NEWSLETTER
June 2013

Welcome to the June 2013 newsletter from the Technology Strategy Board (TSB) Knowledge Transfer Network and the Telecare Learning and Improvement Network. We are grateful to the HealthTech & Medicines KTN and the TSB's Assisted Living Innovation Platform for providing newsletter funding for another year enabling us to continue to provide the most comprehensive newsletter available serving the telecare, telehealth, mobile health, digital health and assisted living communities.

Our free monthly newsletter is distributed to 48,000 subscribers in the UK and worldwide via e-mail and archived at www.telecarelin.org.uk. You can also find highlights on Prezi (monthly) or Rebelmouse (daily) or by following Mike Clark on Twitter (@clarkmike). With over 800 news and events links over the last month, we hope that you find this newsletter useful.

This month we look forwards to the King's Fund International Congress on Telehealth and Telecare in early July with the prospects of more evaluation findings from the Whole System Demonstrator Programme. We have news from the ALIP and dallas programmes as well as reports from a recent RSM conference and London Telecare Marketplace. Mike Clark from TelecareLIN looks at progress on telehealth. As the NHS and social care face unprecedented pressures for the foreseeable future, there are reviews into regulatory arrangements, A&E, services for older people and yet more policy announcements from Department of Health and NHS England in efforts to transform health and care services. Scotland has a new Bill to promote service integration whilst England is looking for pioneer sites across health and care (to be announced in September). If you are a GP and interested in the enhanced service payment for remote care monitoring, the deadline is 30 June. The newsletter picks up all the key policy news and guidance. The links section (over 800 this month) is now available in a separate supplement rather than in the main newsletter (pdf, doc).

The newsletter contains a list of KTN/ALIP activities, conferences and workshops from the UK and Europe over the coming weeks as well as news from the UK and around the world. For weekly news, updates and information, you can register with the Technology Strategy Board, ALIP group and the dallas sub-group. You can follow the dallas programme on Twitter at @dallas_connect. 3 Million Lives is on Twitter at @3MillLives and also at LinkedIn. If you would like daily information on #telecare and #telehealth, then a Twitter stream is available.

Contents

Links supplement for June 2013 - doc and pdf versions are available - (pdf, doc).

The newsletter is Prepared by Mike Clark (Twitter: @clarkmike and http://storify.com/clarkmike) for the ALIP Knowledge Transfer Network and Telecare Learning and Improvement Network.

Item 1 – News from ALIP, the Knowledge Transfer Network (HealthTech and Medicines KTN) and dallas

(i) Standards and Interoperability

Following on from the meeting held in March 2013 which first looked at the Standards and Interoperability roadmap, the KTN is now pleased to be able to offer members the opportunity to download the full report - Interactive Report: Exploration and Validation of Assisted Living Interoperability Standards Review & Roadmap

(ii) 2013 Assisted Living Showcase Event - Report

The 5th Assisted Living Innovation Platform) ALIP Showcase was held in Liverpool on the 5-6 March 2013. The Showcase was an opportunity to celebrate success and to demonstrate ALIP promoting the formation of a distinct assisted living sector, supporting knowledge transfer across the value chain, drawing in organisations of all sizes and with a broad range of competencies and technologies. The full write up on the successful two day event can be found here.

(iii) ALIP Independence Day - 4th July Birmingham

During its lifetime, ALIP has adapted and responded to the changing environments, identifying opportunities to drive economic growth, to unlock new markets, and for the UK to maintain its position as a global leader in innovation, science and technology.

The impact of European Programmes particularly AAL 185 has been significant, and new initiatives such as Independence Matters, and the Long Term Care Revolution have become important elements of our portfolio. ALIP has run annual investments for the last 5 years, culminating with the dallas (Delivering Assisted Living Lifestyles At Scale) programme.

We are now looking to forge a new five year plan of action to ensure that people are confident of a better quality of life in later years, and that UK businesses continue to grow and develop.

- As businesses, academia, charities and foundations, we invite you to support us in identifying what are the key areas, and emerging challenges that we should be focussing on for the next 5 years?
- What more do we need to do?

The Technology Strategy Board have offered a limited number of places to the wider community to join the event and to share knowledge, expertise and bring new ideas to the Assisted Living Innovation Platform. If you are interested in finding out the outputs from this meeting and feel you could make a valid contribution, please contact the KTN.

(iv) The Long-Term Care Revolution

The Long Term Care Revolution (LTCR) competion closed on the 12 June 2013 with over 167 applications submitted.

The Health KTN is continuing to supporting the long-term care revolution by delivering a bespoke knowledge transfer programme. As the LTCR programme gets underway it will inspire the engagement of stakeholders, both traditional to the independent living sector and also those 'unusual suspects' who may have radically new ideas to offer from other sectors and different walks of life.

Three briefing workshops were delivered (Edinburgh, Leeds, London) to explain the qualification, proposal development and project development process for those that are successful. These workshops were also used to support the dissemination of previous research into the issue of long term care. A report from the workshops will be available to download via the article pages soon.

(v) TSA Integrated Code of Practice

The Telecare Services Association (TSA) Integrated Code of Practice is a national quality framework against which service providers of telecare and telehealth services can be accredited. The code has been written to respond to the challengers of an evolving health and social care system, and in support of national frameworks and priorities including the national telehealth and telecare delivery plan for Scotland to 2015; 3millionLives, and one of six high impact innovations for England;Transforming Your Care.

Download the four page flyer on the code and the Press Notice here (members) or via the TSA website.

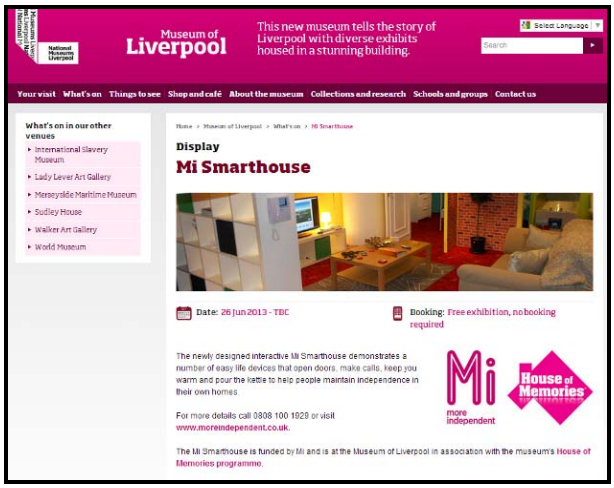
(vi) Independent Living Breakfast Briefing - Practical innovation support for SME's in the Independent Living sector – 18 July 2013

This Breakfast Briefing will provide an opportunity to learn how to gain further support from Co-Innovate, an exciting new two year programme jointly funded by Brunel University and the European Regional Development fund. Over a two year period Co-Innovate will support 150 Small and Medium sized Enterprises (SMEs) in the London region; introducing a dynamic range of activities to help support new product and service design. The workshop is free of charge - tea/coffee and breakfast will be provided. Places are limited, Please express your interest by replying by email to: amanda.baker@brunel.ac.uk

(vii) Creative skills for life – Creative England competition fund

Creative England, a development agency committed to opening up practical opportunities for creative businesses to work with business clusters in other sectors (eg healthcare), has joined forces with Creative Skills For Life (CSL) and NHS England to underwrite a competition seeking proposals to facilitate development of innovative concepts or prototypes, for apps or other creative tools, that will enable young people living with life-threatening or life-restricting conditions to explore their creative potential and interact and co-create with friends and family. Click here to find out how to apply.

(viii) New service allows local people to be more independent



Liverpool is pioneering the use of cutting edge technology to allow local people to live more independently in their own homes.

Mi – more independent – is a partnership that works together to transform lives through technology. It uses a wide array of gadgets and tools to support people who want to take control of their own lives, and their own health.

Funded by the UK's Technology Strategy Board, it is one of only four pilot projects across the country – and is currently on show at the waterfront location at the Museum of Liverpool. The Museum is hosting the Mi Smart House – a walk-through installation that allows visitors to see exactly what tools are on offer, and how they can help them lead more independent lives in their own homes.

Carol Rogers, Executive Director Education, Communities and Visitors from National Museums Liverpool said: "It's fantastic that we're able to display the Mi Smart House at the Museum of Liverpool. One of the aims of the Museum is to be a hub of activity and information for the local community, so it's great that we're teaming up with Mi to help make the lives of Liverpool people living with health problems such as dementia, more manageable.

"The Museum of Liverpool is home to our House of Memories dementia awareness programme, which works with local organisations to train their staff to develop a deeper understanding of people living with dementia. These people are just some of the members of our community that will benefit from the service that Mi has to offer."

Mi offers a wide range of opportunities to increase independence, some of which are aimed at those with existing health needs, but it is also suitable for anyone who wants to make life a little easier. The gadgets offered – Life Enhancing Technologies – make everyday life simpler, help people to increase independence and to stay in touch with their family, friends and carers.

