

Digital Inclusion in Health and Care in Wales

Summary report

The potential for digital inclusion to improve the health and well-being of older people and people with a limiting long-standing illness, disability or infirmity in Wales.



Commissioner
The Wales Co-operative Centre with Carnegie UK Trust

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Wales Co-operative Centre
Canolfan Cydweithredol Cymru

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Foreword

When the Scottish-American philanthropist Andrew Carnegie established the Carnegie UK Trust more than 100 years ago, he set the organisation the mandate to work to “improve the well-being of the people of the UK and Ireland”. Importantly, he gave the foundation’s trustees the power to determine how that mandate should be interpreted and the ability to vary the focus of their work in order to tackle the most pressing social issues of the day, whatever those may be.

In 2018, the significant and growing impact that digital technology has on our lives becomes more apparent on an almost daily basis. Technological advances have brought a remarkable array of benefits to many people – cheaper and more plentiful goods and products; an abundance of new connections with family, friends and those with common interests; access to a dizzying selection of audio, visual and text-based content; new opportunities to build skills and knowledge; faster and more responsive access to public services; new employment opportunities and routes to work; and improved health information and access.

The digital world also presents risks, many of which we don't yet fully understand. These include risks in terms of privacy, security, the veracity of information, mental health and personal fulfilment. There are risks for those who don't engage with digital technology too. Many research studies have identified that those who are digitally excluded are, predominantly, the very same people who are disadvantaged according to almost every other measure of social or economic inclusion. There is a danger that digital technology – which is often seen as a great equalising, democratising advancement – deepens and entrenches the existing divides in our society.



The Wales Co-operative Centre has been at the forefront of digital inclusion work in Wales since 2006, when it delivered the Welsh Government's first digital inclusion programme. Since then the Centre has delivered support, training and consultancy to organisations across Wales to enable them to embed digital inclusion into their service delivery.

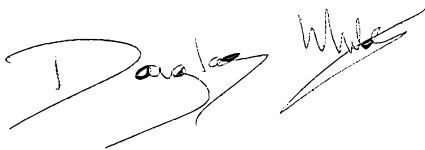
The Centre now seeks to utilise the evidence base that has evolved from its 12 years' experience of delivering digital inclusion programmes across Wales to inform planning and policy discussion at a wider, more strategic level.

The Carnegie UK Trust and the Wales Co-operative Centre identify digital as one of the major public policy issues that require focus and attention. The challenge ahead is how to maximise the benefits of digital, while mitigating the risks.

Over the past year, the two organisations have worked together on a highly significant aspect of the digital agenda - its application in health and care - where the focus on maximising benefit while minimising risk is particularly urgent. The provision of health and care services has already seen important gains achieved through the deployment of digital technology – with many more to come. But service providers face a dilemma. Many citizens with the greatest need for health and care provision are also those with the lowest level of digital skills. This limits the gains that can be made for providers in improving service efficiency and reduces the benefits of speed, time, convenience and agency that could be realised by citizens.

We are therefore delighted to support this important and comprehensive independent report by Bob Gann, a leading expert in the field, which sets a clear roadmap for how digital inclusion can improve the health and well-being of many people in Wales. We hope that the robust evidence base set out in the study, and the practical recommendations it identifies, can support action to advance this vital agenda.

We look forward to working with stakeholders across Wales to help achieve this goal.



Douglas White
Head of Advocacy
Carnegie UK Trust



Karen Lewis
Director of Communities and Inclusion
Wales Co-operative Centre

About this report

This independent report has been commissioned by the Wales Co-operative Centre with support from Carnegie UK Trust.

The aim of the research is to provide key stakeholders with a robust evidence base on the potential for digital inclusion to improve the health and well-being of older people and people with a limiting long-term condition, disability or infirmity in Wales.

The study will support progressive action within NHS Wales, Welsh Government and wider stakeholders. The Wales Co-operative Centre is working in partnership with Carnegie UK Trust to move forward this important agenda in Wales, with the involvement of a wider group of stakeholders - specifically from Welsh Government and NHS Wales.

It is intended to:

- Place digital inclusion within the specific context of health and social care in Wales.
- Give an overview of current relevant activity across Wales, highlighting examples of good practice.
- Highlight any examples of excellent practice in other jurisdictions that can be learned from.
- Highlight areas of need on which to focus future effort and activity, with recommendations as to how to approach this.
- Identify potential cost savings and improved value to encourage service providers to take up digital inclusion activity.
- Begin to support local Health Boards and other stakeholders to work co-operatively and learn from each other in this important area.

About the author

Bob Gann is Director of Junction Digital Consulting, and an independent consultant in digital health and inclusion. Prior to becoming an independent consultant, he was programme director of Widening Digital Participation, the national digital inclusion programme for the NHS in England. Earlier in his career Bob has been Director of Strategy and Engagement for the NHS Choices website, and New Media Director for NHS Direct. He is a Specialist Advisor in Digital Health for the Care Quality Commission, Visiting Professor in Health Informatics at Plymouth University, and a member of the World Health Organization e-Health Technical Advisory Group.



Transforming health and care through digital technology

The NHS was born in Wales. In its 70th year, health and social care is embracing the digital revolution. The rapid growth in digital technologies brings transformative opportunities for people to become more active partners in their own care, interacting with services with the convenience they have come to expect in other areas of their lives.

The recent *Parliamentary Review of Health and Social Care in Wales*,¹ and the response *A Healthier Wales*,² look to digital technology and innovation to deliver more efficient and effective care.

A Healthier Wales recognises digital as a “key enabler of transformational change”.

Our ambition is to provide an online digital platform for citizens, to give people greater control and enable them to become more active participants in their own health and well-being. This will help people to make informed choices about their own treatment, care and support: finding the most appropriate service for their needs, contributing to and sharing information about their health and care, managing appointments and communications with professionals, and working with others to co-ordinate the care and treatment they need, so that it is delivered seamlessly.

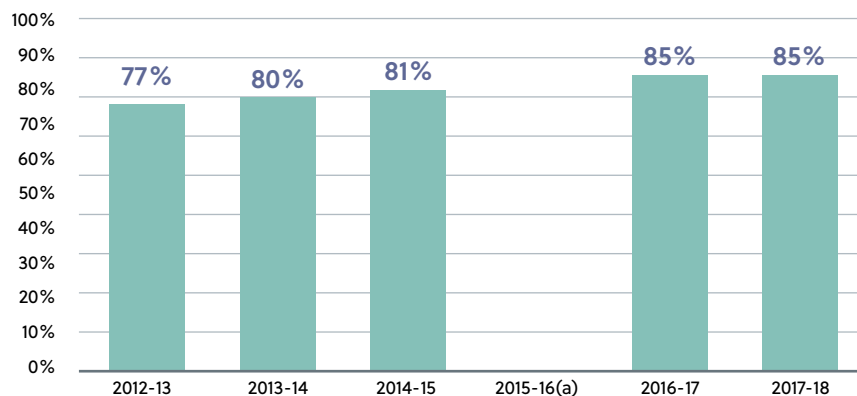


Leaving nobody behind

But with these exciting opportunities comes a serious risk. As more and more vital public services are delivered online, digitally excluded people are in danger of being left behind.

