HALTON
BOROUGH COUNCIL

Draft

Telehealthcare Strategy

2016- 2018

Introduction - The Challenge, a Solution and many Questions

Around 18 million people in the UK have a long-term medical condition. Being able to manage effectively such a huge number of individuals is undoubtedly one of the most difficult challenges facing the NHS and social care. The vast majority of such individuals are aged 65+, living at home and because of their condition are more likely to:
- o Request a home visit from their GP or require a visit from their District Nurse
- o Oscillate to and from hospital (A & E and overnight stays) as their condition alternatively deteriorates and is stabilised

This is an unsustainable position especially as the number of older people who are living longer is increasing and so the pressure on primary care and social care services becomes greater each year. Coupled with this is the fact that local authorities are having to do more with less.

Telehealthcare offers a solution. It allows the individual to monitor their own condition at home with relevant information being automatically transmitted in real time down the phone line, via a digital unit to a monitoring centre. At that point operators can use triage software to view and manage the data received. Clinicians work with staff to set up a record for each patient. This record contains contact details and parameters within which each individual's readings should lie. If parameters are exceeded an alert is triggered and the person will be asked to resubmit a further set of readings. If these also exceed parameters the person's community matron or GP will be contacted and a visit arranged. This is one example of how a modern Telehealthcare system can be beneficial.

Over the next 3 years (the life of this strategy) Halton plans to obtain answers to some fundamental questions that the use of Telehealthcare raises. What are:

1. The benefits
2. The opinions of local people (users and professionals)
3. The principal drivers behind the popularity of Telehealthcare
4. The actual savings that it generates
5. Halton's priority areas over the life of the strategy
6. Halton's action plan to deliver in these priority areas
7. The challenges and how these will be met
8. What important milestones will be met on the way to 2018
9. Halton's approach to keeping abreast of future developments in the technology

1. The Benefits of Telehealthcare

This strategy uses as its source material the accompanying evidence paper. Informed by research, this highlights current best practice from other local authorities in England and elsewhere. Such practice clearly demonstrates that Telehealthcare can benefit the following groups of people who:
- o Are frail/ elderly
- o Have long-term conditions such as: obesity; diabetes; COPD; chronic heart failure
- o Are at risk of falling
- o Have dementia and other mental health conditions
- o Have a learning, physical or sensory disability
- o Have carers who need extra support

The social care and financial arguments supporting the use of Telehealthcare stem from the DoH 'Whole System Demonstrator' programme and other controlled studies since, such as Medvivo which was conducted in a large GP practice (Portsdown Group Practice). Medvivo (2014) found that the following gains are possible for individuals with COPD:
- 45% reduction in patient deaths (predominantly people over 65);
- 52% reduction in hospital admissions;
- 36% reduction in visits to Accident & Emergency (A&E);

- 35% reduction in GP visits;

In an attempt to estimate overall cost savings they found the following savings per person per year:

- £1,250 in reduced unplanned hospital admissions
- £110 in reduced visits to the GP
- £480 reduced visits by the community matron
- £30 in reduced attendance at A&E
- **£1,870 total annual savings per individual with COPD** (not including equipment and training)

However, it is important to note that few studies to date have included in their analysis the cost of equipment and training…etc. Initially this is likely to be substantial and in the case above, each person would require a laptop, specific monitoring devices, training and a programme of support. Any saving to be made by adopting Telehealthcare tends to be realised a number of years after implementation. Hence the general strategy for Telehealthcare adopted by local authorities, has been one of "invest to save." This results in pilot projects being used to test the benefits of the technology on small groups of individuals and if outcomes are met, further investment and expansion.

2. What local People Say:

A pilot study entitled '*Managing long-term conditions using telehealth in Halton and St Helens'* was carried out in 2013 and involved 60 Telehealth packages commissioned from Tunstall Healthcare. It was offered to individuals in three different chronic disease areas: heart failure, Chronic Obstructive Pulmonary Disease (COPD) and Stroke.