Some of the amazing technology on show includes:

- The MagiPlug, which stops the bath overflowing and changes colour if the water is too hot
- Phones with photos to press, an easy way of calling the right person
- Gadgets to help with simple household tasks such as cooking and cleaning
- Security systems that work on fingerprints as well as keys
- Voice prompts to remind you of things when you leave the house, such as: 'remember your keys'
- Dispensers that remind you to take your medicines, and prompt you, or others, if your forget
- A talking microwave oven
- Alarms linked to a 24-hour helpline, in case of a fall, fire or other emergency

Dr Maurice Smith, Clinical Lead for Integrated Care and Liverpool Clinical Commissioning Group said: "Technology has already changed our lives – and Mi is all about harnessing that potential to empower local people to live more independently in their own homes, feel more secure and lead healthier lifestyles, where they are more in control of their own choices and lives. People are living longer – and Mi aims to help them to maintain their independence.

"The technology on offer is amazing – there are different tools for different needs, from someone who simply needs a little practical help, through to people living with long term conditions who need greater support. Some are also simply designed to improve quality of life, communication with others and contact with the wider world.

"I think anyone who visits the Smart House, either at the Museum of Liverpool or online, will be impressed with what is available."

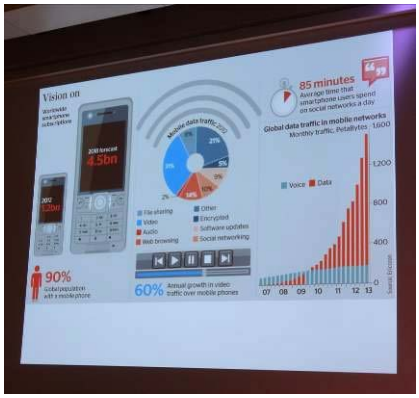
The Mi project aims, in the longer term, to bring about a reduction in the need for medical appointments and admissions, by supporting people to manage their own healthcare needs. Mi provides a combination of practical support, technological support and health monitoring – allowing those who use it to cope better and feel more in control, as well as offering peace of mind to loved ones. You can find out more at www.moreindependent.co.uk

Item 2 – RSM Conference on Mobile Health

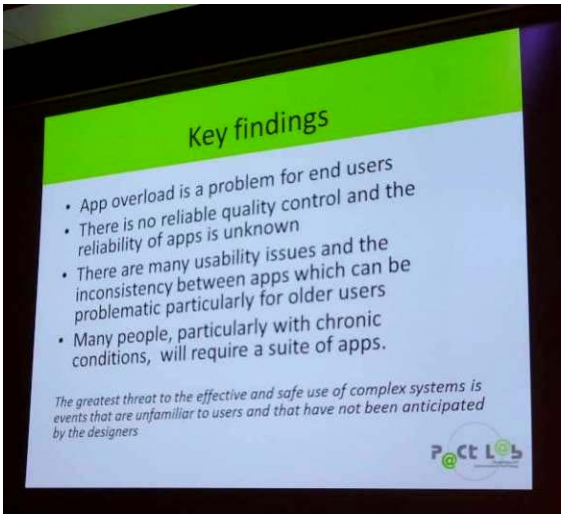
The Royal Society of Medicine's latest event 'Worlds in collision: Is mobile technology challenging conventional telemonitoring?' was opened by Charles Lowe (@LoweCM), President Elect of the Telemedicine and eHealth Section.

Twitter coverage from the event is available.

RSM Event: Telemedicine & eHealth 2013: Ageing Well - how can technology help? 25-26 November 2013



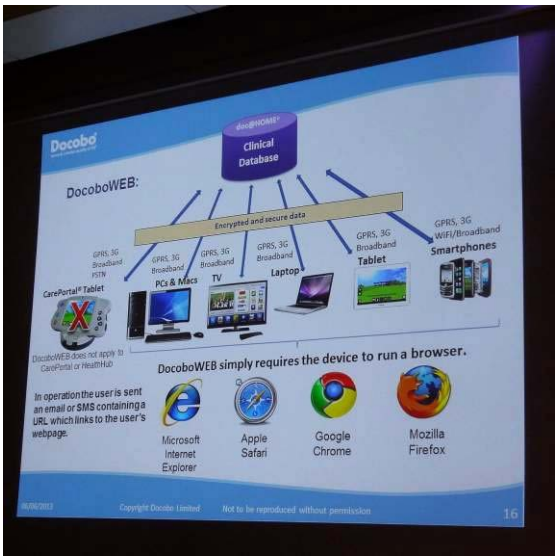
Professor Roderick A Smith, Chief Scientific Advisor at Department for Transport looked at the development of mobile communications and its impact on industry sectors.



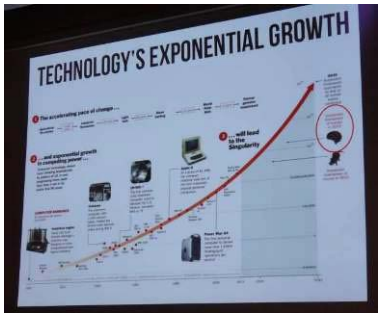
Dr Lynne Coventry, Director of PaCT Lab, University of Northumbria looked at the development and regulation of healthcare apps.

Mr Jaakko Aarnio, Research Programme officer, DG CONNECT Health & Well-being, European Commission presented on the European Commission perspective on mHealth.

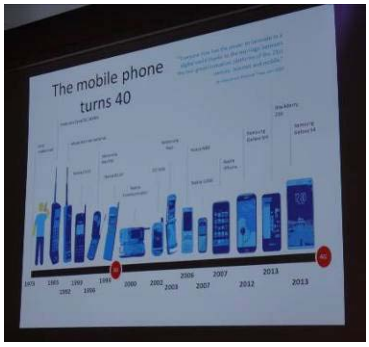
Dr Kevin Doughty (Newcastle University & Deputy Director, CUHTec) looked at the wide range of home-based and mobile technologies available.

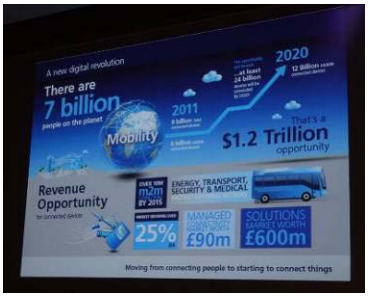


Adrian Flowerday, Chief Executive, Docobo Ltd looked at the design issues around telehealth and mobile health solutions.



Stephen Davies, Bionic.ly presented on the mobile healthcare revolution including self-tracking and the quantified self movement.



[Dr Mike Short](), Surrey University and Vice President, IEF looked at how the telecommunications industry is supporting the move to mobile health.

[Professor Jane McCann](), University of Wales, Newport looked at clothing as a technology platform.

Item 3 – London Telecare's latest marketplace event

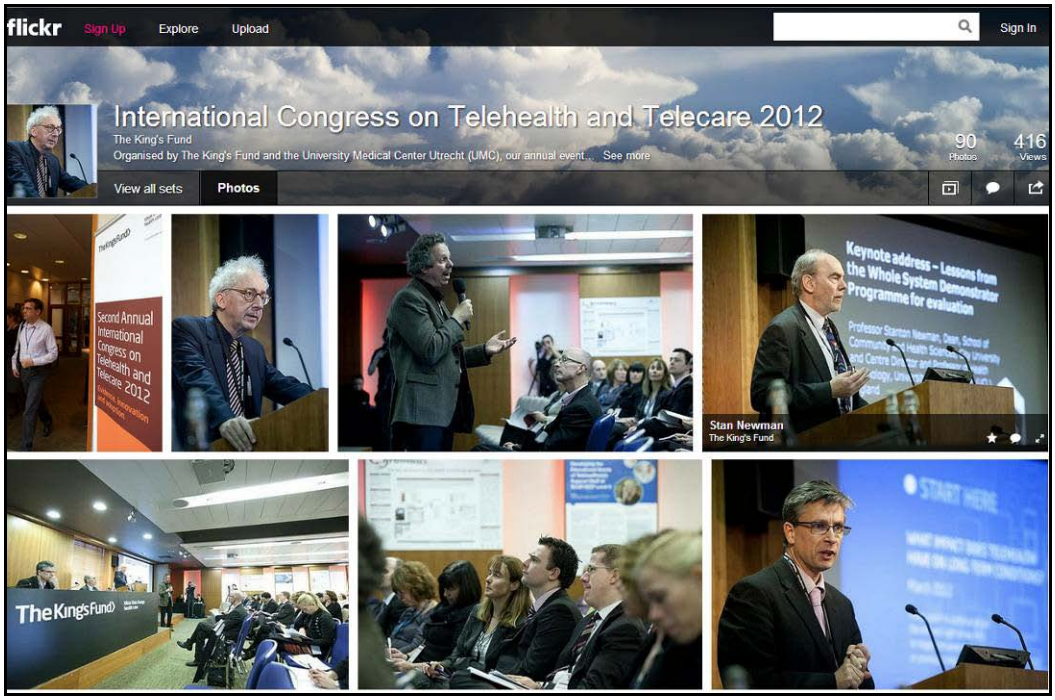
From Doug Miles and John Chambers at [London Telecare]

Over 25 telecare and telehealth suppliers gathered at Hove Town Hall on Thursday 30th May to exhibit the latest technology and new ideas to help elderly and vulnerable people live independently for longer in their own homes. All interested professionals, users and carers were welcome to attend the free event. There were 10 mini-presentations running alongside the main exhibition hall.