In Wales today, 85% of people use the internet but this still means that 15% do not³. Stubborn levels of digital exclusion remain. After several years of steady improvement, the percentage of people online seems to be reaching a plateau.

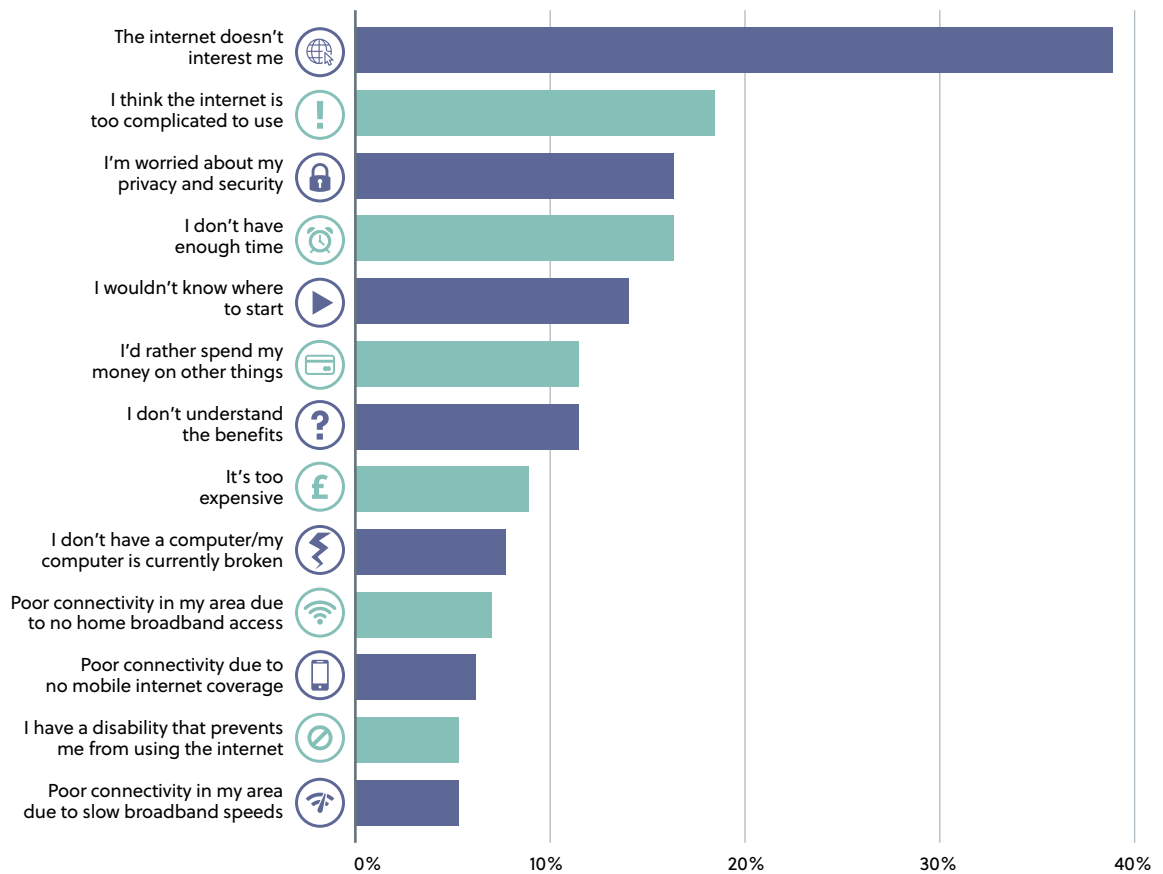
Chart 7: Personal use of the internet, 2016 to 2018



(a)The National Survey did not take place in 2015-16.

There are barriers to digital inclusion including lack of digital skills and lack of access (including affordability and broadband connectivity). As both skills and access improve, lack of interest, motivation and trust are increasingly the reasons that the remaining 15% do not go online.

Data from the Lloyds Bank Consumer Digital Index⁴ reinforces the emerging finding that for the remaining core of those who are not online, lack of interest in what the internet can do for them is now the major barrier. It seems that too often digital services are not sufficiently compelling and meaningful for them to overcome concerns including privacy and security.



Fewer people in Wales use the internet to manage their health than in the rest of the UK.

Wales lags behind the rest of the UK on several indicators of digital exclusion – including health (45% of people in Wales say they use the internet to manage their health, compared with 47% UK average) and age (64% of people over 64 are online in Wales, compared with 72% UK average).

Most crucially, those that are most in need of health and care (including older people and those with long-term conditions and disabilities) are the least likely to be online. 74% of people in Wales with a limiting long-standing illness, disability or infirmity use the internet, compared with 90% of those without such a condition. 75% of men and 68% of women aged 65 to 74 in Wales use the internet, compared with 97% of 16 to 49-year olds.

Tackling digital exclusion in Wales

Wales has an impressive record in tackling digital exclusion, both in policy and practical action. The Welsh Government's *Digital Inclusion Strategic Framework*⁵ has an ambitious 15-point delivery plan. A dedicated national digital inclusion programme, Digital Communities Wales, is delivered by the Wales Co-operative Centre. Digital Communities Wales has produced a Digital Inclusion Charter which now has over 300 signatories.⁶

A new Digital Competence Framework⁷ is in place in all schools, equipping pupils with the skills they need to be digital citizens in the modern world. Superfast Cymru is bringing broadband access to rural communities which would otherwise miss out.⁸

Creating a more digitally inclusive society is central to delivery of major policy areas for Welsh Government, including the Strategy for Older People, Well-being of Future Generations (Wales) Act, and strategies on loneliness, dementia and mental health.

