OFFICIAL REPORT
AITHISG OIFIGEIL

Health, Social Care and Sport Committee

Tuesday 23 November 2021

Session 6

The Scottish Parliament
Pàrlamaid na h-Alba

Tuesday 23 November 2021

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HEALTH, SOCIAL CARE AND SPORT COMMITTEE

12th Meeting 2021, Session 6

CONVENER

*Gillian Martin (Aberdeenshire East) (SNP)

DEPUTY CONVENER

*Paul O’Kane (West Scotland) (Lab)

COMMITTEE MEMBERS

*Stephanie Callaghan (Uddingston and Bellshill) (SNP)
*Sandesh Gulhane (Glasgow) (Con)
*Emma Harper (South Scotland) (SNP)
*Gillian Mackay (Central Scotland) (Green)
*Carol Mochan (South Scotland) (Lab)
*David Torrance (Kirkcaldy) (SNP)
*Evelyn Tweed (Stirling) (SNP)
*Sue Webber (Lothian) (Con)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Dr Steve Baguley (NHS Grampian)
Chaloner Chute (Digital Health and Care Innovation Centre)
Scott Heald (Public Health Scotland)
Ed Humpherson (Office for Statistics Regulation)
Chris Mackie (Health and Social Care Alliance Scotland)
Jim Miller (NHS 24)
Martyn Wallace (Digital Office for Scottish Local Government)
Christopher Wroath (NHS Education for Scotland)

CLERK TO THE COMMITTEE

Alex Bruce

LOCATION

The Sir Alexander Fleming Room (CR3)

Scottish Parliament

Health, Social Care and Sport Committee

Tuesday 23 November 2021

[The Convener opened the meeting at 09:00]

Decision on Taking Business in Private

The Convener (Gillian Martin): Good morning. I welcome everyone to the Health, Social Care and Sport Committee's 12th meeting in 2021. No apologies have been received for the meeting; we are all here. Item 1 on our agenda is to decide whether to take item 3 in private. Do members agree to do so?

Members *indicated agreement.*

Data and Digital Services in Health and Social Care

09:00

The Convener: At item 2, we have two evidence sessions with stakeholders on data and digital services in health and social care. All our witnesses today are joining us remotely. I welcome the first panel. Scott Heald is interim director for data driven innovation and head of profession for statistics at Public Health Scotland, and Ed Humpherson is head of the Office for Statistics Regulation. I wish a good morning to you both.

I will start, then my colleagues will ask more detailed questions. What do you see as being the key data gaps that currently exist in health and social care in Scotland?

Scott Heald (Public Health Scotland): Good morning. That is a good question. First, we should recognise that Scotland has good health data. We have a lot of data that we can use digital to good effect, and we have the ability to link the data in order to understand pathways of care. It is important to recognise that we are building on strong foundations. There are a couple of areas that we need to focus—and are focusing—on: social care in particular, and primary care. Those are the two big areas to which we need to direct our attention.

From a public health perspective, thinking beyond health and care data, it is really important that we are able to understand the other impacts that lead to poor public health by bringing in, for example, housing, education and economy data. It is important that we think about the data state in Scotland in its widest sense, and not purely in terms of the data that we collect on health and care.

The Convener: I want to pick up on one point. Anyone who is watching might be wondering why we are focusing on data. It is about the need to have the information in front of us so that policy and budgetary decisions can be made. Is that a correct assessment of why this area is so important?

Can we unmute Scott Heald's microphone, please?

Scott Heald: [*Inaudible*.]—individuals, and understanding what is happening in local communities in particular. A lot of Public Health Scotland's recent work highlights that there are quite big regional differences across the country. There is no one-size-fits-all approach for the whole country, so it is important that we are able to connect in locally and understand what is happening in different areas. You are right that the need for data is about driving policy and understanding what is happening, but it goes wider than that—it also involves thinking about the wider impact on society.

The Convener: Ed Humpherson, where do you think the data gaps are?

Ed Humpherson (Office for Statistics Regulation): Thank you for inviting me to give evidence before the committee, convener—it is a real pleasure. We have done quite a lot of work with the committee and provided a lot of written evidence, but this is the first time I have given oral evidence, so I thank you very much for the invitation.

With regard to gaps in the coverage of statistics in Scotland, I agree with what Scott Heald said. For the OSR, the most salient and striking gap is around social care. The information that is available on need, unmet need, outcomes and the demographic characteristics of the recipients of care is relatively less well covered than in the acute care sector. The acute care sector is well covered; the social care sector much less so. For us, that is the most salient gap.