In addition, London Telecare took advertising space in the Mail on Sunday (23 June 2013) to tell people about the availability of telecare services.

Item 4 – King's Fund Congress – preview

The King's Fund's International Congress on Telehealth and Telecare will take place for the third successive year on 1-3 July 2013 in London. Building on the success of the previous two congresses, this year the event will focus on the innovation, integration and implementation of telehealth and telecare.



Pictures from the 2012 Conference on Flickr

The event features many UK and international examples of where telehealth and telecare have been used for the benefit of patients. One of the many highlights will be papers presenting **new data from the Whole System Demonstrator findings on telecare** and you can expect to find out more about the cost-effectiveness of telecare and its impact on quality of life and informal carers. On day two the Secretary of State for Health, Jeremy Hunt MP, will give a keynote address on how the Department of Health is supporting the deployment of telehealth and telecare, followed by a debate on the pros and cons of these services and how we can make the best use of them.

The congress represents an opportunity to examine the evidence-base for telehealth and telecare. The projects that will be presented at the congress have been through an extensive review process and have been selected based on their originality, quality and relevance, differing the event from others in the market. This year you can expect to hear from case studies including *mainstreaming*

Telehealth in a rural community in the UK; financial modeling for telemonitoring; mainstreaming Surrey telecare; and telehealth deployment in less developed populous and deprived nations.

You can find more information, including the programme, on The King's Fund's website. If you're on LinkedIn why not join the congress Linkedin group and benefit from congress updates and popular discussions on the use of telehealth and telecare. If you cannot attend, there is also live streaming of some of the sessions. Free registration for the online event covers:

- access to the live web cast of the plenary sessions from this year's congress with the opportunity to interact with the sessions in real-time
- on-demand video content from 2012's congress
- presentations, papers and materials from the 2013 congress
- information from our supporters and partners.

You can follow on Twitter at #kft13 (also including #telehealth and #telecare where relevant).

More details are available from Caroline Viac, Conference Director, International Congress on Telehealth and Telecare, The King's Fund c.viac@kingsfund.org.uk Tel: 020 7307 2481

Item 5 - New Case Studies

If you are involved in telecare, telehealth, mhealth, ehealth or digital health as a commissioner, service provider, researcher or vendor then we are looking to expand the number of case studies and viewpoints available. We are interested in what works as well as what doesn't. Let us know about evaluation reports, key learning points new projects and programmes. Contact Mike Clark via Twitter (@clarkmike)

Here are the first two submissions via @TunstallHealth.

a) Tackling Diabetes with Telehealth: a personal view from Dr Adrian Heald
Dr Adrian Heald, Consultant Physician in Diabetes and Endocrinology at Mid Cheshire Hospital NHS Foundation Trust and Senior Research Fellow at Manchester University discusses how telehealth can play a key role in implementing successful diabetes management

Diabetes is a major health concern in the UK, with approximately 3 million people currently living with this condition and more people diagnosed every day. More than 90% of those diagnosed with diabetes have type 2 diabetes. The condition is now four times more common than all forms of cancer combined[1] and the numbers are only rising as contributory factors to the development of type 2 diabetes, such as obesity, become more prevalent across the UK population[2].

[1] The Guardian, 2011, *Diabetes: the epidemic*, www.guardian.co.uk/society/2011/oct/10/diabetes-the-epidemic

[2] *Public Health England, 2013, Trends in obesity prevalence, www.noo.org.uk/NOO_about_obesity/trends*

In 2012, the NHS spent £9.8bn on diabetes-related care, with spending predicted to reach £17bn by 2035[3]. This is not only due to the costs of drug treatment, but also because by the time people are diagnosed, around half of those with Type 2 diabetes will have developed additional long-term complications. The management of these complications places a significant burden on services as well as on prescribing budgets. It is estimated that 80% of NHS spending on diabetes goes to managing these potentially preventable consequences[4].

So the question is, how can we improve the quality of care, reduce the number of unscheduled hospital attendances, and improve the overall prognosis for patients with diabetes? In my opinion, this can be achieved through telehealth.

Management matters

From the patient's perspective, diabetes management involves lowering blood glucose, blood pressure, and cholesterol levels to as near normal as possible, as well as pursuing a healthy diet and regular exercise in order to minimise disease complications. Poor glucose control leads to increased risk of emergency treatment and likelihood of hospital admissions[5], as well as a greater likelihood of complications developing.

Yet despite this need for close control over diet and lifestyle, people with diabetes will typically have contact with a healthcare professional for just three and a half hours per year, meaning an estimated 95% of diabetes management is self-management[6]. For the other 5000-plus waking hours in the year, they must manage their condition themselves, aiming for optimal blood glucose, blood pressure and cholesterol levels through maintaining a healthy diet and exercise regimen.

Even in ideal cases, current diabetes care involves episodic interventions, spaced weeks or months apart, in which a diabetes specialist or GP will give advice to the patient to improve their self-management. However, this advice is often based on best estimates of key factors such as diet, calorie intake and exercise, which are not always accurate. Unless regularly reminded, patients become less fastidious over time, and their health can deteriorate.

For some patients, who struggle with glycaemia, having a handful of appointments is entirely out of proportion to the level of engagement the condition requires. This is particularly relevant for insulin treated patients with any form of diabetes. Our recently published study demonstrated that in Cheshire UK, in spite of use of the newer analogue insulins and incentivisation of GP practices over 5 years the proportion with HbA1C more than 10% (86 mmol/mol) or more fell from 14.0% to 9.5%,

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[3] *Diabetes Research Network, 2013, Diabetes cost 'needs action', www.ukdrn.org/news.aspx*

[4] *Diabetes UK, 2012, State of the Nation 2012: England, www.diabetes.org.uk/Documents/Reports/State-of-the-Nation-2012.pdf*

[5] *IDF Diabetes Atlas, Fifth Edition, 2012. The Global Burden, www.idf.org/diabetesatlas/5e/the-global-burden*

[6] *Diabetes UK,200, Improving supported self-management for people with diabetes www.diabetes.org.uk/Documents/Reports/Supported_self-management.pdf*

but there was no significant change in HbA1c for the group as a whole (8.2% vs 8.1%) (66 vs 65 mmol/mol) [7].

Telehealth: 'granules but not made of sugar'

The key to moving people out of suboptimal glucose control when they have experienced issues is to take a more iterative and patient centred approach to management. This strategy allows us to achieve a closer view of what patients are doing, improving diabetes management and promoting better chronic care management by offering patient education, self-care practices and more convenient and frequent monitoring.

Telehealth can make a significant contribution to achieving these aims. As with other long-term conditions, diabetes offers an opportunity to employ basic and more complex applications of information technology to influence outcomes and patient understanding, cutting the likelihood of emergency interventions or unplanned hospital admissions. Importantly the impact of any intervention on glycaemia can be assessed by testing HBA1C, as an objective marker.

In Cheshire, we are taking steps towards connecting our patients with ehealth systems to improve diabetes management across the county. Telehealth has enabled us to take an interative approach to diabetes management, responsive to changes in glycaemia and circumstances for the individual. This will enable a continuum of feedback from the patient to the clinician in relation to glycaemia and the impact of pharmacological interventions and lifestyle choices on glycaemia.

Above all, monitoring with real time feedback, affords the patient a means of building their understanding about their condition, enabling them to see in real time the impact their lifestyle decisions are having on their health.

A stitch in time

It is also important to start the process of self-management at an early age before the condition progresses into further life-limiting conditions. It is essential that we engage with younger patients with type 1 diabetes, some of whom are not keen on attending clinics to ensure they are fully educated on the consequences of an unsuitable diet and exercise regime, and what they can do to improve their general wellbeing in order to avoid later complications.

The aim of telehealth in diabetes for patients of all ages, is to support individuals to manage their condition and to help them maintain blood glucose levels within a safe zone. While we as doctors can help manage blood glucose, it is the patient's daily challenge to manage diet and exercise. Telehealth from organisations such as Tunstall Healthcare can provide daily feedback, helping to grow the patients' understanding of their condition. At the same time, it gives GPs and nursing staff a fuller picture of how patients are managing their lifestyle in the setting of their own lives – and when they may need support and guidance in order to avoid exacerbations.

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[7] *Heald AH et al, 2012. Primary Care Diabetes 6; P123-126*

I suggest that Telehealth can help to bridge the gap between clinical intervention and patient engagement. By applying Telehealth to diabetes management, we can be more involved in educating patients, helping them to control their conditions – saving them stress and improving health, without us having to spend more time and tie up more resources. This will mean that everyone with diabetes has the chance to achieve the goal of a longer, symptom free and healthier life.
Dr Adrian Heald is an adviser to Tunstall Healthcare Group

b) Supporting the Transition from Hospital to Home with Telehealth

Linda Milburn, Telehealth Nurse for Harrogate and District NHS Foundation Trust, discusses how telehealth can accelerate hospital discharge, without increasing GP workload, and save bed days through early discharge for patients with acute medical conditions

According to a 2012 report issued by the NHS Confederation, the number of patients who are unnecessarily retained in hospital is placing a huge strain on health services. It is estimated that delayed discharge, also known as 'bed blocking', is costing the NHS £545,000 per day, equating to just under £200 million per year. The report also states that 92% of hospital chief executives, chairmen and other senior managers believed the problem has worsened since 2011.