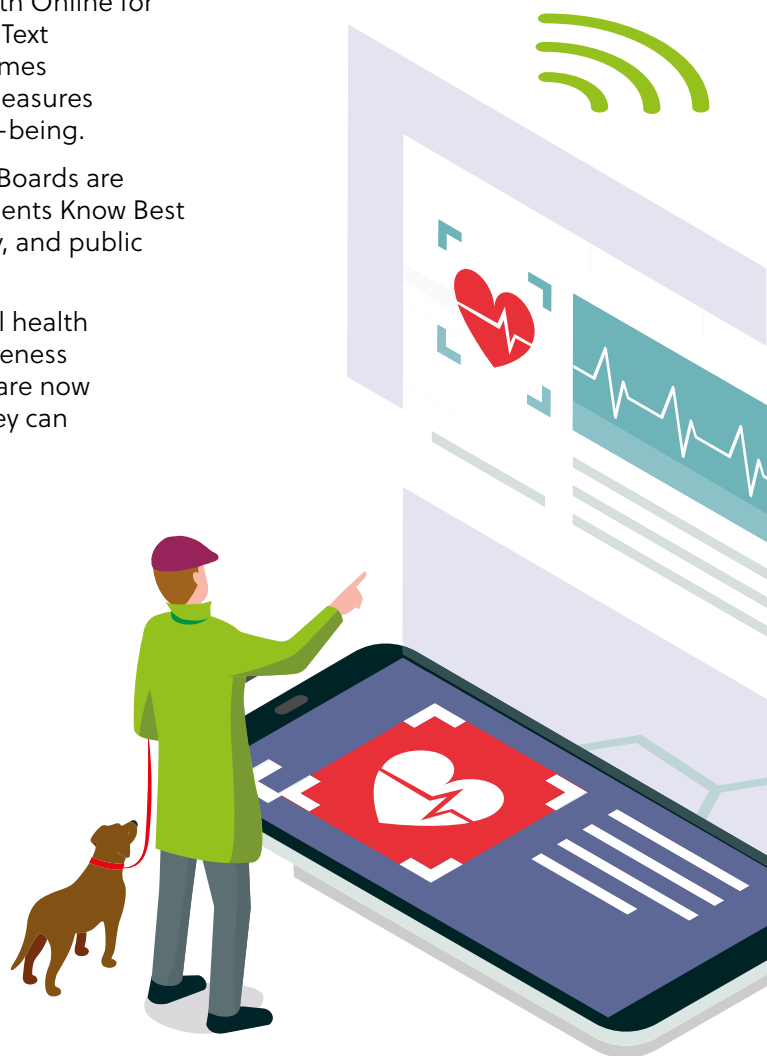
Digital health and care in Wales

*Informed Health and Care*⁹ sets out the vision for digital health and care in Wales – online access to records, appointment bookings and prescription requests, healthcare apps, wearables, online self-management and video consultations.

Workstream One (Information for You) of *Informed Health and Care* covers national public facing services including My Health Online for GP appointments and prescription requests, My Health Text appointment reminder service, Patient Recorded Outcomes Measures (PROMS) and Patient Recorded Experience Measures (PREMS), and a new online platform for health and well-being.

In addition to these national programmes, local Health Boards are implementing their own programmes including the Patients Know Best citizen held record, online cognitive behavioural therapy, and public Wi-Fi.

Experience to date in Wales shows that take up of digital health services can be slow, with barriers including lack of awareness and lack of motivation to sign up. Health and care staff are now beginning to be trained as digital champions so that they can engage patients with digital health services including My Health Online and Patients Know Best.



Case study: Digital inclusion support for Patients Know Best

Patients Know Best is an online portal which gives patients instant access to their medical records. Patients can access up-to-date information on treatments, medication, allergies and more from any device. This information can be shared with different medical teams and carers. Patients can also access messages from clinicians, test results etc. Patients Know Best is being implemented in Abertawe Bro Morgannwg University (ABMU) Health Board (for patients with diabetes and with heart failure, extending to COPD and Parkinson's) and Cardiff and Vale Health Board (for ENT patients).

Patients are invited to join Patients Know Best (PKB) by their clinician. Although take up so far has been good, not all patients are joining. Some patients may not want access to their records; others may not have access to technology or their own email address. ABMU is now working with Digital Communities Wales to direct patients to libraries or other community resources where they can have access to a computer and support with setting up email etc. so they can join PKB if they wish to do so.¹⁰

Case study: Swansea Bay GP Cluster

In Swansea, the local GP Cluster wanted to encourage more patients to sign up for My Health Online. If patients are to be encouraged to register, staff need to be knowledgeable and enthusiastic about digital health tools. Working with Digital Communities Wales (DCW), non-clinical frontline staff from eight practices have been given training to gain skills in supporting people to use My Health Online. Two staff from each practice have been trained. Post training, a digital open day for patients is being developed.

Also in the Swansea Bay GP Cluster, two five-week digital health courses for patients are being developed. Patients are referred from GPs through their social prescribing initiative. The first course focused on a Fitbit project for weight loss patients, and the second course will be on combating isolation with older patients. Course content will be developed by DCW and Adult Community Learning, through consultation with the GPs, and delivered by Adult Community Learning.

Good practice in digital inclusion for health and care

There are many examples of digital inclusion good practice and innovation in health and care settings, particularly through Digital Communities Wales.¹¹

Wales is leading the way in intergenerational support. Through the Digital Heroes initiative, young people befriend older people and introduce them to digital technology, often with inspiring and transformative results.



Case study: Woffington House Care Home

Woffington House is an innovative care home for seniors in Tredegar. The care home has developed a partnership with local primary schools, whereby schoolchildren visit residents on a regular basis. Children from Georgetown Primary School have been Digital Heroes, befriending residents and showing them how to use technology, using tablets loaned by Digital Communities Wales. Residents particularly enjoy visiting places they used to go to, online.

Ken (not his real name) has lived at Woffington House for over two years. He has no family and has no visitors. He suffers with anxiety, mild depression and lives with dementia. At times he would bite his knuckles and hit door frames because of his frustrations. He was prescribed Lorazepam when necessary.

Using an iPad and Virtual Reality glasses, Ken has been able to revisit Aberystwyth in 1965 as well as go on rollercoaster rides. He also loves looking up songs using YouTube. Ken's health and well-being has improved dramatically and gone are the days of anti-psychotic medications.

Ken has also been researching pigeon racing with the children. The children are now going to come to the home and extend the activity further by letting off racing pigeons from the care home car park. Ken's hobby has been brought to real life as a result of the Digital Heroes scheme.

Ken's experience is typical in the care home, where anti-psychotic medication on an "as required" basis has been reduced by 100%. Falls have also been reduced significantly and ambulance call outs (which cost the NHS £300 a time) have been reduced by 28%. Furthermore, staff morale has been boosted – and primary school children say they want to work in care professions when they grow up.¹²



More than 75% of women and a third of men over 65 in Wales live alone, and a quarter say they are lonely. The cost of social isolation and disconnected communities in Wales has been calculated at £2.6 billion per annum.¹³

Through Digital Communities Wales, people who would otherwise be lonely and isolated are being supported to get online so that they can keep in touch with friends and family. In Aneurin Bevan Health Board, the Ffrind i Mi¹⁴ (or Friend of Mine) initiative is working through Community Connectors to befriend anyone who feels lonely or isolated, so they can reconnect with their communities.