Community matrons reported that:

- o Home visits were reduced
- o They could prioritise their workloads more effectively
- o Worsening of individual conditions was prevented
- o Interaction with Sefton Careline enabled a more preventive approach
- o Integrated working between health and social care was greatly improved
- o People received a better quality service
- o People experienced reduced levels of anxiety, better medication compliance and better self-management

The head of service delivery, Community Health Services said -

> "By deploying the Telehealth system for community-based care we are empowering patients, reducing anxiety, promoting independence and so improving overall quality of life. Telehealth also educates patients to be aware of their symptoms, to manage them, reducing part of the burden on healthcare providers"

A 59 year old type 2 diabetic who had suffered as stroke 2 years previously, was morbidly obese and hypertensive said -

> "Telehealth has given me and my family the greatest sense of security ever. I now feel like I'm in control of managing my own health."

From an individual perspective, Telehealthcare has the following important benefits:

- ➢ It greatly enhances prevention by enabling more efficient communication and response between the person and health and social care professionals. This enables potential problems to be identified and treated at a much earlier stage with obvious benefits
- ➢ It allows the person to remain at home in greater safety, giving them and their family (carer) more confidence that assistance can swiftly be summoned when required
- ➢ It increases self-confidence, enabling the individual to have more control over their life and the quality of their life. At the same time they feel safe in the knowledge that any issue which

previously was a major risk-factor can now be controlled. This allows the person the freedom to get on with their life, rather than being constrained by anxiety over their condition

➢ It facilitates daily interactions, which even on an automated basis help the person to feel more connected and less lonely – they know information about their well-being is being sent to others and that 'someone cares'

➢ Monitoring health data will help us to understand better how loneliness links to negative health symptoms, allowing us to inform future policy and strategy development (e.g. by providing an evidence-base that will enable us to invest in community-based activities which ultimately generate health savings).

3. Drivers:

o Compared to 2015, Halton's estimated population of individuals aged 65 years and over will increase by 8% by 2018 and by 40% by 2030

o For those aged 85 and over the increases are even larger – 13% by 2018 and 86% by 2030

o The prevalence of all conditions increases as a percentage of total population year on year (apart from disabilities within the 18-64 age group, due to the decreases in overall population within that group);

o Of particular significance are the following predicted increases when comparing specific conditions from 2015 to 2030:

➢ 50% increase in the number of people aged 65+ living alone;

➢ 68% increase in the number of people aged 65+ with dementia;

➢ 49% increase in the number of people aged 65+ predicted to experience a fall.

o GP practices are major drivers in the development and use of Telehealthcare. Most of their patients are in the 60+ age group, living at home with long-term conditions. Telehealthcare makes it possible to reduce home visits in cases where the person's situation is not critical. This allows the practice to prioritise freeing up time for the GP to visit more serious cases

o In a sizeable community such as Halton, people have a wide variety of skills, talents and capabilities and are often looking for ways to contribute to their own or to a friend's or relative's support. Co-production recognises that people have assets such as knowledge, skills, experience, friends, family, colleagues and interests. These assets can be sampled to support a person's health and wellbeing. Halton is already making significant cultural and organisational shifts to embed asset-based approaches and co-production. However, it is clear that the future of person-centred healthcare whether driven by digital technological development such as Telehealthcare, or not, will require an important element of co-production.

o The Care Act 2014 which highlights the importance of wellbeing, independence and prevention.

It is clear that, in line with the national picture, Halton will inevitably experience an increase in its ageing population with expanding health and social care needs. In particular, there will be significant increases within the older age group of 85+, which is often characterised by having the highest and most complex needs. In the context of reduced funding from central Government, there will be a need to be efficient and innovative, to ensure that the needs of the population can be met now and further into the future.

Telehealthcare will have a major part to play in this, with benefits that are two-fold; it promises a more cost-effective response than traditional services which are heavily reliant on paid care staff visits or admission to residential care and it can actually improve outcomes for individuals and their family/carers. This is because services that allow people to remain in their own homes and lead an

independent life are in line with individual wishes for greater choice and control and also result in reduced feelings of pressure and anxiety for carers.

There is a commitment to increase the use of Telehealthcare in Halton to help address the financial challenges that are being faced by adult social care, as well as to ensure we continue to work towards truly personalised services and that we meet the requirements brought about by the Care Act 2014. It is acknowledged that this work will be most effective when the Council works jointly with health services and other partners.

