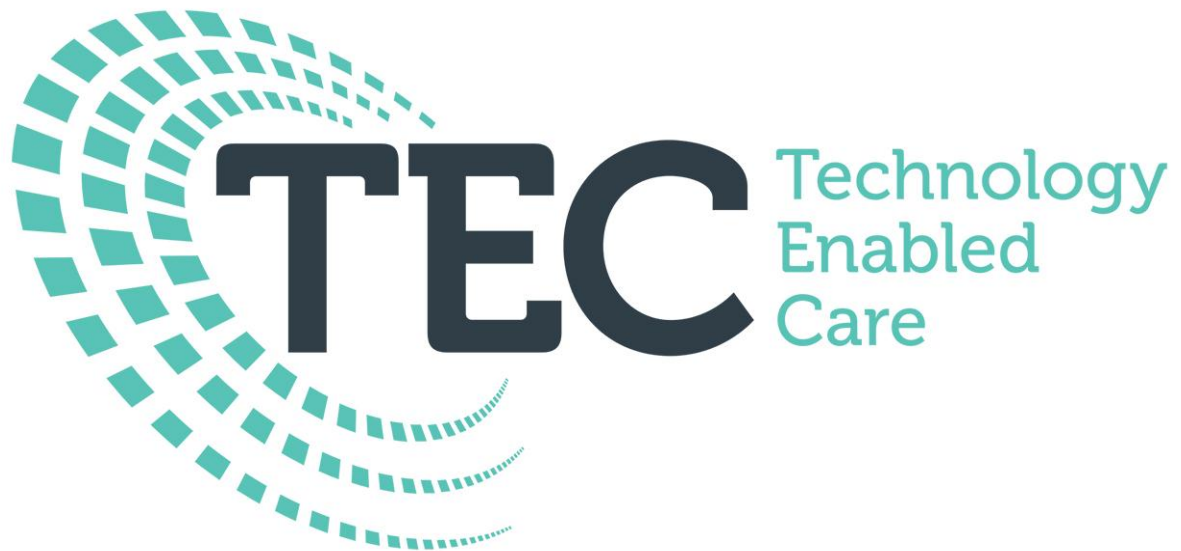


Supporting & Empowering Scotland's Citizens

National Action Plan for Technology Enabled Care
August 2016

SUPPORTING & EMPOWERING SCOTLAND'S CITIZENS



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OUR VISION

"Scotland is an international leader in technology enabled care, supporting more people to live longer healthier lives at home or in community settings."

INTRODUCTION

Development of the use of digital across society, including throughout the public sector, is a key strategic priority of the Scottish Government. Within the context of health, housing & social care, digital technology offers new and exciting opportunities for transforming the outcomes and experience of our citizens – including patients, service users and carers – as well as transforming the quality and reducing costs of health and care services.

Scotland is currently at the forefront of implementing technology within care settings (for example, over 80% of those in receipt of formal social care services already use telecare to support their independence at home), but there is still massive potential to reach more people, to offer more direct health/care support and to realise more benefits. It is imperative we continue to invest energy, imagination and resources to maintain our leading position.

This Technology Enabled Care Action Plan aims to support a transition to an integrated Digital Health and Care Strategy for Scotland from 2017 within the context of Scotland's Public Sector Reform ambitions, which specifically identifies digital as a core building block.¹ The new strategy will supersede and build on the successes of the eHealth Strategy to 2017 and the National Telehealth and Telecare Delivery Plan to 2016.

The National Clinical Strategy for Scotland, which sets out our ambitions for how health and social care will evolve over the next fifteen years, also recognises the importance of shifting to greater self-management and independence. This has a greater focus on person-centred and community delivered care, underpinned by increased adoption of modern technologies.

With the advances already made in the introduction of technology opportunities within our health and care system in Scotland, it is now appropriate to shift our focus from 'technology' itself to 'care, supported by technology'. To support this transition, the Scottish Government has adopted 'Technology Enabled Care' (or TEC) as a simpler and broader term for describing our citizen facing activity.

This change in language recognises:

- the significant advances in technology, which mean that increasingly only one familiar device, or platform, can carry out multiple functions rather than having to use multiple and specialist devices; and

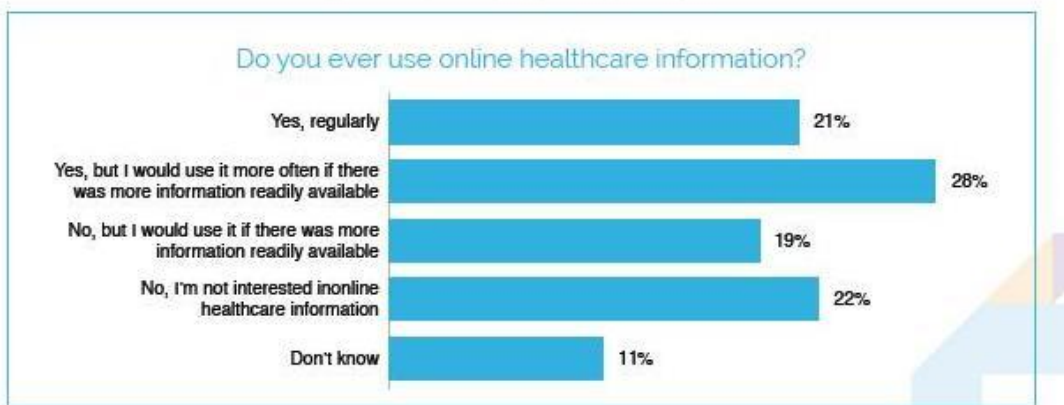
¹ Renewing Scotland's Public Services: Priorities for Reform in Response to the Christie Commission, 2011. Page 5. See <http://www.gov.scot/Resource/Doc/358359/0121131.pdf>

- the emphasis needs to be on enabling care using the most up-to-date methods, and not on the technology – i.e., any change needs to be service led and outcomes driven, not technology led.