Aside from the economic impact, bed blocking can also prevent hospitals from admitting new patients quickly, which can have a knock-on effect in delaying waiting times for pre-planned operations. The NHS Confederation, which represents the majority of health service organisations, called for urgent action to be taken.

That's why we in Harrogate wanted to take action to address this issue. The use of telehealth has been shown to reduce hospital bed-days for people with Long Term Conditions (LTCs) - in 2012, results from the WSD trial showed that it enabled a 14% reduction in bed days. In January 2013, we decided to offer telehealth as a means of supporting the discharge of patients admitted with symptoms not generally associated with long-term conditions, becoming the first Trust in the UK to do so, with my post being funded by Harrogate and Rural District CCG.

The implementation of a telehealth system in a hospital setting goes some way towards meeting the Government's objective to greatly increase the administration of 'care closer to home', and reduce the strain on secondary care.

Telehealth in practice
Harrogate District Hospital currently offers telehealth support to patients that have been admitted with six key conditions: Pulmonary Embolism, Atrial Fibrillation, Headache, Hypertension, Pneumonia and Urinary Tract Infection. These particular conditions were highlighted as being those that are most consistent with patient admissions and re-admissions.

Following initial tests and diagnosis by a consultant, suitable patients are referred to me as the telehealth nurse, at which point I introduce them to telehealth. This is offered for the duration of the 7-30 day 'risk period'; the timescale for which the hospital has responsibility for the patient following discharge. On the whole, the majority of individuals have welcomed the opportunity to try telehealth, and we expect to have 100 patients using telehealth over the twelve months.

For patients who wish to proceed with telehealth, the process for installing the home monitoring system is surprisingly simple. Many patients are able to set up the equipment themselves, referring to our self-installation booklet. For more complex cases, engineers are on hand to install the system into the patient's home. This is a particularly useful option in cases where we need to provide an ECG reader, as the equipment is a little more complicated.

Once installed and fully operational, the system feeds any alerts back to the response centre where they are picked up by either myself or the medical registrar, allowing us to take appropriate action. Since implementing the scheme, we have had very few alerts.

Saving time and resources

I am a complete advocate of using telehealth in a hospital setting, because of the substantial benefits it brings to both health organisations and patients. Being able to monitor people from home offers a 'safety net' which allows potentially vulnerable patients to be discharged earlier without detriment to their care and if any change or deterioration in condition is detected, I can contact the patient straight away to initiate medication or arrange a medical review. Crucially, telehealth enables patients' medication to be titrated within a couple of weeks, eliminating the need for lengthy periods of checks, scans and blood tests, ensuring substantial savings in time and money for health care providers.

Telehealth has proved particularly useful in the treatment of patients suffering from hypertension. Under traditional circumstances, GPs would have to arrange frequent appointments for patients to undergo blood tests and blood pressure monitoring, which then leads to follow-up appointments to monitor the progress of medications.

Through telehealth, these patients can be monitored, their medication optimised and be reassured that their conditions will continue to be managed and controlled without the need for regular GP intervention. When patients eventually return to the care of the GP, they are in a much better, stable and optimum health.

Earlier detection, faster treatment

For me, telehealth also offers an excellent way of being able to check patients for early signs of health deterioration. We are not an emergency response, but we can monitor patients closely and are on hand to contact them if we feel there is a problem.

In a recent case, a patient using telehealth yielded readings which suggested he needed increased medication. We were able to adjust his medication twice in the space of a week. So with telehealth, the patient's medication was optimised at a far quicker rate at home, as opposed to the 3-4 weeks it may have taken under different circumstances. Telehealth also saved him any further anxiety and the inconvenience of travelling to and from hospital.

Going forwards

Since its deployment earlier this year, the use of telehealth at Harrogate District Hospital has provided some very encouraging results. We are committed to further improvement and development and we're looking to open up the channels of communication between GPs and clinicians working in secondary care. For example, GPs using the clinical system, SystmOne, can

download Tunstall data to see what has been happening with patients using telehealth. We're also currently sending electronic discharge letters to ensure GPs are aware of the fact patients are being discharged with telehealth.

For those currently on the telehealth programme at Harrogate District Hospital, we are working on a patient survey that we will use to gain an insight into telehealth successes and areas that could be improved. Ultimately, we envisage extending the use of the system to the treatment of additional acute medical conditions, and diabetes and chronic heart disease.

Secondary care and telehealth: Match made in heaven?
In my experience, not only does telehealth enable patients to be discharged earlier, allowing them to be monitored from home during the 7-30 day 'risk period', but it also greatly reduces the workload for local GPs, helping to cut time and costs. In addition to this, aftercare through telehealth is hugely beneficial for the patients themselves, as it empowers individuals to self-manage their conditions and eliminates the distress associated with unnecessary hospital stays, and lengthy follow-up appointments. Although hospital treatment is sometimes necessary, home is where the best care is.

Item 6 – Telehealth, how are we doing?

Mike Clark (@clarkmike) from www.telecarelin.org.uk takes a look at the current progress for telehealth in England whilst the changes in the NHS are still being implemented

Changes to the NHS in England

1 April 2013 saw some significant changes to how health services are commissioned in England with 211 Clinical Commissioning Groups (CCGs) taking over from 151 Primary Care Trusts (PCTs). At the national level, NHS England is now responsible for £95 billion of health spend in 2013/14 of which the CCGs will have around £65 billion. Primary Care Trusts had a budget of around £85bn pa - some specialist commissioning has moved to NHS England (around £12bn).

NHS England now has responsibility for taking forwards a range of health initiatives (including online access to medical records, home remote monitoring, use of e-mail) under the NHS Mandate which covers the period from April 2013 to March 2015.

Managing long term conditions

Whether it is visits to GPs, home visits from community health staff, A&E emergencies or hospital admissions, supporting people with long term conditions accounts for a considerable percentage of NHS spend (King's Fund, Full Fact).

"A long term condition (LTC) is a condition that cannot, at present, be cured but is controlled by medication and/or other treatment/therapies" (Long Term Conditions Compendium of Information, Third Edition, May 2012).

According to the Department of Health Compendium, people with long term conditions account for:

- *50% of all GP appointments*

• *64% of outpatient appointments*

• *70% of all inpatient bed days*

• *In total around 70% of the total health and care spend in England (£7 out of every £10) is attributed to caring for people with LTCs*

• *This means that 30% of the population account for 70% of the spend*

The number of older people with long term conditions is steadily increasing. Individually, they will be managing 8760 hours with their conditions each year whilst their face to face contact with health services is measured in minutes, hours and perhaps a few days if they have a hospital stay.

Pressures on NHS Services continue to grow, pressure for change increases

Winter 2012/2013 has seen pressures on A&E and hospitals not experienced for some years and NHS England has set out a support plan and review/consultation to improve emergency and urgent care arrangements. With the prospect of further 'austerity elections' (Guardian 7 June 2013), healthcare systems in England may not be sustainable without considerable change. In addition, local authority social care services face major funding challenges and are limiting eligibility.

In his recent speech at the NHS Confederation Conference on 6 June 2013, Sir David Nicholson talked about the importance of a strategy or plan for the NHS and the involvement of people and patients in *"taking more responsibility, and actually doing more". He continued, "if you think about the challenges in front of us and you say to our patients look, the alternatives are you are going to get less service, you are going to have to pay more yourself for your taxes or individually or you have got to take control and you can do more for yourselves. I think most people will go for that. What we have not done though is taken that seriously enough".* He also made reference to how other industries had modernised where the users of services are more involved in the delivery arrangements.

Commissioning support for long term conditions management

It is important that local commissioners consider how they can get the right services in place at the right time and in the right location to help support people particularly with long term conditions. This means finding people in the local community who could benefit from education, timely face to face contact, rehabilitation and re-ablement, medication management and technology support (eg online record access, telehealth, mHealth, telemedicine, connected care and online support networks) to help manage their conditions and help keep them comfortable and independent - living at home or the place of their choice whenever possible. Of course, on many occasions, a hospital with expert medical expertise may still be the best location for managing a health crisis or exacerbation but primary care services are best placed to understand and manage increasing demand through patient lists, IT systems and local contact with patients.

A new relationship with communities and patients – 'health and wellbeing' as well as 'healthcare'

This means thinking about a new relationship with communities and patients around supporting health and wellbeing rather than constantly managing healthcare crises. It means recognising and acknowledging the important resource, experience and knowledge that individuals (staff and patients) and communities can contribute to managing health and wellbeing. It means considering

how technology can make a difference whether it is analysing 'big data', joining up social care & housing services via the NHS Number, enhancing existing services (eg mental health, rehabilitation, end of life care, dementia support), providing expert video consults over distance (eg teledermatology), supporting emergency stroke services with remote consultations to save lives, connecting people with similar conditions (eg Parkinson's Disease) over a social/health network or supporting someone with diabetes in the home using a glucose monitor or insulin pump with telemonitoring.