4. Savings

This is the most problematic area of Telehealthcare. No single controlled comparative study has actually shown that a heavy investment in Telehealth digital technology will guarantee savings. Many have demonstrated that costs can be greatly reduced due to the fact that the person can remain at home longer and has far fewer episodes of ill health requiring a GP call-out or admission to A&E or an overnight stay or longer admission in hospital. However, against such obvious savings is the initial outlay in Telehealthcare equipment, maintenance, training and annual fees that are charged by Providers. Future developments will undoubtedly result in lower costs, as many systems are based on the use of 4G mobile phones which have very powerful data capture, presentation and analysis capabilities. Further as the development of the internet of things continues, home based Telecare and Telehealth devices will be able to communicate with each other to the extent that the base unit could be located within the person's television. This however will be beyond the life of this strategy.

Some gross estimates of costs per person per year are provided in the Evidence Document (section 4.8, 4.8, pages 20-23). For example, 'Falls' data (Table 8) suggests that Telehealthcare (Telecare) is saving the total annual cost of 1,000 falls costing £845,000. This however does not equate to a direct saving. The cost of equipment, training and telecare staffing…etc would also be substantial and is difficult to estimate. This is also the case for other often quoted areas of savings (facilitation of hospital discharges to a Telehealthcare service at home and GP call outs.

Table 8 (page 22) of the evidence document attempts to show by extrapolation from 2013-14 figures to 2017-18 gross comparative costs of social care with and without Telecare. The difference line implies an estimated annual saving by 2018 of £760,000. However, this doesn't take into account the increase in preventative services (non-Telehealthcare) over the same period which could substantially reduce the 'Without Telecare' costs. Such prevention would result from: enhanced Surestart, better information, an increase in carer activity and its impact due to the Care Act, improved signposting and greater involvement from voluntary services. This being the case the annual saving could be substantially less and closer to £400,000.

Accurately gauging savings as a result of investing in Telecare remains the principal difficulty facing all local authorities. The argument for the cost effectiveness of Telehealthcare has yet to be made. However, there is little doubt that the benefits of digital technology to both the individual and health and social care professionals are substantial. A major aim of this strategy will be to acquire a more accurate estimate of costs and savings and this will be a central theme of all future grant funded pilot studies.

5. Priority Areas

- ➢ Increase local awareness
- ➢ Keep pace with current development by piloting new technology via successful grant applications
- ➢ Deliver a quality service that is seamless and tailored to individual need
- ➢ Work in partnership with the NHS, housing and voluntary services
- ➢ Review the service regularly (at least annually) to ensure outcomes are met and there is clear continuous improvement
- ➢ Expand the service annually to keep pace with the increase in older people in Halton and their awareness of what Telehealthcare can do.

6. Halton's Action Plan for Developing Telehealthcare Services (Work-streams -Table 1)

The purpose of the Action Plan is to focus on Halton's priority health and social care needs. The plan will develop appropriate solutions to ensure outcomes are met. Table 4 (page 17) of the Evidence Document lists all of the priority conditions in Halton and their use of Telehealthcare and Table 5 provides further information on equipment that can monitor each condition.

The Action Plan lists each of the six work-streams and the overall approach taken is to:

- ➢ Improve and integrate health and social care
- ➢ Improve individual wellbeing as defined in the Care Act 2014
- ➢ Recognise the role of individuals making them aware of the benefits of Telehealthcare
- ➢ Focus on measurable agreed outcomes and   measure   more   accurate   savings   which includes equipment costs and training …etc
- ➢ Maintain awareness of digital technology developments and make available information about its benefits
- ➢ Raise awareness locally and recognise the important roles played by partner organisations

Relevant teams are listed under each work-stream in Table 1 below. This also includes an approximate timescale, though most of the work will be extended across the entire life of the strategy.

