Technology-Enabled Care Test and Build

Early Findings Report

Working in collaboration with

- Kent County Council is a county council that governs most of the county of Kent in England.
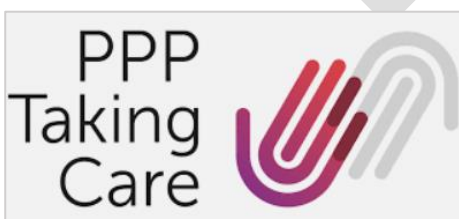
- Build and Test project management

- Day to day partnership management and co-ordination

- People who draw on care and support and carer involvement (qualitative findings)

- Training, demonstration for health & care staff and public

- Kent Integrated Care Alliance liaison

- Alarm Receiving Centre – 24-hour telecare monitoring

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Executive summary

Background

In support of its 'Making a Difference Every Day' strategic plan for Adult Social Care, Kent County Council (KCC) have commissioned NRS Healthcare to provide a 'build and test' Technology Enabled Care Service (TECS) in Thanet, Folkestone and Hythe and Dover which will inform the development of a county-wide TECS offer.

The service intends to provide more innovative ways of delivering care and support which are personalised according to the outcomes that are important to an individual. NRS Healthcare's proposition provides access to a wide range of monitoring services, digital devices and applications through its iRIS delivery platform.

NRS Healthcare have also incorporated additional partner organisations to help support the delivery of the project, most notably PPP Taking Care, a dedicated alert monitoring and management organisation.

Pilot Programme

The initial scope of the programme is to deliver the service through Adult Social Care teams covering Dover, Thanet, and Folkestone & Hythe.

To deliver the programme, a group of 30 Registered Practitioners were selected to receive training and support to deliver TECS while undertaking Care Needs Assessments and Reviews for new and existing people accessing care services through the Council.

It should be noted that the population within the pilot area has a slightly different demographic make-up, compared to the rest of the County. Specifically, an older population, on average, with some areas also facing a higher level of deprivation. This was, in part, the reason why the area was selected, with good opportunities to develop the service in this way.

Evaluation

Throughout the 2022/23 financial year, the programme will be evaluated by Unity Insights, in partnership with EK360, to assess the impact of TECS, engagement and uptake of technology, and how the service will be rolled out across the county.

This report summarises the early findings from the initial phase of the programme. The evaluation incorporates a mixed-methods approach across three areas:

- Quantitative analysis: focusing on uptake of technology and the suitability of TECS to support individuals across various groups.

- Qualitative analysis: incorporating the scale and complexity of organisational change required to support the service, as well as the experience and views of individuals and their families.

- Economic analysis: Assessment of the potential costs and benefits associated with the service, to provide insights into the budget impact and cost effectiveness of the service model. This portion of the evaluation

is not within the scope of this report, as more data is required.

Key results

To date, uptake of the service has been lower than hoped, with 12 individuals receiving technology enabled care between June and August 2022. The current total value of delivered materials is £2,633, averaging at £219 per individual with a standard deviation of £134.

The majority (67%) of recipients are over 65, which reflects a disproportionately high volume of older individuals compared to those accessing Adult Social Care across the pilot area (48%). This is likely to be due to clear use cases for technology for this cohort, with alert monitoring and medication management technology having clear analogue equivalents that prescribers are already aware of.

The care priorities for individuals prescribed technology through TECS highlights the diversity of needs that Adult Social Care is expected to meet, with 12 different priority areas identified through data collection. Personal independence, social life and ability to pursue activities and hobbies were the most selected.

The data analysis also highlighted a split between individuals seeking to maintain their lifestyle, and those that are very dissatisfied with their current situation, with the latter being the significantly larger group.

Prior to the launch of the process, prescribers were surveyed by the evaluation team to measure awareness and understanding of the programme. Staff noted excitement at the opportunity to learn a new approach and

recorded strong belief that TECS would yield benefits for individuals.

Results also noted a lack of confidence in the use of technology, as well as a need to develop an understanding of the exact benefits certain technologies could bring.

Following the launch of the project, engagement with training and subsequent uptake of technology has been lower than expected, leading to the development of broader training programmes and market events aiming to increase knowledge of technological solutions and build confidence amongst prescribers.

It may be noted that the workforce is within post-COVID recovery. As such, workloads continue to be high, with staff managing increased pressure in their roles. This may have limited staff's ability to engage in additional projects such as the TECS pilot scheme.

A further workshop was held in July 2022 to gather feedback on the process and staff experience to date. While attendance to this session was low, it did provide some insights into the challenges the project had faced to date and the scale of cultural change required to support TECS.

In particular, feedback highlighted a sense of hesitancy to prescribe technology due to a lack of knowledge about the effectiveness of the products. This highlighted the need to build trust in the solutions available, as well as a broader need for resource to be protected to ensure practitioners have the capacity to engage with the project materials and support available.

Recommendations

From the evidence gathered to-date, the following key lessons have been identified:

Ringfence resource: Feedback suggests that despite the willingness of practitioners, many have found it difficult to support the project alongside their standard workload.

Build expertise: The project to-date has benefitted greatly from the expertise of a few key subject matter experts across the NRS Healthcare and KCC teams. Identifying and supporting potential candidates to provide expertise and drive engagement may be integral to managing the process as it scales in the future. It must be noted that early findings reflect that this scale of Cultural Change is likely to take time, and the service model will need to bed in.

Ensure scalable design: As a test-and-build, the service model has developed from the original design, and further changes have taken place to address the slow uptake across the teams. The current model not only requires resource to implement the technology, but also to actively monitor the technology and act upon the data outputs. Ongoing monitoring must ensure that the service model could operate on a broader scale without over-burdening key personnel.

Utilise data to inform future service development: Develop the capability to collect and analyse data collected through TECS devices to inform workforce planning and service delivery, while protecting the privacy of people accessing care and support.

1. Introduction

1.1. Purpose of the Report

Unity Insights have been commissioned by NRS Healthcare to conduct an evaluation into the potential for a Technology Enabled Care Service (TECS) to support the achievement of outcomes for people within Adult Social Care and Health (ASCH) in Kent. The service, initially implemented across the Local Authority Districts of Dover, Thanet, and Folkestone & Hythe, is overseen by Kent County Council (KCC) as part of a 'Build and Test' pilot programme. The evaluation seeks to understand the potential benefits of the service model, as well as the challenges that have met the pilot programme, with the intention of informing the further iteration of the model to support a potential county-wide deployment.

This report summarises the evaluation findings based on data gathered between June 2022, when the programme was first launched, and August 2022. These data are intended to provide an insight into early engagement with the service by Council staff, and the subsequent uptake of technology to support the delivery of care to individuals within the pilot region. Quantitative data relating to the care needs and prescription of Technology have been considered in tandem with the early findings of a qualitative assessment of the confidence and capacity of staff to support the programme. The qualitative aspect of this evaluation has been a joint effort between Unity Insights and EK360, who have also been commissioned by NRS Healthcare to undertake an evaluation into the potential cultural change that KCC might need to support to operate the service model in a sustainable manner.

1.2. Context

In 2014, the Care Act was introduced to consolidate a range of laws on care and support in the UK, to provide re-structured and concise guidelines to better inform councils of their responsibilities, in turn improving quality and accessibility of care. In addition, the streamlined Care Act aims to help both carers and people who draw on care and support understand what support they are entitled to, facilitating provision of an equal adult social care system which empowers both individuals and care workers (UK Parliament, 2014).

The updated act has set out new expectations for councils, with advice on supporting the whole community with well-being, aiming to solve problems before they start, offering advice and information, and ensuring people have access to the services they need. With a key focus on person-centred care and support, personalised care and support plans are offered, and budgets are tailored and assigned individually to better support people's needs, hoping to avoid issues such as people having to sell their home to pay for their care.

With the goal of improving the standard of care provided, the Care Act aims to improve cross-service integration, with updated guidance on how and when services should work together. Examples of this include working with NHS services, housing, care following hospital discharge, employment support and child to adult care transitions.

With new guidelines (such as the Social Care Reform (Department of Health and Social Care, 2022)) yielding increased expectations of care provision, new standards must be met, and fuelled by an aging population, demand for care support is increasing. In Kent, forecasts show that the number of over 65-year-olds is set to increase by 44.9% between 2019 and 2039, with the proportion of the population aged under 65 only expected to increase by 12.2% (Kent City Council, Summary of Facts and Figures). England is facing an impeding social care crisis with the care sector is experiencing severe staffing shortages and recruitment difficulties across the UK, with an average of 105,000 vacancies advertised on an average day and a 34.4% 12-month staff turnover rate in 2020/21 (Skills for Care, 2021). Within Kent, the Annual Report for Adult Social Care in Kent (18/19) is currently reporting 35,385 people supported by adult social care, with 59% aged 65 and over, and 25% aged 85 and over (Kent City Council, Local Account for Kent Adult Social Care, 2019).

Staffing issues experienced across the country combined with the increased demand for care has created the perfect storm, accentuating the need for Technology Enabled Care Services (TECS) to transform inefficient operational procedures within the wider care system (NHS England, Technology Enabled Care Service). This includes services such as telehealth, telecare, telemedicine, telecoaching and self-care apps designed to release capacity from care providers and increase operational efficiency, while improving the standard of service provided to both individuals and their carers, empowering individuals to take control of their own health needs in the way that is best suited to them. Resources such as the TECS Resource for Commissioners have been created to help maximise the value of technological interventions for the whole health economy, providing cost-effective solutions to care for individuals with long term conditions, in a way which is accessible and convenient to individuals, improving their quality of life whilst releasing pressure on a system under mounting pressure. It has been reported that smart home tech can work alongside people's care networks rather than replacing social contact, and reduce financial pressures on the NHS and the social care system (All-Party Parliamentary Group for Assistive Technology, 2022).

2. The TECS Project

2.1. Scope

Through the initiation of its 'Making a Difference Every Day' strategic plan for Adult Social Care, KCC have set out ambitious aims for the five years ending 2027, structured around three core principles (Kent County Council, 2022):

- Putting the person first - always starting our conversation with the voice of the person, focusing on what the person can do and keeping them at the heart of everything we do; developing working relationships people can trust and helping them to achieve outcomes that are important to them.

- Improving all the time - find innovative ways to help people and make sure any support offer is tailored to the individual, learning from feedback from the people we support and building continuous improvements together.

- Measuring what matters - understand how we are making a difference to the life of the person we support by working with them, our staff and partners.

In order to achieve these aims, the Council has sought to increase access to digital technology and systems that can enable practitioners in designing care packages that will have greater flexibility to meet the needs of the individual. NRS Healthcare were awarded the contract to deliver the initial phase of this programme throughout East Kent, utilising the company's experience in sourcing, recommending, and delivering digital interventions and services to the Adult Social Care sector in other parts of the country.

Through the test and build programme, NRS Healthcare have agreed to provide support to selected practitioners within the pilot area, to lend their expertise in support of care needs assessments for new and existing individuals accessing care through the Council. The process was intended to be embedded within the standard process, with additional access to the Council's Tech Facilitators and NRS' Occupational Health team, to advise upon the potential digital technology that might support the delivery of care for the individual.

As the process, and the relevant referral documentation, were agreed, both parties also underwent a process of ensuring that the two companies' systems could be support this collaboration. This involved the building of understanding of KCC's core workflow management system and ensuring that the right information could be provided to NRS' IIZUKA case management system to maintain data flows in a secure manner, while also enabling the prescription 'storefront' system, iRIS, to be used to order and deliver technology to the home of the end-user. At present, this process remains largely manual, with relevant information communicated to NRS using pro-forma referral documents, under a longer-term arrangement there may be a need to integrate the systems more closely to allow practitioners to directly input cases to the NRS system.