It is also worth saying that, during the pandemic, it was recognised that data on ethnicity outcomes and healthcare in Scotland were relatively weaker. The Scottish Government's chief statistician, Roger Halliday, acknowledged that in a blog in June this year, when he said that

> "our data on ethnicity was shown not to be adequate."

At that point, he announced a series of measures to create much better data on ethnicity.

You asked Scott Heald about why we need to address the gaps. I agree that a bigger picture will help policymakers. That is absolutely right. However, the Office for Statistics Regulation exists to represent the interests of the wider public in having statistics and data on which they can rely. The pandemic has shown us that there is an enormous public appetite for reliable and trustworthy statistics on health and care and on the pandemic's wider impact on society. For that reason, we should not think about the data only as being useful for policymakers; they are useful for citizens as well.

The Convener: Thank you. That is really helpful.

Sue Webber (Lothian) (Con): Mr Humpherson mentioned that some of the salient gaps in social care data were unmet needs, outcomes and demographics. How could we start capturing that data?

Ed Humpherson: We produced a report on that in February last year. We highlighted that it requires significant investment in analytical resource—the kind of people that Scott Heald has working for him who are able to take the data, integrate it, analyse it and produce insights from it. Underneath that, the data need to be accessible, linked and available in electronic form.

The good news is that there is real progress on both those points. Scott Heald would be much better placed than me to talk about that, but I will pick out one measure that has moved things forward: the use of a database called the source platform, which was created by Public Health Scotland, to create social care data. That has produced an output called "Insights in social care: statistics for Scotland" as the start of the process of filling the gaps that I have outlined.

There is a lot more to do. In the "Insights on social care" report, Public Health Scotland is honest about the gaps and the quality issues that it faces. However, the report shows the pathway to improvement. Scott Heald might want to follow up on that, seeing as he is responsible for those outputs.

Scott Heald: Source is the data collection platform that allows us to capture data on people who receive care at home at an individual level. One of the benefits that we have in Scotland is that, because we have that individual-level data, we are able to link it across different data streams. As Ed Humpherson highlights, making those connections between social care and the health service, our "Insights in Social Care" report did a bit of work on understanding what happens to people once they enter into the social care system.

Source is a great step forward. One of the challenges with it is that the data collection comes in quarterly from local authorities and we use it to produce the annual report that Ed Humpherson talked about. In Public Health Scotland, we are considering how to bring the data in more quickly. In many of the areas on which we have published analysis, data at the annual level is adequate—it tells the story of what is happening across care at home in Scotland—but we recognise that we need to make improvements to enable data to be a bit more real time to help to inform what is happening.

The other area that Ed Humpherson touched on was that of the analytical resource. I highlight the fact that, relative to the amount of resource that goes into the health data state, the amount of resource that goes into social care is smaller by a considerable magnitude. Public Health Scotland is actively looking at that.

I come back to the point that Ed Humpherson made about outcomes. We need to understand why we collect the data, what good it is doing and whether it is having the impacts that we need it to have. As we mention in "Public Health Scotland's Digital Strategy", we need to do a review of all the different data flows that we currently have and the outputs from those, because in order to make the shift to looking at particular areas such as social care, we need to think about doing things differently and doing different things. That is an extremely important piece of work that we are doing.

It is important to mention that there is also an analytical team in the Scottish Government that collects data and reports on social care. Recently, we have become more actively engaged with that team, so that, in effect, we are pooling the power of the analytical capacity that we have in that area. We want to ensure that we are not duplicating effort and are doing things only once. That is extremely important for the local authorities that submit data to us.

One of the challenges that we have is not so much with the capacity that we have nationally to manage the data and analyse it, but with the capacity locally to collect it and submit it to us. For various reasons, there has been a real lack of investment in the data and data collection state in local government, and that needs to be addressed. With the national care service on the horizon, I think that there are significant opportunities, and Public Health Scotland is pushing for requirements around data to feature heavily at the heart of the legislation. Building on the legacy of the health data that we have from ISD Scotland, which moved into Public Health Scotland, which, as you know, is well established, having something equivalent at the heart of the national care service will be fundamental to how we tackle the issue.

My final point is about partnership. Public Health Scotland cannot do this work alone. We are talking to the Convention of Scottish Local Authorities, which is one of our joint sponsors. Having that joint sponsorship between local and national Government will help. We are also talking to the Digital Office for Local Government, which is giving evidence later, about how we can connect with work that it is doing to improve the flows of data.

Sue Webber: Thank you—that was very helpful. You mentioned that one of the challenges is with local collection, due to a lack of investment specifically with regard to local authorities. Is enough work being undertaken to understand those issues? Investment is a big issue, but what other hurdles and gaps might exist when it comes to data collection? What is it that creates the variance?

