care and to help us understand the barriers to adoption and existing challenges that they are faced with.

Lord Nigel Crisp

Co-Chair of APPG
for Global Health

The former head of NHS England has called for high-tech monitoring of the elderly in their own homes so that health issues can be identified earlier, avoiding the need for so many people to go to A&E.

Industry Viewpoint: The Preemptive Strike

Lord Crisp has recently cited that in his opinion that the NHS is set up to deal with 'health problems from the 1950s' and not Britain's older population that puts increasing strain on NHS services.

There were more ongoing health issues that needed regular treatment, like "dementia, diabetes – we keep people alive much longer," he said.

"At the moment… there are problems before you come into the hospital. If you are living in the community aged 80 it's really important somebody keeps an eye on you.

"If 'acute episodes' can be anticipated, you can be treated sooner and avoid the need to visit hospital. It's a big part of the picture."

He called for investment in technology to monitor the elderly at home to help alleviate pressure on overcrowded A&E departments and also said that he thinks throwing cash at the problem isn't the answer, but that money isn't being spent in the right areas.

In conclusion he stated that the government must admit the service is in crisis before radical change can happen.

Exploring the solution: The Preemptive Strike

Remote Monitoring Technology

Deploying the right technology, such as remote monitoring, into social care could transform outcomes across the whole health and social care ecosystem.

Difficult times call for innovative solutions – and a reimagined health and social care system is now within touching distance. New digital solutions to fix the NHS crisis are coming to the fore, with the latest advances in remote monitoring poised to be the 'white knight' the sector so desperately needs.

The right technology can transform outcomes across the health and social care ecosystem. For example, discreet remote monitoring technology, which helps vulnerable people live independently, safely and happily in their homes, directly impacts the care sector whilst also bringing

indirect systemwide benefits, such as accelerating hospital discharges, reducing GP appointments and emergency services calls, and relieving some of the pressures facing the NHS.

Therefore, the most effective remote monitoring technology that provides proactive solutions will improve overall population health. Less demand causes improved access to services, and managing decline more efficiently leads to better health outcomes and less crisis events, helping an overstretched sector at its time of need.

Remote monitoring technology also creates efficiencies for staff and provides them with a solution for delivering a more accurate and proactive approach to caring, freeing

up capacity by reducing the need to commission costly new packages of care after crisis events. All of this in turn helps the most vulnerable in society to leave hospital and avoid a return by remaining safely in their own home.

There has never been a more pressing need to adopt pioneering preventative technologies, that can help support the whole health and care ecosystem, before problems worsen.

Week 1: 25 Oct – 31 Oct
Movement

■ 6 days ■ 1 days ■ 0 days ■ 0 days

Mon 25 Tue 26 Wed 27 Thu 28 Fri 29 Sat 30 Sun 31

- Martin entered the hall a total of 181 times.
- Martin entered the hall between 16 and 35 times per day.
- On average, Martin entered the hall 26 times per day.

How utilising remote monitoring technology in social care as part of a place based preventative strategy, can tackle the problem.

After 24 hours, remote monitoring technology will:

- Start proactively monitoring to begin to understand the behaviours of vulnerable users
- Provide real-time data on what is happening inside the home.

To find out more about how to use remote monitoring technology preventatively and how it can be easily implemented and adopted by your organisation, please visit **www.intelligentlilli.com**

After 2 weeks, remote monitoring technology will:

1. Provide enough data to assess a vulnerable person's level of independence at home, identify where support is or is not needed
2. Evidence the accurate level of care package required - i.e. a care package which appropriately manages the risk for an individual - creating efficiencies for the social care work force and reducing or increasing reliance on 'in person' visits as required
3. Increase the capacity of the social care workforce
4. Reduce costs associated with unnecessary care home stays.