Condition	Current Telehealthcare Solutions	Service Gaps	Future Ideas for Service Expansion

6 Action Plan – Telehealthcare (THC) Work-streams 2016-18   Table 1

Work-stream	Title
1 **Who**: Care Management, CCG, THC **Timescale**: Quarterly planning meetings 2016-18	*Improve and integrate health and social care:* • Helping people with long-term conditions to live independently at home by supporting them to manage their own health and care • Embedding Telehealthcare in such a way that people can move smoothly through transitions between services • Using Telehealthcare within preventative approaches
2 **Who**: Care Management THC, Surestart, **Timescale**: 2016-17	*Enhance Wellbeing:* • Supporting people to be active participants in the design and delivery of their technology-enabled services • Expanding service models for community based support and wellbeing
3 **Who**: Care Management, Carers Centre, Carers Commissioner, THC, Training **Timescale**: Throughout 2016	*Empowering people:* • Recognise the importance of the role provided by carers and develop solutions that will meet their needs and wellbeing • Raising awareness and evidencing the benefits for individuals and carers
4 **Who**: CF6, Performance, Care Management, THC **Timescale**: (pilot study) 2016-17	*Improve sustainability and enhance value:* • Develop consistent measures to track the impact Telehealthcare is having on individual outcomes and working practice • Establish a means of measuring actual savings due to the use of Telehealthcare
5 **Who**: Information and ICT leads, Marketing, LCR AT group, THC, Public Health **Timescale**: Throughout 2016-18	*Assisting development and economic growth:* • Spread awareness of the importance of digital technology developments among users, practitioners in enhancing independence and reducing risk • Keeping abreast of current developments in digital assistive technology particularly those using mobile phones with Apps
6 **Who**: CCG, Housing, HVS, Care Management, Marketing, Public Health **Timescale**: Throughout 2016-18	*Exchange development ideas, learning and best practice:* • Recognising and meeting the needs of health, housing, social care, independent and 3rd sector providers for new skills, education and training • Raising awareness, publishing and promoting innovative approaches, good practice and individual personal experiences

High Blood Pressure **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	BP monitor, GPS on phone Fall detector - waist, wrist, neck Door access – digital, wireless Mymedic unit		Use of Mobile phone Apps which combine BP and Fall detectors along with lifestyle monitoring.
Obesity **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	Glucose meter, BP monitor Weight scale Adapted home/ mobile phone Fall detector – waist wrist neck Mymedic unit	Automation can be blended with supervision and therapy. These could be tailored to the needs of the user with the view of improving lifestyles.	Preventive digital therapies are being developed to help people make changes to reduce the risk of developing long-term conditions (see Table below). Current approaches involving the Halton's preventative strategy such as information about healthier lifestyles, available local and national initiatives, health improvement strategies and individual monitoring and can be produced as an App for mobile phones.
Falls/ Stroke/ Epilepsy **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	Currently using a range of sensors in supported accommodation: BP monitor, GPS on phone Fall detector - waist, wrist, neck Door access – digital, wireless Mymedic unit		Looking at ways of embedding Telehealthcare into Reablement programmes.
COPD/ Asthma **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	A specific question tree is used with Telehealth.	No equipment is used to monitor either COPD or Asthma	Telehealthcare offers new ways to help manage rising costs and demand and economic work in Scotland suggests that using it to monitor people at home who have COPD has the potential to offer better value for money than conventional care. Halton's 'Respiratory Strategy' stresses the importance of: earlier detection of respiratory diseases; preventing respiratory ill-health; and promoting self-care and independence. Important service objectives stemming from the use of Telehealthcare at home are: patient-centred care which allows individuals with respiratory conditions to be more independent, taking more responsibility for their own care and quality of life; and improved long-term health outcomes for both the people with the condition and their carers.
Diabetes **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	Glucose meter Adapted home/ mobile phone GPS on phone Dashboard portal		Investigate the use of the smartphone as a 'Hub' for new diagnostic approaches. Glucose monitoring controlled by the phone and data sent to the Mymedic unit for GP response. Interventions to change lifestyles through regular coaching and group sessions can reduce the risk of developing diabetes.
Dementia/ Mental Health **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	Adapted home/ mobile phone Fall detector - waist, wrist, neck Heat, flood, CO Gas detectors Enuresis detector Open door detector GPS on phone Door access – digital, wireless Dashboard portal	Investigate digital therapy platforms. These enable people to connect with peers and share their experience. or connect with health professionals remotely.	Investigate the possible use of mobile phone Apps (Ginger.io. is one example). This is a depression programme enabling people to track their own mood. This can be combined with data from sensors in the smartphone which log the person's movements and their telephone use. This data can be shared with clinicians and offers an intervention when the data suggests they may benefit from support. Investigate the development of sensors around issues such as falls and wandering.
Adults with a Disability **Cost of training equipment …etc**: Monitor 2 people for 12 months to estimate annual cost of THC service. £250	Adapted home/ mobile phone GPS on phone Flood, CO, Gas detector		Incorporate elements of the current 'loneliness strategy' and the use of a mobile phone app to reduce social isolation within this group.

