

THE TSA SECTOR INSIGHT REPORT, JULY 2020

**FROM STABILISATION TO INNOVATION:  
THE RESPONSE AND REDESIGN OF  
TEC SERVICES DURING COVID-19**



The voice of technology  
enabled care

## RT HON. PROFESSOR PAUL BURSTOW

TSA PRESIDENT



**For many people, a TEC service has been their only lifeline whilst in lockdown and a critical buffer against social isolation and other negative outcomes of the pandemic. The value of this support is captured in the personal and powerful case studies within these pages and shows how, with ingenuity and tenacity, the TEC sector can mobilise to improve and redesign its services overnight for the good of the vulnerable in our communities.**

This report offers a window into the world of the technology enabled care sector and how it has provided invaluable support to the wider health and care system during the early months of the response phase of the Covid-19 crisis.

Whilst celebrating how TEC has responded to the emergency, we also need to recognise that alarm monitoring services that are purely reactive in their scope offer only part of the solution. Effective TEC responses to Covid-19 have adopted increasingly proactive and preventative models of care.

This report contains the findings and associated recommendations that followed an intense 12-week programme of outreach by the TSA to the TEC sector, where we contacted 92% of all alarm services with offers of support and guidance. This was a Department of Health & Social Care sponsored programme with the objective of reviewing how the TEC sector has responded to Covid-19, and where TSA was also tasked with capturing examples of innovation and improvement. The work will contribute to the Government's supporting programmes of its Rebuild and Recovery plan for health and social care.

Our Key Recommendations include a phased plan of action that focuses initially on stabilising existing TEC services, before moving on to how we can best exploit proactive TEC services to shield the most vulnerable, increase care capacity and improve operating models. However, we also need these actions to be sustainable, and so we also pursue actions here that seek to embed and assure the quality of the new service and technology innovations. I believe that the proposed next steps will have a major positive impact on TEC services, whilst easing pressures on other health and care provision.

What this report demonstrates is that when it comes to the potential of TEC, we are just scratching the surface. The capability and scalability of TEC services to deliver far more in terms of proactive outreach and remote health monitoring is within reach, if we can integrate TEC with wider health and care services, supported by the right digital infrastructure. We must also acknowledge that widespread adoption of change will be driven by demonstrable benefits and outcomes from the new service models and by the right investment in our workforce. Our Ask of Government is to support our programme of works to enable us to build upon the foundations that have been laid, to ensure impact across the entire sector, not just for the few.

## ROSAMOND ROUGHTON

DIRECTOR-GENERAL, ADULT SOCIAL CARE, DEPARTMENT OF HEALTH & SOCIAL CARE



**The beauty of technology enabled care is its ability to support people of varying needs, not just the elderly and frail but those with learning and physical disabilities, and people living with long-term physical and mental health issues. The Covid-19 pandemic has highlighted the role that digital solutions can play in protecting and connecting citizens and communities at a time when isolation has at times been widespread - in our own homes, in care facilities and across family units.**

The TEC sector has demonstrated significant examples of just how forward thinking it can be, and resolute in continuing to 'get the job done'. I'm excited to see excellent examples of innovative services and technologies being rapidly developed and deployed, with the express purpose of enabling people to self-manage their health and putting the power into the hands of the service user and patient.

As we look to wider reform of social care, it is clear that the technology enabled care services have a clear role for the changing models of care. I welcome this report.

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# COVID-19: HOW TEC IS RESPONDING

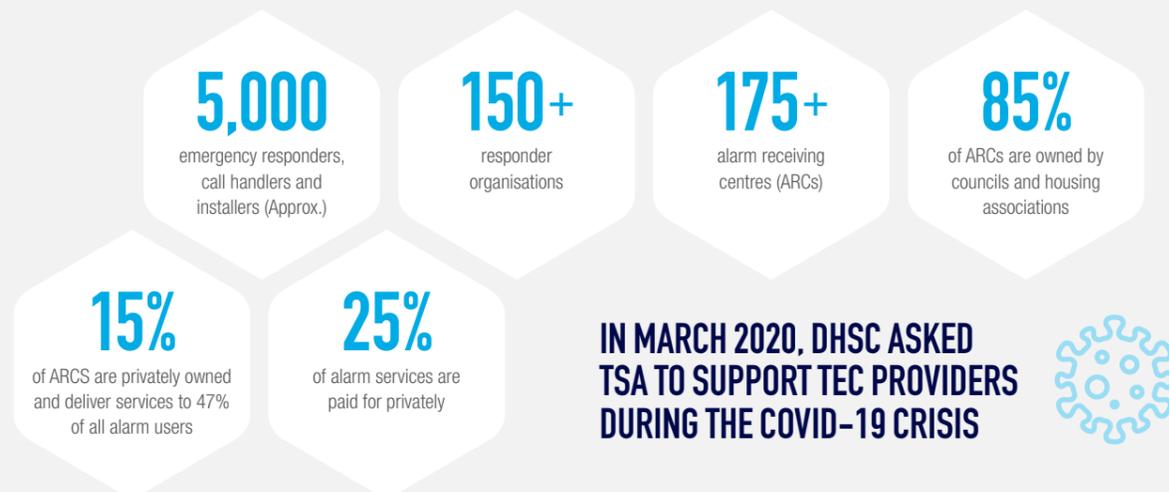
APPROX. 1.7 MILLION VULNERABLE  
PEOPLE RELY ON TECHNOLOGY  
ENABLED CARE (TEC) IN THE UK

TEC aims to help people live  
independently for longer and  
stay in control of their health

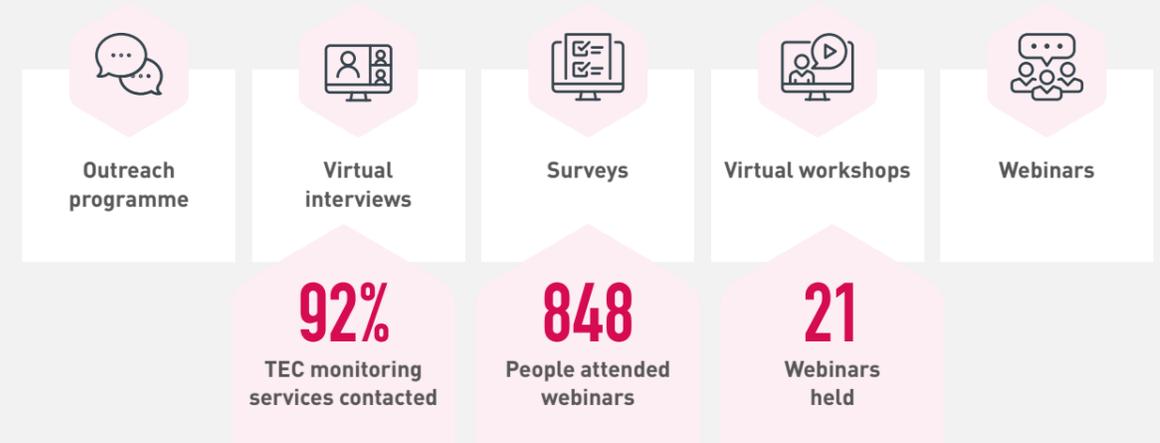
## TEC EMPLOYS A RANGE OF SERVICES, DEVICES & APPS, INCLUDING:



## WHO PROVIDES TEC SERVICES?



## PROGRAMME ENGAGEMENT ACTIVITIES



## KEY FINDINGS ACROSS TEC SERVICES

Workforce was impacted: up to 35% staff shortages	Providers largely bypassed for service delivery to newly isolated & vulnerable people	Response and installation services suspended, in some cases
Those with older ARC platforms had problems in flexing operations	Many services shifted to easy-to-deploy, low contact, self-install technologies	Some services adopted digital products such as IoT & AI

## PROPOSED NEXT STEPS





# HOW TEC CAN SUPPORT THE GOVERNMENT'S PLAN TO REBUILD & RECOVER

In May 2020, the UK Government published its Covid-19 recovery strategy, setting out the phased delivery of programmes of work. Findings from our review of the TEC sector, commissioned by the Department of Health & Social Care (DHSC), show that TEC services could support the delivery of many elements within these programmes. We have mapped our findings and recommendations to individual sections of the [Government's Rebuild Plan](#).