2.2. Geographical scope

Population and Index of Multiple Deprivation (IMD)

Dover, Thanet, and Folkestone and Hythe are three local authorities within Kent County which are defined as the pilot area where the intervention will be rolled out.

Table 1: Population and IMD by Local Authority

Local Authority	Sum of Population	Average of IMD	Average IMD weighted
Dover	118,514	5	4.9
Folkestone and Hythe	113,320	4.6	4.6
Thanet	141,458	4.0	3.9
Kent (County)	1,589,057	5.8	5.8

Table 1 displays the populations of the three local authorities, as well as the combined population of Kent County. The variation of population across the three local authorities is minimal, with Thanet showing the largest population, and Folkestone and Hythe the smallest. Column 3 presents the average IMD ranking of each local authority and Kent, with a lower IMD score indicative of higher levels of deprivation (on a 1-10 scale), whilst column 4 accounts for population weighting. Both columns show that all three local authorities have lower IMD rankings than the Kent average, suggesting that the pilot area suffers from proportionally higher levels of deprivation.

Figure 2 demonstrates average IMD rankings in Dover, Thanet, and Folkestone and Hythe by Lower layer Super Output Area (LSOA), using published ONS data (ONS, 2020). This highlights concentrated pockets of deprivation within the three local authorities. The darker orange shade of the lower regions of Folkestone and Hythe, implies that these areas suffer with higher levels of deprivation. Conversely the northern regions of Folkestone and Hythe, shown in the figure as the predominantly blue areas, show low levels of deprivation; the contrast of IMD shown within Folkestone and Hythe is notable.

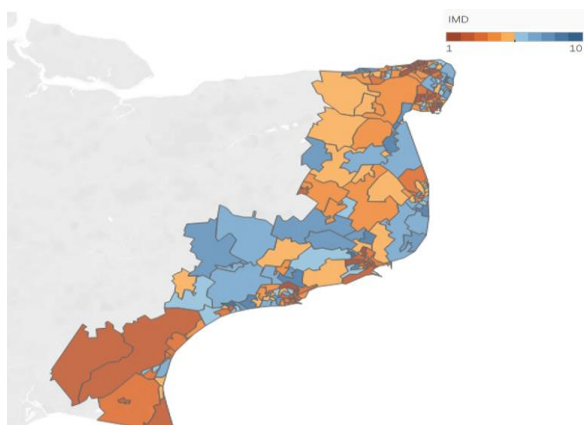Figure 1 applies the same colour scales to Kent as a whole.

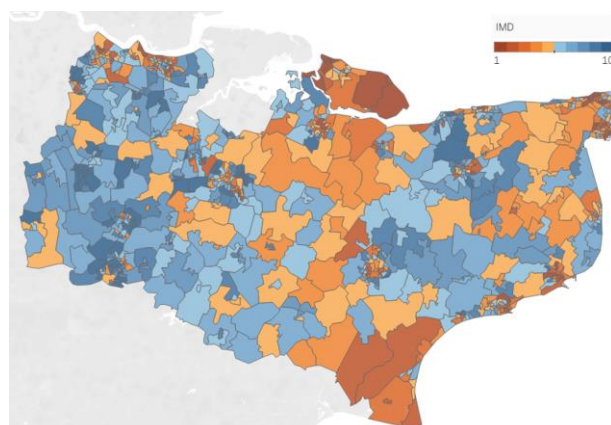**Figure 2: Map of pilot area showing IMD levels across the region**

Figure 1: Map of Kent county showing IMD levels across the region

Figure 1 shows there is a variety of IMD levels across Kent, as seen with the pilot area (Figure 2). However, in Western Kent, lower levels of deprivation seem to be more prominent. Also, the pocket of high deprivation shown in Folkestone and Hythe is uncommon throughout Kent as a whole.

Age

All three local authorities show notably higher percentages of population 65 and over compared with the Kent County average of 20.3% (see Table 2 below). Folkestone and Hythe show the most significant variation of 4.7% from the county average, averaging at 25.0%, followed by Thanet (3.8%) and lastly Dover (3.5%). Figure 3: Map of pilot area showing % people aged 65 or above across the region displays the LSOA breakdown of percentage of population 65 and over, with the darker shades representing the areas with the highest percentages. All three local authorities also show higher percentages of population percentage who are 85 and above, compared to the Kent County average of 5.5%.

Table 2: Age Cohorts by Local Authority

Local Authority	Sum of Population	% 65 and above	% 85 and above
Dover	118,514	23.8%	6.1%
Folkestone and Hythe	113,320	25.0%	6.7%
Thanet	141,458	24.1%	6.3%
Kent (County)	1,589,057	20.3%	5.5%
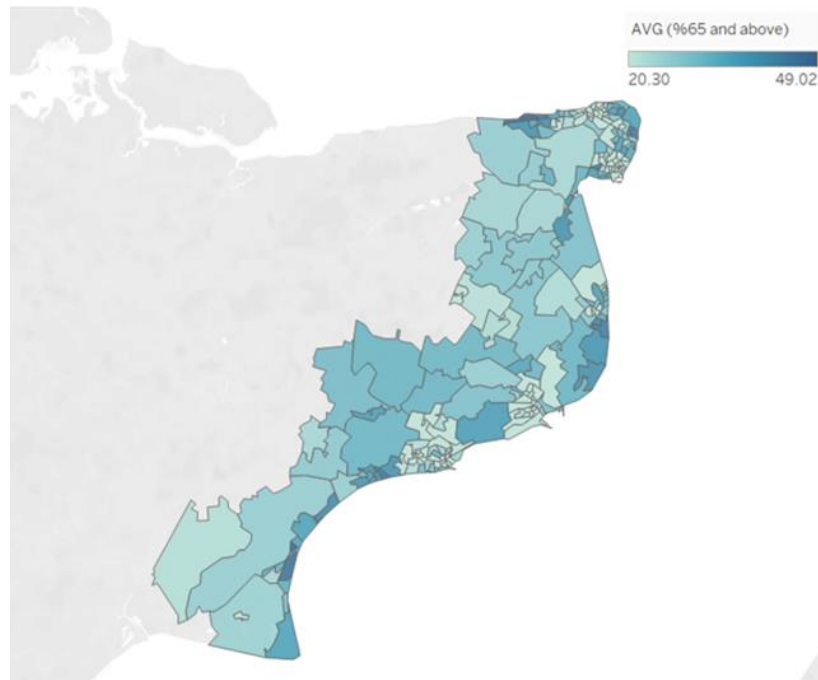
Figure 3: Map of pilot area showing % people aged 65 or above across the region

Population Density

Population density has been calculated using population per square kilometre (ONS 2020). The Kent County average is 3,206. Both Thanet and Folkestone and Hythe show higher average population densities (4,651 and 3,479 respectively), suggesting these local authorities have more clustered areas within. Conversely, Dover shows an average population density of 2,959, implying populations within are more dispersed. Figure 5 displays the LSOA breakdown of population densities for the three local authorities, with the darker shades representing the denser areas. Figure 4 expands the breakdown of Figure 5, displaying the whole of Kent.

Table 3: Population Density by Local Authority

Local Authority	Average of Population Density (People per square kilometre 2020)
Dover	2,959
Folkestone and Hythe	3,479
Thanet	4,645
Kent	3,206
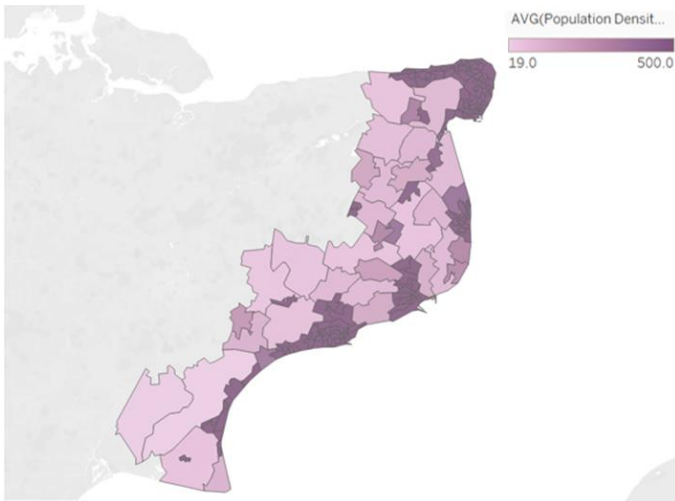
Figure 5: Map of pilot area showing population density across the region
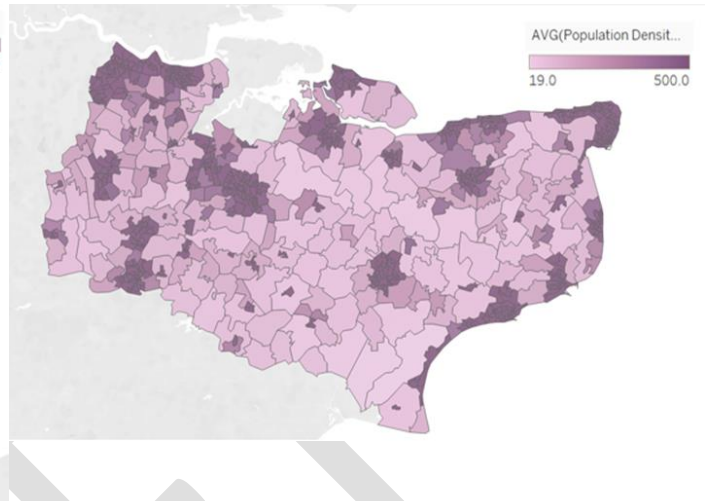
Figure 4: Map of Kent county showing population density across the region

Both figures display a variation of population densities. There are several population dense areas across the whole of Kent, some of those within the pilot area.

Rurality

LSOAs have been separated into the following four categories aligned with ONS 2020.

