



# Evidencing the success of remote monitoring

Delivering savings and supporting evidence based decision-making in social care



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# Introduction

Most winters, media attention will alert the nation to the UK's health and social care system being at a "breaking point" or in a crisis - sadly, these are now year-round headlining warnings.

Care technology and digital solutions are now proving to be a consistently reliable resolution to system-wide problems, targeting the roots and alleviating the symptoms of the critical state of the health and social care system.

With the data directly evidencing the success of remote monitoring technology and its positive impact on the entire sector, can the tide now turn to recognise that proven proactive technologies are readily available for deployment to resolve the sector's persistent issues?

Lilli has proven that it does deliver exactly that - a cost-effective and non-intrusive monitoring system that supports efficient and accurate care delivery, prevents declining health conditions, and reduces the need for hospital visits whilst supporting individuals to stay at home for as long as possible, supporting people on an individual level, organisations, and the system as a whole.

## Potential Savings

For every £1 invested into the implementation of Lilli's remote monitoring technology, £4 can be reinvested back into the system



# Evidencing **IMPACT**

Lilli





# Addressing the challenges

The statistics around the issues that the UK's health and social care system is facing have been challenging over the last few months, but they have been met with promising data and statistics coming from the result of implementing remote monitoring technology.

With a number of successful pilots deployed in local councils across the UK, Lilli's remote monitoring technology has gathered enough evidence to prove the technology's potential to revolutionise the health and social care industry.

“What do hospital patients really want? They want to get home as quickly as possible, feel looked after, feel like they're not alone, like they are safe and can remain independent without feeling like they've been abandoned by the system.”

**Rachel Melsom, Founder & CEO at Medical Matrix Consulting Ltd.**



**1 in 3**

One in three English hospital beds are occupied by patients fit for discharge.



**2 weeks**

Lilli's technology accelerated hospital discharge more than two weeks, relieving pressure across an overstretched health and social care system and empowering vulnerable adults to live safely and independently in their homes for longer.



# Leveraging Remote Monitoring Technology

**Nick Weston**

Chief Commercial Officer



Our remote monitoring technology is proving to have 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. Having a baseline of 'normal' behaviour means abnormal behaviour can be promptly identified, and friends, family, carers or social workers can address issues and take action early, preventing an ongoing decline in health.”



***“Technology isn’t about replacing people,”***

Nick points out.

***“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.”

A pie chart is shown with a teal slice representing 23%. The rest of the chart is light blue. The number '23%' is written in large, bold, teal-outlined font over the teal slice.

23%

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



Evidencing  
**IMPACT**

North  
Tyneside



# Business Study: North Tyneside



In April 2021, Lilli partnered with North Tyneside Council, with the Council acknowledging the potential for facilitating positive, transformative change, and to be seen as a leader of TEC adoption against a background of the ever-increasing system pressure. North Tyneside recognised the ongoing challenges of carer capacity and took the opportunity to collaborate with Lilli in exploring various initiatives aimed at enhancing outcomes for patients.

The data coming out of these pilots gives increasing cause for confidence. It demonstrates that tackling issues in social care by implementing and integrating remote monitoring technology can be seen to positively 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.



**Integrating Lilli's remote monitoring technology had a positive impact by successfully creating savings in areas such as time, money and resources.**



# Evidencing Success: North Tyneside



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



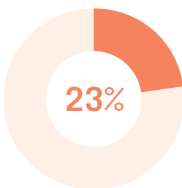
£132,757 – total cash North Tyneside council saved during the pilot by monitoring just 40 people accessing services.



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



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.



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



## Evidence-based decision-making

“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.”*

“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”.

## Alison Tombs

Assistant Director Wellbeing and  
Assessment, North Tyneside  
Council



“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,” says Fiona Brown, former director of adult social services (DASS) at Sunderland City Council who is now the Chief Care Officer at Lilli. “Quality of life is an incredibly important barometer for delivering care,” she adds.



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.