Table 2 Future Pilot Study to determine accurate costs/ savings in areas where there is a current a service gap.

7. Challenges and how these will be met

Table 3

	Barriers and Challenges	Solutions to the barriers and challenges
Public Awareness of the existence and potential benefits of the technology.	Telehealthcare improvements and new products are occurring at such a pace, it is difficult to keep abreast of developments. Often information is presented in specialist publications that the public (especially the older public) have difficulty accessing. There is a need for improved public marketing and education about the benefits to be had from using Telehealthcare.	A good way of informing Halton residents in general, older people especially, is to demonstrate by means of individual case studies. The University of Stirling Joint Improvement Team have cited a number of Case Studies which show how this approach can be very helpful (Telecare and sensory impairment – Using telecare effectively in the support of people with sensory impairments, University of Stirling, 2010, p. 23-27).
Telehealthcare Infrastructure, Training and workforce issues.	An area of major development in Telehealthcare is in 'Digital Therapeutics.' These are health and social care interventions that are delivered either wholly or significantly through a smartphone or laptop. They integrate clinical practice and therapy into a digital form. At a minimum, such interventions allow clinical information on a health condition to be combined with advice and techniques for dealing with that condition. They allow people to connect with peers and professionals remotely and the therapy offered can be tailored to their specific needs. Training is the principal barrier, particularly for users aged 65+ but also for those professionals who will be responsible for using the data to provide directed therapy.	Appropriate training must be in place and any advice or therapy offered targeted to the person, their needs and expected outcomes. Such Digital Therapeutics are often cited as a solution to help manage long-term conditions that call for behaviour (lifestyle) changes.
Accurate estimate of Savings minus Installation costs of Telehealthcare.	Few independent studies have provided accurate data on estimated savings.	This is an area that Halton will focus on over the life of this strategy. Future pilot studies of new equipment will incorporate this kind of analysis. The Telehealthcare Steering Group will need to be expanded to include further representation from: ICT, Care Management and the CCG.

8. Strategic Milestones on the way to 2018

We have set ourselves 3 strategic milestones to be achieved during the life of this strategy:

- o Telehealthcare will enable choice and control in health, care and wellbeing services for an additional 300 people who have long-term conditions
- o Increased awareness will enable those individuals who make use of health and social care services to be more proactive in seeking to use Telehealthcare systems
- o We will promote and engage with an interactive community of innovators, service providers, health and social care professionals capable of piloting, delivering and assessing new Telehealthcare services

9. Keeping Abreast of Future Technology

Each year sees the development of technologies that could have a significant impact on a person's health and social care. Much of the technology is still on the horizon, but there is no doubt that the way local authorities approach health and social care, will of necessity have to change and adopt a digital approach. Such change will undoubtedly be driven by the use of digital technology. This will integrate both disciplines in such a way that individuals with specific needs will be able to communicate personal data monitoring their wellbeing to health professionals, who can then respond appropriately.

The Kings Fund (2016) has highlighted a number of such technologies that are predicted to change health and social care[1] An important part of Halton's strategy will be to monitor such digital developments and to seek funding to pilot test different approaches, particularly around key priority areas such as: COPD, Diabetes, Falls, Dementia, Disability, Mental Health and Heart disease.

Telehealth and Telemedicine will facilitate the remote monitoring of patients within their own homes and support their condition in a community setting, to help to enable patients to retain greater independence. This digital technology will play an important role in the future care of patients with respiratory disease and other long-term conditions. For example, NHS Halton CCG expects Halton's Community Respiratory Service to make use of innovative, new and developing technologies to support patient care and achieve the outcomes outlined below:
- A reduction in A & E attendances
- A reduction in avoidable Emergency Admissions to hospital
- A reduction in delayed transfer of care for patients who have been admitted to hospital
- A reduction in permanent admissions to Nursing and Residential Care (including End of Life)
- A reduction in readmission to hospital

In this respect, Halton's overall approach to Telehealthcare is one of 'investing to save.' A recent successful partnership bid involving HBC, NHS Halton CCG and a Small Business Enterprise with the Royal Liverpool University Hospital, will acquire £25,000 of funding from the Local Government Association (LGA) to develop a digital application.