- Rural: Village and dispersed
- Rural: Town and Fringe
- Urban: City and Town
- Urban: Major Conurbation

Figure 7 suggests that there are no urban major conurbations within the three pilot local authorities. However, each authority has its own pocket of urban cities and towns, Dover presents two distinct pockets. Figure 7 implies the three local authorities are comprised of mostly rural areas. This implication holds for Figure 6, when considering the whole of Kent. The top left corner of Figure 6 shows the distinct pocket of urban major conurbations. However, the remainder of Kent is primarily rural, with pockets of urban cities and towns, consistent with Figure 7.
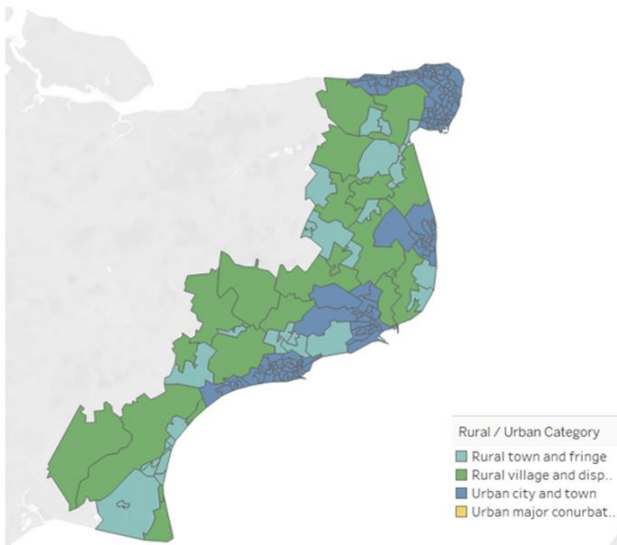
Figure 7: Map of pilot area showing rurality across the region
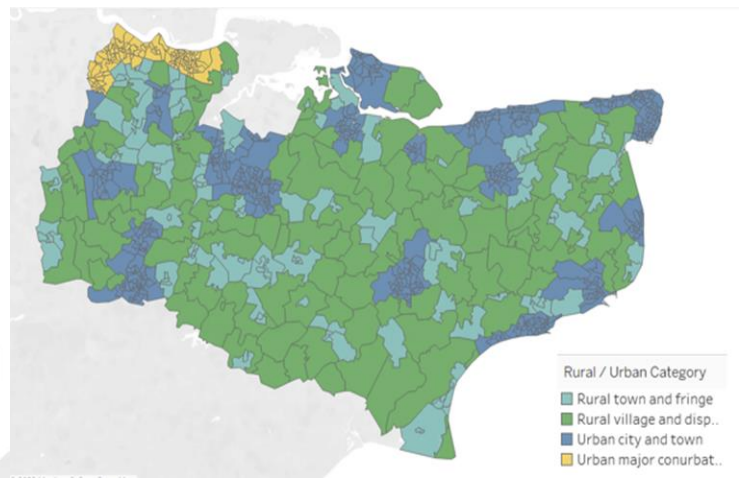
Figure 6: Map of Kent county showing rurality across the region

2.3. Cohorts

The cohorts studied in this evaluation are split into four main groups which are defined below. Some individuals may belong to more than one of the below groups, in which case they will be categorised by the main condition they are receiving support for.

Older people with physical disabilities (OPPD)

This group is described as people aged 65 and over who have a significant long-term condition which affects part of their body that limits and impairs either their physical functioning, mobility, stamina, or dexterity (Carehome.co.uk, 2020). Older people with physical disabilities make up a large proportion of people who draw on care and support, primarily due to physical restrictions limiting their capacity to be independent.

People with mental health issues

People whose primary condition affects their emotional, psychological, or social well-being will be considered as part of this cohort group. With 1 in 4 people experiencing mental health issues each year in England (NHS England, 2016), there are different levels of support needed to care for this cohort of people who draw on care and support, with some needing care full time and some part time. All individuals who are in receipt of adult social care primarily due to mental health issues will fall within this category.

Learning disabilities and autism

People with learning disabilities often have difficulty completing everyday activities such as household tasks, managing money or socialising, due to a reduced intellectual ability and difficulty learning new skills (Mencap). The cohort in this study includes people who are receiving care support for their learning disability, including people receiving care for autism spectrum disorder. Whilst autism is not a learning disability, it can affect learning, and people with severe autism are often in receipt of social care.

Sensory deprivation

This cohort group describes people who require care support to help with their daily activities due to deprivation of sensory input, including sight, hearing, or feeling. People who have difficulty with their sense of smell or taste are unlikely to need care, and thus are not considered relevant in this context.

The total number of people accessing care through KCC, and how they are split across these service groups, is detailed in the Quantitative Analysis section of this report (Section 5.1).

2.4. Workforce

Practitioners form care and support plan reviews for existing people who draw on care and support and carry out care needs assessments for new individuals. Their role involves understanding what resources are available to meet the needs of an individual, helping to organise care and prescribe supportive systems. There are 30 prescribers within the pilot area and 300 across Kent, all of whom support individuals and their needs. The practitioners in the pilot area are supported by two KCC TEC facilitators. The TEC facilitators assist prescribers with training, queries and choosing best suited TEC packages. TEC facilitators liaise directly with the NRS resident Occupation Therapist whose expertise is delivering the TEC enabled care service, complimented by a clinical background.

A programme of training and support processes has been implemented to support practitioners in learning the new process, as well as to drive cultural change within the organisation, which is required to embed the use of technology within the standard practice of the Adult Social Care team.

Training

A training induction took place on 3rd May, which introduced the TEC vision to current prescribers. This session walked through the purpose of TEC, examples of particular technologies, case studies and how TEC would fit into a prescriber's processes. Prior to this session, practitioners were asked to complete a baseline survey stating their current knowledge of technology and how they think technology may help the people they support.

Additional training sessions have since been provided, focusing on the use of the iRIS system, including general system use, completing forms and information requests. This training acts as a prerequisite to access the system being granted.

On 11th May, a marketplace event was held to familiarise prescribers with technology suppliers and devices, and enable them to input into which devices should be deployed within the build and test project. This allowed practitioners to develop their knowledge of systems and discuss any queries.

Furthermore, supplementary training, accelerated learning, and special interest sessions have been provided. These sessions demonstrate key technologies and solutions, therefore supporting awareness and clinical practice within the test and build area. Each session looks at a specific topic and how technology can support in that area. The topics may be related to specific factors, including: people who draw on care and support cohorts; illnesses; technologies; service groups; or injuries. For example, topic sessions on falls and learning disabilities and autism were held on July 26th and July 28th.

Governance

Oversight is provided by NRS and TEC facilitators on all early submissions, in addition to traditional oversight. A weekly report in the form of a dashboard, is produced by NRS, capturing all spending and devices prescribed. This enables efficient management of resources whilst providing an opportunity for retrospective observations. A weekly meeting between KCC and NRS is held to monitor the report, discuss uptake and present data that has been collected. A monthly contract call is also held with KCC project management and senior sponsors to review reporting.

3. Evaluation

3.1. Evaluation Questions

The following section is composed of the evaluation questions that are intended to be answered, subject to data quality.

- How do Technology Enabled Care Services support the specific needs of those accessing care and support through KCC? In particular, across the following cohorts:
    - o Older people with Physical Disabilities
    - o People with Learning Disabilities
    - o People with Sensory Impairments
    - o Mental Health, including Autism and Dementia.

- Does the Technology Enabled Care Service improve areas of daily living across person cohorts (as above)?

- Can the Technology Enabled Care service help ease pressure on staff and provider market resources? Based on the following themes:
  - Acceptability
  - Feasibility
  - Confidence
  - Accessibility.

- Does the Technology Enabled Care service result in positive economic outcomes within the health and social care sector? From the following perspectives:
  - Kent County Council specific outcomes
  - Wider healthcare system outcomes

3.2. Evaluation Workstreams

A mixed methods approach has been proposed to analyse qualitative, quantitative, and potential economic outcomes to generate evidence for the key evaluation questions. The questions and the detailed approach were developed through co-production with project partners and KCC to ensure the approach is suitably person-centred, this included the development by NRS of a data dashboard to provide a consistent insight into project progress. The planned activities have been detailed below.

Quantitative analysis

Due to the low numbers of referrals through the service, statistical tests could not be performed. As such, descriptive statistics have been used in order to infer potential insights into the service.

In order to perform robust statistical analysis, a sample size of 235 staff would ideally be collected over 5 months (based upon an onboarding rate of 600 staff to the pilot programme within 5 months). This assumes a 95% confidence interval, 5% margin of error, and population proportion of 0.5. Lower volumes may still yield valuable insights into the process. For instance, increasing the margin of error to 10% leads to a sample size of 83, which may be appropriate depending on the acceptable error of the statistical tests.

Activity of current pathway

Data analysis on the current number of individuals under the care of KCC was undertaken in order to ascertain a baseline (March 2022) from which analysis could be performed. The number of individuals in the service was provided by KCC, as well as the number of new people who draw on care and support receiving care (application rate) and the number of people who draw on care and

support whose service has come to an end (attrition rate), within the baseline month. This data was also split by the service cohorts of interest:

- Older people with physical disabilities (OPPD)

- People with mental health issues

- Learning disabilities (including autism)

- Sensory deprivation

This dataset was analysed in order to gain insight into which service group was the largest, as well as the potential rate by which that service group was growing. In addition to providing a baseline for future analysis, this may also inform the staffing requirements for each cohort (based on cohort size and rate of growth).

Age demographics

Analysis on age demographics was performed, segmenting the individuals referred through the service into age bands. This provides insight into the current uses of TECS and potentially what age demographics are more suited to being referred. Additionally, by interpreting the most prevalent age bands within the cohort, it may indicate the types of conditions and personal priorities that may be supported with TECS, by understanding which are more prevalent within those age bands.

Cost of materials

The cost of delivered materials was collated and analysed in order to gain further insight into the pricing and use of the TECS. Delivered materials was defined as the prescribed device being delivered and used by the individual since the start of the service. In addition to the cost of delivered materials, the cost of committed materials was also scrutinised. Committed materials was defined as devices that had been described but not yet delivered since the start of the service. This additional data was used to gain a deeper insight into the cost of devices prescribed.

From the aforementioned analysis, the cost of materials per individual was calculated. This metric will form a key part of the future cost-benefit analysis (CBA) that will be performed. It may also aid in gaining insight into the activity of the service which may indicate the acceptability and feasibility of the service to staff.

Priority areas of people who draw on care and support

As a baseline exercise, priority areas for users were recorded, as well as the individual satisfaction within each of these priority areas. These priority areas are detailed below:

- Activity and hobbies

- Independence

- Social life

- Moving around

- Self-care

- Feeling Included

- Managing your condition

- Communication

- Happiness

- Safety

- Self-esteem and confidence

- Achievement and goals

Individuals were also asked how satisfied they were in the areas they stated, ranked in the following Likert Score categories:

1. Very Dissatisfied

2. Dissatisfied

3. Neutral

4. Satisfied

5. Very Satisfied

The collated results provide insight into areas which individuals may feel are not being addressed by the current care and support offer. This may then be used to highlight key areas that may be addressed by TECS, which may influence the benefit streams used within future health economic analysis.

Qualitative analysis

Baseline survey

A TECS Build and Test Prescriber survey was used in order to ascertain the perceptions of the service from prescribers, and to gain insight into their key concerns and where prescribers anticipated the most benefit would be gained by using the TECS service. 26 prescribers chose to participate in the survey. The questions included within the survey were:

- Which team do you usually work in?

- What is your current role

- What are you excited about in this pilot?

- What are your concerns about this pilot?

- How well do you understand the prescriber role in supporting the project at this point?

- What would you like to understand better?

- How confident would you say you are in using technology within your everyday life?

- Can you briefly describe how you currently use technology to support care delivery?

- How confident would you say you are in using technology support within your case work?

- How much do you feel the listed client group could benefit from increased access to technology?

- If you think a particular group will significantly benefit (i.e., you gave it a 1 or 2), please can you explain why you think this is the case

- If you think a particular group will not benefit (i.e., you gave it a 4 or 5), please can you explain why you think this is the case

A mixed-methods approach of descriptive quantitative analysis as well as high-level thematic analysis was utilised to analyse each question as appropriate.

Lessons learnt workshop

In order to ascertain the staff views of the TECS service model, a workshop with KCC staff, facilitated by Unity Insights, was organised. Within this workshop, exercises encouraging focused group discussions were undertaken in groups of 6-7 in order to identify lessons learnt throughout the initial implementation of the programme. These exercises included:

- The Perfect Day Model – In groups, the participants would describe the ideal process that would be followed when handling a new care referral. This was to explore the initial steps that may be performed, the information that would be required to understand the care needs of an individual, and the actions that might be undertaken to help meet these needs.