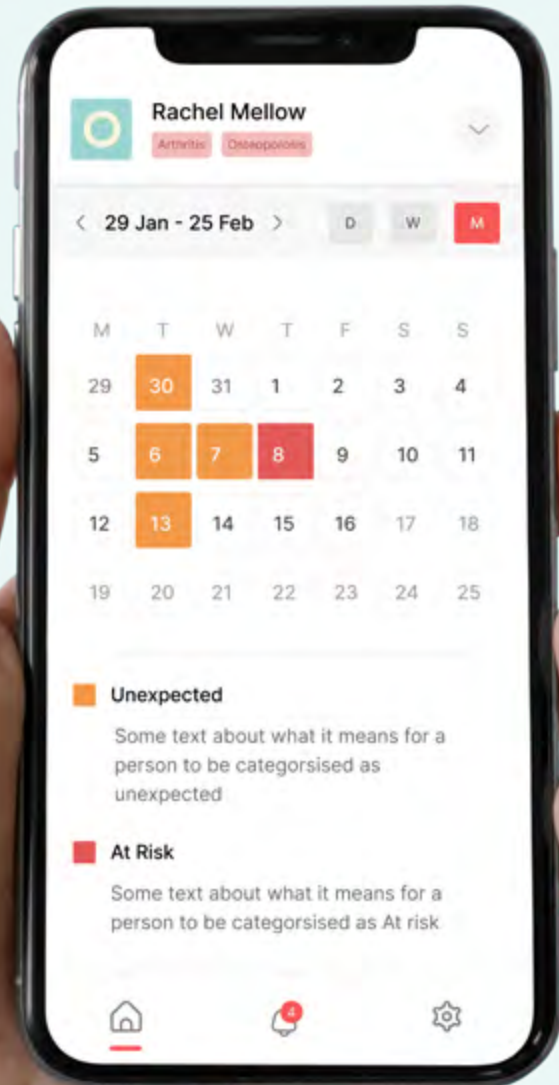


The impact of reducing the average package from 16 hours a week to 14 could give a local authority with 2,000 people who draw on care and support over £3m of savings or a 14% increase in commissioned care hours capacity, which right now is operationally more vital.





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



# The human impact - 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



Evidencing  
**IMPACT**

Nottingham  
City Homes



# Business Study: Nottingham City Homes



Ms Tombs' comments from North Tyneside are echoed by Dave Miles, On Call Development Manager at Nottingham City Homes, which has been trialling a similar setup. As with North Tyneside, Nottingham has been constrained by a shortage of home care packages when discharging people from hospital. 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?”



# Evidencing Success: Nottingham City Homes

The Lilli platform provides the data and insights that are needed to review a person's behavioural patterns and trends within their home so that they can accurately identify what type of care support is needed. Identifying these changes in behaviours could also indicate a change in a person's state of health.

This fills the current knowledge and resource gap, providing the hard evidence care professionals need to make decisions about each patient's requirements. No more guesswork or gut instinct – instead, we provide accurate data based on each individual's day to day activity within their home.

The pilot undertaken with Nottingham City Homes, delivered as part of an ICS-wide project to enhance home care for newly discharged patients from hospital wards,

saw Lilli technology being deployed in the homes of 48 service users.



The real-time data and insights were integrated into the NHS D2A pathway to help support quicker and safer hospital discharge, empowering frontline social care teams to deliver the best possible care for people in the comfort of their own homes.

Headline

# FIGURES

## Nottingham City Homes



**£54,588**

Helped to demonstrate cash savings of £54,588 – and by enabling more people to live happily at home rather than going from hospital into residential care, stands to generate even more cost, time and resource efficiencies.



**6.6 FULL-TIME EMPLOYEES**

Increased the capacity of care resources throughout the Nottinghamshire region by generating additional care hours equivalent to those of 6.6 full-time employees.



**2 WEEKS**

Accelerated hospital discharge by over two weeks relieving pressure across an overstretched health and social care system and empowering vulnerable adults to live safely and independently in their homes for longer.