After 1 month, remote monitoring technology will:

1. Reduce emergency service call-outs and A&E admissions
2. Provide data, analysis and evidence to support all the health practitioners involved in a person's care to care for them in a much more preventative and precise way
3. Reduce GP waiting lists
4. Maintain independence and peace of mind for the vulnerable person and their family
5. Keep vulnerable people safer with ongoing discreet proactive monitoring that can spot any potential declines in health, reducing risk of accidents occurring and serious health issues going undetected.

The ongoing use of remote monitoring on the wider ecosystem will deliver:

- A reduction in unplanned care events
- Increased capacity of workforce
- Cost avoidance across all settings, including care homes
- Improved assessment of ongoing care needs
- Improvements in commissioning and care capacity
- Reductions in over prescribing of care
- Quicker more accurate assessment of baseline needs
- A more digitally adept workforce
- A reduction in care inequalities
- Improved authority/family relationships
- Improved service access.

Nick Weston

Chief Commercial Officer

Nick Weston is Chief Commercial Officer at Lilli. He spends most of his time liaising with Adult Social Services teams.

Evidencing the Impact: Lilli

Our remote monitoring technology has a huge opportunity to assist with waitlist reduction, by identifying those on the waitlist who are most in need. By passively sitting in the background of a vulnerable person's home and collecting vital data around their behaviours, Lilli can build evidence of the baseline of that person's individual patterns and trends of behaviour.

This creates the ability to prevent unplanned care and a crisis from occurring. By having that baseline of 'normal' behaviour, it means abnormal behaviours can be identified promptly and friends, family, carers or social workers are able to address issues and take action early, preventing an ongoing decline health.

"Technology isn't about replacing people," Nick points out. "I want to emphasise that. This technology is about providing evidence to support people who are trained to make decisions – giving them the evidence to have the confidence to act. We talk to social workers who say that they face challenges from GPs or the police or neighbours, and they fear that they don't have the evidence to stand up against the challenge. That's the type of thing that Lilli can help with. This evidence also supports CQC compliance.

"Hospital is a place where you go to be treated and then the best place for you to get better is at home.

"Supporting a vulnerable person at home and offering 24-hour monitoring can't be achieved via social care workers alone. With continuous monitoring of 'normal' behaviour, Lilli is able to pick up small signs that can point towards serious problems. The result is better health outcomes and fewer hospital admissions, giving those on the frontline more time to provide dedicated care to those who need it most.

"Lilli also supports people with long-term conditions. "We help to prevent people with long-term conditions such as COPD or diabetes from going into hospital regularly, creating a more stable environment for them to manage their health and wellbeing."

Evidencing

IMPACT

The preventative case - Roger

Gender: Male

Age: 92 yr old

Condition: Dementia

Existing care package at time of install: light - 1hr per day

Roger, a 92 yr old Lilli user from the North East of England, had lived at home on his own since the death of his wife. He had a very light package of care, with carers only going in for 30 mins in the morning and teatime. His only living family member was located in the South of England. He was an independent gentleman but had dementia, and as his condition was progressing he was starting to knock on neighbours' doors.

The social worker started to get phone calls from the neighbours telling her that he needs to be in care because they thought he couldn't find his way back home. The neighbours had also contacted the family member, so she would call the social worker often too.

Once Lilli was installed in Roger's home, the social worker could see that he was undertaking his usual routine daily and part of this routine included going out to get his shopping, and sometimes he would knock on a door just to ask for help in bringing it back home. The reality was that he was able to get to and back from the shop to his own estate and he'd known the person he was calling on for years, so to him that was normal.

From the insights presented by Lilli, the social worker was able to track his daily routine as well as have certainty that Roger wasn't going out during the night or putting himself at risk in any way.

She was then able to share this evidence with the neighbour and family member to assure them that he was fine, that yes he did have dementia, but he wasn't at risk - he was just looking for some help in getting his shopping back.