# NHS AND CARE CAPACITY AND OPERATING MODEL



## Wales & West Housing

### 100% HOMEWORKING FOR ALARM MONITORING CENTRE IN DAYS

Just four days after lockdown began, the customer service centre at Wales & West Housing had changed beyond all recognition. All 30 advisers were working from home, handling a daily average of 250 alarm monitoring alerts and 200 general housing calls.

Fortunately, the UMO alarm monitoring system they use has remote working built-in, where staff can connect securely from any location, rather than being tied to the monitoring centre.

But to get full home working, the housing association also had to quickly integrate two systems. Wales & West Housing uses Enovation's UMO to receive emergency alarm alerts but the telephone calls that come in from residents – often about rent or general housing enquiries - were handled on a different system.

"We knew the only way to deliver all customer service remotely was to re-route resident calls through our UMO platform," explains Christine Bowns, customer service centre manager at Wales & West Housing. "We tested the system and trained staff in two days, and they found it really simple. Within 36 hours of testing, we had moved the whole customer service centre to home working."

"Being able to deliver our emergency alarm service to the highest possible standard is so important," says Christine Bowns. "Some staff were shielding, and others had childcare difficulties and they would have struggled to come into the office. Setting up homeworking so easily meant there's been no change at all to our customer service during this crisis."

#### OUTCOMES

100% homeworking for 30-person customer service centre turned around in four days

450 daily inbound calls (both alarm alerts and resident calls) routed through single system

No interruption to 24/7 customer service provided by Wales & West Housing

To maximise its confidence in managing new cases, the Government needs to continue to secure NHS and care capacity, and put it on a sustainable footing.

#### Findings & Recommendations

The TEC workforce plays a crucial role, 365/24/7 in keeping vulnerable people safe and they need to be recognised alongside other health and care professionals as key workers.

Personal Protective Equipment (PPE) has proven to be a key issue for TEC services, and the lack of it resulted in the temporary suspension of a number of mobile responder services.

Shortly after lockdown was announced, TSA worked closely with the Government to secure key worker status for the TEC workforce. Most TEC providers were able to access the PPE needed to keep services running.

Some alarm service providers have been able to re-purpose and re-train additional staff from within their organisations or Local Authorities to support frontline activities, mainly call handling. This has allowed more experienced staff to be employed in priority areas such as discharge support, proactive calling and outreach activity. Mobile responders have also been retrained, for example to provide assistance to non-injured fallers instead of emergency services being called to respond.

***We believe that the roles of TEC front-line staff – call handlers and mobile responders must be reviewed and optimised. A concerted programme of training and awareness is needed, including the use of PPE & equipment handling and recycling. Key worker status must continue to be assured for all TEC frontline staff.***

TEC services provide life-critical personal alarm services that support vulnerable people if they need emergency help. To continue delivering these services during the Covid-19 crisis, there has been a strong demand for alternative and remote alarm call handling options (for home workers, or for switching rapidly to other operational locations).

However, older Alarm Receiving Centres (ARCs), particularly those with fixed-line, analogue communications or older platforms (as employed by over 60% of services) have found it difficult to switch to alternative working models.

***We believe all TEC services must review and plan upgrades or changeout of ARC systems and IT to modern, digital and open technology platforms that support more flexible operational models. This needs to be supported by best practice Information Governance and interoperability of systems and services.***

# NHS AND CARE CAPACITY AND OPERATING MODEL



## Delta Wellbeing and Carmarthenshire County Council

### HOW PROACTIVE MONITORING IS REDUCING PRESSURE ON STATUTORY SERVICES

Three weeks after lockdown, Carmarthenshire resident ‘Dawn’ was phoned by a wellbeing adviser from call handling service Delta Wellbeing. Aged 47, Dawn is a victim of domestic abuse and suffers from bi-polar disorder, depression and panic attacks. Isolated from her adult children and with little food in the fridge, her anxiety was worsening during Covid-19.

Another story centres around an elderly couple who took on the duties of caring 24/7 for their disabled son during the pandemic as his carers were unable to visit due to risk of infection. Delta Wellbeing regularly checked in on the parents’ health and wellbeing, and the mother was in tears with gratitude as she felt the staff really cared about them and their situation.

Before Covid-19 struck, the outreach team at Delta Wellbeing were regularly

contacting 3,500 Delta Wellbeing alarm users. This proactive service was designed to spot issues before they occurred – to support people before they reached a critical point and activated their alarm or called on other emergency healthcare services.

This proactive approach convinced the directors of Carmarthenshire County Council that Delta Wellbeing’s team would be suitable to lead their outreach programme to the initial 8,500 people shielded under lockdown restrictions. The service operates as the single point of access for all social care and health enquiries within Carmarthenshire.

The team, bolstered by redeployed Council employees, were able to successfully contact the initial list of 8,500 in just two weeks to assist with food, medication, isolation and other negative outcomes from the pandemic, and have since contacted a total of 18,500 vulnerable people in Carmarthenshire.

The proactive calls served a double purpose – to check on people’s wellbeing with follow up actions, and to prevent any surges in demand on

statutory and local authority services. As a result, there was positive impact on the number of people who were “turned around” at the front door with information and advice, signposting instead to volunteer and community-based activities – these types of referrals increased significantly from 7% in April 2019 to 41% in April 2020 at the height of the pandemic.

More than anything, this service is enabling people to become ‘masters of their own lives’, ensuring that they are at the centre of their own health and wellbeing decisions.

It wasn’t long before Delta Wellbeing quickly devised a specific training programme for 50 of its staff to operate its Test Trace Protect programme, and has since become the only Alarm Receiving Centre in Wales with responsibility for the programme for their Local Authority. The positioning of telemonitoring staff to do this role was based on their intrinsic experience of handling ‘difficult’ conversations and speaking compassionately with people when breaking the news that isolating for 14 days could be necessary, whether symptomatic or not.

“I had a vision that things could be dealt with differently through information and advice as opposed to statutory intervention,” explains Rebecca Davies, Single Point of Access Manager at Delta Wellbeing.

The Government is seeking innovative operating models for the UK’s health and care settings, to strengthen them for the long term and make them safer for patients and staff in a world where COVID-19 is a risk.

### Findings & Recommendations

Many TEC providers already monitor individuals remotely in their homes and send alerts to families, relevant agencies and services when there is a problem.