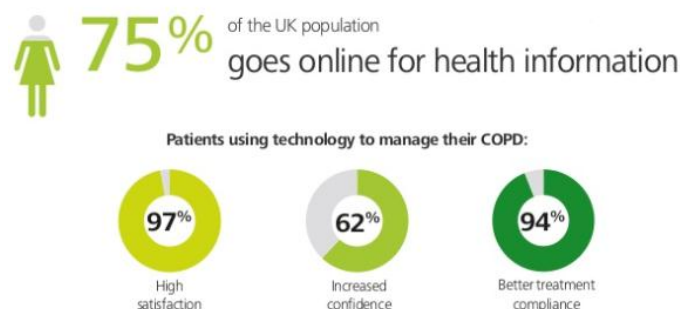
TEC is an enabler, and its effective use is dependent on health and care commissioners, professionals and providers taking a more strategic and systematic approach to technology that goes well beyond small scale initiatives. TEC can add significant value to the redesign of service processes, and improve the delivery of personalised and preventative care through offering more mobile, responsive and tailored solutions – but only if TEC shifts from being a “desirable option” to a “core necessity”.

“...wide scale adoption of TEC will be essential for sustaining the future health and social care system.”²

There is also a clear and significant shift underway in citizen adoption of technology within everyday lives – 6 out of 10 adults in Scotland now own a Smartphone, and 52% of adults have a tablet computer in their household,³ with evidence emerging that many people are using technology in support of their health and care.



Source: YouGov 2015



Source: Deloitte Centre for Health Solutions

² Deloitte Centre for Health Solutions, *Connected Health: How Digital Technology is Transforming Health & Social Care*. 2015

³ Ofcom Scotland Market Report – (Aug 2015)

Example 1 – Use of Digital for Self-Diagnosis

- 1 in 4 UK adults currently self-diagnose;
- Internet is first port of call for health information for adults under 65;
- 75% of the UK population goes online for health information;
- UK second in the world behind the US for use of online self-diagnosis.

Success is ultimately dependent on our staff teams, professionals and leaders stepping forward confidently to embrace new models of health and care delivery.

There is also a requirement to integrate more effectively with our wider health and care ICT infrastructure, and this will be a key focus of the new Digital Health & Care Strategy going forward.

OUR AIMS

Our over-arching aim is to contribute to preventative and personalised care and support for those with care needs and their carers, supporting our citizens to make greater use of technology to manage their own health and wellbeing at home and in the community as a key contribution to the 2020 Vision. In order to achieve this, we will:

- Continue to deliver a shift from projects and initiatives to strategic and scaleable developments;
- Ensure that we continually learn from our own and the experience of others, on track to embed technology as a fundamental part of system redesign;
- Create an environment for innovation opportunities to thrive and inform the future direction for technology enabled care in Scotland, fully exploiting benefits for our citizens and our economy.

PRINCIPLES

The principles underpinning our vision and aims are:

- **Citizen-centred:** work with citizens, users and patients to co-design and develop solutions which support the management and delivery of their own health and wellbeing, with a particular focus on addressing health inequalities;
- **Flexible:** facilitate flexible solutions which expand choice, control, coverage and accessibility;
- **Familiar:** build on existing and increasingly familiar technologies and favour the adoption of simple, low cost approaches which can be tailored to the individual, utilising users own technologies where and when practical to do so;
- **Facilitative:** Support service redesign to integrate new ways of working into mainstream service provision and pathways;
- **Innovative:** secure continued investment in innovation to ensure a pipeline of 'next generation' solutions for the benefit of our citizens and our economy,

and work with national procurement bodies to ensure supportive procurement frameworks;

- **Efficient:** optimise efficiencies through significantly scaling up the application and use of TEC in home and community settings, and enabling our specialist health and care resources to be targeted in the most effective ways.

“digital technology is one of a small number of genuine opportunities to sustain the health and care system.”⁴

OUR RECORD

We continue to have an excellent record of achievement in our TEC ambitions, with the four key milestones established within the National Telehealth & Telecare Delivery Plan (2012 – 2016), successfully delivered.

Established Milestones to 2016	Progress
Telehealth and telecare would enable choice and control in health, care and wellbeing services for an additional 300,000 people.	DELIVERED: The full figures to the end of March 2016 will not be published until November 2016, but early indications are that we have exceeded the milestone, with more people than ever before able to access telehealth and telecare across a range of services, supports and options.
People who use our health and care services, and the staff working within them, will proactively demand the use of telehealth and telecare as positive options.	ON-GOING This remains in progress, with a broad range of activity supporting the objective. Deliverables to date include; <ul style="list-style-type: none"> • NHS Education for Scotland (NES), the Scottish Social Services Council (SSSC) and the Scottish Centre for Telehealth & Telecare (SCTT) commissioned an analysis of current staff’s access to technology, technology skills and support in using technology across Scotland’s health and social services. This identified that technology is generally seen as helpful in providing care and support (80% respondents), particularly in supporting efficient decision-making by staff and service users (76%). • A patient.co.uk survey of 7,000 people identified that 60% of respondents had an interest in monitoring their chronic condition using a mobile app. • Our engagement with over 3,500 people as part of the Living it Up Project evidenced that our older population want to be able to use technology to manage their lives better. • Research carried out by the Department of Health shows that 75% of the UK population goes online for health information, and 50% use the internet for self-

