APPG on Rural Health and Social Care

28 May 2020

Parliamentary Inquiry Session 7

Technology Opportunities and Challenges

Present:

Anne Marie Morris MP, Chair

Witnesses

Richard Alcock –Director of Primary Care Technology, NHS Digital
James Palmer - Programme Head, Social Care, NHS Digital
Graeme Tunbridge – Director of Devices, Medicines and Healthcare products Regulatory Agency (MHRA)
Brendan Brown – Chief Executive, Airedale NHS Foundation Trust
Victoria Pickles – Director of Corporate Governance, Airedale NHS Foundation Trust
Piers Ricketts – Chair, The Academic Health Science Network (AHSN) Network & Chief Executive, Eastern (AHSN)
Charlotte James – Director of Communications, Eastern AHSN
Robin Batchelor Chairman– Care Software Providers Association (CASPA)
Robin Wells - Membership Secretary, Care Software Providers Association (CASPA)

Invited Observers

Andrew Dickenson – Health Education England
Ade Tams – Health Education England
Jan Sobieraj – National Centre for Rural Health and Care
Rhona Mackay – Policy Officer Royal College of Physicians
Baroness Judith Jolly - Liberal Democrat Lords Spokesperson (Health)
Roger Greer – Stakeholder Engagement Officer NHS Digital
Ian Hume – BMA GP committee premises and practice finance policy lead
Gill Mitchell - Faculty Development Manager, The Royal College of Surgeons of Edinburgh (Faculty of Remote & Rural Healthcare)

Secretariat Team

Ivan Annibal - Director of Operations, National Centre for Rural Health and Care **Dr Jessica Sellick –** Senior Research Fellow, National Centre for Rural Health and Care
Jonny Haseldine – Parliamentary Assistant, Office of Anne Marie Morris MP

Apologies

The Right Reverend and Right Honourable Dame Sarah Mullally DBE – Bishop of London
Professor Richard Parish CBE – Chair National Centre for Rural Health and Care

Anne Marie Morris – Welcomed all the participants. She explained that as a consequence of the coronavirus pandemic this was the first time we had held an Inquiry session via zoom. She invited Richard Alcock –Director of Primary Care Technology, NHS Digital and James Palmer - Programme Head, Social Care, NHS Digital

Richard Alcock began his presentation by explaining that he had reflected on the Covid-19 experience in preparing his evidence. He also mentioned that he had talked to a group of technicians for a first view in terms of the framing of his evidence.

Mr Alcock identified a degree of commonality across rural and urban settings in terms of the role and impact of technology on health and care. He went on to identify some nuances in the context of rural settings, he indicated that these were based on discussions and reasoning but did not have a direct empirical base.

Mr Alcock indicated that access to services is a key challenge in rural settings. Distance suggests people have an increased dependency on public transport. Ways of tackling this dependency are important. A number of e-enabled activities are helpful in overcoming the challenge of distance including providing access to client records to enable remote working and undertaking remote consultations by video and telephone. There are some new products on the market, which have helped with this process.

Mr Alcock explained that prior to the coronavirus pandemic adoption of these products was patchy, this has been accelerated by the Covid-19 experience. Notwithstanding progress with the adoption of these approaches Mr Alcock emphasized that we still need to be careful to ensure that remote service delivery (which doesn't suit every rural case) isn't seen as the only option for people in remote settings.

Mr Alcock went on to talk about other technological applications which are important in overcoming the challenge of rural service delivery including increased use of high resolution images which allows GPs to review for example skin conditions and undertake other forms of diagnosis without the need for the patient to present. This approach can result in reducing appointment requirements. One further area, which has been given greater prominence through Covid-19 is remote monitoring through tele-health products, this is an area with growing potential. This can include blood pressure checks and other condition monitoring facilities. A further consequence of the Covid-19 pandemic is the far wider application of the "total triage" approach, seeking to engage every GP client remotely where possible in the first instance.

Mr Alcock went on to explain that his second theme was around accesses to medicines. He explained that there is a strong view borne out by the higher incidence of dispensing practices in rural areas that some smaller rural pharmacies don't have access to the depth of medicine stocks in urban settings. He referenced an NHS app which now allows patients to choose their preferred pharmacy in some cases this can provide access to more substantial facilities for patients. In taking this approach however Mr Alcock recognized that we need to be aware of the unintended consequences of promoting services, which can create a climate of detrimental challenge to small service providers and businesses. He went on to explain how the application of technology in this context had enabled location sharing for medicine stocks stored remotely from GP practices. Mr Alcock went on to talk about the role of new technology in making beds and other services viable through online management and booking in the context of in-patient services.