- **Proactive** TEC services deliver prevention through outreach wellbeing checks, use of digital monitoring technology and connectivity to social support networks
- **Telehealth** services track the vital signs data that individuals submit
- **Telemedicine** services offer remote consultation via video calls or online chats
- **Telecare** services check an individual’s safety via personal alarms, providing a local response

We identified that whilst TEC services undoubtedly deliver important support to many older and vulnerable people, very few of these services or their enabling systems have integrated with other health and care services. This has the effect of placing TEC and its data in a silo.

*We believe that TEC monitoring services must be more closely integrated with health and social care so that people can access the coordinated support and care they need wherever they choose to live their lives.*

The Government will bolster capacity in community care and step-down services, to help ensure patients can be discharged from acute hospitals at the right time for them.

### Findings & Recommendations

During the pandemic, TEC providers expanded their hospital discharge support by speeding up the deployment of remote monitoring into people’s homes. This has included:

- Take-home mobile devices that can send an alert if someone needs help
- ‘Self-install’ personal alarms posted or delivered to the door-step to reduce physical contact
- Apps installed onto devices at point of discharge, encouraging self-care by helping people to monitor their own health and giving them quick, virtual access to a healthcare professional if needed
- Discharge packages including medication reminders, mobile alarms and daily wellbeing calls

TEC can play a key role in discharging people efficiently from hospitals, helping the Government to keep NHS capacity available for those who need it most. But this will only happen if TEC is integrated with other health and care services in the community.

*TEC services should actively consider the use of easy deployment technologies to simplify access to their services. There is an associated need for guidance on the best use of mobile devices and networks, 2G to 5G, to assure the connectivity and subsequent safety of take-home mobile devices.*

Percentage of referrals to information and advice, away from statutory services, increased from 7% (April 2019) to 41% (April 2020)



### OUTCOMES

Contacted Carmarthenshire’s initial 8,500 shielded list in two weeks and put in place personalised support plans where needed

Increased overall outreach list from 3,500 people pre-pandemic to 18,500 during the crisis

Contacted Wrexham Council’s shielded population of 500 in a single day

Percentage of referrals to information and advice, away from statutory services, increased from 7% (April 2019) to 41% (April 2020)

# NHS AND CARE CAPACITY AND OPERATING MODEL

The Government will establish a dedicated team to see how the NHS and health infrastructure can be supported for the Covid-19 recovery process and thereafter.

The Government will invest in preventative and personalised solutions to ill-health, empowering individuals to live healthier and more active lives.

## Findings & Recommendations

A tiered model of TEC services, including remote monitoring, proactive calling and prevention outreach - all delivered to vulnerable people - can play a key role in the recovery process. But these new proactive services must be supported by modern technology infrastructure that enables new service models.

- The technologies used by existing Alarm Receiving Centres (ARCs) are not generally optimised for large-scale outbound services. ARCs have only been considered as the active coordinators of proactive contact (with the 2.5 million people on CV-19 Shielding lists) in exceptional cases.
- Over the last few months there have been multiple examples of local authorities rapidly deploying alternative contact centre services, and where IT industry standard technologies are being employed.

*We believe tiered services models can be effectively delivered by TEC providers, but the underlying technology platforms need to be suitable for the task. Guidance and standards should be developed to assure the quality of the services and their underlying technologies.*

## Findings & Recommendations

Some existing TEC providers offer proactive support to existing alarm service users and their contact increased considerably during the crisis. Many local authorities also implemented alternative outreach services to vulnerable and shielding people. Collectively, these service providers now make thousands of outbound calls every week, providing reassurance and targeted guidance. There is a major opportunity for TEC providers to offer services to shielding groups in the future.

- The outbound calls vary in nature, ranging from general wellbeing 'check-in' calls, to more targeted and personalised interactions, for example after hospital discharge.
- The proactive services differ to reactive alarm calls and they amount to different 'tiers' of activity, where each tier has a different intended use and where levels of quality assurance need to be allocated appropriately.
- Proactive calls prevent people reaching crisis-point and they are reducing demand on local authorities, emergency services and hospital beds.
- Telehealth solutions are supporting proactive outreach activity through data-led interventions that support people to remain at home, escalate when required and manage resources within the health system more effectively. TEC services can also enable remote telemedicine consultations.

*TEC providers and commissioners need to embed proactive services in the scope of their care provision, moving beyond reactive alarm response and introducing 'tiers' of services with differing intended uses. Support will be needed to help the TEC sector develop and implement new operational models.*

"We needed to build an effective outreach service very quickly, and at scale. We couldn't have achieved this without adapting an existing and modern set of software tools.

At some stage, our key staff will go back to their previous roles, and we need to decide how best to preserve what we have created for any future resurgence of COVID-19 and also to adapt it to help us deliver a new form of neighbourhood working." Nicky Parker – Bury Community Hubs



## Bury Council

### USING DIGITAL PLATFORMS TO GIVE THE VULNERABLE TARGETED SUPPORT

During the pandemic, Bury Council rapidly reached out to all vulnerable groups in the region, including those who should be shielded, people aged 70 or over with underlying health conditions, and individuals who were otherwise socially or economically vulnerable. They achieved this by deploying a mobile-friendly triage app, rallying a cohort of 800 volunteers working across five community hubs, and repurposing 100 staff from elsewhere in the local authority to help with this quick-fire outreach support programme.

Outreach calls from the contact centre employed structured questions around any support required, any underlying medical conditions and if they had been contacted by the NHS. This triage process then triggered responses from volunteers or other support services. The service focused on immediate needs for food and medications initially, before moving on to safe and well checks and befriending calls.

The programme needed a technology platform to coordinate outbound calls, support requests and responses. Bury Council worked with Microsoft and ANS to create the

platform, assisted by Greater Manchester Combined Authority, using a core set of Microsoft tools that allowed a rapid initial set-up of just three days. The system includes geographic mapping of needs, particularly important to the volunteers' portal view of the system.

#### For the technologists...

The platform is multi-tenanted (a single system where each organisation's data is partitioned). It uses Microsoft 'Power Apps' (inc. Dynamics CRM) and allows 'tweaking' to local services and protocols. The user applications include a COVID-19 triage app. The toolset also provides a set of open Application Interfaces, to help integrate with other systems.

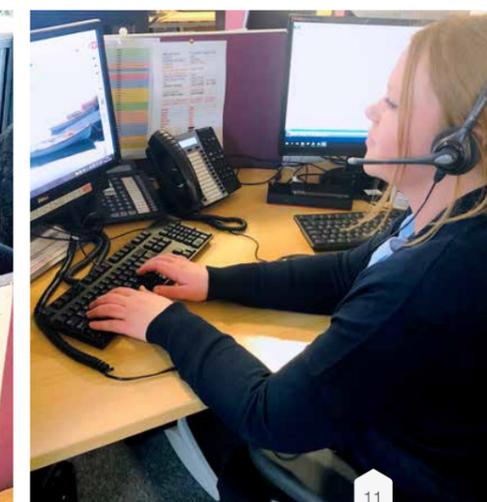
#### OUTCOMES

Re-deployed 100 staff from elsewhere in the Local Authority

Mobilised and registered 800 volunteers onto the app and outreach programme

Supported more than 2,000 residents

The app is to be rolled out to other councils following Bury's successful pilot



# SHIELDING THE MOST VULNERABLE: IN CARE HOMES

The Government is accelerating the introduction of a new service of enhanced health support in care homes from GPs and community health services. The NHS is supporting care homes to take up video consultation approaches, including options for a virtual ward.