⁴ Nesta. See <http://www.nesta.org.uk/project/digital-health#sthash.Hb3gLXhZ.dpuf>

	<p>diagnosis (see example 1 above).</p> <ul style="list-style-type: none"> It is estimated that around a quarter of all over 75s already use technology (primarily telecare) to support them at home.
<p>There is a flourishing Innovation Centre where an interacting community of academics, care professionals, service providers and industry innovate to meet future challenges and provide benefits for Scotland's health, wellbeing and wealth.</p>	<p>DELIVERED: The Digital Health & Care Institute (the DHI) was successfully launched in October 2013. It now has over 100 projects underway within its development pipeline and informs future care delivery through facilitating our national ecosystem events which debate challenges facing health and care with input from industry, academia and health and care practitioners to explore and develop solutions.</p>
<p>Scotland has an international reputation as a centre for the research, development, prototyping and delivering on innovative telehealth and telecare services and products at scale.</p>	<p>DELIVERED: We have received multiple requests and have hosted around 50 international delegations from across Europe, Japan, New Zealand, Korea, Australia, America and Canada. Via our delivery partner, the Scottish Centre for Telehealth & Telecare (SCTT) in NHS 24, we successfully attracted over £5 million inward investment from Europe over the past 3 years. This has been in support of a range of technology enabled care projects, such as United4Health, SmartCare (see example 2) and MasterMind. SCTT received 97 new European business enquiries and collaboration requests in 2015/16 alone. Scotland has formally signed Memorandums of Understanding with other European regions in support of knowledge transfer and international collaboration, and we build on our positive reputation in Europe by engaging with influential stakeholders such as the Chief Scientific Adviser to the President of the European Commission.</p>

CURRENT CONTEXT

Giving regard to global changes, it is relatively safe to assume that the technology landscape in which we operate will continue on its path of fundamental change. The biggest shift is anticipated to be in the private consumer space where there are already over 100,000 health-related apps available across Apple and Android, and with an increasing number of wearables, connected devices and trackers being used by the general population.

In January 2016, the Kings Fund published their view on eight technologies which are already being deployed in the NHS and internationally and which are most likely to change health and care over the next few years e.g. Smartphones, digital therapeutics such as computerised cognitive behaviour therapy, big data, connected communities. All of these are progressing in Scotland to an extent, however none are systematically deployed in our health and care system today.

“Some have described the smartphone as the new stethoscope, the difference being that the patient has one too.”⁵

The uptake of consumer devices and options (privately purchased by individuals as part of their day to day living) will create a corresponding challenge for public sector services as our citizens will increasingly expect two things to be in place:

- personal data generated by their own devices to be shareable with public sector health and care services;
- our health & care services to have adapted sufficiently to routinely use data and personal devices to support the management of health & wellbeing.

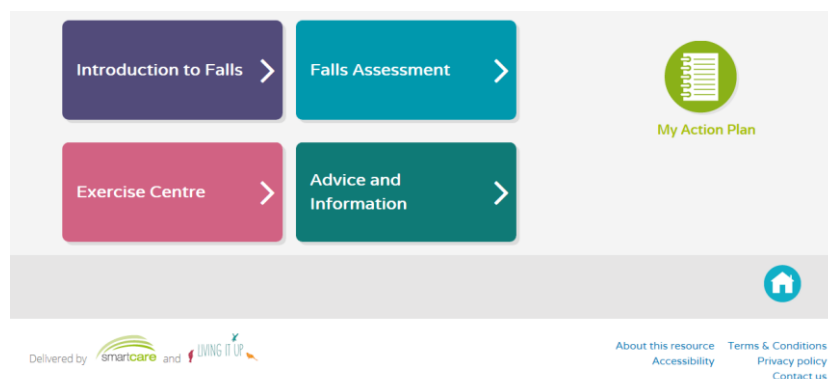
“The use of technologies such as smart phones, social networks and internet applications is not only changing the way we communicate, but is also providing innovative ways for us to monitor our health and well-being and giving us greater access to information. Together these advancements are leading to a convergence of people, information, technology and connectivity to improve health care and health outcomes.”⁶

Example 2: SmartCare

This three-year international programme was set up to improve Falls Prevention and Management, by supporting integrated care through improved care co-ordination and communication.

SmartCare was led by NHS 24, working in partnership with seven health and care partnerships in Ayrshire & Arran, Lanarkshire and Renfrewshire / East Renfrewshire.

Jointly funded by the Scottish Government and the European Commission, SmartCare has supported local communities and industry to co-design and develop three digital tools – a Person Held File, Care Coordination Calendar and a Falls Self-Assessment Tool, which enable the safe and secure sharing of health and care information including care at home appointments and medications. With the conclusion of the project phase, considerations on roll on and sustainability are progressing. See <http://pilotsmartcare.eu/home> for more.