Technologies (including VR headsets) are being used to enable people with dementia to connect with positive memories.¹⁵ Reminiscence sessions in care homes for staff, families and people with dementia are using digital media (internet, tablet computers) to help people compile their life stories, through initiatives like Book of You.¹⁶

Digital Communities Wales has also recognised a powerful link between people's motivation to improve both their digital skills and their physical activity. People in a range of settings (housing association tenants, women's fitness group, stroke survivors and workforce) have been loaned Fitbits and shown how to use technology in a fun and informal way.¹⁷



Remote health care through Skype and online consultations has particular potential in Wales, saving people journeying to hospital where there is often poor rural transport. Digital inclusion support has been shown to create the right conditions for frail older people to use virtual consultations in rural areas.

Case study: Telehealth for frail elderly people in rural North Wales

In the Betsi Cadwaladr Health Board area, patients over 85 (one patient was over 100) are seeing their doctor via telemedicine clinics at their local community hospital. This has reduced travelling for many patients from 30 miles to 2-5 miles. Dr Olwen Williams says:

"Co-production was essential for success in setting up the telemedicine service because uptake and delivery are entirely dependent on both clinical and patient groups buying into a service model that meets the needs of the majority. User engagement from the outset can be facilitated by working with agencies, such as Citizens Online, that focus on digital inclusion, dispelling myths and anxieties, and providing training and support.

"We employed a digital inclusion officer who secured community support by working with local community groups, county councillors and the local media. Patient champions and representatives should be made familiar with all aspects of the planned patient pathway – their opinion is invaluable. Patient information leaflets and an option to take part in a demonstration consultation were also made available."

Significant positive feedback has been received from patients, with over 83% stating that they would recommend the clinics to family and friends. Patients have saved on average 64 minutes of travel time (40 miles) to and from the clinics.

Despite the adverse impact of widespread closures, public libraries remain a crucial community asset for both health promotion and digital inclusion. The quality framework for Welsh public library standards, *Connected and Ambitious Libraries*¹⁹, has a specific quality indicator for health and well-being. The Society of Chief Librarians (now *Libraries Connected*) has developed a set of Universal Offers, including a Universal Health Offer²¹ and a Universal Digital Offer.²⁰ Public libraries have been working with partners including Digital Communities Wales, Mind, Diabetes UK and RNIB to improve digital health literacy.

For Welsh speakers (875,000 people²²), the lack of good quality health information content in Welsh can be an additional barrier. With funding from Welsh Government, *Learn My Way* online digital skills training resources are now being translated into Welsh (although this does not currently include health modules, because of the differences in English and Welsh health systems). The National Library of Wales is involving health professionals, medical students and the public in improving the volume and quality of health content on the Welsh Wikipedia.²³

The Wales Co-operative Centre has recently been successful in obtaining funding under the Bevan Commission²⁴ Exemplar Programme for a Digital Companions initiative in Hywel Dda and Aneurin Bevan Health Boards. Digital Companions will follow a set of basic principles in supporting non-internet users to get engaged in the basics of

technology on a gradual basis with support from a peer of similar interest, age and local understanding. As individuals get connected online, the support will look at how the internet can be used to improve people's health and general well-being.

How the NHS in Wales is responding

In contrast to local authorities, not all Health Boards in Wales have recognised digital inclusion as a crucial enabler for digital transformation. While the heaviest users of health and care services remain offline, the benefits of the digital health revolution will not be realised.

Even so, the majority of Health Boards make no reference to digital inclusion in their digital strategies or Integrated Medium Term Plans. However, ABMU Health Board has been at the forefront of citizen-facing digital initiatives in Wales:

Case study: Digital health in ABMU

ABMU was the first Health Board to offer free public Wi-Fi in a hospital and, since April 2018, has provided it in every acute and community hospital in the Health Board. There are up to 12,000 concurrent users at peak times. It was the first Health Board to offer patients a patient-controlled record (Patients Know Best) with integration into the national data architecture. For the first time in Wales patients will have access to their secondary care information and be able to share that securely with whoever they wish, as well as being able to message their clinical team for advice. ABMU is working with Digital Communities Wales to provide support to patients to use Patients Know Best and other online applications. Digitally excluded staff have been supported through their online training, broadening their basic digital skills capability which will improve their life opportunities.

In July 2018, ABMU went further with the approval by the Board of a new set of intentions, including:

- ABMU becoming signatories to the Digital Inclusion Charter
- Exploring opportunities to secure a digital inclusion coordinator on a trial basis
- Developing Digital Champions in all ABMU units and amongst larger staff groups
- Commissioning support for digital inclusion from partners with the requisite skills to support us in supporting our patients and staff
- Advocating for a Digital Inclusion Guide to be commissioned for all of NHS Wales to use



“There is a moral and a business case for digital inclusion in the NHS in Wales. Let’s make it happen”.

(Prof Hamish Laing, former Medical Director and Chief Information Officer, ABMU Health Board).

Levers and enablers for digital inclusion

There are a number of levers and enablers which could be used in Wales to bring digital inclusion higher up the agenda, and to embed it in health and care commissioning and provision.

In England, guidance²⁶ on developing Local Digital Roadmaps specifically directs that: “Local health and care systems should pay due attention to key enablers of the vision, including digital inclusion and the digital literacy of the workforce and patients and carers”.

The 2018-21 NHS Wales Planning Framework²⁷ includes digital health as a key enabler but, unlike in England, does not ask Health Boards to address digital exclusion as a limiting factor. It could do so in future.

Public health organisations (including Public Health Wales) recognise clearly that social determinants including poverty, employment and housing have a profound effect on the health of the population. In the 21st century, digital exclusion is a new public health challenge. Those who lack access to digital technologies, and the skills and confidence to use them, are at greater risk of ill health. In future, there is a strong argument that levels of digital exclusion should be mapped and included in evidence reviews alongside other social determinants of health.²⁸

There is now a real opportunity to ensure that digital inclusion is on the agenda for the new cross sector Transformation Programme.²⁹ Funding for innovation through the Transformation Fund and other grant schemes could be made dependent on proposals to tackle digital exclusion.

Referral to non-medical support such as horticulture, exercise, weight management, community arts or welfare rights advice is well established in Wales. Social prescribing to digital skills training or other forms of digital inclusion support could be a highly appropriate intervention for many patients but is not yet well developed. There is scope for supporting more work for community referral to digital inclusion support through social prescribing.^{30 31}

If patients and service users are going to be engaged with digital health services and encouraged to use them, health and care staff need to be knowledgeable and confident themselves. Developing the digital capability of staff, at frontline and leadership level, would significantly improve take-up of digital health by patients and service users. It is encouraging that the NHS Digital Academy³², for now, has a module on User Centred Design and Citizen Facing Informatics, including digital inclusion. Although funded by NHS England, the Digital Academy course for NHS digital leaders is open to participants from other countries, including Wales.