## Findings & Recommendations

TEC services in care homes have scaled up during the pandemic, with a particular focus on telehealth (remote health monitoring) and telemedicine (remote consultation) to enable virtual forms of healthcare services.

This study also identified cases where the use of telehealth has allowed clinical professionals to continue working from home to support patients in the community.

By training care home staff to use telehealth devices that monitor residents' vital signs, carers have been empowered to spot coronavirus-like symptoms early on and pass clinical data to nurses and doctors. This speeds up the triage process and residents get the help they need, faster.

*Telehealth services could have a major beneficial impact if used more widely across care homes, and the workforce should be trained in the use of relevant TEC systems, with online TEC training courses made widely available.*

Using technology in new ways within care home or assisted housing environments enables the provision of remote support and video contact for consultation or family engagement, thereby minimising risk to residents.

*We recommend that both assisted housing and care homes should pursue a roadmap towards digital infrastructure, enabling this remote support through access to modern technology options, and perhaps including site-wide WIFI.*



A previous pilot showed that when NEWS technology was used in just 8 care homes for 12 months there were 336 fewer A&E attendances.



## South Tyneside & Sunderland NHS Foundation Trust

### EMPOWERING CARE HOME STAFF TO MONITOR RESIDENTS' VITAL SIGNS

Nine months before the outbreak of COVID-19, Adam Remmer, a charge nurse at South Tyneside & Sunderland NHS Foundation Trust had begun to train staff in care homes to use National Early Warning Score (NEWS) technology to observe residents' vital signs.

The aim was to give carers the confidence to use technology (normally only used in hospitals) to identify how unwell a resident is and get the right support, fast.

But in March 2020, project funders, All Together Better Sunderland and NHS Sunderland Clinical Commissioning Group (CCG), scaled up the project in response to the pandemic. In just three weeks, staff from every Sunderland care home had been trained to monitor the respiratory rate, oxygen level, blood pressure and temperature of residents.

"We wanted to empower carers so they could spot early signs of a patient being unwell," explains Adam Remmer. "As well as using softer signs like appetite loss or a decline in mobility, staff can now give clinical data to nurses and doctors. It's making a big difference in how quickly residents are triaged."

Natalie Johnson, an older person sister in the Trust's older person team agrees. "Having these clinical observations helps me to prioritise the most poorly residents. We're only a small team of 15 nurses so if we know a resident has a temperature, low oxygen saturation levels or a high respiratory rate, we can act quicker."

Manager of Highcliffe Care Centre, Adam Kane believes this new technology is keeping his residents and staff safe. "If a patient feels unwell, we can quickly check all their readings, isolate them and order swabs – it's like having a nurse in the care home. It also reduces hospital admissions because staff can do a more holistic assessment – closely monitoring residents and doing as much as possible at the care home."

Sunderland's 49 care homes look after 2,000 residents and just before lockdown over 1,800 National Early Warning Scores were being recorded every month. This has now increased to 2,200 NEWS scores every month. Without this remote healthcare it is likely that hospital admissions and A&E attendances would have been higher.

Evaluation data isn't yet available, but a previous pilot showed that when the NEWS technology was used in just eight care homes for 12 months, there were 192 fewer hospital admissions and 336 fewer A&E attendances, resulting in an overall saving of £180,000.

The technology has also helped to lower footfall in care homes. If a care worker is concerned by a new, worsening wound or rash, they quickly send a photo to nurses and doctors. This is helping clinical staff to triage residents and it reduces inappropriate referrals.

Charge nurse Adam Remmer believes the NEWS system has given care workers a common language to use with nurses and GPs. "It's exactly the type of training and technology we need more of in care homes, particularly now we're living with coronavirus."

#### OUTCOMES

30 additional care workers trained to use the NEWS technology in three weeks

All of Sunderland's 49 care homes are now using the technology

Usage rates are high: 2,200 National Early Warning Scores recorded by carers every month (90% of care home residents monitored)

Previous pilot: When NEWS technology was used in just 8 care homes for 12 months, there were:  
 - 192 fewer hospital admissions  
 - 336 fewer A&E attendances  
 - Overall saving of £180,000

# SHIELDING THE MOST VULNERABLE: IN THE COMMUNITY



“We know that technology has huge capacity to transform health and social care in Sunderland. Luscii is a great example of how innovation in healthcare can help us to transform how we monitor and treat patients in their own homes and prevent unnecessary appointments and hospital visits.”

Dr Martin Weatherhead, Chair of All Together Better Sunderland

[Find out more about the Luscii project on page 22](#)

Smarter shielding of the most vulnerable: The Government and local authorities have offered additional support to people who are shielding, including delivery of food and basic supplies, care, and support to access medicines, if they are unable to get help with this from family and friends.

### Findings & Recommendations

TEC services already support approximately 1.7 million older and vulnerable people across the UK to stay safe in their homes. Many providers have the experience and expertise to expand their services to help shielding individuals and offer support around food, medication, health and wellbeing advice and signposting.

*TEC service providers should put a greater emphasis on outbound, proactive contact and learning from best practice examples in the TEC sector. Proactive services are vital to shielding groups as they provide critical remote support and intervention to prevent people reaching a crisis point.*

Smarter shielding of the most vulnerable: NHS Volunteer Responders and local volunteers are also helping to support this group. The guidance on shielding and vulnerability will be kept under review as the UK moves through the phases of the Government’s strategy.

### Findings & Recommendations

TEC services can help to communicate Government guidance and advice to shielding groups and vulnerable people as this information changes. TEC providers can work closely with volunteer programmes to harness their support and respond to need.

*TEC services should pursue integration with volunteer care services, by matching user needs to available support. Better use of data and digital technology is also needed to enable smarter outreach and targeted support to patients.*

Whilst shielding is important to protect individuals from the risk of COVID-19 infection, the Government recognises that it is challenging for people’s wider wellbeing.

### Findings & Recommendations

For many older and vulnerable people who live alone and have no friends or family nearby, TEC services are their only lifeline. During the pandemic, these services became even more important with individuals telling TEC providers that their wellbeing ‘check-in’ calls, personal alarm services and digital tablet devices are sometimes the only social connection they have with the outside world all week

*The need for TEC providers to extend to proactive and preventative services is emphasised by the need for wellbeing support, and this will require the adoption of new technology options.*

# SHIELDING THE MOST VULNERABLE: IN THE COMMUNITY



## Hampshire County Council

### USING CHATBOTS TO IDENTIFY SUPPORT NEEDS AND CUT PRESSURE ON COUNCIL RESOURCES

When lockdown began, Hampshire County Council faced a major task. Over 53,000 of their residents were on the national shielding list and as they began to self-isolate, many required extra support. Time was critical, with some people desperately needing medication, food and social connection.

- Take Mrs D, 71 who has special dietary requirements and needed certain groceries delivered. She and her husband had no family nearby and were running low on supplies.
- Or Mr C, 55 who lives alone and was struggling with self-isolation, particularly at weekends. He felt very lonely and said he wanted 'a friendly voice to talk to' but had no social network.
- Then there's Mr E, 74 who needed his medication to be picked up from the pharmacy within 48 hours but knew no one locally to help.

This is just a small snapshot of the thousands of Hampshire residents in need. Officers at the County Council knew the task was immense and acted swiftly. Extra capacity was quickly procured from a commercial contact centre, but still, these call operators alone couldn't keep pace. A smarter method of making the initial call to shielding residents was needed.