Mr Alcock moved on to talk about patient data. He explained that e-enabled approaches, need to be managed safely and transparently in this context. He explained that GP Connect and Summary Care Records have been in place for some time and can be built on providing information about the client. He identified that there was an opportunity to use these approaches to enable enhanced joint working amongst GP practices. He went on to explain that going forward the key focus is to allow effectively and consistent roll out of such approaches.

James Palmer – introduced his presentation by explaining that his focus was social care and health integration. He is currently engaged in looking at the role of technology from a care based perspective.

His initiative has involved over 60 projects looking at different forms of technology – from the use of secure emails to the use of acoustic monitoring. He explained that results so for had revealed that cash releasing benefits are seldom big instead the greatest benefits are societal. The biggest impacts are a better experience for the cared and the release of time for the carer. Scale up of good practice is one of the biggest challenges we face as a country.

Mr Palmer went on to explain that resources in terms of staff time to embrace innovation and the commissioning process in terms of creating a safe and secure digital environment are the biggest challenges faced in the context of scale up. Feedback from projects also suggests that digital connectivity is a key factor. Access via the rural gigabit scheme is an important opportunity to enhance capacity to make the best of new technology innovations.

NHS digital and NHSX have just released some tools to help carers get on the healthcare map. NHS mail users in the care sector have gone up from 300 – to 12,000 in last 7 weeks through Covid-19. This system is not perfect but is providing important enhanced communication in the current pandemic climate.

Mr Palmer went on to explain that the most important baseline for benefitting from the use of technology in the context of care, is through the care provider looking at their overall care system before thinking about technology. Once this base is right technology enhancements can follow. The drive to achieve enhanced service provision through technology in care needs to be owned by the care system. The current shared social care platform has been critical in responding to the pandemic and has operated as a powerful communications channel during the crisis. Digital urban settings have been at the heart of this model and it is important to ensure its functionality is adopted in rural settings as widely as possible. There is currently a rural deficit in the use of this platform.

Mr Palmer went on to report that planning to launch some regional model care homes to showcase technology had been put on hold as a consequence of the pandemic. He explained that creating a standardized approach to enable projects to be adopted at scale was a key requirement for success. Currently his initiative is seeking to achieve this with a portfolio of 20 projects. He referenced one very simple example – the "Red Bag" scheme, which enables effective transfer from a care to an acute setting for clients and is now being developed on a virtual as well as a physical basis.

Anne Marie Morris thanked both witnesses for their evidence. She indicated that part of the narrative around technology is the challenge of joining things up across an organization as huge and diverse as the NHS. She asked if the NHS was making progress in this context?

Richard Alcock indicated that from his perspective progress has been made but more needs to be done. The key challenge is that the systems are all independently used. Every new project potentially complicates the picture. There has been a move in NHS Digital from provider of services to a standards based approach focused on ensuring core consistency. James Palmer concurred with this view. He went on to explain that the key issue for social care is that there is no one point in England that manages the contract environment in the way Government does in the context of the NHS. Consequently consent rather than direct influence is a challenge in this context in relation to care.

Anne Marie Morris – moved on to welcome Graeme Tunbridge of the Medicines and Healthcare products Regulatory Agency (MHRA). She outlined that amongst other aspects of Mr Tunbridge's evidence she was interested in the role of technology and Artificial Intelligence (AI). She explained that she was keen to understand in this context what is interesting and novel? and what research is relevant around gaps in provision/opportunities in this context.

Mr Tunbridge went on to explain that MHRA is the UK regulator for medical devices and oversees the regulation process. Their role is to investigate the safety of devices and help them come safely to market.

Mr Tunbridge began by talking about challenges. He explained that the world of devices is becoming more complex. Many devices are becoming more personalised and more difficult to operate. There is a necessity for more training to use devices effectively. MHRA are seeking to establish a model of regulation which brings products forward quickly but through effective testing. In rural areas a lack of tertiary centre focus, in terms of testing might militate against the development of rural sensitive products. In essence rural areas lack the critical mass to put them at the forefront of product testing and roll-out.