Public access Wi-Fi is increasingly available in health and care environments in Wales, enabling patients and service users to get online when they most need it – and delivering real benefits for staff. There is a commitment in *Informed Health and Care* that “people attending all large healthcare settings, such as acute and community hospitals will have access to free public Wi-Fi”. Free patient Wi-Fi is now being installed in NHS premises in Wales, although this is not universal and there is more progress in hospital settings than primary and community settings.



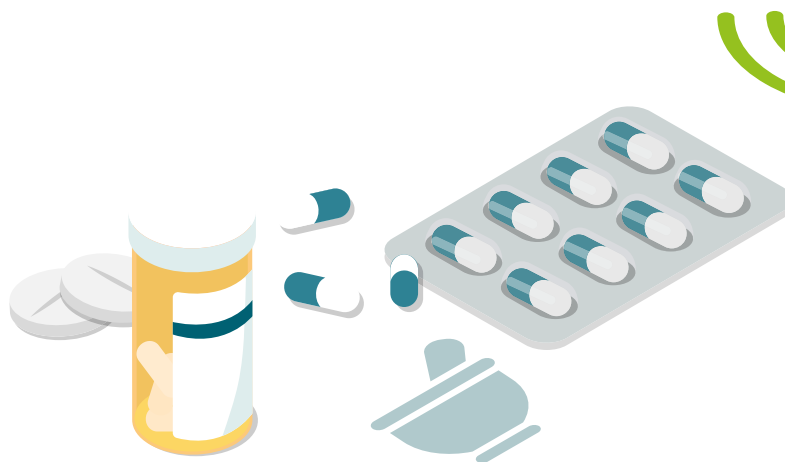
Case study: Free public Wi-Fi

"I think free public Wi-Fi has made a huge difference. A while ago we were the first health board in Wales to offer free public Wi-Fi. It was driven by a conversation with a patient on the renal dialysis unit. I was walking around talking to patients, seeing how they were. He was a young chap, running a small business. He spends four hours, three times a week, in the basement in our hospital and he said, 'You know, I can't even get a phone signal here. I can't get on the internet and I've got to run my business. For about half of every week, I cannot work.' That's what life can be for someone who has renal failure. 'Could you get me a phone signal? That would make a difference!' I said, 'How about if we got you Wi-Fi instead?' He replied, 'Brilliant.' The initial response from colleagues in IT was, 'No we can't do that!' due to the issues of security. 'What if they downloaded inappropriate material? We could be liable for that.'

But I knew that when you stay in a hotel, they've got two networks: one for running the business and one for the customers. Once a partition was established then we created our own connections to the internet rather than using the NHS network. It has been the most brilliant thing. We can have 12,000 concurrent users at times. It's allowed patients to stay connected to their businesses and their families and friends. It also allowed us to completely transform our model of mobile working for the staff in our sites too: using our free Wi-Fi and secure middleware which we give them. It has also released bandwidth on our NHS network: lots of 'wins' for a small investment!"

Prof Hamish Laing interviewed by DrDoctor³³

Health and care services in Wales are underpinned by the principles of prudent healthcare.^{34 35} Improving digital inclusion is entirely consistent with this approach – enabling co-production, reaching those with the greatest needs, doing only what is needed, including encouraging self-care, and reducing the inappropriate variation of the digital divide.



Benefits and business case

The Department of Health in England has calculated annual savings of £2.9 billion from digital deployment in the NHS. But these savings will not be fully realised while the heaviest users of health and care services are less likely to be online.

The business case for digital inclusion in health and care so far is encouraging. Evaluations have shown that interventions, including digital skills training, improve people's confidence in using digital health tools, boost take-up of services such as online appointment bookings, increase self care for minor ailments, reduce loneliness and isolation, and save time and money.

Evaluation of Phase One of the NHS Widening Digital Participation programme in England³⁷ provides the most detailed analysis of the impact of increasing digital inclusion on health we have to date. In developing this evaluation, NHS England - as commissioner of the programme - was keen to ensure that the outcomes measured were meaningful to the NHS, rather than simply numbers of people trained in digital skills.

Of those who were supported by the programme:

- 56% went on to find information on the internet about health
- 59% felt more confident in using health information
- 51% have now used the internet to explore ways to improve mental health and well-being
- 52% feel less lonely or isolated
- 54% of those in need of non-urgent medical advice said they would now go online before consulting their GP, to look at sites such as NHS Choices
- 21% have had fewer visits to their GP
- 22% have progressed to booking GP appointments online and 20% to ordering prescriptions online
- 39% have saved time through carrying out health transactions online

This evaluation estimated £6.40 saved for every £1 invested as a result of reduced avoidable contacts with the NHS due to increased self care through access to information and advice online.

Estimates of savings have been revised in the recent report from Cebr (Centre for Economics and Business Research) for Good Things Foundation.³⁸ Cebr calculate savings to the NHS through individuals learning digital skills and so being able to use the NHS website for self care advice, as well as booking appointments and requesting prescriptions online. These amount to £121 million a year by 2025 through reduction in GP visits and reduction in use of offline services. Reduction in avoidable GP consultations alone could save £10 million within a year. Estimates in this report are for the UK as a whole. On a per capita basis, this would mean savings of £5.5 million a year in Wales by 2025.

A 2016 analysis of Scottish data carried out by Ipsos MORI for Carnegie UK Trust illustrates the wider public health benefits, and how internet use is associated with better health and well-being. Those who use the internet are more likely to have:

- been to a cultural event
- visited outdoors for recreation
- taken part in sport
- volunteered

Evaluation of the NHS Widening Digital Participation programme is the most detailed analysis of impact of digital inclusion on health. It estimates £6.40 saved for every £1 spent.

Investing in digital inclusion can produce cumulative savings for the NHS in the UK of £121 million a year by 2025. For Wales this would mean savings of £5.5m a year.

Conversely those who are not online are more likely to have visited their doctor once a month or more.

Lessons from other countries

Wales can learn from other countries, and other countries can learn from Wales, about approaches to digital inclusion in health and care.

In England, the first phase of the NHS Widening Digital Participation programme has demonstrated measurable impacts against outcomes relevant to the NHS, including self-care and reduction in avoidable consultations. The second phase is now working to develop a better understanding of the true barriers to digital inclusion, and to co-design the most appropriate solutions.⁴⁰

The Digital Health and Care Strategy in Scotland⁴¹ includes the expectation that all organisations involved in the delivery of care sign up to the Digital Participation Charter.