Eventually she used the insights to increase his care package slightly, but he was able to remain living at home for much longer. The social worker stated that without the evidence from Lilli, they would have had the neighbours' take on the situation as the only evidence and would have been forced to act on the incorrect assumptions. This action would have been an unnecessary move to a care home.

As time went on, the insights from Lilli eventually highlighted when further action for Roger had to be taken. The data showed that he had started to wander at night both in and outside of his home, which was a risk to his safety. The social worker stated that Lilli gave Roger an extra six months living comfortably at home with his little dog, which is all he wanted.

Outcomes

- Care home - 6 months avoidance
- Care home cost avoidance for 6 months - £16,905
- Accurate level of care package - maintained
- Quality of life and Independence maintained - at home
- Hospital admission - avoidance
- Cohesive care across friends, family and social worker

The proactive case - Edna

- **Gender:** Female
- **Age:** 99 yr old
- **Condition:** UTIs and fall risk
- **Existing care package at time of install:** 3 x 30 min visits a day

99 years old, lives in sheltered accommodation in Nottingham

Edna is 99 years old and lives in sheltered accommodation in Nottingham, close to her son and granddaughter. She receives social care support through 3x30 minute visits a day from carers.

Unfortunately Edna has been in hospital four times in the last year for a range of issues stemming from recurring UTIs, including falls resulting in broken ribs. Her family are concerned that the number of falls are increasing and that Edna may need to move to residential care.

Lilli has been installed in Edna's sheltered accommodation, enabling her to remain at home and receive community-based care, avoiding a premature move into a residential care home.

Hospital admissions for recurring UTIs have been avoided through Lilli proactively identifying changes in Edna's bathroom and nighttime activity, informing her carers when she needs additional support and enabling them to make necessary changes to reduce the risk of future UTIs, which often lead to an increased risk of a fall.

Any changes in Edna's behaviour are alerted to her social worker, who can then alert her family. The family can then make a GP appointment and receive antibiotics for Edna. Quick treatment avoids the need for hospital visits, enabling Edna to remain at home and removing the worry of unnecessary discharge to a care home.

Outcomes

- Hospital discharge - freeing up bed
- Emergency services - avoidance
- A&E - avoidance through early detection of possible UTIs
- Hospital readmission - avoidance
- Quality of life and Independence maintained - at home
- Accurate care package - at home
- Social care waitlist - reduced
- Cohesive care across friends, family and social worker
- Reduced administrative burden

Breaking down
BARRIERS

It's very difficult to implement improvement and change within an organisation as large and complex as the UK health system, without at first understanding the challenges, sentiment and barriers facing a new solution.

We polled and interviewed 245 people to find out what they thought about the solution posed in the Whole System Impact Methodology i.e starting by solving the issues in social care first and implementing remote monitoring technology. Here are some of our key findings:

✚ Benefits for the ICS and NHS

53% said that the biggest benefit that the ICS will derive from deploying remote monitoring technology in social care is the reduction in the number of preventable hospital admissions.

🫶 Benefits for Social Care

The majority felt that the biggest benefit to deploying technology in social care is the reduction in unplanned care events and increasing the interoperability between systems. Thus reducing time and creating capacity for care workers.

100% of the people we surveyed wanted private tech companies to look at solving the whole system problem

The biggest challenges they face when looking are technology are:

- Too much choice making it hard to evaluate with the next big thing always around the corner
- Not enough integration across systems and solutions
- Barriers to adoption amongst staff and users
- Too many reactive rather than proactive solutions flooding the market place
- Lack of and reduced funding from councils to support the use of technology in the community
- The transformational system change that is required for social care assessment, review and care provision works on the front line.

100% of the people we surveyed wanted private tech companies to look at solving the whole system problem, starting with remote monitoring in social care.

The biggest barriers to tech adoption were all internal; funding, confidence and skills deficit. At Lilli, we recognise the need to drive cultural change in order to encourage and enable adoption of our product and system. This means going beyond industry-standard training to ensure everyone interacting with the product feels not just informed but listened to and supported, every step of the way.