Mr Tunbridge went on to explain that tele-health and tele-care has been radically enhanced through the Covid-19 experience. Patient records and access has been freed up as regulation has become more flexible in this period. Organisations are traditionally worried about needing to comply with the regulatory framework at MHRA but the agile approach arising from the pandemic has led to a dialogue about how to refine the medical device compliance requirements. One good contemporary example of acceleration is the Isle of Wight contact tracing app, which has set the tone for the enabling approach of MHRA.

Mr Tunbridge went on to say that from his perspective what is coming down the path in terms of future approaches is really exciting. He referenced the work of the NHSX AI lab – MHRA is actively involved in engaging with this work. MHRA is keen to enable regulation and AI is the big challenge – a lack of understanding of the outcomes of some AI is an issue. Patients want to know the specifics of an algorithm before handing over data to it.

Anne Marie Morris picked up on the issue of training – she asked if there is any way that training and delivery could be rural proofed in terms of medical devices?

Mr Tunbridge replied that this was possible. He went on to explain that the challenge is about overcoming the risk of devices passing into the hands of people who are not sufficiently experienced to use them effectively. To date the push has been to specialization, which mitigates around roll out to smaller rural centres in this context as there are fewer people to master the full functionality of devices.

Anne Marie Morris explored this issue further, she asked is the barrier cultural – in that people don't want to commit the time to learn the full application of devices or is it spatial – ie driven by low critical mass of people and patients in rural areas.

Mr Tunbridge explained that it is not possible to be definitive in this context. He went on to explain that his main reflection is less around the notion of an rural/urban divide per se, but thinking about the challenges for some rural places in terms of critical mass, where clinical testing and roll out is more challenging due to the low critical mass of people. Mr Tunbridge indicated he will take away the learning point personally about not focusing too much on just using tertiary centres in the testing and roll-out of devices.

Anne Marie Morris moved on to introduce Brendan Brown and Victoria Pickles, from the Airedale NHS Foundation

Mr Brown began his presentation by introducing the Airedale Trust as a small district general hospital with a 700 square mile radius stretching from the tip of Cumbria to the areas around Bradford. He went on to say that the Trust is known for its digital footprint which covers 6-800 nursing and care homes and prisons – working on an England wide footing. Mr Brown explained that Airedale has in common with many rural settings in England a diverse, longer living population putting increased demand on health and social care services. Notwithstanding these challenges he is keen to celebrate rurality as a positive challenge and opportunity.

Mr Brown moved on to say that in terms of innovation his approach was not talk about the "kit " in isolation but rather the impact it can have. He agreed with some of the issues raised by Richard Alcock. He explained that from his point of view GP triaging and wide geographical coverage are both very big themes. Medication reviews, falls risk assessments, keeping people at home, single point of access for care coordination are all possible through the use of IT. Multi-disciplinary working can be more effectively facilitated through digital approaches. Training has been enhanced by IT reducing the need for travel. Virtual discharge has been enabled through the use of e-enabled approaches with tele-nursing, pharmacists, mental health and other clinicians now being played into enabling this.

Mr Brown went on to say inviting patient control in terms of their care at home is a key aspect of this agenda. He introduced the stammering service, provided through his trust as an example of success – it has been shown substantively that a digital approach helps with this challenge. He moved on to explain that end of life planning and a facilitation of the process of people choosing to die at home, with 24/7 support which is e-enabled was another powerful example of how digital approaches had changed the quality of services in rural settings.

Mr Brown went on to explain that the trust have looked at international models of e-enabled service delivery from Sweden and Norway with a particular focus on the role of virtual approaches in an overall well-being context. He explained that we are wrong to assume patients when elderly are not "tech savvy" in terms of their health care. He said we should always proceed on the premise that patients are experts in their own health.

Mr Brown explained that the Trust operate a wide community approach to considering how services can best be delivered in partnership with VCS and local authority colleagues. He gave the example of the development of a care home tracker to look at care home availability as part of a holistic approach within the trust concentrating more widely on health and care than just hospital beds.

Ms Pickles explained that from a social care focus supervision, enabling enhanced non-hospital care is possible through remote use of technology, this is particularly

pertinent in the current Covid-19 environment. This has driven more intense adoption of technology more widely in local care settings and it gives GPs access to consulting colleagues – this can be done both on a one to one basis but also has the potential to be used very powerfully in group settings.

Mr Brown went on to indicate that in terms of research it would be good to understand what the outcomes measures could be from the enhanced use of digital approaches. He talked about the dichotomy of the limitations facing an operational trust compared to the agility of the private sector. He explained that most of the innovation in the Airedale experience had been driven out through their relationship with a private sector business.