- Systems and Processes – This semi-structured discussion was used to gain insight into the staff experience with the Programme, and the TECS prescription process. It also sought to identify ways by which the TECS process could be integrated into the staffs' workday.

- Reaching the right people - This semi-structured discussion was used to gain insight into how the right people may be reached in order for the TEC service to have the greatest impact.

The outcomes of each of these group discussions were summarised and collated by the facilitators of each group. These summarisations were then analysed for key themes in each exercise in order to gain insight into the staff perceptions of the current and TEC service. This was then used to infer whether the TEC service may be used to ease pressure on staff resources, addressing the third evaluation question (detailed in Section 3.1)

Perceptions of current service

Within the Qualitative Analysis section of this report (Section 5.2), analysis of Likert Score was used to ascertain the satisfaction of individuals within the current service. A qualitative interpretation of the results has been included in order to provide indicative areas for improvement that may be addressed by the TECS.

Additionally, a qualitative analysis of the required outcomes for the referred individual was undertaken in order to capture the breadth of requirements of individuals referred through the TECS. This may in turn inform future analysis and indicate key areas of the service to scrutinise further.

Cultural change

To provide a deeper understanding of the current KCC operating culture and how this is facilitative, or not, to the shift in working practice needed to enable the TECS to flourish, NRS Healthcare have commissioned EK360 to conduct further qualitative evaluation. This work will also seek opportunities to obtain feedback from the people receiving care from the Council's Adult Social Care teams.

To evaluate culture change, a 'water-lily' concept of culture change has been adopted.

The water-lily model of culture change proposes that much of culture change is invisible below the water line. It starts with roots in the underlying assumptions that people make and the beliefs that they hold. This in turn informs their attitudes and values, represented by the stem, which shapes their observable behaviours, in this model, the leaves of the water-lily floating on the surface.

EK360 will use this framework of explaining and measuring culture change to gather qualitative and qualitative data throughout the test and build pilot and evaluate:

- People's beliefs and values associated with technology Enabled Care
- People's experiences during the pilot and how this has affected their behaviours

EK360 will be working with 4 different target groups within the build and test programme, whose 'stories' will inform the final culture change evaluation:

- KCC ASC staff who are training and working as prescribers in the pilot, (with a sub group of Tech facilitators)
- Residents of Kent being supported by ASC and having technology prescriptions
- Informal carers of those being supported by technology prescriptions
- Wider informal carers and general public insights about what kind of technology could be useful in the future

This analysis will provide an indication of what further cultural change will be required in order to support the spread and adoption of the service and inform KCC's public messaging about the benefits of Technology Enabled care for residents of Kent.

TECS Test and Build – Early Findings Report

Social Value

Using a Social Value framework, EK360 will analyse the social impact of TECS for beneficiaries. This social value and wellbeing evaluation can inform KCC next steps in TECs development by providing evidenced insights into the relative importance of TECs and its impact for the public.
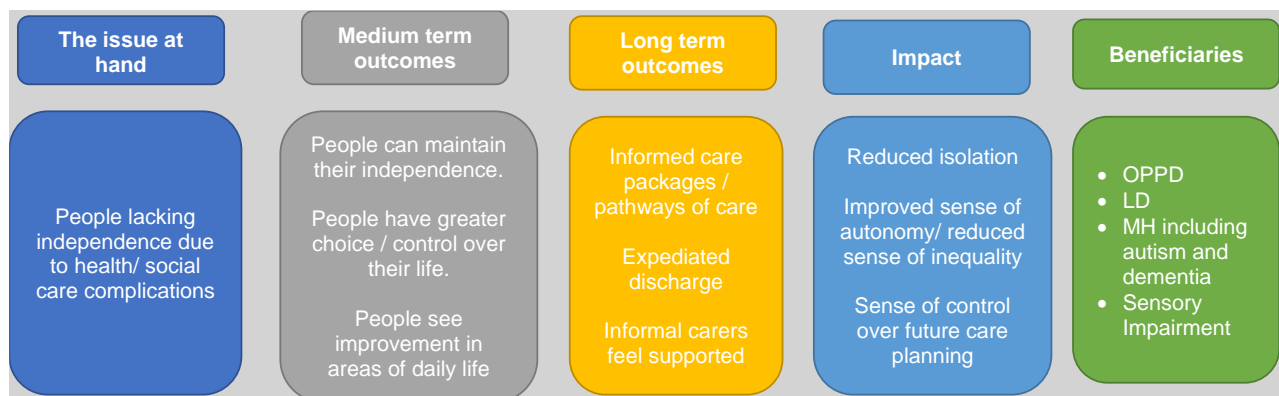
The issue at hand	Medium term outcomes	Long term outcomes	Impact	Beneficiaries
People lacking independence due to health/ social care complications	People can maintain their independence. People have greater choice / control over their life. People see improvement in areas of daily life	Informed care packages / pathways of care Expediated discharge Informal carers feel supported	Reduced isolation Improved sense of autonomy/ reduced sense of inequality Sense of control over future care planning	• OPPD • LD • MH including autism and dementia • Sensory Impairment

Figure 8: The Theory of Change framework to evaluate Wellbeing and Quality of life impacts for beneficiaries

Quality-Adjusted Life Years (QALYs) and Well-being Years (WELLBYs) are the key measures for social value. The evaluation will use both measures in the evaluation of impact on beneficiaries.

QALYs are based on cost-effectiveness figures of treatment from the NHS. QALYs represent one year of life in an improved state of health quality as a result of an identifiable intervention. One QALY is valued at an average of £25,000 which works out to £2,083 per month. The evaluation team will seek to identify the contribution of other parties to a reported improvement in quality of life and take this into account.

WELLBYs are a measure of wellbeing. The "Wellbeing-adjusted Life Year" (WELLBY) is defined as a one-point change in life satisfaction on a Likert scale between 0 to 10, for an individual for one year.

Health economic analysis

Below is detailed the planned economic / health economic analysis which is expanded upon within the Evaluation Plan. The uptake of TECS was lower than expected and, as such, the health economic analysis will only be detailed within the final report.

Cost-Benefit analysis (CBA)

This evaluation plans to generate an economic / health economic model including a cost-benefit, scenario, and sensitivity analysis based on monetisable benefits from the project and other available data. This analysis will use a mix of available data, captured during the data collection period, and literature to construct a historic comparator period/group and to understand whether the TECS has a valid economic case associated within the adult social care setting. Several scenarios will be used to inform possible outcomes associated with the spread of the technology to other regions/ scales (subject to data).

Budget impact model (BIM)

A BIM will be constructed as an interactive tool to tailor potential outcomes of technology implementation. It is a flexible and simple tool that helps local decision makers understand the implications and benefits of implementing the TECS rather than current processes.

4. Project Launch

4.1. Early uptake

Following the launch of the process in early June 2022, the level of referrals into the TEC Service has been lower than expected. There are multiple potential external factors that may have affected this, with high workloads, post-COVID demand on the system, the ongoing consultation on the proposed Locality service model, and summer holidays. The following section, as well as the Results section, reflect the low level of activity to-date, and the action taken to try and increase uptake. As a test and build, it has always been assumed that the process may change over time to best fit the local workforce requirements and needs of individuals accessing Adult Social Care. Unity Insights' analyses will be reviewed with this in mind in future reports, to ensure that data is presented in a consistent manner.

4.2. Process Development

Prior to the launch of TECS, several processes were designed in order to synchronise systems and support operational structures. Process designs occurred between March and June 2022.

Mosaic holds individuals records and their assessment of needs. As an individual's care needs are first assessed, orders are placed through the iRIS platform, with details passed into the relevant parties to support fulfilment and the delivery of supporting services. Mosaic then updates the individuals record accordingly. Linking the KCC systems (Mosaic) with the NRS systems (Iizuka and iRIS) allows for a simple transaction of necessary data, streamlining flows whilst simultaneously making these systems easy to use for staff.

Stock levels for NRS to maintain were agreed upon, enabling a quick installation time, improving the user experience and staff satisfaction. Documents were designed by modifying previous experiences and tailoring them to meet KCC requirements, for example, the designed referral form is an iRIS adaptation to fit KCC needs. Support processes were implemented to assist referrers with any queries and issues. This guidance is managed by the NRS Occupational Therapist and the KCC Tech facilitators.

Following the TECS launch, alterations were made in response to low uptake. This low uptake was associated with low attendance in training sessions and staff feeling enabled to utilise TECS. In an effort to increase uptake, further outreach has been provided by support staff to engage with practitioners through both training and attendance at team meetings. The project has been expanded to allow referrals from all practitioners within the pilot region. New processes have been agreed to (as of August 2022) for TEC facilitators and NRS staff to perform the prescribing segment of the process, based on referrals, allowing a reduction in the demand for practitioners' time, and mitigate against practitioners lacking confidence to prescribe technology themselves.

4.3. Training Activity

Original training sessions took place prior to the launch of TECS. They provided baseline inputs from practitioners, as discussed in section 2.4, however, these sessions suffered low attendance rates. This low attendance was due to capacity issues, highlighting the importance of improving accessibility for staff. Consequently, additional training has been added to build knowledge and awareness of TECS. Future training sessions have been scheduled, and NRS are in the process of developing resources that staff (and individuals) can refer to outside of direct sessions. For example, the Virtual House tour is an interactive tool that indicates to users how they might use a TECS setup in a home environment. These follow-on sessions and supplementary resources aim to overcome the barriers to training that have emerged. Training sessions have been offered via numerous mediums, such as face-to-face, Teams, and recorded sessions in order to give staff a variety of means to engage. Additionally, based on learnings around staff capacity to engage at specific times, written communication, podcasts, and videos are also being produced to aid in the training of staff.

4.4. Partner Engagement

In order to provide a holistic and seamless service, NRS Healthcare manage multiple providers, each providing different elements of the overall TECS package. In particular, Taking Care as a key partner providing live monitoring and alerts management services.

The Digital Innovation Centre (DIC) has also been instrumental in supporting the training and marketplace events held by the NRS Healthcare team, providing development support for staff, as well as hosting technology awareness events and ongoing training sessions. NRS Healthcare also manage several other technology providers, along with the programme logistics, ensuring stocks of items are in place, and ready for dispatch and installation when needed. The team consists of multiple partners and hence a complex supply chain; effective management of this broad team is needed to promote synchronicity.

5. Early Findings

5.1. Quantitative

People receiving care and support

Table 4 below displays the number of individuals actively receiving care in SE Kent (Dover, Thanet, and Folkestone and Hythe) and Kent County. SE Kent holds around 32.8% of people currently accessing care through the Council in Kent.

The older people category is classified as those 65 and above, the Mosaic system configuration moves individuals into the older people category when they turn 65, regardless of their alternative or prior service group. This limits Unity Insights' ability to analyse the "older people with physical disabilities" cohort, thus alternative observations have been made with solely an individual's age.

Table 4: Total Number of active people who draw on care and support receiving care (March 2022) (KCC, 2022).

Service Group	SE Kent	Kent
Autism Services	95	335
Carers	138	411
Learning Disability	1,434	4,231
Mental Health	471	1,118
Older People	2,555	8,126
Physical Disability	775	2,494
Sensory Services	82	211
Grand Total	**5,550**	**16,926**

As shown in Table 5, since March 2022 there have been 374 new people who draw on care and support receiving care. 32.6% of these new people who draw on care and support are located in SE Kent. Small numbers have been suppressed and presented in general terms, in line with data protection policy.

Table 5: New people receiving care (Started in March 2022) (KCC, 2022).