Scott Heald: That is work that we are continuing to do—it is work in progress. As I mentioned, we are working with the Convention of Scottish Local Authorities and the local government Digital Office to understand the situation in that respect. It is key that we understand the current data landscape, which is a bit fragmented. There is data that comes into Public Health Scotland, there is data that comes into the Care Inspectorate and there is data that comes into the Scottish Government. We need to understand the totality of what comes in and then review that, because we need to make sure that we not duplicating effort. Importantly, we also need to understand the gaps that exist.

The other important point to make is about the need to have data at individual level, so that we can link it to other data. If we are to understand outcomes and what happens to people, it will be really important that we have the ability to follow people through the system.

Another issue that needs to be looked at more, on which we have made progress during Covid, is that of information governance and data sharing, particularly when it comes to social care data. The health service has well-established processes and pathways for dealing with information governance. The situation is more complicated as it involves local government, and it is certainly one of the areas on which, with Public Health Scotland's dual accountability, I have wanted to do more work to ensure that we make data sharing as straightforward as possible. At the moment, getting the appropriate sign-offs to allow data to flow and link up can involve quite a paper chase.

09:15

The Convener: Emma Harper has a supplementary.

Emma Harper (South Scotland) (SNP): Good morning. I am interested in the issue of duplication of effort and the capacity to obtain certain data that Sue Webber talked about. Obviously more data have been gathered during the pandemic, but have you had to pause any data collection? In some of the work that I have been doing, I have found people to be a bit fed up of feeling like hamsters on a wheel in having to collect data, data and more data without actually knowing what the data are being used for. Has there been a pause in collecting some data, and does more work need to be done to ensure that people on the ground know why the data are being gathered and what they are being used for?

Scott Heald: You make a really good point. On your question whether the collection of some data has been stopped, most of the national data sets for which Public Health Scotland are responsible—that is, mainly around health and care and the source database that Ed Humpherson mentioned—have been continued. Most of them are fed from the electronic management information systems that manage the health service, and those systems exist so that data can still flow.

I totally understand your comment about data collection fatigue, given the additional asks around Covid. One of the challenges is to make that connection between the people responsible for collecting and managing data locally and an understanding of how the data are ultimately being used, and we need to do more work on that and build that narrative with the people who are collecting the data. It is really important that the people who collect the data understand how they are being used, because they can then ensure that the quality of what is submitted is as good as it can be.

In short, we have not stopped the data set work, but we need to recognise that more data are being collected as a result of Covid and build that narrative to help people understand what the data are being collected for at source.

Sandesh Gulhane (Glasgow) (Con): I have a number of questions on ethnicity, which Ed Humpherson mentioned in his first response. How can we ensure that we get good ethnicity data for not just patients but the workforce?

Ed Humpherson: You will probably get a fuller and more complete answer to such questions from Scott Heald. A key thing to highlight about ethnicity data is that one of the best sources of such data in Scotland is, of course, the census, which is self-completed by individuals and in which they identify their ethnicity. One of the important steps that the chief statistician, Roger Halliday, outlined when he addressed this problem in the summer was to make greater use of linking census records with other data sets such as those for healthcare, the school census and so on.

This might also be an area where—this takes us back to the previous question—the answer might lie not necessarily in launching lots of new data collections, which would have the risks that we just heard about with regard to burdens on data providers, but in using the power of data linkage to draw on the data that we have and to populate other data sets with the attributes and characteristics that have already been recorded, particularly in the census.

That is my high-level answer; Scott Heald might want to embellish that with some specifics.

Scott Heald: That is exactly the approach that has been taken. The issue has been tackled on two fronts. First, some data collections collect data on ethnicity; however, one of the challenges is that the data is often poorly recorded, either because people do not want to disclose it, for personal reasons—so we do not have it—or because some of the categorisation is not as good as it could be. Therefore, although we have ethnicity data in some of the data collections—the main one being our hospital discharge record—it is not of the best quality.

As Ed Humpherson said, we are thinking about how we can link other data sets that collect ethnicity data, such as the census, to understand how we might triangulate across different data sets.

I am not close to the work on this, although I could certainly find out more about it for the committee. It is also important that we look at the development of the community health index in Scotland, which is the unique number that we all have that features in all our health records. Having a means to add ethnicity details to the CHI would go a long way, because the CHI is the central spine that populates many of the details of our personal data. With the revisions to the CHI that are happening at the moment, there is an opportunity to think about how we include characteristics on which we do not currently collect data. The issue is recognised as a challenge.