In Northern Ireland, the Digital Age Project⁴² is supporting intergenerational partnerships, while in Ireland the Getting Citizens Online⁴³ programme is addressing the needs of farming communities in rural areas.

Smaller, innovative nations similar in size to Wales have particularly valuable experiences. A 2014 report from Nesta⁴⁴ concludes that these countries exhibit a sense of national mission, an entrepreneurial spirit at all levels including government, an open culture, and downstream innovation through SMEs.

One of these is Singapore where there has been a particular focus on bridging the digital divide among seniors. Here the Silver Infocomm initiative supports digitally savvy older people to help other older people develop digital skills.⁴⁵

New Zealand has many similarities to Wales. Both are smaller nations, with populations of a similar scale. Both are English speaking but with unique official languages in Maori te reo and Welsh. Both have challenges in delivering services to rural areas. New Zealand has a Digital Inclusion Manifesto⁴⁶ and a Ministerial Group for Digital Inclusion. A Digital Divide Map is available online showing digital exclusion status by locality. Sharing experiences could benefit both nations.

In return, Wales should be sharing with the world its ground-breaking work in digital inclusion for health and care – in particular its imaginative use of community assets for intergenerational befriending, reducing loneliness and isolation.

The World Health Organization recognises the potential of digital technologies to advance sustainable healthcare development, and in particular to support health systems in all countries in health promotion and disease prevention, and by improving the accessibility, quality and affordability of health services.

In May this year, the World Health Assembly adopted a resolution on digital health⁴⁷ with 11 actions to drive forward digital health adoption. It is encouraging that WHO sees digital inclusion of citizens as central to achieving the benefits of digital health, and urges member states to:

Improve the digital skills of all citizens, including through working with civil society to build public trust and support for digital health solutions, and to promote the application of digital health technology in the provision of, and access to, everyday health services.



Rethinking digital inclusion

For a number of years now, the focus of digital inclusion support throughout the UK has been on helping people develop basic digital skills. But today a lack of basic skills may no longer be the most crucial barrier to digital take-up, particularly in health and care. More and more people have access to, and are familiar with, digital technology, in particular mobile devices. And technology is much easier to use with simple touch screen functionality on tablets and phones.

In July 2018, the Centre for Ageing Better published an important and thought-provoking report on new approaches to supporting people in later life to get online.⁴⁸ People in later life stand to benefit hugely from being online – to improve health and well-being, save money and keep in touch with family and friends. However, there remains a core of people in later life who are not online and have no intention of getting online. When asked what would prompt them to go online, 74% of people over the age of 65 responded 'nothing'.

Ageing Better funded Good Things Foundation to conduct research to understand what enables and prevents people in later life from getting online – focusing specifically on people in later life who have never used the internet, those who used to but have now stopped, or those who have limited usage. The report concluded:

- *Not using the internet and being digitally excluded are not the same thing. Some people make a reasoned decision not to be online.*
- *We need to move on from a focus on basic digital skills to building confidence and motivation to do things online that matter to people.*
- *We must measure success by outcomes (including health outcomes) rather than just numbers of people attaining basic digital skills.*

The messages are clear. People in Wales need digital health and care services which matter to them, are accessible and well designed, and are meaningful to their everyday health experience. They need more than basic digital skills – they need digital health literacy which gives them confidence to use tools and resources effectively.

If this digital inclusion support is to be sustainable, we need to be able to measure impact through outcomes which have resonance for the NHS and social care – including self-care, patient activation, and appropriate service utilisation. And as we rethink some of our approaches to digital inclusion for health and care, we will be most successful if we work with patients and service users to co-produce solutions which are most relevant for them.



Ending the digital inverse care law

Wales has always had a keen awareness of health inequalities. Julian Tudor Hart set out his Inverse Care Law in Port Talbot in 1971⁴⁹, arguing that the availability of good health care varies inversely with need.

As the NHS in Wales progresses its digital transformation agenda, there is a real danger of a new digital inverse care law, where those citizens most in need of accessing new digital services will be left behind again, due to their lack of digital skills and access.

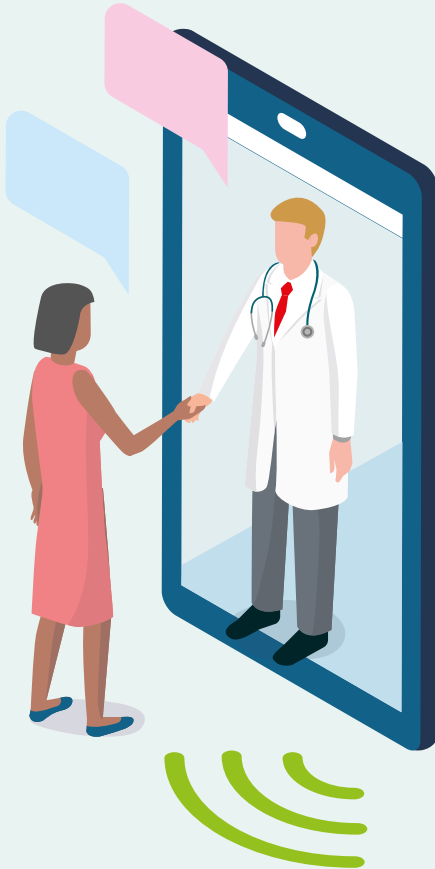
In a blog to mark the NHS 70th birthday, Professor Hamish Laing⁵⁰ asks what Aneurin Bevan would think of the NHS today. Would he be amazed at all the new technologies, operations and treatments that we have available? Would he be in favour of the digitisation of the NHS? For Bevan, one of the founding principles of the new NHS was *“generalising the best health advice and treatment”* for all. He would no doubt have been concerned if digital exclusion means that some citizens and communities miss out on all that digital healthcare can offer, creating health outcome inequality instead of closing the gap.

The time is ripe for the NHS and social care in Wales to embrace digital inclusion as central to the vision of transformational change set out in A Healthier Wales. We need digital inclusion to be in the health and care mainstream, sustainably and at scale, not just a nice-to-have. Without action we risk a new inverse care law, where services delivered digitally are unavailable to those who would most benefit from them - digital have-nots in an increasingly digital world.