Service Group	SE Kent	Kent
Autism Services	<6	<8
Carers	23	59
Learning Disability	<6	14
Mental Health	<6	10
Older People	73	237
Physical Disability	16	43
Sensory Services	<6	<8
Grand Total	**122**	**374**

Table 6 displays individuals whose service has ended as of March 2022.

Table 6: Individuals whose service has come to an end (ended March 2022) (KCC, 2022).

Service Group	SE Kent	Kent
Autism Services		<6
Carers	30	74
Learning Disability	10	20
Mental Health	7	16
Older People	82	262
Physical Disability	10	26
Sensory Services		<6
Grand Total	**139**	**405**

Individuals enrolled using TECS process

There are 12 unique people who draw on care and support under the TECS project as of July 2022, the majority of which are 70 and above. Figure 9 below shows the total number of individuals within each age band. The average age is 63.7, with a standard deviation of 20.5. Standard deviations represent how much the people who draw on care and support differ from the average value for the group.
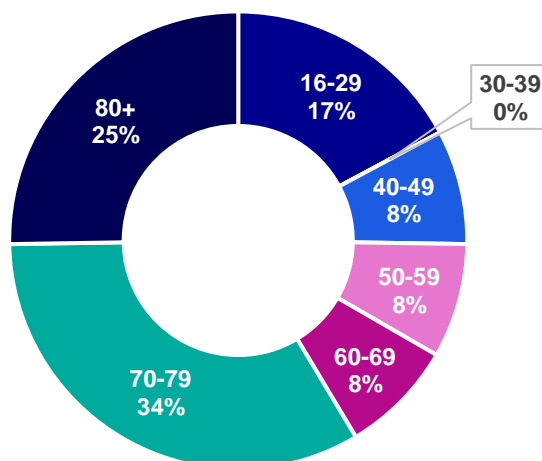
Figure 9**: TECS Users by Age Band**

Approximately 67% of the people who draw on care and support are 65 and above, comparatively only 48% of active people who draw on care and support in Kent are 65 and above and 46% of active people who draw on care and support in SE Kent. The current TEC people who draw on care and support population displays a significantly larger proportion of older people relative to Kent.

Primary Care support reasons of individuals enrolled through the TECS process were documented, results were as follows in Table 7.

Table 7: Primary support reason %

Primary Support Reason	Percentage
Learning Disability Support	4%
Physical Support - Access and Mobility Only	48%
Sensory Support - Visual Impairment	9%
Support with Memory and Cognition	30%
Unknown	9%
Grand Total (n=23)	100%

As shown above, a large percentage of individuals whose care package has been created using the TECS process have sought physical support and support with memory and cognition. This may be partially driven by the large proportion of older people who draw on care and support. Also, there is a notably low percentage of people who draw on care and support seeking learning disability support considering that approximately 25% of Kent's (and SE Kent's) active people who draw on care and support are in the learning difficulties service group. As the learning disability cohort have historically had a higher engagement with technology to support care, which may have lead to the lower uptake within this cohort.

Technology Delivery

The current total value of delivered materials is £2,633, averaging at £219 per individual with a standard deviation of £134. However, there are multiple materials classified as committed spend, meaning at some point in the near future they will be delivered. The total of committed spend is £1,460. Currently the 3 most delivered products are the Chiptech Go and base unit, which provide GPS location and fall detection, and the Reminder MemRabel 2, a calendar clock that aims to support individuals with dementia. There are 4 further Chiptech base units and 3 Chiptech Go's in the committed spend category to be delivered soon.

Personal Care Priorities

Prior to TECS delivery, individuals were asked during a personal outcomes assessment, which of the following areas they felt was the top priority in their daily living. Individual were also asked how satisfied they were in the areas they stated, ranked using Likert Scores. Results are shown in Figure 10.
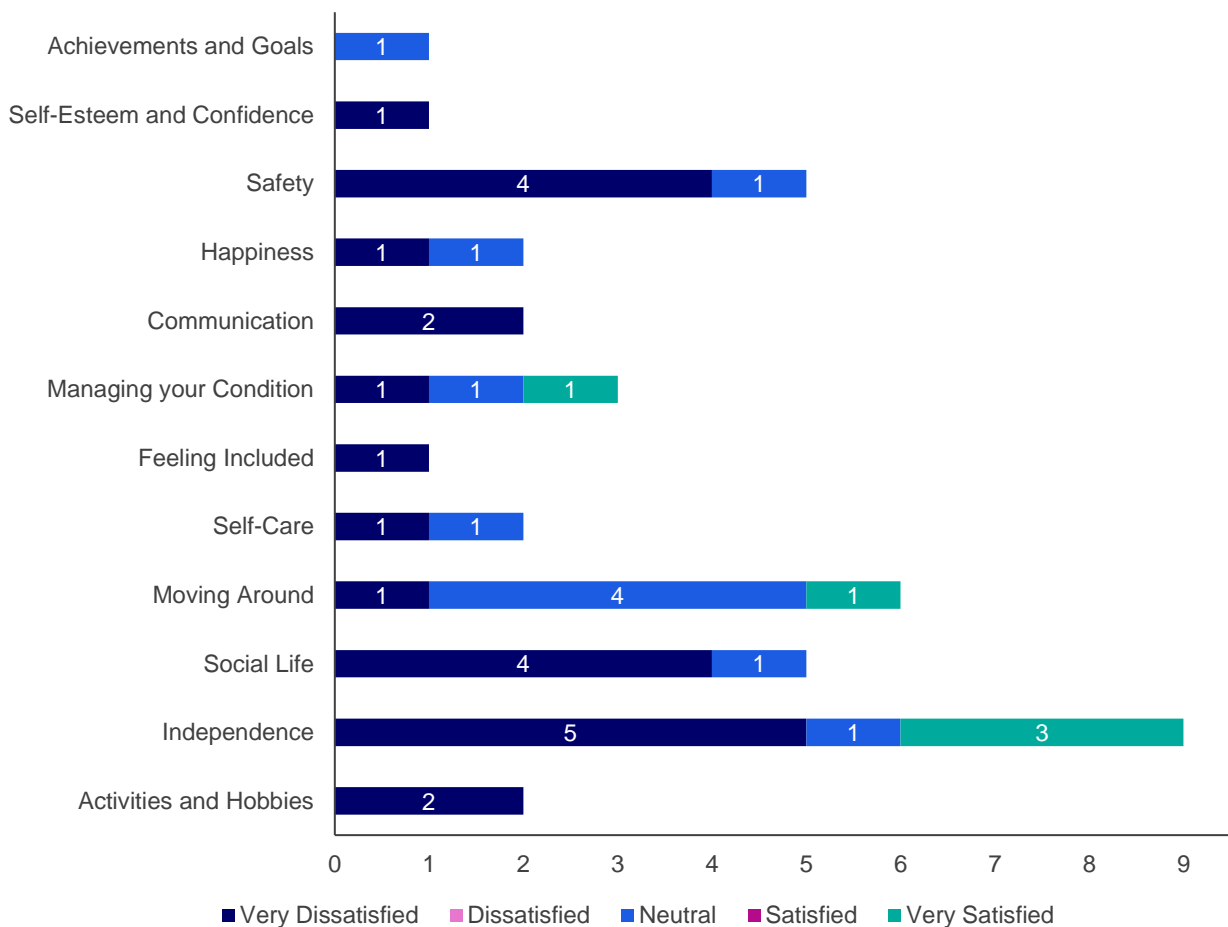
Figure 10: Personal Care Priorities and Satisfaction Scores

Figure 10 shows a large number of individuals prioritise independence in their daily lifestyle, with the majority stating they are currently dissatisfied with their state of independence. The next most common top priorities are moving around, social life, and safety; people accessing care through TECS display a level of dissatisfaction for all three. For all but one listed priority areas (managing your condition) the majority of individuals are currently dissatisfied. To assess whether TECS has improved these areas of daily living, satisfaction scores will be collected and compared to in later months, post-implementation.
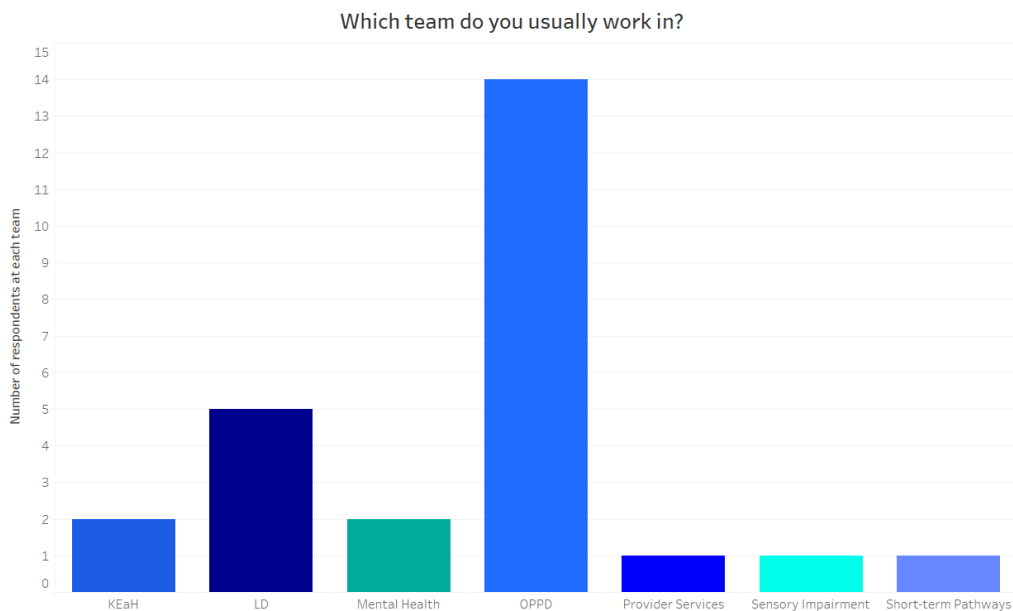
Most orders delivered as of July 2022, have been placed by only 4 KCC teams of prescribers across the area. This is a narrower group than expected putting orders through at this stage as approximately 30 people have been trained to do so. 2 out of 12 orders have placed directly from the TECS team. It may be noted that teams are operating in a post-pandemic context, with high waiting lists, vacancies, difficulties in provider market, and engagement in the move to a Locality model. As such, teams are less likely to have capacity to engage with TECS, which may have lead to a lower number of prescriptions than expected.

5.2. Qualitative

Baseline survey

At the outset of the programme, prior to the delivery of any process-specific training, a baseline survey was undertaken with the prescriber group to understand existing attitudes and understanding of TECS. The survey was designed by Unity Insights and EK360 in collaboration, with EK360 delivering the survey mechanism itself.

Participant team and roles

What is your current role?