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[1] Gretton, C. and Honeyman, M., The Kings Fund, The digital revolution: eight technologies that will change health and care, 1st January, 2016.

Halton intends to use this funding to invest in the unique development of what will ultimately become a universally available software application made available free to other LAs and which will result in substantial council savings (estimated as £50,000 annually). These projected savings will stem from reductions in: GP and other health and social care professional home visits, hospital stays, ambulance call-outs and trips to A & E as a consequence of using the software at home, in residential care homes and GP practices.

Halton will use the funding as follows:

- Initial software development (phase 1) and technical work that will enable the application to integrate with existing EMIS data logging resources that Halton and the majority of other LAs already have installed in their GP practices. This phase will involve the development of movement and temperature monitors customised to typical service user need (**£13,000**)
- User testing phase for proof of concept and scalability (**£1,500**)
- Development of phase 2 software to add oxygen saturation, plethysmography, cardiac monitoring and breathing rate in visual form for use with patients living at home with COPD or high cardiac risk (**£6,000**).
- Further testing phase for proof of concept and scalability (**£1,500**)
- All project management and training costs (**£3,000**)

The overall project will align with Halton's Strategic response and also as an action that is both based on and driven by the local CCG respiratory strategy. The potential benefits to the COPD and cardiac risk patient and their Carers at home are enormous, in terms of reduced risk through the use of state of the art telehealth care software. This will enable self-monitoring and provide early prevention of serious developments with data going straight to the GP surgery in easily understood visual form. This will allow health professionals to respond to a person's data before a crisis arises, or becomes worse, before being life threatening.

Summary

1. Further developments in Telehealthcare which integrate the use of digital Technology in health and social care, will play a major role over the lifespan of this strategy. Its importance lies in the fact that it:

- ➤ It greatly enhances prevention by enabling more efficient communication and response between the person and health and social care professionals. This enables potential problems to be identified and treated at a much earlier stage
- ➤ It allows the person to remain at home in greater safety giving them and their family (carer) more confidence that assistance is always at hand when required
- ➤ It increases self-confidence, enabling the individual to have more control over their life and the quality of their life. At the same time they feel safe in the knowledge that any issue which previously was a major risk-factor can now be controlled. This allows the person the freedom to get on with their life, rather than being constrained by anxiety over their condition.

2. Halton will continue to expand and improve its Telecare monitoring service throughout 2016 – 2018. At December 2015, we currently have 2,862 individuals using the telecare service. We aim to increase this by approximately 2%, year-on-year. Our target for the end of 2018 is **3,037** at an estimated cost of £36,000 for equipment, training, assuming no increase in current staffing. The intention is to fund this expansion through grants for pilot studies which will closely measure actual savings.

3. We will also continue to explore Telehealth as a means of tackling the formidable problem of loneliness which can have a serious negative impact on an individual's health and on their quality of life. Some estimates suggest this impact is equivalent to: smoking fifteen cigarettes each day; more severe than not exercising; and twice as harmful as obesity (Holt-Lundstad 2010). The lonelier a person is, the more likely they are to experience increased symptoms of depression. Loneliness has been linked to hypertension and in developing cardiovascular disease. Lonely individuals are twice as likely to develop Alzheimer's disease and conversely having dementia increases feelings of loneliness. Lonely people are also more likely to be admitted to care homes and hospitals. Our use of digital technology will help us to combat loneliness both now and in terms of informing future social care policy direction by:

❖ Facilitating daily interactions, which even on an automated basis help the person to feel more connected and less lonely – they know information about their well-being is being sent to others and that 'someone cares'

❖ Electronic monitoring of key health data will enable us to work to prevent situations which may exacerbate a person's loneliness e.g. preventing a fall (through monitoring blood pressure, weight, activity levels, and give dietary advice) which would limit mobility and social inclusion, preventing hospital admission which will disconnect the person from their familiar environment and relationships