Recommendations

1. Digital inclusion needs to move from the margins to the mainstream of health and social care planning and delivery in Wales and be seen as a key enabler of prudent healthcare.
2. Digital inclusion should be recognised as a social determinant of health, alongside other inequalities, and included in future public health mapping.
3. The business case for digital inclusion so far is encouraging, but needs to be developed more rigorously, with evaluation against outcomes which matter to health and social care organisations.
4. The NHS Wales Planning Framework should require Health Boards and Trusts to take digital inclusion explicitly into account when developing local health plans, including Integrated Medium Term Plans (IMTPs).
5. Funding for digital initiatives through the Transformation Fund and other grant programmes should be conditional on applications specifically addressing digital inclusion.
6. Local authorities generally have a much more detailed and robust strategic approach to digital inclusion than do health organisations. As health and social care organisations move towards the Healthier Wales vision of integrated care, a more joined up approach should also be taken to digital inclusion.
7. Without digital inclusion, the benefits of Workstream One (Information for You) of the Informed Health and Care strategy will not be fully realised. Initiatives such as Digital Communities Wales support for adoption of public facing digital health services should be adopted at scale across the NHS in Wales.
8. Awareness of public facing digital health services in Wales is not high. There is a need for communication activity to increase not only awareness but also the benefits of signing up.
9. All Health Boards and Trusts in Wales should follow the example of Abertawe Bro Morgannwg, signing up to the Digital Inclusion Charter and taking practical steps to implement digital inclusion support locally.
10. Digital Communities Wales is leading the way in ensuring that the most vulnerable people are not excluded from the benefits of digital. Digital Heroes is a particularly inspirational example of intergenerational befriending which should be widely adopted, not just in Wales but elsewhere.
11. Wi-Fi is a key enabler for ensuring that people can get online when they most need it. Free public Wi-Fi should be rolled out comprehensively across NHS and care settings throughout Wales.
12. Even with digital skills and access to technology, people will not use digital health tools if they are not accessible and meaningful to them. There should be user-centred design of all digital health products with the involvement of people who are less experienced digital users.



13. A practical guide to make it easier for local health and care organisations to commission and deliver digital inclusion support should be produced, similar to the Digital Inclusion Guide for Health and Social Care in England.
14. The use of social prescribing of digital inclusion support is at an early stage in Wales and the approach should be accelerated.
15. Digital health literacy of health and care staff is essential for digital adoption by patients and service users. Digital health leaders in Wales should be encouraged to participate in the NHS Digital Academy, while frontline staff should be supported to become digital champions for their patients.
16. Wales can learn from other countries, and other countries can learn from Wales, about approaches to digital inclusion in health and care. Relationships should be developed with digital inclusion and health colleagues in comparable small, innovative countries.
17. Sharing of what works in Wales and elsewhere should be actively communicated to ensure that digital inclusion is rolled out and embedded safely and successfully.
18. The approaches to digital inclusion which have worked in the past may not be where the focus should be in the future. Health and care organisations in Wales should support co-production projects which build a better understanding of the barriers to digital inclusion and best solutions.



Interviewees

Tom Crick, Professor of Digital Education and Public Policy, Swansea University, and Independent Member, Abertawe Bro Morgannwg University Health Board

Beverley Davies, Senior Programme Manager, Aneurin Bevan Health Board

Joanna Dundon, National Clinical Informatics Lead (Public and Service), NHS Wales Informatics Service

Nikki Ellery, Senior Project Manager – Informatics, Abertawe Bro Morgannwg University Health Board

Adam Hesselden, Manager, Woffington House Care Home, Tredegar

Huw George, Deputy Chief Executive, Public Health Wales, and Chair, Workstream One (Information for You)

Andrew Griffiths, Director and Chief Information Officer, NHS Wales Informatics Service

Helen Hughes-Tait, Head of Clinical Futures – ICT, Aneurin Bevan Health Board

Andrew Jacobs, Head of Financial and Digital Inclusion, Welsh Government

Ann Jones, Public Library Representative, CILIP Cymru Wales (The Library and Information Association)

Lesley Jones, Head of Clinical Education, Cwm Taf University Health Board

Peter Jones, Deputy Director – Digital Health and Care, Welsh Government

Hamish Laing, former Medical Director and Chief Clinical Information Officer, Abertawe Bro Morgannwg University Health Board (now Professor of Enhanced Innovation, Engagement and Outcomes, Swansea University)

Kimberley Littlemore, Partner, Pocket Medic eHealth Digital Media Ltd

Nesta Lloyd-Jones, Policy and Public Affairs Manager, Welsh NHS Confederation

Leah Morantz, Director of Communications, Public Health Wales

Alun Prescott, Operations Manager, Regeneration Investment & Housing, Newport City Council (Chair, Society of Chief Librarians Wales)

Anna Prytherch, Project Manager, Rural Health and Care Wales

Rachel Rahman, Director of Centre of Excellence in Rural Health Research, Aberystwyth University

Catherine Sharp, Research Officer, Bangor University

Tanya Strange, Divisional Nurse – Primary Care & Networks, Aneurin Bevan University Health Board

Dave Street, Corporate Director Social Services & Housing, Caerphilly County Borough Council

Chris Subbe, Consultant in Acute, Respiratory and Critical Care Medicine, Bangor University

Alyson Thomas and Clare Jenkins, Joint Chief Officers, Board of Community Health Councils in Wales

Iwan Williams, Communities, Local Government and Well-being Lead, Older People's Commissioner (now Policy Lead, Social Care Wales)

Olwen Williams, Consultant in Sexual Health and Future Hospitals Lead, Betsi Cadwaladr University Health Board

NHS Wales User Needs and Experience Focus Group

Jo Dundon, NHS Wales Informatics Service; Leanda Wynn, Board of CHCs in Wales; Sean Newton, Diabetes UK Cymru; Ann Jones CILIP Wales; Trevor Davis, Bevan Commission; Matt Lloyd, Digital Communities Wales; Alex Percival NHS111; Cecilia Jones Engagement Lead NHS Wales Informatics Service