Hampshire County Council worked with PA Consulting and Amazon Web Services (AWS) to develop a chatbot-driven outbound call system. The result was the 'Wellbeing Automated Call Service' (WACS) which, at its peak, made over 2,500 calls each day to shielding residents, asking them how they were feeling, whether they needed support and if they wanted to be contacted again in 10 days. If someone rejected the call, WACS logged this and they were followed up in an alternative way. The system recorded all activity to ensure no one was missed.

When people requested help, they were put through to the council's contact centre. Here, trained call advisers played the part only a human can: they empathised, discussed options and connected residents with support, from telephone befriending services and food parcel hubs to prescription pick-up services.

"Putting this automated system in place and really integrating it into our social care service meant we could contact every shielding individual in a systematic and cost-effective way," explains Hampshire Council's Director of Adults' Health and Care, Graham Allen. "But it also helped us focus our human resources on supporting those individuals in real need."

The proportion of people on the shielding list who asked for help varied from one in three to one in 100. "When you have to contact 100 people to identify the one person that requires additional assistance, you see how much this type of AI system makes sense," comments Graham Allen. "If we'd used staff to make the initial calls at these volumes, the cost would have been substantial and our response much slower."

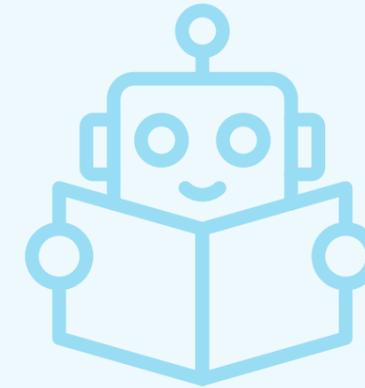
#### OUTCOMES

Using humans to contact all 53,000 people shielding would have taken over 6 months

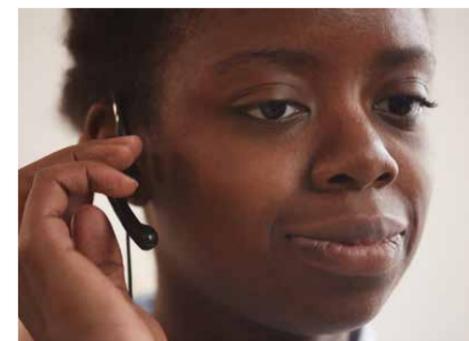
During the shielding period, the Council used WACS to make up to 2,500 calls per day, which meant people were contacted far sooner than would otherwise have been possible

Each WACS call costs an average of less than 60p (including service design and operation costs)

This equates to a fraction of the cost of a human call centre doing the same job



The Council used WACS to make up to 2,500 calls per day, which meant people were contacted far sooner than would otherwise have been possible.



Using humans to contact all 53,000 people shielding would have taken over 6 months

Improved health professional to patient ratios from 1:200 pre-pandemic to 1:400 today

“We are very proud of the team, in unprecedented times they have risen to the challenge of monitoring more patients, adapted quickly to change and supporting the training of new staff that have been brought in to support the safe monitoring of patients.” Bernie Nuttall, Acting Clinical Team Leader, Mersey Care NHS Foundation Trust



# SHIELDING THE MOST VULNERABLE: IN THE COMMUNITY



## Mersey Care NHS Foundation Trust Telehealth Service

### THE MODEL TELEHEALTH SERVICE DOING FIRST LINE TRIAGE AND REDUCING PRESSURE ON STATUTORY SERVICES

Before the pandemic emerged, Mersey Care NHS Foundation Trust telehealth service was supporting 1,700 patients with long-term conditions, including COPD, with a tiered model that remotely assessed and triaged those who were living at home.

One of the biggest dedicated telehealth services of its kind in the UK, its risk stratification tools move patients up and down a tiered model of care and allows ‘lighter touch’ and ‘self-directed care’ monitoring for better use of monitoring and resources; it permits those who are highest-risk to be seen to first, taking some of the pressure away from GPs and acting as a successful pivot of escalation and referral. During Covid-19 it identified 6,000 of its list of 46,000 as high-risk.

With such a solid foundation in telehealth, the service was able to respond to lockdown by very quickly increasing care capacity in the system. Since COVID-19 the service received additional funding to scale up the Liverpool operation to support up to 6,000 patients per day and currently have recruited almost 5,000 of that total. At the peak of the pandemic the service was setting up an additional 200 patients per day onto its list to receive telehealth services.

In addition to this, NHS England provided additional funding to expand the telehealth server capacity, meaning that 10,000 patients could be monitored with telehealth from across the Cheshire and Merseyside Partnership and engagement has started with Clinical Commissioning Groups (CCGs) from those areas.

The service also improved ratios of healthcare professionals to patients during Covid-19, from 1 nurse: 200 patients to 1 nurse: 400 by repositioning its workforce to work from home and allowing any high-risk staff to continue giving patients clinical support remotely, thereby improving both carer and patient safety.

Business continuity and productivity were maintained in terms of call targets - the workforce grew by 50% in 3 months aided by contracting the usual 6-week training window to four days and allowing home working. Bernie Nuttall, Acting Clinical Team Leader, Mersey Care NHS Foundation Trust has observed how staff satisfaction is high, “with many new recruits wanting to stay on post-pandemic.”

“We focused our training, so the pace of learning is more intense with lots of peer support to help new starters out.”

The shielding experience also improved as service users were monitored remotely, swiftly, and proactively, all supported by this tiered risk stratification model of care and real-time information provided by a data-led clinical response computer system. Patients input vital signs and other readings each day and based on their data the algorithm indicates first line triage to present patients to clinicians in priority order.

“We’d done a lot of re-engineering of processes by investing in new hardware and rewriting software specifically to expand the service and because we had the right foundations in place scaling up during Covid-19 was very smooth, explains Peter Almond, Programme Manager at Mersey Care NHS Foundation Trust, “we’ve had the tenacity to stick with telehealth and are reaping the benefits even more now.”

#### OUTCOMES

Accelerated patient number targets due to Covid-19 (12-18 months ahead)

50% increase in workforce

29 out of 32 staff working from home

Improved health professional to patient ratios from 1:200 pre-pandemic to 1:400 today

Inputting 200 new patients per day to receive telehealth services



Since COVID-19 the service received additional funding to scale up the Liverpool operation to support up to 6,000 patients per day and currently have recruited almost 5,000 of that total.

“Telehealth and virtual wards will be a key element of future community based healthcare.” Alyson Scurfield, CEO, TEC Services Association (TSA)

NHS England provided additional funding to expand the telehealth server capacity, meaning that 10,000 patients could be monitored with telehealth from across the Cheshire and Merseyside Partnership.

# SHIELDING THE MOST VULNERABLE: IN THE COMMUNITY



## Torbay and South Devon NHS Foundation Trust

### DIGITAL DASHBOARD HELPS SEVERE ASTHMATIC REDUCE TIME IN HOSPITAL FROM 43 DAYS TO THREE

Alice is in her 60s and suffers from asthma and diabetes; her condition varies in severity and can often be difficult to control. Between January and November 2019, Alice was subjected to more than 100 days of non-elective hospital admissions including eight admissions in a 12-week period.

Her clinical management is led locally by community matrons, a specialist respiratory nurse, and the Heart and Lung Department at Torbay and South Devon NHS Foundation Trust (TSDFT) who regularly review Alice's condition with a combination of hospital and home visits and by telephone when she has increased symptoms.