Mr Brown went on to indicate that research around contract tracing would also be great to see. He explained that it is important to see what fits best for the any given circumstances without rushing to the most complex solution and that low tech approaches can sometimes be perfectly adequate for what is needed.

Mr Brown explained that in terms of barriers to the successful implementation of e-enabled approaches data protection is a big challenge, the question: who owns the systems? sits at the heart of this issue. A can do approach is important as a mentality if the full potential of opportunities is to be realized. The Covid-19 pandemic has driven some acceleration through necessity in this context. In coming to a judgement about what has been achieved we need to test whether our approaches are truly transformational.

Mr Brown went on to explain that from his perspective the key to success is through cohesive and coherent pathways. Capturing the learning from Covid-19 is important in this context. He cited some examples in terms of success driven out by Covid-19 responses including remote training and consultation and diagnosis at home. In the latter example giving patients control of the outcomes of their experience is the guiding principle.

Mr Brown went on to emphasise that resource management, culture and patient attitudes are key elements involved in overcoming barriers. In his experience patients able to embrace new approaches and just need to be given ownership of the process. Smaller and rural settings need capital investment to take this forward. He concluded by stating that there is a cultural investment required to make change stick in terms of the benefits arising from Covid-19.

Ms Pickles gave a clear example of the impact some of the e-enabled approaches referenced above. She explained how without them some patients in rural areas may face a whole day of travel on public transport for a 10 minute outpatient appointment.

Anne Marie Morris went on to introduce Piers Ricketts – Chair, The Academic Health Science Network (AHSN) Network & Chief Executive, Eastern (AHSN) and Charlotte James – Director of Communications, Eastern AH

Piers Ricketts – went on to introduce the network of 15 AHSNs as one of the key innovation functions on NHS. The AHSN role is to promote adoption of late stage innovations, which are on the cusp of approval or just approved. They are tasked with brokering collaboration to deliver the adoption of innovation. In the context of this remit the "elephant in the room" is scaling up approaches into whole practice through wide adoption.

Mr Ricketts went on to explain that rural differences do exist and drive the technology we are starting to see, some of these track through to workforce issues. Some of which are significant in scale. Rural populations are predominantly elderly, less ethnically diverse and have hidden minorities, migrant workers are a distinctive feature in some rural settings, travel times also impact on the care received in rural settings.

Mr Ricketts explained that during the pandemic the approach to rural areas needs a different approach. He referenced how in London and other city settings increased use of technology such as GP at hand, had reduced the pressure on services. In rural areas innovations around tele-health are key. He referenced an example: Just One Norfolk an application for supporting parents of young children, this has driven a vibrant and inclusive approach to family health and care outcomes in a rural setting.

Mr Ricketts went on to explain the difference between rural and urban settings in terms of care homes and indicated that this is a challenge that needs more consideration. Care homes are often more basic in rural areas, access to wifi even is sometimes a challenge in this context. He went on to talk about mental health applications and the value of digital approaches in rural areas where loneliness is a key issue.

Mr Ricketts moved on to raise critical mass and culture as areas with distinctive rural characteristics. He explained it is often difficult for hospitals with small footfall to provide all the specialist services, which are mandatory and the scope of technology in building scale in this context is important. He went on to explain how scale up is affected by culture. Information Governance is a challenge in this context. The actual rules around information sharing are now well trialed and straightforward but he is not sure that the simple rules around this issue are effectively understood. Mr Ricketts went on to confirm that in agreement with a number of other witnesses he feels that the joining up of health and social care has been pointed out to be more acutely a challenge through Covid-19. Finally in terms of culture and the scale up challenge he identified that the NHS payback analysis and business case requirements can be restrictive.

Anne Marie Morris – went on to ask Mr Ricketts how can we enhance scaling?

Mr Ricketts indicated from his perspective that this can't be managed on a top down basis. Integrated health care systems need to join things up more effectively. Engaging

senior players in these decision-making places is very important and collaboration needs to be encouraged. The 15 AHSNs working together to share good practice is an example of good practice in this context.

Anne Marie Morris went on to introduce Robin Batchelor and Robin Wells from the Care Software Providers Association (CASPA)

Robin Batchelor began be introducing himself as a CASPA Board member, explaining he would lead the evidence giving and Robin Wells, Membership Secretary would clarify any issues. He explained that CASPA represents over 70 companies who manage and develop technology in health and care. He indicated that he had asked the opinions of CASPA members prior to giving evidence.