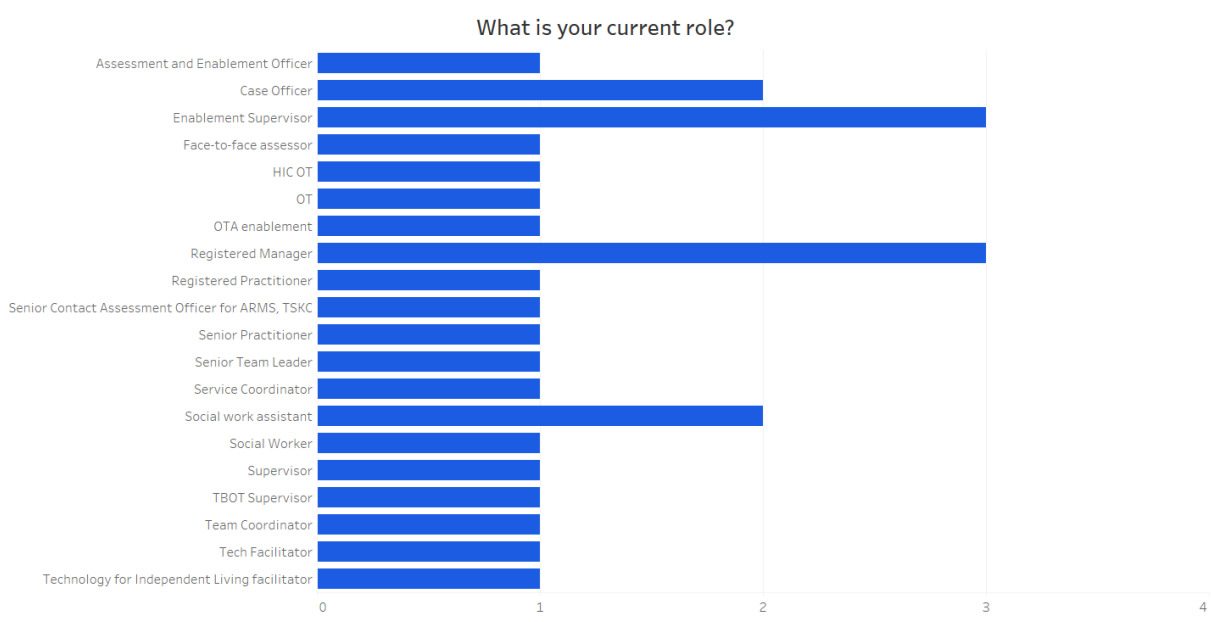| Role	Count
Assessment and Enablement Officer	1
Case Officer	2
Enablement Supervisor	3
Face-to-face assessor	1
HIC OT	1
OT	1
OTA enablement	1
Registered Manager	3
Registered Practitioner	1
Senior Contact Assessment Officer for ARMS, TSKC	1
Senior Practitioner	1
Senior Team Leader	1
Service Coordinator	1
Social work assistant	2
Social Worker	1
Supervisor	1
TBOT Supervisor	1
Team Coordinator	1
Tech Facilitator	1
Technology for Independent Living facilitator	1

Figure 8: Participant team and roles in baseline survey

54% (n=14) of respondents worked within the Older Persons & Physical Disabilities (OPPD) team. Additionally, the most common roles held by participants was Enablement Supervisor (12%; n=3) and Registered Manager (12%; n=3).

What are you excited about in this pilot?

- **Excitement to work with new technology** – One key theme explored within the answers to this question was the excitement to work with different technologies, and the potential culture changes that could arise from the pilot scheme. Additionally, there was an interest in the opportunities to support people who draw on care and support in new ways using TECS.

"I am excited to be involved and am interested in technology being another avenue for support and am looking forward to what is out there to support the people we support. I am excited as technology appears to be the way forward. I am not sure on the types of technologies that we would be discussing to support people so am looking forward to understand this more."

- **Keen to support people drawing on care and support** – Central to all answers of the survey was the ability support people who draw on care and support using new technologies and new equipment. There was a keenness amongst many respondents to

learn about the new technologies provided via the TEC service and how they may aid person who draws on care and support. Furthermore, several service groups were noted within responses, such as younger people and people with learning disabilities. This may imply that there is the perception that the TEC service may be applicable to a wide range of serviced users.

- **Maintaining independence** – One key benefit noted by respondents was the hope that TECS could aid in maintaining the independence of people who draw on care and support. This did not seem to be unique to a specific service group and as such this many imply that the need to maintain independence is seen as important regardless of service area. Furthermore, it may indicate that prescribers view TECS as a potential means of retaining independence of their people drawing on care and support.

What are your concerns about this pilot?

- **Wi-Fi** – A key concern noted by respondents was the perception that the TECS service might not be appropriate for users that did not have access to Wi-Fi. One prescriber also noted concern over phone signals as well. This may highlight a key misunderstanding of the TEC service as many technologies offered do not require Wi-Fi to be used appropriately. Furthermore, this could indicate where messaging needs to be targeted in order to improve uptake of the TEC service. By addressing specific concerns related to the TEC service (such as concerns over the applicability of the TEC service for individuals without Wi-Fi), prescriber fears may be alleviated improving the uptake of the service.

  As a result of this barrier, the project team has looked at ways to overcome the issue of digital deprivation and is engaging with the Digital Kent programme which is exploring opportunities such as community Wi-Fi.

- **Limitations of the technology provided** – There were concerns noted over the applicability of the technology to certain services uses, such as people with sensory impairments or people with dementia. Furthermore, concerns over the ease of use of the technology were raises, especially for individuals who are not used to interacting with technology.

- **Culture change and time constraints** – Some prescribers raised fears over the culture change required to implement the pilot scheme, and whether their teams would be resistant to change. Some also noted that there were concerns over technology replacing human contact with people who draw on care and support, or the misappropriation of technology. A further barrier to implementation noted by some prescribers were the time requirements of the pilot scheme. Many staff already have a high caseload and the time scale of prescribing and trialling technology may not be appropriate for some teams. This may imply that the TEC service will need to be efficient and effective before some prescribers will uptake the service.

How well do you understand the prescriber role in supporting the project at this point?

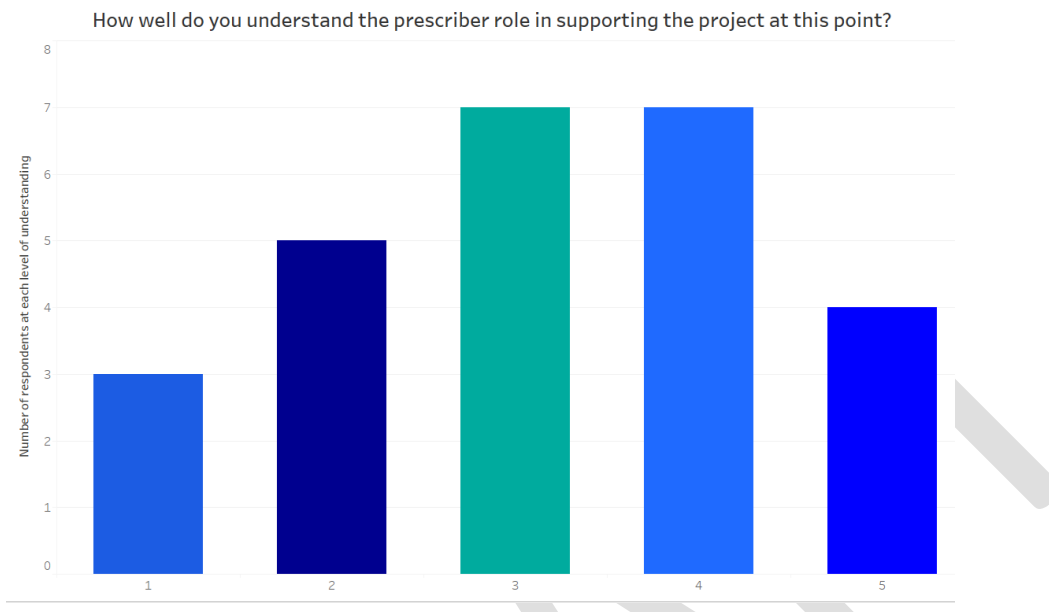How well do you understand the prescriber role in supporting the project at this point?

Figure 9: Graph showing the number of respondents at each level of understanding (1 being completely understand and 5 being don't understand at all)

42% (n=11) of participants felt that they didn't yet understand the role of the prescriber. This implies that further work was required for staff to understand TECS and their role within it. Further training was implemented to address this emerging concern.

What would you like to understand better?

- **Context of the service and available technology** – Some prescribers noted that they would like to know more about the service as a whole, what the process will entail and why it exists. Furthermore, respondents noted a desire to understand what equipment would be available via TECS and the potential use cases. Some prescribers noted that they specifically wanted to prescribe effectively, which may imply an aversion to prescribing without a clear aim.

- **Prescriber role** – As noted within the previous question, may prescribers do not understand their role within the pilot scheme well and as such, some respondents raised the desire to understand the role further. Specifically, the roles and responsibilities of the prescriber were raised, as well as if there was potential support if prescribers were unsure of what to do in specific situations. This implies that there are reservations about the service from prescribers whilst they still feel confused about their roles.

- **Benefits for people who draw on care and support** – Respondents also noted that they wanted to understand how the project group will develop awareness and services to the users. Concerns were raised over specific service groups as well, such as OPPD.

How confident would you say you are in using technology within your everyday life?

How confident would you say you are in using technology within your everyday life?
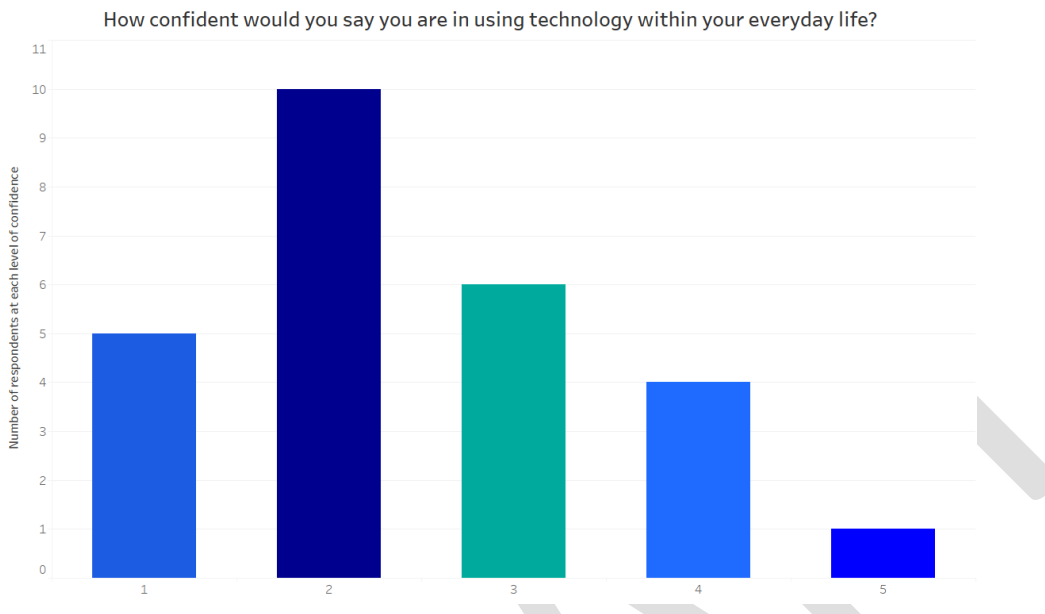
Figure 10: Graph showing the number of respondents at each level of confidence (1 being very confident and 5 being not at all confident)

58% (n=15) of the participants felt confident about using technology in their everyday life with 19% (n=5) people lacking confidence.

Can you briefly describe how you currently use technology to support care delivery?

46% (n=12) people said that they didn't currently use technology to support people's care, apart from standard use technology such as laptops and printers.

54% (n=14) people talked about different apps/equipment they used to support people's care. These included:

- Lifelines – Personal alarms for older people and people with disabilities
- Alexa and Google Home – Virtual assistant technology
- KARA devices – Service providing vulnerable people with virtual care and support via video carephones.
- Telecare devices

Reasons for prescribing specific devices included improved communication, reminding individuals to take medication, and reducing isolation. This implies that there are a number of known use cases for technology, and that some prescribers are already taking steps to integrate technology into their work.