Overcoming the challenges, for successful technology adoption

Tips for Tech Evaluators – Solving the problems

What problem are you solving?	What should you be looking for from tech solutions?	How can this be evidenced?
Improved productivity	• Does the tech require a lot of manual data input from staff? • Can the tech integrate with other systems and technologies you are using, reducing time spent on administration?	Demos, pilots and trials

What problem are you solving?	What should you be looking for from tech solutions?	How can this be evidenced?
Ensuring successful adoption & upskilling of staff	• Does the tech company provide ongoing consultancy and training to support staff adoption? • Does the tech company provide ways to upskill and keep staff engaged in using the product? • Does the company provide resources and assets to support service user adoption?	• Team profiles • Processes • Examples • References • Engagement plans • Certified training that supports CPD
Making the budget meet the increasing demand for care	• Does the tech support the evaluation of care requirements, providing a more accurate understanding of need? • Does the monthly cost of the tech make it a viable solution?	Evidence data from other clients
Providing a proactive solution to monitoring health/Reducing reactive tech	• Does the tech provide a proactive solution to health monitoring to aid the identification of potential health issues before they worsen?	• Live data • Real time demos • Example reports • Example case studies
Outcomes led	• Does the tech meet the departmental objectives - for example, the reduction of care packages, care home prevention, evidence assessments, hospital readmissions etc?	• Example reporting and statistics • References

Conclusion

If prioritising the support of vulnerable people at home, with the use of remote monitoring technology, directly impacts the volume of preventable hospital admissions, reducing the pressures of hospital backlogs and bed blocking - and in addition, increases the capacity of the social care sector to care for the vulnerable at home avoiding the need for temporary or permanent beds in care homes - it would seem to be a logical place to start?

And that's before we touch on the significant costs that can be reduced as a result of reduced care home beds, missed GP visits and resizing of care packages. Of course, let's not forget the significant positive impact on the quality of life for our society's most vulnerable and those who work directly in the health and care sector.

There is no instant panacea to the health crisis issue in the UK, but there is a good place to start. We have worked with several leading Local Authorities and ICS across the UK to help them successfully implement remote monitoring technology into their teams and working practices and subsequently into the homes of their service users, with significant evidential results.

Our approach is consultative; we work with teams to overcome barriers to adoption, offer ongoing CIPD-accredited training to help upskill teams and work with leads to identify and track data points to evidence outcomes and results.

We run regular webinars and workshops to support organisations in understanding more about how to assess, evaluate and implement remote monitoring technology to help better support the people in their care and their social care infrastructure. To find out more visit www.intelligentlilli.com or email marketing@intelligentlilli.com

"Lilli helps the service user get the outcome that they need but also really helps me as a social worker - the data that I got from Lilli supported me to have that difficult conversation with the GP and push for a different course of action on their part. That wouldn't have happened if I couldn't refer to my evidence base."

Lisa Hope, Social Worker, North Tyneside

"Recently, the data that I got from Lilli supported me to have a difficult conversation with a GP and push for a different course of action on behalf of a service user. This wouldn't have happened if I couldn't refer to my evidence base from Lilli."

Stephanie Downey, Service Director Adult Social Care

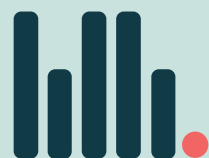"I wish Lilli had been available 9 months ago, it could've made a massive difference."

Richard Bowman-Dyer, Assessment and Support Coordinator, Dorset Council

"Lilli has greatly reduced the time required to complete case reviews. The ability to pre-set reports to future review dates helps caseload management."

Amanda Shelvey, Specialist Occupational Therapist, Dorset

"Lilli gives confidence when working away from the clients, and takes away anxiety which in the past would lead to additional and often unnecessary home visits."

Sally Bedwell, Specialist Occupational Therapist

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