Learning lessons from the Whole System Demonstrator Programme on telehealth and telecare

The Whole System Demonstrator (WSD) Programme continues to divide commissioners, providers, academics and clinicians whether it is around the results, timing of announcements, methodology, costs or 3millionlives initiative. A particular worry is that, when we need to see fresh thinking around health and care problems generally, we no longer have the time, money or luxury to carry out large scale research to further develop the evidence base particularly where technology is involved – by the time results are announced, the world has moved on and patients are potentially losing out from any possible benefits. Even when trial results in healthcare appear positive we often find people either ignoring them or seeking to find flaws. Adoption of new approaches in healthcare is often much slower than in other sectors.

Much of what we are seeing in the published WSD results is not unexpected – many of the issues were discussed in 2009-11 at regional events as the trial progressed. A particular early lesson learnt from the WSD Programme covering the introduction of home-based telecare and telehealth across three English sites under trial conditions was that significant numbers of people had more than one long term condition and often these had not been formally diagnosed. Indeed, living with 4, 5, 6 or even more conditions makes it difficult to follow well-established single care pathways. There is a need for more personalised approaches as people may be, for instance, on multiple medications which can interact. So people living at home, often alone, not only face exacerbations which can be frightening, but also drug side-effects which could worsen symptoms or even cancel out benefits. Hospital discharges for people with complex conditions without proper ongoing health monitoring and social care support or into poor housing may simply lead to readmissions. Personalised and coordinated, connected care will be very important in future - patients and service users will expect no less.

Coordinating and connecting care around individuals – can technology help as part of new service approaches?

Given the budget constraints together with the pressures on primary care and existing hospital beds in many parts of the country and the current numbers and skill mix of staff, commissioners will need to think about coordination of services around individuals particularly those who need a lot of support. It means seriously considering technology-based options where it will make a difference whether by phone, video link, social network or home remote monitoring (or a combination). It also means thinking about closer working with a range of well-established community-based services in social care, housing and the voluntary sector as well as industry expertise, all supported by a forward looking local Health and Wellbeing Board using integrated commissioning approaches and risk assessment. With no significant growth envisaged in human resources for the foreseeable future, it means looking at how technology can be used to optimise existing staff contact time with the people that really need it at the bedside and in the home.

We use technologies all the time in healthcare to help with diagnosis and treatment. Many technologies are expensive particularly at the start – new drugs, new image scanning approaches, new surgical procedures take time and money to develop. Clinical trials bring their own additional costs to build an evidence base. There will always be upfront implementation & infrastructure costs for new services. There will always be the likelihood of some double-running costs whilst services are transformed from one approach to another. Some technologies will be disruptive and some will be surrounded with hype. Some services will scale easily, others won't. Some services work well with top-down approaches, others with bottom-up introduction, or even a mixture of approaches. Some new approaches need extensive testing for safety and efficacy, others simply get absorbed into how people work. Some approaches may benefit from people managing a health and social care personal budget where individuals take responsibility. Each technology and service wraparound inevitably takes time to be evidenced and accepted. Existing infrastructure may act as a barrier to change – indeed mHealth is making more progress in developing nations that do not have primary health care services whereas these services are widely available in most of the UK. For technology-based services, we may see 'reverse innovation' where adoption proceeds at pace in developing countries (Africa, India, South America) and are then transferred later to the developed world.

Care and support in the right place at the right time

Overall though, more care and support needs to happen in the right place at the right time - at the earliest stage where possible to avoid harm and complications. Some long term conditions may be preventable, some may benefit from self-management. Technology and service innovations will inevitably have a part to play whether statutory services embrace and adopt them or not. The consumer technology market is proceeding at such a rapid pace that health & care services will always be playing catch-up.

Within the coming years, we may have low cost genome sequencing for personalised cancer treatment with a new set of challenges, yet it is still difficult for people to have conversations with health and care professionals by telephone, e-mail, video link, social networks or to have remote self-management support. Access to online health records remains limited. Few health and care services are 24/7. If you self-track your health you may end up being labelled as 'a bit strange'. Many technologies and services accepted and adopted by people in their personal lives are not in widespread use in their professional and working lives. Individuals searching on the Internet can have more up to date information and evidence about their condition than the expert clinicians they are seeing whilst on their person they will have ample processing power via phones, tablets and wearables to manage their lifestyles.

Moving on from the WSD trial period – making progress

The final sets of published papers from the WSD Programme are expected in the coming months and no doubt there will be further lively discussion at the 3rd Annual Congress on Telehealth and Telecare organised by The King's Fund (1-3 July 2013). Even before the WSD programme finished its trial stages back in 2009/10, industry has been working hard to take on board the comments and criticisms levelled by some people about home-based telehealth remote monitoring including the high trial cost-effectiveness QALY of £92,000 (WSD published research to 12 June 2013). This includes looking at implementation costs, service design and equipment/service contracts. New and less expensive business models have emerged including risk-sharing and use of patient-owned devices. Technologies and services are being co-designed with users and are now hopefully more

appropriate to personal lifestyles (a constant criticism). Options are available that use mobiles, smartphones, apps and tablets as alternatives to separate hub units. Most simple home medical devices are available in the high street or online. Increasingly, smartphones will incorporate additional sensors for fitness and health monitoring.

Further UK and worldwide programme evaluation as well as technology development will help us move to the next generation of community-based health services where the best use can be made of staff skills and expertise to manage long term conditions. This also means understanding and making sense of individual and 'big data' aggregated across communities – a significant challenge. The NHS is a complex system and individual service demands are becoming more complex too. Where technology is provided as part of a service it needs to be the 'right tech' in the right place at the right time preferably as part of a care or support plan. The 'right tech' supports the needs of the individual and fits in with their lifestyles. It helps with individual motivation and self-management and frees off the health care professional's most precious resource – their time.

As regards the Whole System Demonstrator (WSD) Programme, we have learnt much since the early trial discussions (from 2006), the regional events (from 2009-11), the previous King's Fund conferences and the seven papers published so far. We know the constraints of randomised controlled trials and how the trial impacted staff working at the sites, we know the service costs from 4-5 years ago, we know that health records still need to be improved and joined up, we know that diagnoses are not always confirmed, that data sharing and consistency of records is not easy. We know that single disease pathways may not suit people with complex conditions, that there is duplication and unnecessary bureaucracy. We know that introducing technology on its own will not transform services – it needs a whole system approach, leadership and commitment. We know that there will always be champions for change and some people that will never be convinced of any new innovation.

What else can we do to improve adoption of technology-based services such as telehealth, telecare and mobile health in health and care?

Is there more we could do in the future around quality of life when using remote telehealth support in the home? Yes, we know there are links between loneliness, isolation, depression and some long term conditions - we need to think more about support that is personalised for the individual. Peer support through local and online communities and the use of social media could work well alongside existing telehealth approaches. We also need to think about joined-up consumer options that could be accessed via personal budgets and self-payment. People are social - health is social, care needs to be connected. Any new approach has got to be easier for patients & clinicians to be adopted at scale.

The 3millionlives initiative and other NHS Mandate programmes provide opportunities to transform services that could make a difference for people with long term conditions. But, like any fresh approach in healthcare ('paperless' NHS, online access to health records, e-mail and video consultations, electronic prescriptions) they have to overcome the multiple challenges of austerity, inertia and historically slow speed of adoption. It is important to continue to gather good practice examples and evidence from UK & around the World as services are rolled out.

Some quotes and commentary from an interesting panel discussion at the recent American Telemedicine Association (ATA) Conference on telehealth appear in this Healthcare IT News article –

“We don't have time any more at this point to do all those large-scale clinical studies."

"By the time you've got (a study) published, it's three to five years after that work."

“What works for one provider might not work for another. One system might see a decrease in hospitalization rates, while another finds an improvement in home-based post-acute care”.

“The pilots are gone, the possibilities and proposals are old. It's time to target the telemedicine and mHealth programs that are working and to explain why they are – while at the same time understanding that each one of those programs is unique and won't provide the same results if applied elsewhere”.

So, seven years on from the announcement of the WSD Programme in 2006, what more can we do in telehealth development? Given the financial situation, we need to move more quickly, evaluating as we go, generously sharing knowledge of what works and addressing quality of life improvements where we can. We still need to be better at case finding, responding to needs and establishing likely beneficiaries from the range of telehealth and self-management apps. We need to engage patients and their families through support networks as well as clinicians through honest discussions about what is achievable with the ‘right-tech’ and services. We need to better understand individual behaviour and motivation particularly when people are unwell and living alone.