Mr Batchelor explained that three main themes emerged, namely:

1. The benefits to both those providing and receiving care from moving away from paper systems
2. The whole system level benefits that can be had from easily sharing data

3. Three structural challenges yet to be overcome

In terms of moving away from paper systems Mr Batchelor explained – unlike many other sectors of the economy, approximately 70% of social care providers remain paper based - moving from paper based systems to digital ones facilitates the sharing of information, enabling the right information to be in the right hands at the right time. He explained this is of particular importance in rural settings given the ability of digital systems to promote inclusivity and enable multi-disciplinary teams to collaborate while reducing the need to travel.

Mr Batchelor cited a number of examples of digital opportunity in this context: sharing the latest digital care notes or details of a person centred activity in real (online) or near real time (offline) with approved family members who may not always be able to visit the client and sharing updated care plans digitally with home care staff without them needing to return to a central office. He also cited remote consultations and remote monitoring of care receivers within their home.

Mr Batchelor went on to explain that these technologies are in use today and independent studies have shown their ability to:

- improve transparency & accountability – e.g. sharing up to date care records and providing a clear audit trail (for the regulator or in case of litigation)

- better manage risk – e.g. reduce medicine errors with timely information & supervision

- realise both business and personal efficiencies – e.g. reduce travel needs for both care
  givers and those receiving care.

- aid retention & recruitment – the right tools help with the job – retention can be up to
  40% higher for carers & 33% for nurses in care homes

Mr Batchelor explained that together these factors help care providers to deliver higher quality care and for care receivers to benefit significantly. He expressed the view that furthermore, its only by adopting technology that social care can play its part in interacting with healthcare, enabling true two-way data interoperability to ultimately benefit individuals as their care needs change.

Mr Batchelor's second theme was the recognition of the system benefits available from having and sharing operational data about social care at local, regional & national levels. He explained numerous parties require care providers to report information to them e.g. the CQC, DHSC, NHS, LGA, CCGs, HSE, even more so now during the pandemic. It is his members' view that whilst improving, this data gathering and reporting is not well developed across social care and is burdensome for care providers, negatively impacting their time to focus upon providing quality care. He explained that authorities are also keen to understand the quality of care being delivered on their behalf and technology can assist with providing rich insights in real time.

Mr Batchelor explained with regard to being prepared for this pandemic, the information that was needed was there, but not in a format that allowed it to be shared or utilised easily.
Digital technologies already in use by a substantial minority of providers, record the necessary information as part of the natural daily workflow of care givers and allow this information to be aggregated across numerous individuals or settings and then shared as necessary.
He explained that CASPA members began gathering aggregated infection data from the 16th March, which compares favourably with regulatory bodies data requests starting on 13th April and still today suffering from relatively low levels of provider submission. To avoid such issues in the future, regulators could work more closely with technology providers than they currently do.
The information generated from the use of technology can also become a significant benefit in the medium term, being used within appropriate information governance parameters to predict and prevent, while ultimately aiding the delivery of high quality, person centred care.

Mr Batchelor expressed a view that social care and health care have lagged other sectors of the economy in adopting modern technology. Yet as a result of a later start in social care, many recent technologies adopted have allowed social care to leapfrog that used by the NHS, in some areas.

The third theme provided by Mr Batchelor's members was the recognition of three challenges to promoting further successful adoption, namely:

The need for specific guidance from Government & Regulators – he explained that a high level technology roadmap that recognises the interdependency between health & social care, that understands the important differences between the two systems and that leverages the existing successful adoption of technology would be most welcome. In effect, the DHSC & CQC clearly showing both care organisations and technology providers their required direction of travel.

Financial support – he explained that structurally adopting technologies comes at a price, both in upfront hardware and ongoing service costs. While some of this can be offset from ongoing operating efficiencies, care providers need a means of funding this positive structural change. As the benefits of this change will accrue to both care providers, the NHS and Government agencies, this cost could be shared.

Increased digital maturity – Mr Batchelor pointed out that a third of existing technology customers are based in rural locations. Challenges to further use are twofold; firstly in attitude and expectation (why change & we can't change), and secondly in ongoing improvements in telecom infrastructure e.g. improved broadband and 4G. While many technologies work both online and offline, the greatest impact is experienced when online.

Mr Batchelor's final point was to recognise that while Covid-19 has further demonstrated the technological benefits available to health & social care, these opportunities are now receiving meaningful Government attention and he drew the committees' attention to the recently drafted NHSX "Caring Together" Proposal for a National Programme to Connect People across Health & Care using technology as an example.