The team at TSDFT, an Integrated Care Organisation (ICO), considered how better to manage the conditions of some of its patients with the use of digital solutions and some of the recent innovations being tested.

NRS Healthcare, the commissioned technology enabled care provider for TSDFT, was asked to consider Alice's situation with a view to whether a TEC solution would help her better self-manage her condition and reduce the need for hospital visits. They identified the Cascade3d digital Connected Care system as well-placed to help patients with similar Long Term Conditions.

The system was built specifically around the needs of Alice to include a Bluetooth Pulse Oximeter, Blood Glucose Monitor and Echo Show device, and design and functionality adaptations were made to the system until it was just right. The Community Matrons were then shown how to operate the devices and coached in interpreting the results given on the digital dashboard.

The Trust team went one step further and set up what they now call "The Alexa Room", a private dedicated room for consultations, demos and training in how to use the device for both the staff and patients.

When gathering Alice's data after four months of using the technology, the team were not prepared for the immediate and impactful results when comparing the data to the previous four months. The results were dramatic – her days in hospital fell from 43 to just three. Alice's anxiety levels had also dropped, she felt a sense of control over her condition and her quality of life was improving as she was spending less time in a hospital setting.

Alice is now managing her own health by regularly testing her oxygen saturations and blood sugar levels, creating a dashboard of results during the day. She is able to contact the nurses using the Echo Show if her readings are out of the norm or symptoms worsening. The Community Matron has the ability to video triage with a quick view of the readings remotely, and the system sends an alert if the readings are out. The Community Matron can watch inhaler techniques and understand the wider aspects of Alice's care at any time.

#### OUTCOMES

Patient's number of days in hospital reduced from 43 to 3 in the four months since using the technology

Face-to-face nurse visits fell by 11%

NHS costs fell from c.£14,229 prior to use of the technology to just c.£1,309 equating to a reduction of approx. £13,000 based on the drop in hospital admissions and bed days

Reduced need for home visits

Patient's anxiety levels have also reduced

Since Covid-19, the service has supported 41 people using the digital TEC platform

The dashboard has enabled better use of Matron's time and resources by prioritising focus on helping only when there is real time data to show a need or potential issue

The Connected Care system has enhanced direct communication between patient and nursing team

Remote use of such technology has avoided cross-contamination during Covid-19

# SUSTAINABLE STRUCTURES FOR HEALTH AND SOCIAL CARE

More effective, risk-based targeting of protection measures: It is clear the virus disproportionately affects older people, men, people who are overweight and people with some underlying health conditions.

Those who are clinically vulnerable, including all those aged 70 and over... have been advised to take particular care to minimise contact with those outside their household.

#### Findings & Recommendations

A large number of older and vulnerable people are already connected remotely to TEC services and existing connectivity could be harnessed to protect this at-risk group.

During the pandemic, some TEC services have shown their ability to support health services through remote telehealth monitoring, targeting vulnerable groups such as people with lung conditions or individuals at risk of falling. For example:

- People with breathing difficulties and lung conditions have been offered telehealth services so they can monitor their vital signs and quickly flag any problems.
- Frail individuals have been offered early fall detection services. Their sleep and mobility data is monitored and if risk trends are identified then steps are put in place to prevent a fall.

*TEC services need to ensure their continued sustainability, by evaluating and adopting new technology options, and by addressing resilience issues to de-risk further pandemic disruption. This should include urgent reviews of business continuity plans, revision of key worker roles and technology infrastructure upgrades, as well as better integration of TEC with other health and care services in the community.*

#### Who does the TEC sector already support?

In the UK, TEC providers already support many at-risk groups including people with:

- Breathing problems
- Dementia
- Diabetes
- Frailty
- High blood pressure
- Learning disabilities
- Loneliness
- Mental health needs
- Physical disabilities
- Sight loss

Service providers have responded to constraints on how they can interact with service users by finding alternative technology that minimises personal contact and risk.

- For example, pre-programmed mobile alarm devices have been distributed at the point of discharge from hospital.
- Telehealth apps allow individuals to send their vital signs readings to clinicians virtually from the comfort of their home.
- Smartphone apps have also been employed to connect users to TEC alarm services.
- A range of mobile solutions have been adopted during the crisis to provide rapid deployment and minimise contact from installers.
- Selfcare apps and other mobile-based support tools have been used to remotely help people with learning disabilities or mental health needs during the pandemic.

- For instance, since lockdown, Brain in Hand has been delivering all elements of its digital support system virtually. Service users have one-to-one sessions with a specialist via video link and they can access a remote response service for when things are difficult.
- Early reactions to the fully remote system have been overwhelmingly positive. Just under nine in ten (89%) of users who received an online personal planning session reported a preference for this over an in-person session; many users reported feeling more in control of remote sessions, more able to take things at their own pace and take breaks when required.
- Thomas, an autistic Brain in Hand user who's received support since lockdown began, said: 'It's very hard to look at someone in the eyes face-to-face, but when you're looking at a computer screen it's a totally different kettle of fish.'

# SUSTAINABLE STRUCTURES FOR HEALTH AND SOCIAL CARE



## All Together Better Sunderland

### JOY STEVENS IS 70 AND SHE'S LIVED WITH BRONCHIECTASIS ALL HER LIFE.

It makes her lungs more vulnerable to infection and in the last three years she's been admitted to hospital nine times, totalling 64 inpatient days.

"I lost my husband last year, broke my hip and got bad pneumonia – it's been an awful time – so when I heard about COVID-19 I panicked because I know it can harm people with respiratory illness."

But just before lockdown, Joy received a call from her district nurse asking if she'd take part in the pilot of a new healthcare app that supports patients with breathing problems.

'Luscii' was developed in the Netherlands where it is used by half of all hospitals. The app empowers patients to manage their condition at home, monitor their vital signs, socially connect with their community and quickly speak to a range of health and social care professionals via chat or video call.

"I take my blood pressure, oxygen and temperature and put the readings in the iPad," says Joy. "Last week I had a high temperature and cough and I did my vital signs and called the nurse. She discussed my readings with the doctor and then brought different medication, so I didn't have to go into hospital."

In the four months that Joy Stevens has been using Luscii, she hasn't been admitted to hospital once. "We're catching the problem before it gets going," she smiles.

Shortly after lockdown was announced, the Luscii project expanded to support many vulnerable residents who suddenly had to shield. Joy is now one of 62 people using Luscii under the care of All Together Better Sunderland, a partnership that brings together health and social care services across Sunderland to create an integrated 'out of hospital' system. The partnership aims to grow the number of patients using Luscii to 300 over the coming months.

But this technology isn't just about remote healthcare support. "Luscii also helps with patients' general health and wellbeing, giving them the option to download apps that can support with healthy eating and connecting with others to reduce loneliness – something that's particularly relevant during this crisis," explains Dr Martin Weatherhead, Chair of All Together Better.

Patients can use the app to connect to a digital library, smoking cessation services, brain puzzles, meals on wheels, even their local GP practice.

The wellbeing benefits for Joy have been significant. "Having the reassurance of the equipment has helped with mental health for me and my daughters. You take an interest in yourself, in looking after your own wellbeing and involving the family. Even my grandson helps me do the readings."