⁵ Nuffield Trust, Delivering the Benefits of Digital Health Care, 2016

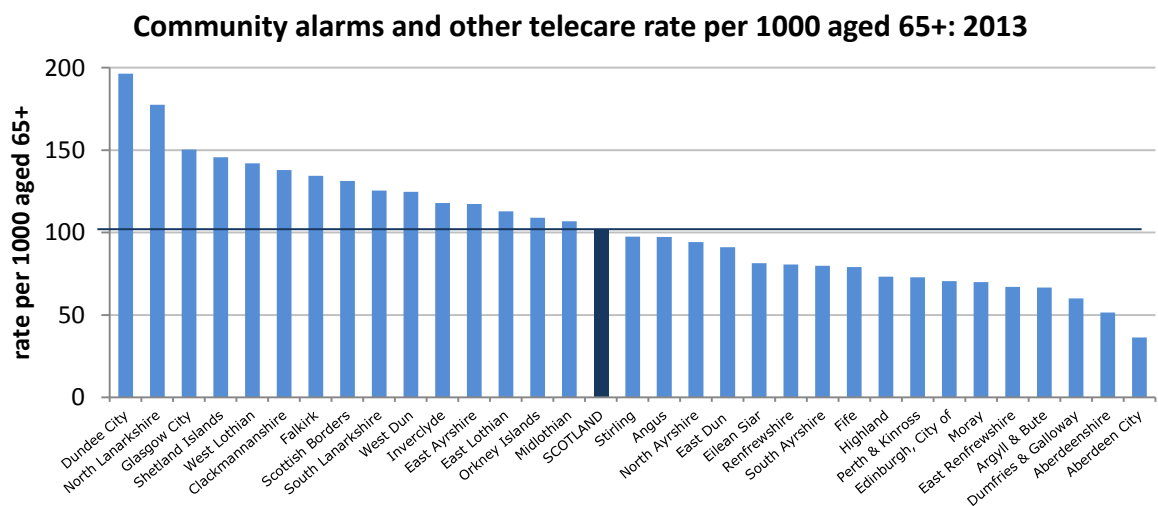
⁶ US Department of Health & Human Services – Food & Drug Administration – Digital Health

As highlighted previously, our emphasis has now shifted to technology enabled service change, as opposed to service delivery with the addition of technology. This is supported by our own experiences and lessons learned, as well as a number of key research documents and reports from a number of recognised global experts (see appendix for a sample list of sources). It is also derived from our work with partners in Europe on developing the *Critical Success Factors for Mainstream Adoption of Technology Enabled Care in Scotland*.⁷

“It’s fundamentally not a technology project; it’s fundamentally a culture change and a business transformation project.”⁸

Our own self-assessment of activity across Scotland to date has also reinforced:

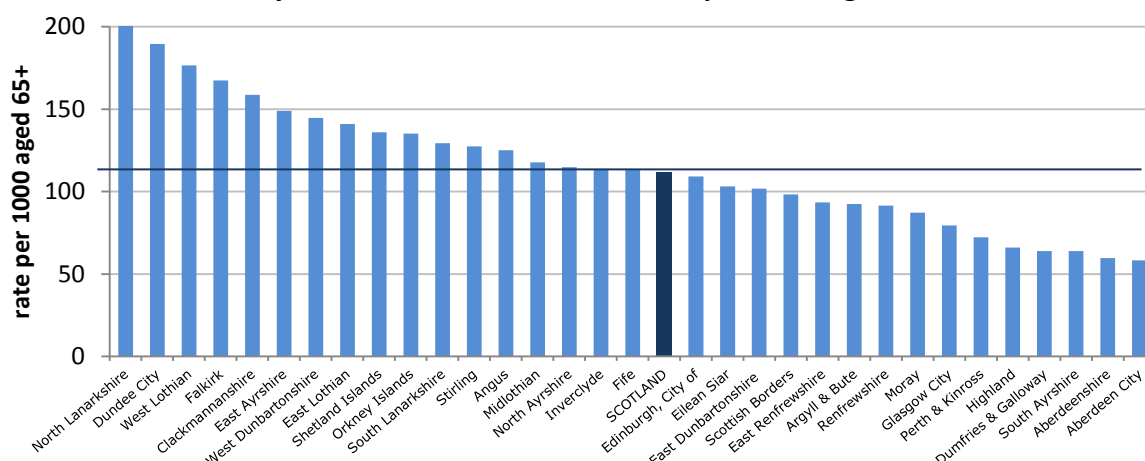
- While we have some excellent examples of specific interventions, we lack robust national and local infrastructures in support of Home & Mobile Health Monitoring. It is not sufficiently embedded or embraced by clinicians and NHS services across primary and secondary care or demonstrating effective cost to benefit ratios;
- There remains patchy adoption of telecare in prevention and within routine service interventions e.g. to facilitate early discharge from hospital, prevention of admissions and support for people with specific conditions, support for carers;
- Despite the patchy adoption, telecare is now well established across Scotland with over 160,000 telecare users. However, considerable variation still exists across different geographical areas – although the mean rate for Scotland has increased from 102 per 1,000 to 112 per 1,000 for over 65s, an increase of almost 10% in just two years:



⁷ <http://www.jitscotland.org.uk/resource/readiness-assessment-for-technology-enabled-care/>

⁸ Professor Robert Wachter, Chair of the Department of Medicine at the University of California and author of ‘The Digital Doctor’ (2015). Quoted in Nuffield.