❖ Monitoring health data will help us to understand better how loneliness links to negative health symptoms, allowing us to inform future policy and strategy development (e.g. by providing an evidence-base that will enable us to invest in community-based activities which ultimately generate health savings)

4. By improving communication in health and social care, the strategy will aim to support collaborative working and prevent health deterioration. This approach will involve the improved use of digital technologies such as the Electronic Monitoring Information Systems (EMIS), the Apple Health App and Patient Access apple. This will be the most ambitious use of Telehealthcare in Halton as it will involve information sharing between social care providers, GP's, hospitals and wider health services. This includes the ability to share and access real time data across multiple professionals/providers. Empowering people supported to be in control of their own health monitoring also works to increase the confidence, engagement and ability of older people to self-manage health needs. Planned applications include:

- An 'End of Life' electronic register linking hospice, primary care and care homes
- NWAS electronic alerts to reduce unplanned admissions
- Electronic prescriptions to reduce medication errors
- The adoption of a 'Nutrition and Hydration' application for care home staff to avoid poor nutritional status in care home patients
- A 'Weight Monitoring' application for care home staff for early identification of poor nutritional status and early disease pathology

The extended use of digital technology will enable us to build on some work already undertaken. This involves digitising GP contacts and a recent development where GP's work alongside care home managers, to alleviate the need for particular individuals being admitted into Hospital. Thus far (December 2015) this work is delivering some extremely positive results. The care home involved, has called on the Ambulance Service only half as much compared with other care providers in the borough and Hospital admissions have been reduced by 80%.

5. Through the application of Telehealthcare we aim to focus on efficiency by reducing the number of Safeguarding Alerts. This will provide a better quality service that is significantly more effective in its use of a Social Worker's time, as well as that of the GP. Also, by highlighting improved quality, we hope to achieve a reduction in additional separate health and social care quality assurance visits. We plan to focus on the use of integrated quality assurance.

6. The strategy will aim to demonstrate ways of using digital innovation which involve new ways of working. within both health and social care to further individual goals which collectively work to achieve the shared ambition of promoting the health, happiness and well-being of old**e**r people and correspondingly making the more effective use of scare resources. This is true integration. Evidence also shows where localities and health services are proactive in knowing their population and are able to understand individuals more fully, then related health problems can be managed much more effectively.

The use of EMIS terminals that have supporting software enabling communication with the GP Practice can significantly improve, the person's health which can be proactively managed with the results of tests being forwarded directly to a patient's record. Access to the technology is via software that can be installed on an IPad/tablet and then can be used to arrange virtual electronic GP consultations and real-time updating of patient records. This information creates an electronic version of Hospital Passports and health action plans which will also prove extremely useful when care providers need to communicate with hospitals. The automated element of this technology will enable better management of things such as Nutrition, Rehydration, Safeguarding, Hypertension and Respiratory problems. The empowerment of people supported by giving them control over the technology (underpinned by training) will further the choice and control agenda.

7. Expected outcomes the strategy aims to deliver:
   - Reduced use of acute services and hospital admission by preventing key health issues leading to this for example, undetected UTI's, falls, malnutrition, dehydration etc
   - Reduced loneliness by preventing health issues which restrict the person's ability to engage in social opportunities and activities e.g. maintaining mobility, preventing hospital admission
   - Promote the confidence and self-esteem of older people by empowering them to engage in health self-management
   - Reduced pressure on Social Worker, GP and other health and social care resources by information sharing which helps inform the most accurate response to the person's needs
   - Development of an evidence-base which will help to target investment in community resources to reduce loneliness and its corresponding negative health symptoms
   - Better integration of health and social care – avoiding duplication of resources and ensuring individual priorities are met.

Holt-Lundstad, J. (2010), Social Relationships and Mortality Risk: A Meta-analytic Review. PLoS Med 7(7)
http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&sqi=2&ved=0ahUKEwir0fTpoe3JAhXGWxQKHXOnAX4QFggtMAE&url=http%3A%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F20668659&usg=AFQjCNEi96Cf4Ii0Fh8K7dn9yJiw5jVrsQ&bvm=bv.110151844,d.d24