We need to focus on improving outcomes for communities and look at better ways of organising care through partnership working. With multiple co-morbidities, we need personalised care plans as disease-specific care pathways may no longer be as relevant. We need to ensure health and social care systems are coordinated and electronic records are integral. Most of all, we need to recognise and engage patients & communities along with frontline staff as the most important resources for better health and wellbeing in the future. People using technology will have views on what works and what doesn’t – we will need to listen closely, learn quickly and improve the arrangements. We will also need to reject or quickly improve services that are not working effectively or are too expensive.

Will telehealth be accepted in the UK in the longer term in the same way that telecare has developed over the last 20 years? Yes, if we adopt a sensible, pragmatic approach - avoiding claims and excessive hype, looking for evidence of where it works well to maintain, improve and transform services and free frontline staff to provide personalised care and services to those who need it most. Careful and timely use of health & care data could lead to better individual & whole system outcomes but it may cost more initially in investment to get the big breakthroughs that could lead to any future cost containment and quality of life improvements. We don't yet know whether it is cheaper to support people in the community or closer to home, but we do know that in the future, people will expect to have more choice and will probably want to access support or advice via multiple platforms (online, in person, on the telephone, by e-mail, over a video connection) in a range of locations around the clock. Realistically, we may only be able to bend the benefits curve to allow more unmet needs to be met.

Stark choices ahead – pay more, get less or work towards coordinated and connected patient-centred services

We now need to think about harnessing technologies and service wraparounds to support health and wellness using the expert resources of staff and support networks together with identifying

individuals who could benefit most. Many homes have personal weighing machines as well as digital thermometers and blood pressure monitors already – increasingly, these devices are connected. A high proportion of homes have mobile or smart phones as well as fixed or mobile broadband connections. People are getting used to different ways of communicating with their social networks, searching for help and advice or accessing entertainment. Much of the infrastructure for home health & wellbeing management is actually in place across the country - it just needs to be connected and supported for those that need help.

Connected and coordinated local health, housing and care services supported by Health and Wellbeing Boards will need to think about how they leverage these resources together with medical and personal health records data to maintain and improve the health and wellness of their local communities. Timely and sensible introduction of a range of new approaches envisaged in the NHS Mandate could well make the difference and support self-management and improve patient outcomes – only time will tell. If not, as in Sir David Nicholson's recent comments, we could be faced with paying more individually or as a nation or accepting significant service reductions.

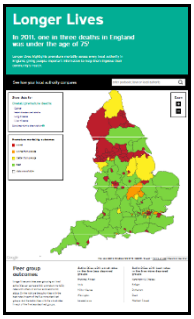
Item 7 – UK policy announcements

Here is a roundup of UK policy news over the last month. A fuller listing is available in the supplement (pdf, doc).

(i) Jon Rouse (Director General for Social Care, Local Government and Care Partnerships, @RouseJonDGDH) provides a view on how the Department of Health in England can best serve the needs of carers and sets out some challenges:

- To health and well being boards: Are the needs of carers and the importance of their role properly reflected in the Health and Well Being Strategy?
- To local Healthwatch(s): Is the carer's voice prominent enough in your emerging structures and work programmes?
- To local authorities: Is the value of carers properly recognised in preventative strategies and in financial allocations?
- To clinical commissioning groups (CCGs): Are you making sure that all GPs are proactively concerned about the health needs of the carer, as well as the 'cared for'?

(ii) Local variations in death rates from the four major killer diseases in England are covered on a new Public Health England web site, 'Longer Lives'.



(iii) The Department of Health has announced four million pounds to improve the way diseases are diagnosed. The National Institute for Health Research (NIHR) will share the funding across four NHS organisations in London, Leeds, Newcastle and Oxford. These places will become national centres of expertise called NIHR Diagnostic Evidence Co-operatives.

(iv) The Department of Health has issued its corporate plan for 2013/14. The plan includes achievements in 2012/13, priorities and budget for 2013/14.

(v) The Health Education England mandate has been published.

(vi) NHS England has issued advice for CCGs and GPs on information governance and risk stratification.

(vii) NHS England produces regular news and announcements – here is Issue No 11.

(viii) Monitor and NHS England have published three documents on proposals for the 2014/15 National Tariff.

(ix) NHS Procurement Standards have been published by the Department of Health.

(x) The Scottish Government has published a new Bill to promote integration of health and care in Scotland.

(xi) GPs in England wishing to respond and sign-up to the 'Enhanced Service Specification: Remote Care Monitoring' have until 30 June 2013.

(xii) NHS England has announced a vision for the future of commissioning support services.

(xiii) Public Health England are to develop a national cancer database covering each of the 350,000 tumours detected each year in order to develop future personalised treatments.

(You can follow the Department of Health in England, Jeremy Hunt and Norman Lamb on Twitter at @dhgovuk, @jeremy_hunt and @normanlamb. In Scotland, you can follow the Scottish Government's Health Department on Twitter @scotgovhealth and Alex Neil @AlexNeilSNP (also @NHS24). In Wales follow @WelshGovernment)

Item 8 - Other news

Here is a roundup of other news over the last month. A fuller listing is available in the supplement (pdf, doc).

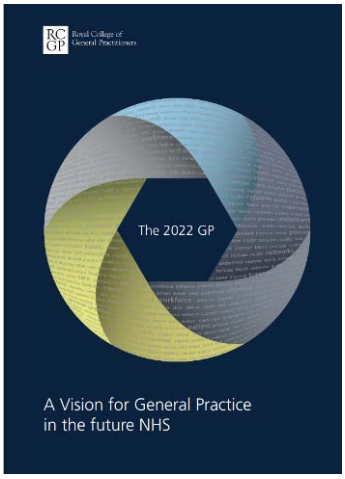
(i) The GSMA has published a report on the potential for mobile health solutions to address chronic disease challenges.

(ii) Two recent tenders covering telecare/telehealth have been published – Solihull and Leeds.

(iii) Pew Research Center has a new report – 'Family Caregivers are Wired for Health'.

(iv) Dorset CCG Telehealth has been shortlisted for an HSJ award.

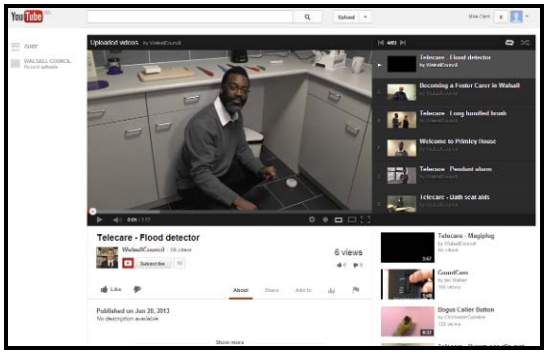
(v) The Royal College of GPs has published 'The 2022 GP – a Vision for General Practice in the future NHS'.



Objective 2.3 of the report includes 'To develop the use of remote consulting, telehealth and virtual-consultation technologies to improve accessibility and flexibility, promote self-reliance and increase service capacity"

(vi) A June 2013 newsletter from the Aktive Project is available covering their successful recent conference on telecare and independent ageing.

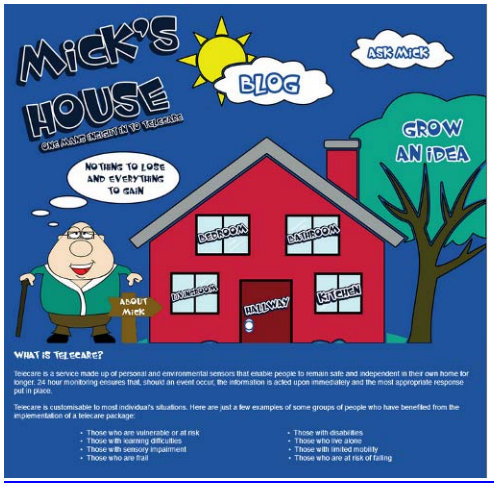
(vii) Walsall Council has a series of short You Tube videos on telecare and assistive technologies.



(viii) A new partnership to provide telecare services in Hampshire has been announced in a Tunstall (@TunstallHealth) press release. The Argenti Telehealthcare Partnership is led by PA Consulting and comprises Tunstall Healthcare, O2, CareCalls, Medvivo and Magna Careline.

(ix) The Center for Technology and Aging in Oakland, California has published 'The New Era of Connected Aging – A framework for understanding technologies that support older adults in aging in place'. Also available – 'The Adopt Toolkits'.

(x) Mick's House provides a user perspective on telecare from Mick Burkhill – there is a website and New You Tube video that explains more.