Community alarms and other telecare rate per 1000 aged 65+: 2015



- Huge amounts of data is being routinely generated by technology enabled care devices, but this is not generally applied or integrated in a way which informs person centred care or strategic planning;
- Services are insufficiently mainstreamed, with a lack of high level strategic support at Board/Partnership level with a perpetuation of project/initiative approaches supported by short term funding;
- Sustainability is too often dependent on external funding with savings and efficiencies not resulting in ongoing core budgets.

Example 3 – Telecare & Dementia

In 2013, York Health Economics Consortium were commissioned to evaluate Renfrewshire’s use of Telecare to support people with Dementia in their own homes, demonstrating the significant benefits of utilising telecare in Scotland:

- Self-reported outcomes gave estimated net savings attributable to the 325 clients with dementia, over a five-year period, of **over £2.8 million**, equivalent to about £8,650 per client with dementia receiving a telecare system.
- The major savings were identified as 88 admissions to care homes avoided, saving 606 days each, at a daily saving of £48.06 (£29,124 per event), giving **total savings of £2.55 million**. A further £0.75 million was saved by 114 hospital admissions avoided.



ACTIONS FOR 2016 AND 2017

Key Activity Areas

To effectively focus effort and maximise deliverables over this transition period, we have identified the following four activity areas:

1. Continuation of the funded TEC Development Programme
2. Innovation Activity
3. International Engagement
4. Cross Cutting Enablers

1. TEC DEVELOPMENT PROGRAMME:

The Scottish Government will provide a continuing commitment to support the development and delivery of TEC in local health & social care partnerships, and their partners, through ongoing investment in the TEC Development Programme. This aims to inform and deliver technology enabled system redesign at scale and focuses on five key interconnected work areas:

- Home and Mobile Health Monitoring;
- Expansion of Video Enabled Services;
- Digital Services, including development of a Digital Platform framework;
- Telecare Expansion (including a shift from Analogue to Digital Telecare);
- Improvement and Support.

This Programme is the primary means of driving local activity, although there is an expectation that long-term sustainability is being led by local partnerships and integrated within strategic planning and service redesign. In year one of the programme (2015/16), self-reported outcomes from local areas show we have enabled close to an additional **25,000 Scottish citizens** to have benefitted from TEC and **laid firm foundations** for the further expansion of TEC. For more details on the programme, see <http://goo.gl/c6NJGf>.

Example 4 – Technology Charter



One of the primary deliverables of the programme as a whole during its first year was a *'marked increase in the number of people with dementia who are able to be effectively and safely supported through technology-enabled care'*.

Alzheimer Scotland is receiving funding to help promote the greater use of technology (in general) for people with dementia and to support a number of areas in their focused activity. Alzheimer Scotland worked with partners to develop the first ever **Technology Charter for people living with dementia in Scotland** which was launched at the Scottish Digital Health & Care Conference, Glasgow in Dec 2015 by well-known Scottish journalist, Sally Magnusson.

The Technology Charter is a call to action, calling for the delivery of health and social care to people with dementia to incorporate and promote the use of technology; helping people with the condition to live healthier, safer, more active and more confident lives as valued citizens. It also seeks to raise public and professional awareness of how technology can enhance lives, promote independent living and assist and complement care and support.

The Technology Charter has six key values:

- Practice and service provision is rights based, personalised and free from discrimination.
- Unpaid carers and families are recognised and valued as equal partners in care.
- Information and advice about technology is available in clear everyday language and in a variety of formats.
- Routes and access to technology are ethical, equitable, simple, understandable and user-friendly.
- Consideration of technology is embedded at all key points in the integrated dementia care pathway.
- Technology augments - but does not replace - human intervention.

The full charter can be found at

http://www.alzscot.org/assets/0002/0289/Technology_Charter_for_People_with_Dementia_in_Scotland.pdf

2. INNOVATION

Scotland can do⁹ is Scotland's shared statement of intent across all of the public sector towards Scotland becoming a world-leading entrepreneurial and innovative nation: a 'can do' place for business. It recognises that increasing collaboration within and beyond Scotland, and involving the public, private and third sectors working together, is key to success. The public sector has an important role in creating a supportive business environment for entrepreneurship and innovation; in being a role model for innovation; through novel approaches to procurement; and in seeking to stimulate both innovation and market demand.

Scotland provides a fertile environment for growth in innovation, given its already strong connections between industry, academia and service providers, and our record of accomplishment in telecare and telehealth. Growth will be enhanced by more effectively integrating our innovation pipeline with our wider development activity to optimise the benefits from public sector investment in this area.

Within digital health and care, the global market opportunities over the next few years are estimated to be anywhere between £40 billion and £200 billion, with over £5 billion invested in the US alone during 2015.

This presents a unique opportunity for Scotland to build a material economic sector and realise significant efficiency savings in the delivery of health and social care. This is especially true given the assets at our disposal, as already recognised by the motion passed in the Scottish Parliament in 2014:

⁹ <http://www.cando.scot/>

“Innovation through technology is vital in delivering Scotland’s 2020 Vision for health and social care, whereby everyone is able to live longer, healthier lives at home or in a homely setting ... and recognises that Scotland has a clear opportunity to be a leader in the growing global digital health and care market.”

Scottish Parliament Motion S4M-09222¹⁰

Scotland is currently well positioned to exploit this opportunity through the creation of an environment to allow these new models to be crafted and thrive, leveraging the wealth of health & care data at our fingertips, the geography and combination of urban, rural, remote & island communities as well as the increasingly integrated Scottish public sector capability in a rapid, risk-free way. Business consortia formation can also be positioned to internationally commercialise successful solutions and models of health & care.