How confident would you say you are in using technology support within your case work?

How confident would you say you are in using technology support within your case work?
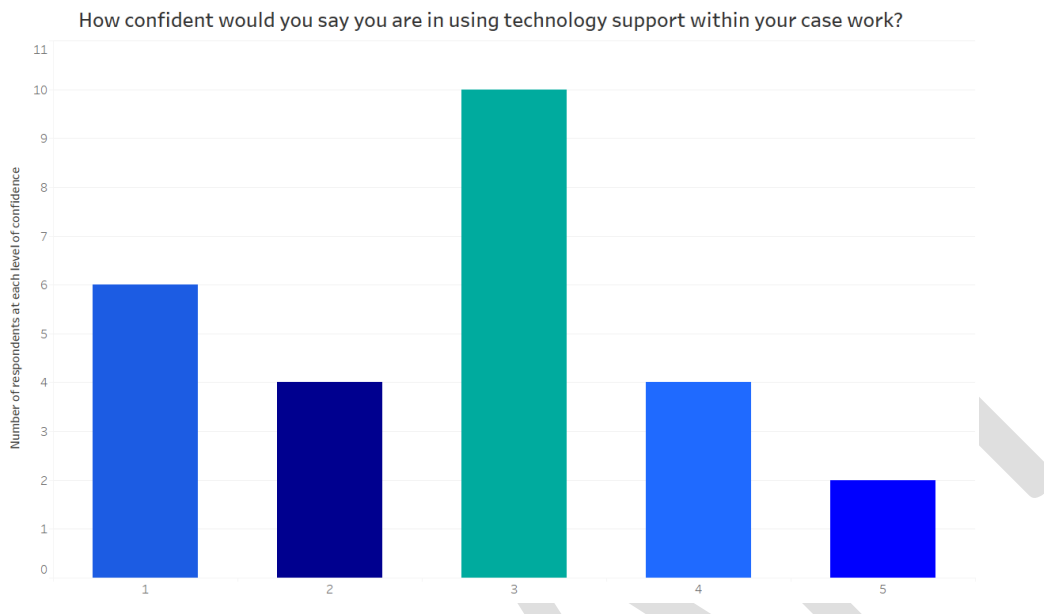
Figure 11: Graph showing the number of respondents at each level of confidence (1 being very confident and 5 being not at all confident)

39% (n=10) of people felt confident in using technology to support someone's care. 23% (n=6) people did not feel confident in using technology to support someone's care. This may imply that whilst a majority of respondents do use technology to support care delivery, they are perhaps not confident in prescribing less familiar technology for different use cases.

How much do you feel the listed people who draw on care and support could benefit from increased access to technology?
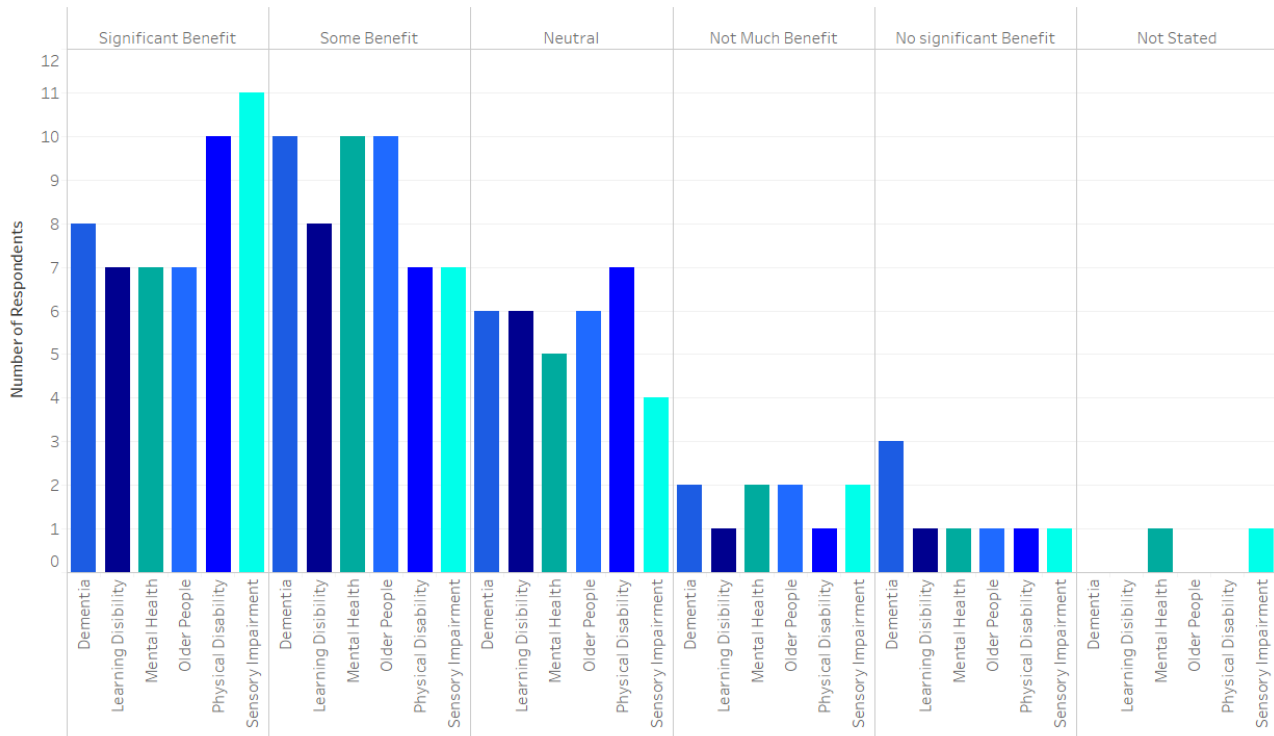

Figure 12: Graph showing the respondents' views on potential benefit of the technology (1 being significant benefit and 5 being no benefit at all)

65% (102 of the 156 total points allocated) indicated that participants could see some or a significant positive benefit across people who draw on care and support. 10% (15 of 156 total points allocated) indicated that participants could see little or no benefit across people who draw on care and support.

Within this sensory impairment (22%, 11 of 50 points allocated) and physical disability (20%, 10 of 50 points allocated) were deemed as the two people who draw on care and support who were felt to have a significant perceived benefit. Older people (19%, 10 of 52 points allocated), mental health (19%, 10 of 52 points allocated), and Dementia (19%, 10 of 52 points allocated), were all seen as people who draw on care and support who would have some perceived benefit from technology interventions.

If you think a particular group will significantly benefit (i.e., you gave it a 1 or 2), please can you explain why you think this is the case

- **All People who draw on care and support** – Many of the respondents believed that technology could support all of the people who draw on care and support. The possibility of improving safety and well as supporting independence was noted as a key benefit. In turn,

this could reduce the number of required care hours for some individuals. Additionally, one prescriber suggested that the technology could aid in the reassurance of the person who draws on care and support, promoting independence and allowing the user to stay home for longer.

- **Older People with Physical Disability** – The cohort of Older People was noted five times within the survey, and the cohort of Physical Disability was noted three times. It was noted that older people with physical disabilities may be able to access more community support using TECS which could reduce the risk of isolation. Additionally, it was noted that older adults who require rehab and enablement, may benefit from some of the digital equipment, resulting in a faster discharge and supporting the process of assessing for long-term care and support. Finally, one participant stated that some older people may be scared of technology and not want to use it. However, they went on to say that once an older person understands the technology, then they may find greater use from it.

  The project team has since focused on highlighting that not all technology solutions require the person to actively engage with it; the wide range of devices in the catalogue means that practitioners can select solutions according to the needs of individuals and whether they want to actively engage with technology

- **People with sensory impairment** – The cohort of People with Sensory Impairments was noted four times within the survey. One prescriber noted that people with sensory impairments may benefit greatly from the TEC service, as the team are always looking for new innovations for people who draw on care and support. Another respondent stated that people who draw on care and support with sensory impairments may be more accepting of the pilot scheme as they are already used to using technology to support their care.

- **Mental Health** – The cohort of Mental Health was noted twice within the survey, and the cohort of People with Dementia was also noted twice. One prescriber suggested that people with mental health needs, specifically related to drug and alcohol, may benefit from the use of technology. Another noted that research showed that there were positive implications of the use of assistive technology by people with dementia, engaging parts of the person who draws on care and support's brain linked with memory. Finally, another noted that the use of the technology could improve that quality of life of people who draw on care and support within the Mental Health cohort.

If you think a particular group will not benefit (i.e., you gave it a 4 or 5), please can you explain why you think this is the case

- **Barriers for end user** – Several respondents (n=4) noted that those with dementia may struggle to use the technology. There were concerns over the use of technology within this cohort, as cognition may be affected and the person who draws on care and support may find the technology confusing or distressing, rather than helpful. There were similar concerns raised for the People with Learning Disabilities cohort. Overall, participants widely

agreed that technology may benefit some people who draw on care and support, although it was key that this was assessed on an individual basis.

- **Opportunities** – As noted previously, respondents widely agreed that there may be opportunities for some people who draw on care and support to benefit from the prescription of technologies. One prescriber noted that educating practitioners within different client services will help staff see the benefit of the service.

The experience of ASC prescribers

5 Prescribers have shared their experiences of the pilot so far.

Having sufficient time to fully engage with the pilot is the most frequently mentioned issue. This was summarised by one prescriber who said,

- *'Everyone who signed up, I'm sure like me, thought that it would be interesting, they wouldn't have signed up otherwise, but they just not getting the time to attend the meetings'.*

- Another prescriber said, '*Champions are already interested but they just don't have the time available to do this, they were originally told you have to get involved in this, then you look around and others aren't here, I just thought it was a matter of you'll just have to make time to attend these training session, but if others are not attending then you start to think why am I bothering when I am just as busy as others… there is no consequence for not attending these type of meetings…. I guess people are thinking I'll get to know about it when they roll it out and we need to do it.*'

This time pressure is a contributing factor to the second area of concern still felt by Prescribers, the need for demonstrable effectiveness of technology enabled care prescriptions and this is creating a hesitancy and anxiety in some to make prescriptions.

- '*Coz I haven't experienced it, I don't trust it, whereas the system I currently use I know works, so I trust it. But we wont get the follow up to see if what we prescribed worked for the person, to build our confidence and knowledge that it can work*'

- '*What happens if the kit doesn't work? I am just going to have to hope that his mum who is at risk of a carers break down, comes back in and finds him. It makes me feel a bit like eughhh… I wont know it works until he has a seizure. I'm sure he will be fine, but the way my brain works I need a flow chart to make sure I know what to do next, otherwise I feel a bit eughhh… at the moment it's stressful coz there's no clear process. I'm anxious*".

Lessons learnt workshop

The facilitated workshop gave rise to a number of key themes which are detailed within their respective sections. High-level thematic analysis methodologies were used to ascertain the themes of each exercise.

The Perfect Day Model

- **Triage** – It was noted within numerous discussions that triage may play a key role in the perfect day model. By doing this, the appropriate services and prescriptions may be dispensed to individuals, which may improve outcomes. There were, however, varying opinions pertaining to how this could be implemented with TECS. One group suggested that triaging questions should not change between the current and TEC service, as this could facilitate improved uptake of the service. Another group suggested that the triaging questions should be changed for a TECS which could facilitate appropriate use of the service.