#### OUTCOMES IN THE NETHERLANDS

Luscii is used by 50% of all hospitals

For those people using it, A&E visits have fallen by 70% and hospital re-admissions by 26%

It has achieved a 51% reduction in hospital costs

#### OUTCOMES IN SUNDERLAND

There is strong engagement from the 62 patients enrolled on Luscii. 91% submit their readings on the right day

In May 2020, a total of 1,813 vital signs readings were submitted by patients and 5% of these flagged red alerts which resulted in 133 video calls between the community nursing team and patients

It is too early to evaluate the economic outcomes of the project, but All Together Better is confident that Luscii will help to cut hospital admissions and bed days as well as A&E attendances and outpatient clinic visits



Joy is now one of 62 people using Luscii under the care of All Together Better Sunderland, a partnership that brings together health and social care services across Sunderland to create an integrated 'out of hospital' system.



"Having the reassurance of the equipment has helped with mental health for me and my daughters. You take an interest in yourself, in looking after your own wellbeing and involving the family."  
Joy Stevens, Sunderland

# SUSTAINABLE STRUCTURES FOR HEALTH AND SOCIAL CARE



## Cardiff Council

### USING DATA TO PREVENT FALLS DURING LOCKDOWN

Early in the pandemic, physios at Cardiff Council's Stay Steady Clinic predicted there would be a rise in falls. Inactivity was likely to increase and for frail individuals this could lead to 'deconditioning' and an increased risk of falling.

Aaron Edwards, Implementation and Delivery Manager at Cardiff Council and chair of the Assistive Technology Network for Wales, was keen to put preventative measures in place.

"Last year, out of the 3,796 people supported by Telecare Cardiff's response service, 1,088 of them fell, many several times. But the striking thing is that the number of people who fell more than 10 times in a year increased dramatically, from 17 to 49 people," explains Aaron Edwards.

"I was worried that the pandemic would increase falls further. Research shows a clear link between those people who fall frequently and premature death or entry into residential care."

Aaron Edwards approached HAS Technology about their ARMED (Advanced Risk Modelling for Early Detection) software which uses data to predict health risks before they become noticeable.

Twenty people were identified to be a 'falls risk' and given smart watches. Each morning their sleep and mobility data is checked. If risk trends are found, then steps are put in place to prevent a fall.

"We might then speak to their GP, the Independent Living Service, Community Rehab physios or the virtual Stay Steady Team," says Aaron Edwards. "We can also re-assess them for TEC so they're able to alert us if they fall."

Telecare Cardiff is also asking anyone in the local area who has fallen in the last 24 hours to join the project. The goal is to stop as many falls as possible and the project will be scaled widely across the Cardiff area from September 2020 onwards.

#### OUTCOMES

Out of the 3,796 people supported by Telecare Cardiff in 2019-20, a total of 1,088 fell

However, 3,453 falls took place in 2019-20, so certain people fall frequently

Only 502 Telecare Cardiff service users fell just once

The number of people who fell more than 10 times in 12 months increased dramatically in 2019-20, from 17 to 49 people

It is too early to evaluate the economic outcomes of the project, but Cardiff Council is confident that the ARMED project will reduce the amount of falls, GP calls, ambulance call outs, increase activity amongst service users, promote better sleep and increase the number of people being referred to the virtual Stay Steady Clinic

"I'm very pleased that Telecare and my local council are taking the issue of falls seriously. To be part of such a pioneering project is exciting and I'm hoping to get a better insight and understanding on my own health, which will hopefully allow me to stay in my own home for a lot longer." Muriel, Telecare Cardiff service user



**Sustainable government structures:** As the Government navigates towards recovery, it must ensure it learns the right lessons from this crisis and acts now to ensure that governmental structures are fit to cope with a future epidemic - for example, a pandemic flu - while the Government is still responding to COVID-19. This will require a rapid re-engineering of government's structures and institutions to deal with this historic emergency and also build new long-term foundations for the UK... it is the Government's responsibility to build the public health and governmental infrastructure - across the entirety of the UK - that will protect the country for decades to come.

#### Findings & Recommendations

As social care is reformed, remote support for vulnerable people must be at its heart. We need to lift the TEC sector out of its historic silo and ensure it is fully embedded and integrated within mainstream health and care services.

For example, a range of support apps could employ common platforms and a single point of access to vulnerable people in their own homes or in the community.

Innovation comes when local, well-informed services - for instance TEC providers and local authority commissioners - partner with large-scale regional or national suppliers to develop a service designed around need rather than existing kit.

Digital, interoperable technology platforms are needed to make this type of partnership a success and to fully integrate it within mainstream health and care services. The imminent digital switch of UK telecommunications will, in any case, require a re-think for TEC infrastructure, provoked by the needs identified during COVID-19 lockdown.

In many cases, this will involve TEC providers refreshing their technology platforms to support the delivery of new services and help to integrate with wider health and social care services and enhance data sharing.

TSA's research identified a number of other key enablers of sustainable and integrated services.

We must also consider options for integration of TEC services with systems and services that can match care needs with volunteer care services.

More modern, digital technology enabled care is key in reducing social isolation, for example tablets that use a 4G SIM or broadband. TEC services must review and plan upgrades or changeout of their ARC systems and associated IT to digital, open technology platforms that support more flexible operational models.

For TEC to integrate with other health and care services in the community, commissioners and other community care providers will need to ensure that interoperability and information sharing is created both at service and platform levels. Common care records will likely prove to be an essential component of these initiatives.

Workforce awareness and a cultural change plan will also be needed to support the commissioning of end-to-end TEC services and to ensure that integration with health and care services is widespread.

The COVID-19 study has highlighted that the TEC sector needs to make progress on technology infrastructure and the smart and secure use of data.

**Therefore, Information Governance, best practice and interoperability standards need to be defined and adopted. Strong guidance is also needed on methods for ensuring system resilience, including system reliability, business continuity planning, use of digital and mobile communications, cloud-based operations and common methods for issue escalation and resolution.**

A further example of the need for TEC integration with health and care services relates to Testing and Tracing. TEC services are candidates for supporting mass testing and contact tracing, as seen in Carmarthenshire where the TEC provider, Delta Wellbeing, devised a specific training programme for 50 of its staff to operate its Test Trace Protect programme. It has since become the only Alarm Receiving Centre in Wales with responsibility for the programme for their Local Authority.

# SUSTAINABLE STRUCTURES FOR HEALTH AND SOCIAL CARE



## Stockport Homes with Stockport Council

### HOW THE RIGHT LOCAL PARTNERSHIPS ARE REDESIGNING AND ACCELERATING SERVICES TO PERFECTLY MATCH NEEDS

As the UK went into lockdown, the Carecall team at Stockport Homes noticed a significant and overnight drop in telecare referrals, as the pattern of hospital discharges and emergency home assessments changed dramatically. There was a real concern that those who would normally be assessed for Technology Enabled care could 'slip through the net' at a time when it was most critical for their support.

To assist Stockport Council's Health and Social Care teams, Carecall immediately enhanced its already 'fast track' service giving instant access to 'ready to go' telecare devices for the teams dealing with hospital discharge and emergency home assessments. This meant that patients could leave hospital for their own homes, and that they did not need to go into care provision. Alongside this, Carecall also developed a contactless installation process with a dedicated phone line for emergency 'same-day' installs.

Whilst other services pulled back on installations, Carecall was not deterred, putting full PPE and sanitisation measures in place to protect both customers and team members. With all set-up details taken over the phone and a follow up call after the installation to support the person in using the device, the team could access properties even where people were 'shielding' - as contact was not required.