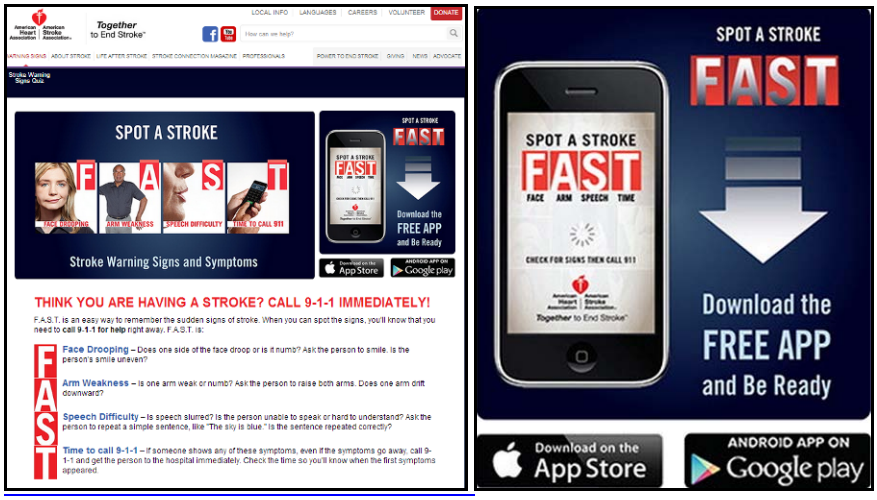


(xi) The Royal Australian College of GPs has called for GP to patient video consultations to be introduced under their Medicare Benefits Schedule as an alternative to face to face consultations. As part of its pre-election statement, the college said telehealth services are beneficial for many groups of patients, particularly those with chronic diseases who have difficulty accessing their GP due to

transport, mobility and distance issues. The Department of Health and Ageing has recently launched an eHealth records app for children.

(xii) Speaking at the recent NHS Confederation Annual Conference, Jeremy Hunt, Secretary of State for Health in England announced a fundamental review of emergency care. The review, which will result in action by April 2014, will focus on "vulnerable older people", who Hunt said were the heaviest users of the NHS. Research by The King's Fund and others is showing worsening wait times.

(xiii) The American Telemedicine Association has issued guidelines for remote mental health services and the American Stroke Association has launched an app to identify the symptoms of a stroke.



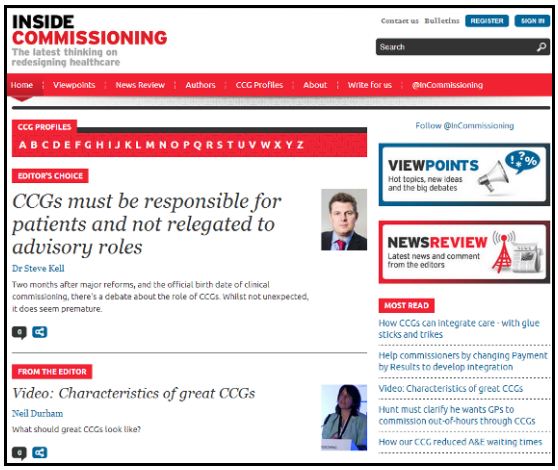
(xiv) Developers at University College London have demonstrated a wrist sensor that may be a better measure of blood pressure than traditional approaches.

(xv) Enrico Coiera has an interesting blog article on 'Bending the eHealth benefits curve'. He suggests that "The idea that money can somehow be 'released' through change, to then be reapplied elsewhere, is gone. Healthcare has so much pent up demand, so many unmet needs, that all our improvements can do is allow more of those needs to be met".

(xvi) The LSE has a book review of 'mHealth in Practice: Mobile Technology for Health Promotion in the Developing World'.

(xvii) Statistics from www.carehome.co.uk show only 3,400 of care homes give residents access to the internet. There are over 20,000 care homes in the UK. They are urging care homes to get residents online and stop the digital divide' becoming a digital gulf'.

(xviii) There is a new website called 'Inside Commissioning' with CCG analysis, case studies, profiles and opinion.



(xix) A Telegraph article looks at 'The epidemic of non-disease' and the issue of testing fit and healthy people for potential diseases such as diabetes.

(xx) Easy to use big button mobile phones and operator services are available from Fuss Free Phones.

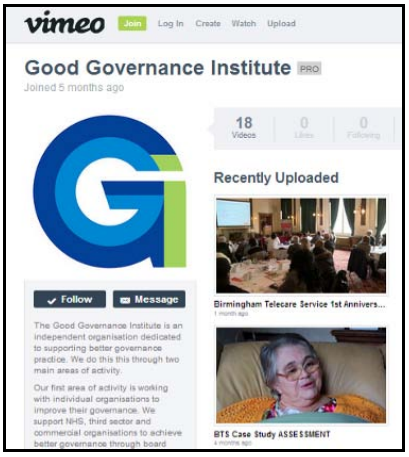
(xxi) E Health Insider reports on:

- Info revolution to transform NHS - Mike Farrar at the recent NHS Confederation Conference
- NHS Number to be mandated from 2014
- Supporting the Transition from Hospital to Home with Telehealth

- North Bristol NHS Trust is replacing paper observation charts on patient beds with tablet computers
- More than 100 GP practices are using an app to detect the early signs of dementia in older patients
- Warrington develops care coordination
- E-referrals service gets official launch
- CareConnect for real-time feedback - By March 2015, everyone should have the opportunity to comment on NHS services in real-time.
- Trust does op checks by web cam

(xxii) Interested in the EU Partnership on active and healthy ageing – here is the website.

(xxiii) The June newsletter is available from FAST (Foundation for Assistive Technology).



(xxiv) Video case studies on Telehealthcare are available at the Good Governance Institute's Vimeo channel.

GGI are also consulting on Telehealthcare quality standards.

(xxiv) The Guardian reports that Health apps won't reach core NHS patients as they are less likely to have smartphones.

(xxv) Professor Chris Ham at The King's Fund reports on healthcare innovations from the USA and what lessons could be learnt in the NHS.

Chris Ham: "Among the many innovations we saw, five stood out for me. The first was the use of technology to improve the quality of care and the experience of people using services. All the organisations we visited had electronic medical records that were instantly available wherever a patient was seen. Patients were able to email their doctors for advice, make appointments online, and access test results. Smart phone apps made these facilities easy to use on the move and had begun to transform the way in which patients interacted with care providers. Catherine's story is a good example from Kaiser Permanente in San Francisco".

(xxvi) According to Information Week, HealthTap, a U.S. online service that enables patients to ask doctors health-related questions for free, has launched AppRx, a new mobile health app review service. Its 40,000-plus physicians can review or rate any of the roughly 40,000 mobile health apps available in the iTunes and Google online stores.

(xxvii) – Will Google Glass have a role in healthcare in the future – KevinMD looks at the prospects.

(xxviii) According to the Huffington Post, a partnership of Verizon, Swinfen Charitable Trust and University of Virginia Health System allows healthcare workers to send patient information - including photos, X-rays and medical histories - through a secure, Internet-based messaging system to a network of more than 500 specialists across the globe to get more information and direction on care.

(xxix) Two-thirds of the 150,000 deaths a year among under-75s in England are potentially avoidable, with better health interventions and changes in lifestyles capable of cutting the toll by tens of thousands, according to Public Health England (reported in The Guardian).

(xxx) The Guardian has an article on the development of paperless systems at King's College Hospital.

(xxxi) NHS England has provided further information on the National Programmes of Care and Clinical Reference Groups (CRGs). 74 CRGs will bring together clinicians, commissioners, and Public Health experts with patients and carers who use the relevant services to cover all aspects of the NHS Mandate.

(xxxii) The Telegraph looks at the history of IT projects in the NHS and the Health Secretary's views on establishing England as a global technology leader.

(xxxiii) 'Small actions speak volumes to patients and help put them at the centre of care', says David Worskett (NHS Partners Network) on the NHS Voices Blog.

(xxxiv) Building Better Healthcare has a special report: Telecare: A waste of time or the future of health and social care?

(xxxv) From the imedicalapps website:

- Study looks at mobile medical app overload and has suggestions to correct the problem
- Study shows only 50 percent of cancer apps actually contain clinical evidence

Meanwhile, Kaiser Health News has an article on 'Patients lead the way as medicine grapples with apps' and Med City News has an article '40,000 health-related apps and no easy way to know which ones work'.

(xxxvi) CNET reports on the idea of an artificial pancreas that tells your tablet when you need insulin. The continuous glucose monitor works with a smartphone or tablet to calculate the amount of insulin the patient needs and delivers it via a pump.

(xxxvii) In this Guardian article, Roy Lilley argues that older people should be offered bespoke healthcare services eg a senior unit in a hospital A&E department.

(xxxviii) The concept of national and global telemedicine is being explored by the Mayo Clinic's new Centre for Connected Care. The vision is to "provide virtual care to patients regionally, within states that are historically Mayo Clinic territories, but also nationally and globally.

(xxxix) Mobihealthnews has a very good timeline on Smartphone-enabled health devices starting from early 2009 when Apple demonstrated on-stage at its World Wide Developer Conference how blood pressure monitors and blood glucose meters could connect to the iPhone 3G via cables or Bluetooth.

(xl) Transparency is key to transforming customer service in the NHS, says Tim Kelsey at NHS Voices. Examples include:

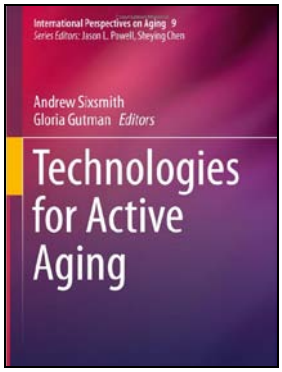
- This July, clinical outcomes data by individual consultants will be published by ten surgical associations, including cardiac, vascular and orthopaedic surgery.
- In July, every hospital in England will publish friends and family test data, providing a new insight into the quality of customer satisfaction with local services.
- In the late summer, the first anonymised data that links the patient pathway between primary and secondary care will be available. This will transform our understanding of outcomes in care.