- **Follow-ups** – Follow-ups and reviews would also play a key role in a perfect model. Staff noted that the 2 and 8-week follow up are an important step in TECS as it allows staff to ensure that the prescribed technology is useful to the individual. Additionally, it may help alleviate staff fears of poor outcomes due to suboptimal prescribing.

- **Culture change** – All groups noted that a culture change may be required to implement a "perfect" TECS model. This may be due to some hesitancy around prescribing wrong technology. Staff noted that a culture change may be required to reduce these fears and increase uptake of TECS. One staff member noted that user-focused stories showing the benefits of TECS may be used in order to help facilitate the required culture change.

Systems and Processes

- **Culture change and early adopters** – As with the previous exercise, all groups noted that a cultural change would be required in order to facilitate a greater uptake of the TEC service. One group noted that staff members who had been part of the service for a shorter amount of time may be more open to using TECS. These newer staff members could form a key segment of the early adopters of TECS. There is some evidence to suggest that there is some culture change within the system. For example, one staff member noted that they consciously thought about what technology could benefit people who draw on care and support, when previously they assessed individuals without thinking about tech.

- **Hesitancy** – Linked to the need for a culture change is the current hesitancy to use TECS over the current pathway. Numerous staff noted that they felt sceptical or anxious about using the service. One staff member gave an example that they were anxious about the efficacy of the products noting that "I won't know it works until [the individual] has a seizure". Another staff member was hesitant over the training provided to the individual and whether they would be able to use the technology correctly noting that "Who do I trust to make sure that someone knows how to use what's been installed correctly and that they

have spent to the time with someone to learn how to use it". This staff member also pointed out that if the individual does not use a piece of technology, it may disincentivise staff to prescribe via the TEC service in the future.

- **Structural changes** – There may be some changes to the service that could improve the uptake of TECS. Whilst one staff member suggested that there could be a TECS expert who could be consulted if a staff member was unsure. On the other hand, one staff member who was considered an expert stated that this would be too much pressure and as such advocated for all staff to be given sufficient training for them to be confident to prescribe. The 2- and 8-week reviews were again highlighted as a key step of the TEC service although there was some confusion from staff members over who would do these reviews, and concern over whether these reviews would keep people who draw on care and support safe.

Reaching the right people

- **Key enablers** – There were several key enablers that were noted as important to reach the most appropriate people who draw on care and support. The most common theme across all groups was appropriate time allotted in order to assess and identify the correct people. As TECS may initially take longer than the current system as staff become acquainted with the service, it is important that the appropriate amount of time is given to staff. The next most important aspect is appropriate training and support in order to prescribe the appropriate technology. It was noted, however, that attending all of the current training sessions is not feasible due to time requirements. As such, it was suggested by one staff member that smaller, "bitesized" training sessions were easier to remember and implement. Finally, it was suggested that open and honest conversations with people who draw on care and support about what the TEC service is seeking to achieve may aid in identifying people who draw on care and support who are appropriate for TECS.

- **Barriers to uptake** – In addition to key enablers, barriers to uptake were also noted within the workshop. One barrier was variability between cohorts and complexity of cases. It was noted that as different individuals have different and often complex needs, adequate training is required in order for staff to feel confident dealing with this. Additionally, two staff members noted that the mental health and anxiety of individuals may pose a barrier to taking up the TEC service. As such, clear communication and appropriate support may be required for some individuals to be onboarded onto TECS.

Perceptions of current service

The results of the analysis of the priority and satisfaction scores may provide insight into potential key areas where individuals are not feeling satisfied. As such, TECS may be able to address these priority areas in order to provide an improved experience and potentially improved outcomes.

The most common priority noted by people who draw on care and support was "Independence", although 56% (n=5) of users who noted this as a priority area were "Very Dissatisfied" with service in addressing this. This may imply that the current service is not facilitating the independence people who draw on care and support.

Some literature states that independence may have varying definitions which may be explored further. Rabiee states that "Professionals tend to define independence in terms of self-care activities and measure it against skills in relation to performance of these activities. Disabled people, however, define independence not as being self-reliant, able to care/perform activities for oneself without assistance, but as being able to make decisions about one's life and exercise control over whatever help is required in order to achieve chosen goals and objectives" (Rabiee, 2012). When applying this to the survey results, this could mean that the service may not be adequately facilitating self-reliance. Alternatively, it could imply that individuals feel they are not being given adequate choice in their care.

In the former case, the TECS may be able to provide technology which aids the person who draws on care and support in becoming more self-sufficient. This could in turn reduce the amount of care and support provided by Adult Social Care required for the person who draws on care and support, resulting in non-cash releasing savings. This may form a key benefit stream within future health economic analysis. In the latter case, TECS could aid in the individual being able to make more decisions about their care, depending on the structure of the service. Staff may be able to work with individuals in order to find the best technology for them, allowing the individual to provide more input into their care. This in turn may lead to an improved experience and as such may lead to a lower attrition rate of the TEC service.

The next most common priority is moving around with 67% (n=4) of people who draw on care and support who put this as a priority area feeling neutral about the service's effect on this area. Regular physical activity has been linked to improved quality of life for older people, and increase independence, and as such may be an important aspect of care. The TEC service model could aid improving people who draw on care and support' mobility by prescribing the appropriate technology. In order to do this, staff may need to identify the key needs of the individual, as well as have the relevant training in order to prescribe the appropriate technology. By doing this, individuals may be able to become more independent and require less staff time, resulting in potential savings.

Cultural change

Using the water-lily model there are some early bench marks in terms of prescriber's beliefs and attitudes and how these are translating into behaviours.

The baseline survey suggested that Prescribers felt that those with learning disability and dementia would gain least benefit from a technology enabled care prescription. Indeed only 4% of prescriptions have so far been in support of a learning disability, yet it is interesting to see that 30%

of the prescriptions already made are in supporting people with memory and cognition, although this is not clear if it related specifically to people with dementia.

The baseline survey also suggested that Prescribers felt that Older People and those with sensory impairment would benefit the most from technology Enabled Care prescriptions. The majority of prescriptions (48%) are around physical support, access and mobility, but only 9% to support visual impairment.

These are obviously early levels of activity, but the contradictions in original beliefs and resultant prescriptions suggests that the 'values' of prescribers are not rigid, which could indicate that scaling up changes in prescribing behaviour will be dependent upon demonstrable outcomes for end beneficiaries.

There are some early indicators that prescribers are changing their behaviour as a result of training received from the pilot:

- *'I didn't always see the tech solutions that were possible, I guess I was naive and needed to be educated to see typical examples of how something could be used. Prior to the training I didn't even think 'oh they've got Alexa or a smart phone, I can link that to medication alerts'. I can see the benefits but still feel need training on how different bits of kit can be used in different settings and for different people'.*

Although individual behaviour may be starting to change the organisational culture and existing workflows are limited the extent that individuals can change:

- *'It's a long term investment if you really want to see how it affects people, but in our team it's a short term contact with people before they move to next team. In my job role I wont benefit from giving people tech, I just have to trust that the clients will benefit and that there's a longer term benefit. There no personal incentive for me to do it to make my job easier.*

- *'When doing hospital discharge, there are no staff, you're running around run ragged, so to then sit there and start writing out prescription for tech is the last thing on your mind. Once they left the hospital, they have left, its not your problem, so how do we know if the tech is being followed up? We don't think long term'.*

- *'Take monitoring devices, I can see that discharge would be the best place for that to fit in. I can see it would benefit in rehab, but that's not us, I'd never think to put that in for someone'*

- *'Once we put a service in we think that's good, they're sorted and close the file to move to next one. We don't think about it in the long term'*

Social value

To date it had not been possible to seek feedback from people receiving technology prescriptions, an evaluation of Social Value is not yet therefore possible.

6. Concluding Remarks

Since the launch of the Technology-Enabled Care Service across East Kent, the project has faced a number of barriers to embedding the process within regular practice across the Adult Social Care team, the most significant of which being lower than anticipated referral rates. The evidence gathered today provides some positives, however, as the process has been successfully implemented and is delivering technology into the homes of those who may benefit from it. In addition, the process has been designed to collect and present good quality data relating to the delivery of technology, the people it is intended to benefit and their personal priorities, which will support the evaluation of eventual benefits and enable the monitoring of prescription patterns as the programme continues.

The 'test and build' nature of the programme has also clearly been in effect, with the process and the scope of the programme being revised to improve operational challenges (e.g., increasing practitioner access to support, increasing the availability of monitoring services). During the production of this report, plans have been developed to increase access to technology further, directly involving subject-matter experts within NRS Healthcare and KCC in the prescription process.

The experience of the programme to-date has reinforced the expectation that Adult Social Care teams will have to undertake a degree of cultural change in order to adapt to a full model of technology enabled care. This was expected at the outset but reinforced when prescribing staff were initially surveyed prior to the launch of the project, as well as through feedback which has been collected since. Building understanding of, and trust in, digital technologies is expected to take time, but the provider team has proactively sought to accelerate this process through training and market events, which have had an effect in terms of building confidence.

Data collected to date has also supported the case for change, highlighting the diverse range of priorities and needs of people accessing care through the council. Even with a relatively small number of data points collected, this highlights the need for flexibility within Adult Social Care and underpins the need to build understanding and the capability to effectively communicate the potential benefits of technology-enabled care to individuals and their families.

The evaluation itself is at a relatively early stage, meaning that clear outcomes are yet to be identified. The first assessments of outcomes are expected in late August 2022, with individuals being contacted to collect data two months after the initial installation of technology. At the time of publication, only one of these reviews have been conducted, suggesting a positive impact in terms of care priorities, but insufficient for full analysis at this stage.

From the evidence gathered to-date, the following key lessons have been identified, which could inform future stages of the programme:

- **Ringfenced Resource:** Feedback collected through the qualitative portion of this evaluation to-date suggests that, while there is a willingness within the prescribing teams to

engage with the programme, individuals have not always felt that they have the capacity to support the programme in full. This is further reflected in the attendance to training and market events. Pressure to fit the process in amongst the standard workload may have led to the compartmentalisation of a process that is intended to be embedded within day-to-day practice, limiting the opportunity to proactively embed TECS with care packages from the beginning.

- **Ensure delivery model remains scalable:** Due to the lower-than-expected uptake of technology through the TECS process to-date, actions have been undertaken to try and increase engagement and broaden access to the NRS portfolio of interventions by directing more referrals to Technology Facilitators and Occupational Therapists directly from Practitioners across the pilot area. The revised service model will hopefully see an increase in referrals, but it could create a risk that the model is less suitable for being operated at a countywide level. Case volumes and requirements should be considered once more data is available to assess whether such a countywide model would remain practical.

- **Build expertise:** Another strength of the programme to date has been the ability of staff within NRS Healthcare and the KCC team to adapt to the challenges encountered. The need for additional training and the introduction of the revised service model have both leveraged the experience and knowledge of individuals across these teams, and benefitted greatly from their efforts. A process of identifying and supporting advocates within the practitioner teams to develop their knowledge to provide further support could help ensure that the existing specialists do not become overburdened as case volumes grow. It must be noted that early findings reflect that this scale of Cultural Change is likely to take time, and the service model will need to bed in.

- **Utilise data to inform future service development:** With the ongoing deployment and increasing uptake of TECS, the opportunity to inform care processes and support mechanisms using real world data grows. Many of the technologies will yield insights into the range of care needs of people accessing care and support. These data can support the effective management of the adult social care workforce, while improving service quality, and investing time to build this capability, ensuring the privacy of individuals is incorporated by default and design, could provide greater benefit to KCC in the long-term.

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