A number of key themes will be identified and these will be progressed by our lead innovation delivery partner, the Digital Health & Care Institute, working in collaboration with other partners such as the other Scottish Innovation Centres, the NHS Innovation Leads, the Open Innovation Programme, CivTech, the Farr Institute and the Improvement Service in Local Government.

3. INTERNATIONAL ENGAGEMENT

The Scottish Government’s Action Plan for EU Engagement set out the vision and work being taken forward in Scotland to develop strong relationships with partners in Europe to our mutual benefit. In 2012, the Scottish Government tasked NHS 24’s Scottish Centre for Telehealth and Telecare (SCTT), with leading on EU engagement activities related to the development of digital health and care.

Since 2012, Scotland’s international engagement activities in relation to digital health and care have been predominantly focussed within Europe, however Commonwealth collaborations are emerging with stakeholders in Australia and New Zealand, as well as interest in our approaches from Asia and the Americas.

Example 5 – European Innovation Partnership on Active & Healthy Ageing – Reference Sites



European Innovation
Partnership on Active
and Healthy Ageing

REFERENCE SITE

The Innovation Partnership (EIP AHA) is one of the European Commission’s flagship initiatives designed to accelerate the spread of best practice in the innovative use of digital in the delivery of active and healthy ageing initiatives.

Within that, Reference Sites are *‘highly inspirational ecosystems, delivering creative and workable solutions that improve the lives and health of older people. These solutions can be scaled-up and replicated across the EU.’*

¹⁰ <http://www.parliament.scot/parliamentarybusiness/report.aspx?r=8990&i=88737>

A first call, published in 2012 by the European Commission, resulted in [32 regions](#) being recognised as EIP on AHA Reference Sites. NHS 24 led the submission of an application, on behalf of Scotland, in the first 2012 call which resulted in Scotland being one of only 3 regions to be awarded 3-star Reference Site status (3-star status was the highest award level in the first call) – primarily for our work in telecare and risk stratification, in addition to a commendation for work on falls prevention and management..

NHS 24 again led Scotland's submission to the second call, launched in December 2015. Following the peer and expert review process, Scotland was awarded 4-star Reference Site status for our work on technology enabled care within an integrated health & care environment. Only 8 regions out of 74 have been awarded this highest award level status, cementing Scotland's reputation as a leader in Europe. The Reference Site status is granted to organisations that have **demonstrated excellence in the development, adoption and scaling up of innovative practices for active and healthy ageing.**

SCTT published its first European Engagement and Activity Overview in 2014, with progress and outcomes reported annually in SCTT's End of Year reports.¹¹ A new International Engagement Strategy for Digital Health & Care will be published in Autumn 2016 to support this Action Plan. This builds on our significant achievements to date, outlines the priority areas for action over the next three years to capitalise on emerging opportunities for wider international engagement, with the ultimate aim of supporting the delivery of the integrated Digital Health & Care Strategy. NHS 24, through SCTT, will remain our lead partner for international engagement activity.

4. CROSS CUTTING ENABLERS

The above key activity areas are necessarily supported by a number of cross cutting enablers:

- **Awareness raising /knowledge transfer:** benefits of using the technology must be clear to users/carers and clinicians/staff and result in more efficient and more effective care; and lessons learned should be captured and more proactively made available to partnerships throughout Scotland
- **Research:** to provide a robust evidence base of the societal, organisational, clinical and economic benefits of TEC
- **Standards:** drive the quality of TEC services, by identifying and implementing appropriate standards based approaches
- **Horizon scanning:** to identify new opportunities that will support investment, innovation and inclusive growth
- **Evidencing Impacts/Benefits Realisation:** Further impetus will only be achieved by demonstrating the benefits of this approach at scale.
- **Workforce development/staff training:** Development of workforce capability and capacity is essential to integrating use of technology into everyday work and learning. The Improvement and Support workstream within the TEC Programme (Workstream 5) includes a focus on local workforce development,

¹¹ See <http://sctt.org.uk/sctt-end-year-report/>

building capacity for support around business planning, data analytics, service redesign, change management etc. We also need closer alignment with the priorities and work programmes of organisations such as NES and SSSC.

ACTIONS & DELIVERABLES

Whilst our existing eHealth Strategy¹² will continue to drive forward the infrastructure & technological requirements underpinning activity, the actions outlined below will enable us to make the necessary step changes to enable our citizens to be able to access and use technology to better support their health & wellbeing whilst at home and in their communities. This will inform the work being progressed on a Digital Health and Care Strategy for Scotland from 2017/18.

TEC DEVELOPMENT PROGRAMME

1. We will work with Alzheimer Scotland to ensure that the Technology Charter for People Living with Dementia becomes fully embedded across all health & care providers in Scotland, and inform the next dementia strategy (see example 4).
2. We will continue to invest in 'at scale' developments through the TEC Development Programme, ensuring more of our citizens are empowered to remain at home through the use of technology enabled care. This includes supporting service redesign to integrate new ways of working into mainstream service provision and pathways, building on initiatives such as the Living It Up service for people living with long term conditions, and the expansion of video enabled care services to care homes in Scotland.
3. We will work with our national procurement agencies to review and ensure our procurement approaches & frameworks are fit for the future.
4. In partnership with SCTT we will set out milestones to inform a shift from analogue to digital telecare services.
5. We will publish our National Model for Home & Mobile Health Monitoring, which will facilitate flexible solutions that support the [self] management of disease and improve wellbeing. This builds on the work carried out in the United4Health Programme, and will enable us to rapidly scale solutions for a number of long term conditions.