References

- ¹Parliamentary Review of Health and Social Care in Wales
<https://gov.wales/docs/dhss/publications/180116reviewen.pdf>
- ²A Healthier Wales: Our Plan for Health and Social Care
<https://gov.wales/docs/dhss/publications/180608healthier-wales-mainen.pdf>
- ³National Survey for Wales 2017-18
<https://gov.wales/docs/statistics/2018/180822-national-survey-wales-2017-18-internet-use-digital-skills-en.pdf>
- ⁴Lloyds Bank UK consumer digital index
www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.asp
- ⁵Delivering digital inclusion: a strategic framework for Wales
<http://gov.wales/docs/dsjlg/publications/comm/160316-digital-inclusion-strategic-framework-en.pdf>
- ⁶Digital Inclusion Charter <https://www.digitalcommunities.gov.wales/digital-inclusion-charter/>
- ⁷Digital Competence Framework
<http://learning.gov.wales/resources/browse-all/digital-competence-framework/?lang=en>
- ⁸Superfast broadband
<https://gov.wales/topics/science-and-technology/digital/infrastructure/superfast-broadband/?lang=en>
- ⁹Informed health and care: a digital health and care strategy for Wales
<https://gov.wales/docs/dhss/publications/151215reporten.pdf>
- ¹⁰Digital inclusion can support people in Wales to manage their health online
<https://www.youtube.com/watch?v=PR-PvITgetk>
- ¹¹Case studies. Digital Communities Wales <https://www.digitalcommunities.gov.wales/case-studies/>
- ¹²South Wales Care home achieves digital first <https://www.youtube.com/watch?v=eK1SP7Vhve4>
- ¹³National Assembly for Wales Inquiry into Loneliness and Isolation
<http://senedd.assembly.wales/mglIssueHistoryHome.aspx?lId=16359>
- ¹⁴Friend of Mine / Ffrind i Mi www.ffrindimi.co.uk/
- ¹⁵VR technology triggers happy memories and new experiences for people with dementia (Swansea Social Services) <https://www.digitalcommunities.gov.wales/case-studies/vr-technology-triggers-happy-memories-and-new-experiences-for-people-with-dementia/>
- ¹⁶Digital Communities Wales kit used to support people with dementia (Book of You)
<https://www.digitalcommunities.gov.wales/blog/2015/09/18/digital-communities-wales-kit-used-to-support-people-with-dementia/>
- ¹⁷Activity trackers help people learn new digital skills while improving fitness <https://www.digitalcommunities.gov.wales/case-studies/activity-trackers-help-people-learn-new-digital-skills-while-improving-fitness/>
- ¹⁸Williams, O et al The use of telemedicine to enhance secondary care: lessons from the frontline
<http://futurehospital.rcpjournals.org/content/4/2/109.full.pdf>
- ¹⁹Connected and ambitious libraries; quality framework of Welsh public library standards 2017-20
<https://gov.wales/docs/drah/publications/170331-connected-and-ambitious-libraries-en.pdf>
- ²⁰Universal health offer <https://www.librariesconnected.org.uk/universal-offers/health>
- ²¹Universal digital offer <https://www.librariesconnected.org.uk/universal-offers/digital>
- ²²"Encouraging" survey suggests increase in Welsh language speakers
<https://www.bbc.co.uk/news/uk-wales-45611374?SThisFB>
- ²³Wici-lechyd (Wiki-Health): improving online access to Welsh language health information
<https://blog.library.wales/?p=15756>
- ²⁴Bevan Commission <http://www.bevancommission.org/en/index>
- ²⁵Digital inclusion, NHS Wales and ABMU <http://www.wales.nhs.uk/sitesplus/documents/863/July%202018%203iv%20Digital%20Inclusion%20NHS%20Wales%20&%20ABMU.pdf>

- ²⁶Guidance for developing local digital roadmaps <https://www.england.nhs.uk/digitaltechnology-old/wp-content/uploads/sites/31/2016/11/develop-ldrs-guid.pdf>
- ²⁷NHS Wales Planning Framework 2018-21 <https://gov.wales/docs/dhss/publications/171013nhs-wales-planning-framework-en.PDF>
- ²⁸Making a difference: investing in sustainable health and well-being for the people of Wales. Public Health Wales www.wales.nhs.uk/sitesplus/documents/888/PHW%20Making%20a%20difference%20ES%28Web_2%29.pdf
- ²⁹Less reliance on hospitals, more care closer to home <https://gov.wales/newsroom/health-and-social-services/2018/longterm/?lang=en>
- ³⁰Social prescribing. Primary Care One <http://www.primarycareone.wales.nhs.uk/social-prescribing>
- ³¹Social prescribing digital skills. Good Things Foundation <https://drive.google.com/file/d/1rzG019EccLR9UbTbXJcx9IPNgUnsRW4w/view>
- ³²NHS Digital Academy <https://www.england.nhs.uk/digitaltechnology/nhs-digital-academy/>
- ³³Time with Hamish Laing <https://www.drdoctor.co.uk/blog/time-hamish-laing/>
- ³⁴Promoting the principles of prudent healthcare <http://www.bevancommission.org/en/prudent-healthcare>
- ³⁵Prudent health care <http://www.prudenthealthcare.org.uk>
- ³⁶Government Digital Service Digital Efficiency Report <https://www.gov.uk/government/publications/digital-efficiencyreport/digital-efficiency-report>
- ³⁷Health and digital: reducing inequalities, improving society. Tinder Foundation https://nhs.tinderfoundation.org/wp-content/uploads/2016/07/Improving_Digital_Health_Skills_Report_2016.pdf
- ³⁸The economic impact of digital inclusion in the UK. Cebr for Good Things Foundation <https://www.goodthingsfoundation.org/research-publications/economic-impact-digital-inclusion-uk>
- ³⁹Digital participation and social justice in Scotland. Carnegie UK Trust <https://www.carnegieuktrust.org.uk/publications/role-digital-exclusion-social-exclusion/>
- ⁴⁰Digital Health Lab <https://digital-health-lab.org/>
- ⁴¹Scotland's digital health and care strategy: enabling, connecting and empowering <https://www.gov.scot/Publications/2018/04/3526>
- ⁴²Digital Age Project <http://linkinggenerationsni.com/our-work/digital-age-project/>
- ⁴³Getting Citizens Online <https://www.dccae.gov.ie/en-ie/communications/topics/Digital-Strategy/getting-citizens-online/Pages/Citizens-and-Training.aspx>
- ⁴⁴When small is beautiful: lessons from highly innovative small countries. Nesta <https://media.nesta.org.uk/documents/when20small20is20beautiful20final.pdf>
- ⁴⁵Factsheet: overview of digital inclusion. IMDA Singapore https://www.imda.gov.sg/-/media/imda/files/inner/about-us/newsroom/media-releases/2016/0421_senior-smart-phone-workshop/factsheet-for-the-overview-of-digital-inclusion-programmes.pdf?la=en
- ⁴⁶New Zealand digital manifesto <https://2020.org.nz/wp-content/uploads/2017/08/Digital-Inclusion-Manifesto.pdf>
- ⁴⁷Resolution on digital health. WHO http://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_ACONF1-en.pdf
- ⁴⁸The digital age: new approaches to supporting people in later life to get online <https://www.ageing-better.org.uk/publications/digital-age>
- ⁴⁹Tudor Hart, J. The inverse care law (1971) *Lancet* 297 (7696) 405-412 [http://dx.doi.org/10.1016/S0140-6736\(71\)92410-X](http://dx.doi.org/10.1016/S0140-6736(71)92410-X)
- ⁵⁰Laing, H. Happy birthday NHS: what are you wishing for? <http://www.everyonesbusiness.coop/en/2018/07/05/happy-birthday-nhs/>



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