Anne Marie Morris – asked what does more interaction with the regulators mean – does this stretch to MHRA?

Robin Batchelor explained that the interaction desired goes wider than this. It's about wider understanding of full health and care delivery challenges from a technology point of view and a better engagement with regulators, service provider and patients

and their requirements. A particular example of a need for better engagement relates to the Care Quality Commission (CQC).

Anne Marie Morris then opened up the discussion asking, through a Covid-19 lens – Are there some excluded groups, which need special attention?

Brendan Brown offered the view that this is about building patient ownership and direction of health services.

James Palmer added that the personalisation aspect of a future approach is critical – technology should not be seen as an add on it should sit at the heart of delivery approaches. Assessment of need and the ability of approaches to respond to them (particularly in the context of integration) is important in making devices a core element of service delivery.

Anne Marie Morris – asked how do we build vulnerable end user engagement?

Richard Alcock indicated that it is important to remember those who don't want to use patient facing technology. We need to recognise some of this technology doesn't work so well in rural areas and manage its roll out and adoption appropriately.

Piers Ricketts drew attention to the role of housing providers and social care providers as important in relation to activities such as e-enabled extra-care as a bridge between full and supported independence. It is his view that integrated care systems will be unlocked to an extent by effective accommodation strategies. For providers of care the use of digital approaches is about the technology as a pathway not just in terms of its specific utility.

Anne Marie Morris asked: How has Covid-19 changed things? How do we "bake things in" before the positives wear off and the empowering environment is removed?

James Palmer offered the view that it is useful to be able to understand more about the nature of the benefits arising from doing things more expediently as enabled by the Covid-19 pandemic.

Richard Alcock offered the view that products made available at speed and the central funding supplied to enable this are both key areas of impact. The challenge is to answer the question of how will we deal with this once the Covid-19 impetus is removed. As an example data sharing will need careful management going forward to ensure the benefits, which have been achieved in the short term are preserved.

Piers Ricketts indicated that evaluation will be important in enabling the key impacts to be effectively quantified. He expressed the view that the benefits arising from the current culture of permissiveness should not be switched off. A less top down approach has been powerful in enabling innovation from his perspective.

Anne Marie Morris – asked how do we demonstrate the value for money impact?

Piers Ricketts identified that there are some examples of data which has already been collected helping with this but acknowledged more work is required in this context.

Anne Marie Morris – asked about learning from the pandemic she posed the question: if this happens again how would we cope with it?

Richard Alcock responded by saying that mechanisms are now in place for shielded patients lists have been set up which could easily be accessed in future, agreeing algorithms to decide who to include took some time but could be redeployed more quickly going forward.

Anne Marie Morris asked Graeme Tunbridge from an MHRA perspective about his views on balancing safety versus speed as a dynamic arising from the impact of the Covid-19 pandemic in terms of the deployment of medical devices..

Graeme explained that he had found that collaboration had been enhanced by the outcome focus driven through the pandemic. Looking forward he explained that the Medicines and Medical Devices Bill 2019-21 resuming its path through parliament will provide a new framework based on an enhanced enabling approach.

Anne Marie Morris asked Ivan Annibal to offer some concluding comments – these are set out below:

- It is interesting to reflect on how this session may have been different without the pandemic – which seems to have accelerated adoption and innovation – notwithstanding this technology should be seen as a means not an end in its self.
- In relation to the view that most benefits have been societal rather than financial it is interesting to consider if there is more scope for understanding the business case and cash benefits. If this is the case then it may then be easier to think about the spatial components of this work (the application in rural) in putting a cash value on the adoption of technology in rural settings.
- Systems issues around workforce and multi-disciplinary activity are important – this session has provided insights about how technology facilitates this.
- Scale up – getting technology adopted due to the smaller scale of communities can be a challenge in rural areas.
- The patient centred approach referenced in the Airedale evidence demonstrates the importance of an attitudinal shift in seeing technology as empowering not intrusive.
- There could be scope for arguing that in terms of a regulatory framework systems are slightly blind to rural/urban differences in the way they are applied.
- Overall whilst there has been some rich evidence in this session the specific rural context has been less obvious and central than in relation to some of the previous themes covered by the Inquiry. It is interesting to have pause for thought as to

whether this is because the intrinsic nature of technology and its application is somewhat removed from the concept of place.

Anne Marie Morris thanked all members of the session for their contribution and the time being 12 noon closed the meeting.