Example 6 – Home & Mobile Health Monitoring

Lanarkshire's Rapid Improvement Study: Hypertension Monitoring in General Practice demonstrated that within 3 months 115 patients self monitored their Blood Pressure with result of **saving 415 practice nurse / GP appointments**. They concluded that for this population of patients in Lanarkshire;

¹² eHealth Strategy 2014 – 2017. See <http://www.gov.scot/Resource/0047/00472754.pdf>

- Home & mobile health monitoring (HMHM) of blood pressure **improves efficiency**
- HMHM of blood pressure for about two to three weeks **avoids** an average of four to five GP or Practice Nurse appointments. This **saves clinic time for clinicians**, reduces telephone contact time (using texts instead) and prevents patients having to travel to the surgery for routine monitoring.
- HMHM of blood pressure **supports clinical decision-making**
- GPs/Practice Nurses report that HMHM of blood pressure **enables faster decision-making and provides optimum readings**. This resolves issues around 'white coat syndrome' (it did so for one third of this cohort) and allows a diagnosis of hypertension to be either confirmed or ruled out.
- People **mostly find it easy** to monitor their own blood pressure and report results by text
- People found the BP monitor and Flo text messaging system easy to use, felt it helped them monitor their BP, and **would use it again in future**, if they needed to.

A larger scale version of this, using the FLO telehealth system, is currently being rolled out across Lothian as part of the development of home and mobile health monitoring in Scotland, with full evaluation by the Edinburgh University (with funding from the Chief Scientist Office). As of 2016, there are **over 100 GP practices engaged** in HMHM initiatives and numbers continue to expand.

6. We will commission a feasibility scoping report on the merit in extending access to proven preventative technologies for all over 75s and those with a diagnosis of dementia and, pending outcome of this, set out an implementation plan.
7. Local delivery organisations (including Health Boards, Integration Authorities and third and independent sector organisations) will work to embed TEC into their strategic plans for service delivery.
8. Supported by NHS24, we will commence the national roll out of computerised cognitive behavioural therapy (cCBT), building on the EU-funded MasterMind¹³ programme, resulting in a 'Once for Scotland' approach to treating mild to moderate depression.

INNOVATION PROGRAMME

9. We will work with our Enterprise Agencies to set out the strategic context for securing continuing investment in digital health & care innovation, positioning Scotland as a world leader in this field, and ensure a pipeline of 'next generation' technological developments for the benefit of our citizens and our economy.
10. In partnership with the DHI, we will develop our approach to allow for new technologies and approaches to be safely tested in a number of care settings, both physically and technically.

¹³ <http://sctt.org.uk/programmes/health/mental-health/mastermind/>

11. We will inform and consider our approach to the use of apps and mHealth more generally, including the use of wearable devices and user-generated health & wellbeing data.
12. Aligned with the Open Innovation programme, we will set a number of strategic challenges facing health & social care provision, and look for digital health and care options and solutions.

INTERNATIONAL ENGAGEMENT

13. We will publish an International Engagement Strategy, setting out how Scotland can maximise the opportunities to engage with global experts, and leverage additional funding in the field of digital health & care.
14. We will continue to work with Scottish Enterprise, Highlands & Islands Enterprise, Scotland Europa and Scotland Development International to support inward investment, growth and export opportunities in digital health & care, to fully realise economic benefit for Scotland.

CROSS CUTTING ENABLERS

15. We will commission a think piece on the role of TEC within future care, to inform our next strategy. Whilst there have been many recent publications setting out the 'art of the possible', to date none of these have set possible developments in the context of Scotland's integrated health & care system.
16. We will work with NES and SSSC to ensure our workforce are supported to use technology effectively and engage with patients/service users through digital means.
17. We will facilitate continued knowledge exchange throughout Scotland, including making it easier to access relevant materials and resources by rationalising our web presence.
18. We will build and further develop our strategic partnerships with a broad range of organisations and interests to ensure that all new services and developments are co-created with those who use them.
19. We will work with the housing sector and the third sector to progress the use of digital to support people in their own homes, working with the Housing Partners for Health and Wellbeing, Care & Repair, Scottish Council for Voluntary Organisations (SCVO), the Coalition of Care Providers Scotland (CCPS), the Health & Social Care Alliance Scotland, Carers Scotland and others.
20. As we move towards a 'digital first' approach to health & social care, we will work to raise awareness across the general population on the benefits of TEC.

21. We will continue to work with ISD Scotland¹⁴ in order to embed routine use of measurement and evaluation for continuous improvement and service planning.

22. We will work with the Care Inspectorate to ensure that the new national Care Standards take into account the increasing contribution of technology in the delivery of safe and effective care.

Whilst these are concrete actions for us over the short term, taking these actions now mean that by 2020 health & care delivery in the community should be routinely supported by digital technology, where this aids delivery and improves outcomes.

GOVERNANCE & DELIVERY

The Scottish Government will continue to provide funding to NHS 24 to enable the Scottish Centre for Telehealth & Telecare (SCTT) to deliver its remit on our behalf, namely:

- support the development of technology enabled health and care services in local health & social care delivery organisations across Scotland (including supporting the Government-directed TEC Programme); and
- represent Scotland's health and care interests in technology enabled care internationally, with a view to attracting inward investment, expertise and programme/project opportunities as well as building alliances and consortia.