The service quickly established a wellbeing check call service for over 4,500 existing users, by training up and redeploying over 60 staff volunteers from other parts of the organisation. These volunteers made up to 1,500 regular calls per week to those in need; chatting to help reduce social isolation, arranging hundreds of emergency food parcels, prescriptions, hobby packs, referrals to social care and countless mutual aid links for shopping drop-offs.

There has been no disruption in service delivery, with the team fulfilling more than 1,100 emergency visits to people's homes and 50,000 emergency alarm calls since lockdown began. This has been supported by the redeployment of

multi-skilled volunteers from across Stockport Homes, enabling the service to deliver on the needs of people in Stockport and ensuring no additional pressure was placed on emergency services or family members who could not travel.

For Ferri Brown, Carecall Concierge Manager, it's been all about ensuring Carecall customers feel supported during these difficult times and that they understand they are never alone with Carecall just the touch of a button away.

Ferri said: "Our aim is to continue to grow and embed our recently launched Universal Offer, which provides uncapped access to our 24/7 tele-monitoring and falls response service. In addition to that we want to seek opportunities to do things differently and future-proof our service offer. This is why we're looking seriously and quickly into procuring further TEC solutions which will enhance social interaction, reduce feelings of isolation and improve our customers' access to digital services."

Jenny Boswell, Head of Carecall Concierge at Stockport Homes, has said that Carecall will continue to work in close partnership with Stockport Council to deliver on Stockport's All Age Living Strategy. This aims to truly bring together housing, health, social care and workforce challenges into a single vision and programme for change that will co-design the future for all age living in Stockport, with a goal for all residents to look forward to a positive older age.

#### OUTCOMES

Achieved 1,100 emergency visits to people's homes and 50,000 emergency alarm calls since lockdown

Deployed 60 volunteers to make 1,500 regular welfare calls per week

Doubled the number of OwnFone devices available to service users for instant access to telecare

170 hobby packs delivered to customers' homes

Carecall's approach has since been mirrored by other telecare providers in the benchmarking group it sits on, to aid good practice within the sector



**"We recognise that this is potentially a real pivotal moment for the sector and a time when, for a multitude of both emotional and physical reasons, people need our support more than ever. Carecall can be at the heart of that for our local vulnerable communities."**

Ferri Brown, Carecall Concierge Manager



"We are very proud of the way Carecall has risen to this extraordinary challenge, providing so much more than telecare to improve the wellbeing of our most vulnerable residents in these difficult times." Gill Owen-John, Commissioning, Manager, Prevention, Wellbeing and Independence, Stockport Council

# RECOMMENDATIONS & PROPOSED PHASING

Going forward, TSA recommends a phased plan of action that focuses initially on stabilising existing TEC services, before moving on to how we can best exploit proactive TEC services to shield the most vulnerable, increase care capacity and improve operating models. However, we also need these actions to be sustainable, and so we also pursue actions here that seek to embed and assure the quality of the new service and technology innovations.

**We strongly recommend that phases 1 and 2 are executed before winter 2020 pressures.**

## 1 PHASE 1. STABILISE TEC SERVICES

Deliver a range of actions that address resilience issues in current TEC services, to de-risk further pandemic disruption. This will include urgent reviews of business continuity plans, revision of key worker roles and technology infrastructure upgrades.

"Urgent review of risk plans and business continuity plans"	Guidance and standards for system resilience. Build flexible workforce options into Business Continuity Planning e.g. home working.
"Review and optimise roles of TEC front-line staff - call handlers and mobile responders"	Concerted programme of training and awareness, inc. use of PPE and equipment handling and recycling. Assure 'key worker' status for TEC frontline staff.
"Upgrade ARC systems and associated IT"	To modern, digital and open technology platforms that support more flexible operational models.
"Guidance and standards for mobile and digital TEC solutions"	Enable multiple solutions, not inhibiting innovation. Deliver unambiguous advice on mobile networks, 2G to 5G, and the impacts on TEC.
"Review and upgrade IT policies within TEC services"	Flexible, secure user access to systems and data, from alternative, controlled environments. Methods for issue escalation, tracking, resolution.

## 2 PHASE 2. EXPLOIT PROACTIVE TEC SERVICES

Select proactive TEC interventions which have shown the greatest impact on health and care outcomes and use these to fast-track specifications and plans for service delivery. Include guidance on new service models and a spectrum of enabling technology, supported by methods for service re-design and workforce development.

Deliver these tools to multiple TEC service providers, helping them to embed proactive solutions in their core services with the aim of de-risking the likely resurgence of a public health crisis over the winter months.

"Create Guidance & Standards for proactive services and their underlying technologies"	Recognising that proactive services differ from alarm and emergency call handling.
"Implement best practice information, governance and interoperability for TEC"	Data and cyber protection guidelines. Standard data models and data sharing agreements.
"Establish 'tiered' model for multiple service types"	Support a range of quality requirements for a spectrum of service types and underlying technologies.
"Assist TEC services and move to flexibly hosted or cloud-based deployment"	Likely adoption of "G-Cloud 11/12 frameworks".
"COVID-19 outreach learnings and best practices to be captured"	Guidance that will assist future rapid deployment.

## 3 PHASE 3. EMBED AND ASSURE NEW SERVICE AND TECHNOLOGY INTERVENTIONS

Develop a revised quality assurance framework for TEC that encompasses the new and more innovative service and technology options. The short term focus on emergency measures has pushed quality assurance, governance and regulation to the back of the queue and this must change.

"Pursue new TEC operating models that exploit the strengths of different service types"	Blend and exploit the strengths of both local and large regional or national services, to balance local service outcomes with scaled resilience.
"Integrate TEC with other health and care services in the community"	Recognising common care records (with Care and NHS) as a key contributor to service integration.
"Digital infrastructure, modern TEC systems in Assisted Housing and Care Homes"	Enable remote consultation, health and wellbeing, social inclusion (connecting with family, friends). Site-wide WiFi to enable tenant/resident access.
"Execute a common test programme for alarm devices on digital networks"	Examine reliability of existing 'analogue' TEC devices and new digital technology options, well in advance of UK telecoms switchover.
"Integrate and match volunteer care services with TEC service needs"	Access to new response and resource options through integration and interoperability.
"Workforce awareness and cultural change plan"	Support commissioning of end-to-end TEC services. Integrate with other health and care services.



# NEXT STEPS

**Going forward, TSA will continue to work closely with commissioners and providers of Technology Enabled Care to guide, support and evaluate the work of this vital sector. We will also continue to engage with the Department of Health & Social Care on how best to leverage TEC services in delivering optimal health and care outcomes.**

**This study has delivered an important set of findings, and TSA will review and redirect its programmes of work to ensure that these recommendations are prioritised and acted upon.**

**We trust that the Government is able to support our planned actions and help us to build on the foundations that have been laid, and so to ensure that TEC delivers beneficial impacts across Health and Care.**

Alyson Scurfield, CEO, TEC Services Association (TSA)

## About TSA

TSA is the industry body for technology enabled care (TEC) services, representing over 350 organisations including health and social care commissioners, digital health businesses, telecare providers, housing associations, emergency services, academics, charities and government bodies.

## Acknowledgements

We are hugely thankful to the thousands of front-line TEC Heroes who have kept TEC services moving during the COVID-19 crisis.

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A big thank you to all our case study contributors and to all other colleagues and contributors who helped with the development of this TSA Sector Insight Report.

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