# 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 lives 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

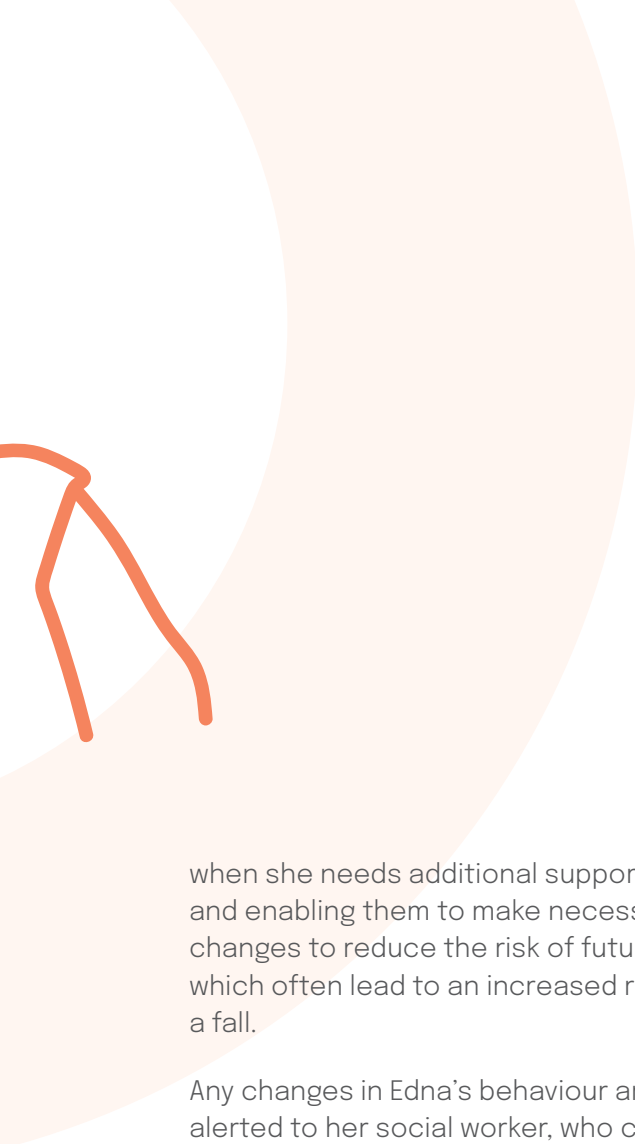
falls are increasing and that Edna may need to move to residential care.

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

- Expedited hospital discharge - freeing up beds
- Avoidance of emergency service call outs
- Avoidance of A&E through early detection of possible UTIs
- Avoidance of readmission to hospital
- Quality of life and Independence maintained at home
- Accurate care package at home
- Reduced social care waitlist
- Cohesive care across friends, family and social workers

# Conclusion

The former head of NHS England, Lord Crisp, agrees that the health and social care industry desperately needs high-tech monitoring of the elderly in their own homes in order to reduce the strain on the system and prevent its collapse.

Calling for investment in technology to alleviate pressure on overcrowded A&E departments, hospitals, carers, and reduce costs across the system, professionals from all corners of the industry recognise that this is the way forward - the implementation of remote monitoring technology's impact would affect the entire system positively, and the time to act is now.

With the UK still playing catchup after what critics say is more than a decade of underfunding the NHS, there is no better

time to turn to the evidence coming from digital solutions. With investments into remote monitoring technology such as Lilli allowing for every £1 to translate into £4 of reinvestment back into the system, this is a revolutionary resource which could save health and social care systems from a potential collapse.

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](http://www.intelligentlilli.com) or email [marketing@intelligentlilli.com](mailto:marketing@intelligentlilli.com)

# Forecasted SAVINGS

## from deploying Lilli

Reducing the average care package = a 14% increase in capacity, enabling a typical Local Authority to serve an extra 280 service users.

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A 10% reduction in readmittance within 28 days = a typical ICS saving of 1989 bed days and £1m per annum.

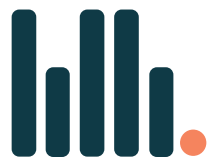
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Removing an hour of admin per day in frontline teams will increase their capacity by 13%

Keeping just 10% of those people admitted to residential care each week at home for an average of a further 6 months could reduce new in year residential care spend by more than 20%

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Using Lilli to complete baseline assessments could increase teams capacity to undertake assessments by greater than 20%



[intelligentilli.com](https://intelligentilli.com)