Working with the Scottish Funding Council, through the Innovation Centres Programme, the Scottish Government will support the development of the long-term business case for the Digital Health & Care Institute (DHI) within Strathclyde University. The DHI will remain as our lead Innovation Partner, tasked with linking civic society, industry and academia to ensure that Scotland's economy continues to grow, and we are in a position to make the most of improvements in digital health technologies to better health outcomes.

GOVERNANCE REVIEW

Over the lifetime of the previous Telehealth & Telecare Delivery Plan, a National Telehealth & Telecare Advisory Board provided leadership, guidance and advice on the national direction of telehealth & telecare activity¹⁵. This oversight, and recognition of some of the gaps, led to the creation of the Technology Enabled Care Programme, which has its own Programme Board. This provides rigorous governance oversight of all funded activity through the TEC Programme.

Innovation and opportunities for inward investment and market growth is overseen by the Digital Health & Care Innovation Partnership (DHCIP), as one of Scotland's Health Innovation Partnerships.

¹⁴ NHS National Services Scotland's Information Services Division. See <http://www.isdscotland.org/>

¹⁵ NTTAB role and responsibilities amalgamated within wider governance structure for Digital Health & Care

These separate, but linked, bodies have been instrumental in driving us to where we are today. However, as we move towards a more integrated Digital Health & Care Strategy, we will take the opportunity to simplify the governance landscape and effectively integrate activity with the various eHealth governance bodies. This will enable us to create a more straightforward governance arrangement covering Digital Health & Care in the round, from innovation through to piloting then mainstream service delivery.

This review of the governance framework will be a key part of the development of the integrated Digital Health & Care Strategy.

NEXT STEPS

This Action Plan aims to support a transition to an integrated Digital Health and Care Strategy for Scotland from 2017. As such, it is a bridging document necessarily limited in its overall scope and timelines.

The development of an integrated digital health and care strategy during the lifetime of this plan will develop strategic funding options to place digital first at the heart of the transforming health and care agenda.

References

- American Telemedicine Association (2015) *Operationalising Telemedicine in Managed Care: Lessons from Kaiser Permanente*.
- Broderick A and Lindeman D (2013) *Scaling Telehealth Programs: Lessons from early adopters*. The Commonwealth Fund
- Castle-Clarke S, Kumpanen S, Machaquerio, Curry N and Imison C (2015) *The future of primary care: New models and digital requirements*. Nuffield Trust
- Cello Health Insight (2014) *The Digital Health Debate*. Cello Health Institute
- Cresswell KM, Bates DW and Sheikh A (2013) 'Ten key considerations for the successful implementation and adoption of large-scale health information technology', *Journal of the American Medical Informatics Association* 20(e1), e9-e13.
- Cruickshank J (2012) *2020 Health Telehealth: What can the NHS learn from experience at the US Veterans Health Administration?* 2020health.org
- Cruickshank J and Paxman J (2013) *Yorkshire & the Humber Telehealth Hub: Project evaluation*. 2020health.org
- European Commission (2012) *eHealth Action Plan 2012-2020 – Innovative healthcare for the 21st century*. Brussels, 6.12.2012 COM(2012) 736 final
- European Commission (2015) *Summary Report on the Public Consultation on the Green Paper on Mobile Health*.
- Ham, C and Brown A (2015) *The Future is Now: The innovations of today that point to better health care tomorrow*. The Kings Fund
- Health Foundation (2015) *Shaping the Future: A Strategic Framework for a Successful NHS*
- Imison C, Castle-Clarke S, Watson R and Edwards N (2016) *Delivering the benefits of digital health and care*. Nuffield Trust
- Jensen LK, Knarvik U, Duedal Pedersen C, Tangene W, Whitehouse D (2015) 'Personalised Blueprint for telemedicine deployment: validated and tested version' *MOMENTUM European Momentum for Mainstreaming Telemedicine Deployment in Daily Practice*.
- Kaiser Permanente (2015) 'Advancing care through telehealth', *Kaiser Permanente Policy Stories* 4(3).
- Kings Fund, The (2016) *The digital revolution: eight technologies that will change health and care*. <http://www.kingsfund.org.uk/publications/articles/eight-technologies-will-change-health-and-care>
- MacNeill V, Sanders C, Fitzpatrick R, Hendy J, Barlow J, Knapp M, Rogers A, Bardsley M, Newman SP (2014) 'Experiences of front-line health professionals in the delivery of telehealth: a qualitative study', *Br J Gen Pract* 64(624), e401-7
- National Information Board (NIB) (2014) *Personalised Health and Care 2020: Using data and technology to transform outcomes for patients and citizens: A framework for action*. HM Government
- Taylor, K (2015) *Connected health: How digital technology is transforming health and social care*. Deloitte Centre for Health Solutions
- Vassilev I, Rowsell A, Pope C, Kennedy A, O'Cathain A, Salisbury C and Rogers A (2015) 'Assessing the implementability of telehealth interventions for self-management support: a realist review', *Implementation Science* 10, 59.
- Wachter R (2015) *The Digital Doctor: Hope, hype, and harm at the dawn of medicine's computer age*. McGraw-Hill Professional.
- World Health Organisation (2016) *From innovation to implementation – eHealth in the WHO European Region*.



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