(xli) More articles of interest this past month from the Guardian:

- Social media for social care: a guide to online tools (Shirley Ayres)
- Can a clinical social network be the solution to transforming patient care? (Jon Shaw)
- We need to use technology to get smarter about care (Dan Pelino)
- What older people need is not choice, but companionship (Alex Fox)
- 'Virtual wards' urged as answer to strain on NHS (Denis Campbell)
- Quality of family doctors' end-of-life care varies significantly, analysis shows (James Meikle)
- Hospitals to be given Ofsted-style ratings (Denis Campbell)
- Hospitals should assess patients for risk of falling, experts say (Dennis Campbell)

(xlii) A press release via PR Web covers plans for West Suffolk NHS Foundation Trust's virtual orthopaedics outpatients clinic using the Saypage Telemedicine Platform.

(xliii) A new publication Technologies for Active Aging is available.



(xliv) The future of the Smartphone – Yahoo News has a list of 15 futuristic features.

http://yhoo.it/18ahIqm

(xlv) BBC News reports on a crisis in home care in England.

(xlvi) Healthcare professionals should consider patients aged 65 or older, and those aged over 50 with underlying conditions such as stroke, at high risk of falling while in hospital care, according to updated guidelines from NICE. Falling is the leading cause of injury-related admissions to hospital in those over 65, and costs the NHS an estimated £2.3 billion per year. A number of falls occur in hospitals, with nearly 209,000 reported between 1 October and 30 September 2012. Updated guidelines have now been issued.

(xlvii) With an interesting infographic, HITConsultant poses the question 'Is the rise of digital health tools such as mobile health, telehealth, and remote patient monitoring creating a new nation of cyberchondriacs?'

(xlviii) The King's Fund has launched a major review of health and social care. The context for the review is a population in which people are living longer but often with long-term conditions. An increasing number of people have both health and social care needs, and the division between the NHS and social care that was established in 1948 means it is not always possible to meet these needs in an effective way. The review will report in September 2014.

(xlix) Death rates in care and nursing homes in England are to be monitored by the Care Quality Commission to try to identify problems at an earlier stage.

(l) The Chartered Institute of Housing (CIH) and the Housing Learning and Improvement Network (LIN) have produced a tool to help housing professionals demonstrate the value of their housing and support services and how these contribute to the outcomes set out for their public health, health and care partners. It signposts to the evidence sources and tools that exist to develop impacts for a local housing offer to health and care.

Find out more and keep up to date in the next edition of the Housing LIN newsletter.

Item 9 – Summary of recent journal articles and evaluations

Each month, our supplement (pdf, doc) provides a comprehensive list of recent journal articles. Here are summaries from just a few of the recent papers.

(i) A further paper has been published from the WSD Programme – 'Stimulating whole system redesign: Lessons from an organizational analysis of the Whole System Demonstrator programme'. Researchers carried out ethnographic studies across nine sites (including three WSD sites) on the implementation of remote care services as an enabler for whole system working. They discovered that Remote care did not lead to system redesign however, local 'ownership' of new services did lead to more collaborative practices across the care system. Lack of integration was an challenge across all sites. They concluded that the progress observed suggests that the concept of whole system redesign around remote care is currently unrealistic.

A full list of the Whole System Demonstrator papers published to date is available.

(ii) Some additional papers and articles in this month's supplement include:

What matters to older people with assisted living needs? A phenomenological analysis of the use and non-use of telehealth and telecare

Telemental Health - Provider Barriers to Telemental Health: Obstacles Overcome, Obstacles Remaining

A Randomized Trial of Telemonitoring and Self-Care Education in Heart Failure Patients Following Home Care Discharge

Effects of self-management health information technology on glycaemic control for patients with diabetes: a meta-analysis of randomized controlled trials

Telecare for an ageing population?

Community Health Workers and Mobile Technology: A Systematic Review of the Literature

Over-claiming the evidence for telehealth and telecare? (requires subscription)

Potential Role of Telemedical Service Centers in Managing Remote Monitoring Data Transmitted

Daily by Cardiac Implantable Electronic Devices: Results of the Early Detection of Cardiovascular Events in Device Patients with Heart Failure (detecT-Pilot) Study

Effectiveness of a national cardiovascular disease risk assessment program (NHS Health Check): Results after one year

Access to Primary Care and Visits to Emergency Departments in England: A Cross-Sectional, Population-Based Study

Effects of self-management health information technology on glycaemic control for patients with

diabetes: a meta-analysis of randomized controlled trials

A randomised trial of telemedicine-based treatment versus conventional hospitalisation in patients with severe COPD and exacerbation – effect on self-reported outcome

Telerehabilitation for people with chronic obstructive pulmonary disease: feasibility of a simple, real time model of supervised exercise training

A systematic review of telemedicine services for residents in long term care facilities

Implementation of self management support for long term conditions in routine primary care settings: cluster randomised controlled trial

Mapping mHealth Research: A Decade of Evolution

Technology Acceptance and Quality of Life of the Elderly in a Telecare Program

Mobile Health Applications for the Most Prevalent Conditions by the World Health Organization: Review and Analysis

Cognitive function and self-care management in older patients with heart failure

Cost-Utility Analysis of the EVOLVO Study on Remote Monitoring for Heart Failure Patients With Implantable Defibrillators: Randomized Controlled Trial

Diet and physical activity in the self-management of type 2 diabetes: barriers and facilitators identified by patients and health professionals

Combined Heart Rate- and Accelerometer-Assessed Physical Activity Energy Expenditure and Associations With Glucose Homeostasis Markers in a Population at High Risk of Developing Diabetes: The ADDITION-PRO Study

The experience and impact of chronic disease peer support interventions: A qualitative synthesis

Item 10 – Learning and Events

Click on the following links for further upcoming conferences and learning events.

What do you really know about Assistive Technology and Telecare - An awareness workshop I July 2013, Trafford http://www.northern-consortium.org.uk/ViewEvent?EventID=40

International Telehealth and Telecare Congress 1-3 July London http://bit.ly/Z4yYZp

design4health: invention, adoption and diffusion – 3-5 July 2013, Sheffield http://www.design4health.org.uk/

What do you really know about Assistive Technology and Telecare - An awareness workshop 8 July 2013, Wakefield http://www.northern-consortium.org.uk/ViewEvent?EventID=41

Innovative Technologies for Health Services 9 July 2013, London http://bit.ly/1aFdwOU

What do you really know about Assistive Technology and Telecare - An awareness workshop 10 July 2013 http://www.northern-consortium.org.uk/ViewEvent?EventID=42

Independent Living Breakfast Briefing - Practical innovation support for SME's in the Independent Living sector - 18 July 2013, London http://designplus.org.uk/events/workshop-no-4-independent-living/

mHealth and Telehealth World 2013 24-26 July 2013, Boston
http://www.worldcongress.com/events/HL13028/

Conference on Digital Health: design: develop: deploy: evaluate – IDH, Warwick, 25 July 2013
http://www2.warwick.ac.uk/fac/sci/wmg/idh/idhevents/digitalhealthconference

Telemedicine Conference, Keele University 24 Sept 2013 http://bit.ly/14T8P34

CUHTec telecare strategy course: telecare in Mental Health, Newcastle University - 26 September 2013 http://www.cuhtec.org.uk/courses/

CUHTec telecare training course: Using Activity Monitoring, Newcastle University - 27 September 2013 http://www.cuhtec.org.uk/courses/

EHI Live 5-6 November 2013 Birmingham http://www.ehilive.co.uk/

8th Annual UK Dementia Congress Nottingham 5-7 November 2013 http://www.careinfo.org/2013-events/uk-dementia-congress/

Sucesses and Failures in Telehealth – Brisbane, 11-12 November 2013
http://www.icebergevents.com/sft13/#.UcdN4jvuvWR

The International Telecare & Telehealth Conference 11-13 November 2013 Birmingham
http://bit.ly/14T8FIO

Telemedicine & eHealth 2013: Ageing Well - how can technology help? London 25-26 November 2013 http://www.rsm.ac.uk/academ/tee01.php

Item 11 – Other useful links

dallas_Connect Sub Group - Join the Sub Group at: https://ktn.innovateuk.org/web/dallas

Housing Learning and Improvement Network www.housinglin.org.uk Now on Twitter: @HousingLIN

Telecare Learning and Improvement Network www.telecarelin.org.uk

King's Fund web site – http://www.kingsfund.org.uk/topics/technology_and_telecare/index.html

Telecare Aware – daily news and comments www.telecareaware.com

Three Million lives - http://www.3millionlives.co.uk/ Twitter: @3MillLives and now on LinkedIn

Newsletter prepared by Mike Clark (@clarkmike) and brought to you by the Telecare LIN on behalf of the Technology Strategy Board and Healthcare KTN.