In Public Health Scotland, we have been able to use data to look at effects on different ethnic groups, particularly with regard to Covid. For example, we have published work on testing and vaccination and ethnicity. However, I agree that more needs to be done on the issue.

Sandesh Gulhane: On the point about data being poorly collected, NHS Lothian's ethnicity recording went from 3 per cent to 90 per cent over three years. The point about linkage to the CHI number goes back to Emma Harper's point about data collection fatigue when people are asked about ethnicity on multiple occasions. Surely the way to ensure that all ethnicity data is captured is to ask the question once and link the information to a person's CHI, which goes through everything.

Once we capture ethnicity data, we must be absolutely sure that we can use that data, when someone presents, to work out symptoms and how we should manage and treat them. For example, a person of black descent with high blood pressure should be started on a calcium channel blocker rather than an angiotensin-converting enzyme inhibitor. Ethnicity makes a huge difference to how we treat people.

Scott Heald: I completely agree with you. There are two aspects to your question, I think. If I have understood correctly, one is around data for direct patient care—that is, data that is held in systems that would allow a general practitioner who is having a face-to-face conversation with a patient to understand the patient's ethnic group and what that might mean for them.

I was talking from the perspective of the nationally available data that we have in Public Health Scotland. If we can reliably capture the data on ethnicity, I am absolutely confident that we can analyse it in many ways. Through the work that we have done around ethnicity in relation to Covid, we have shown that we can do so. However, we need to keep an eye on data quality. When we start to get the data, it is key that we understand the patterns and whether they make sense. The old mantra of use improving quality will definitely apply.

You are absolutely right that we should look at the possibility of collecting ethnicity data once and connecting it to other data. I think that the CHI is the route to doing so, but at the moment that data is not collected through the CHI. We also need to consider how we populate the CHI. For many of us, a CHI is generated when we go to the GP, so we have to think about how we address any data gaps.

As Ed Humpherson said, the group that is led by the chief statistician in the Scottish Government is looking at the issue. An approach whereby data is collected once and then feeds into other data sets will be key.

The Convener: As I listened to you both, something occurred to me about patients' rights over where their data goes. Is that a barrier? People who give their data want to know where it is going and what it will be used for. Are data security and the individual's knowledge of what their data will be used for issues?

Scott Heald: I am not aware of that being a major issue. One key thing that is highlighted in our data and digital strategy and has been highlighted by Ed Humpherson in the context of the work that the OSR has done is the idea of maintaining public trust when it comes to what happens to their data and how it is used. Scotland has a proven track record, through the work of bodies such as Public Health Scotland, of managing data safely and securely. We have mechanisms and processes for ensuring that that happens and that access is given only for appropriate reasons.

That goes back to a question that one of your colleagues asked about helping the data collectors to understand why the data is important. We need more of a narrative about that. We can also do more in our conversations with the Scottish people about why we use their data, why it is important and the safeguards that we have in place to keep it safe. That is definitely something that we need to think about.

Ed Humpherson: I have two points. First, I agree with Scott Heald that Scotland has a good approach to engaging with the public, who accept the idea of sharing their data. Scotland, Wales and Northern Ireland have better platforms for that than England does. There is a strong base.

The second point goes back to my very first comment. We should always remember that data and statistics are not there only for central decision makers; they are also there to inform citizens about what is happening in their community and their country. If we remember that the purpose of data collection is not simply to inform a few commissioners at the centre of the system but to inform the whole population, then the population will appreciate that their data are being aggregated with other people's data to create rich pictures. It is important always to come back to that purpose.

Sue Webber: Ed Humpherson spoke about the rich picture, but we often have to translate so that individuals know and understand what data collection means for them. That applies to patients and to the people who input data—the healthcare professionals who are run ragged trying to keep 100 balls in the air and are then asked to type in some stuff.

What can you do for those two groups—patients and healthcare professionals? Can you give a specific example of how we can translate what data means for them?

Ed Humpherson: We can do a couple of things. First, a lot of the improvements that the Office for Statistics Regulation has outlined build on there being easily accessible portable electronic records. That has huge benefits for aggregation of statistics and the aggregate picture that I have been talking about. It also has benefits for the individual, in that they will not have to repeat the same information in different healthcare settings. It is clear from the Feeley review and from the Scottish Government's digital healthcare strategy that people become frustrated when they have to repeat their personal circumstances and health history.

People can see a benefit in giving their data. The professionals benefit from that, too, because they have information on which to base better care and better professional judgment. Also, the ability to know that the individual case that you are dealing with is part of a broader societal pattern is powerful. Statistics support knowing how the specific relates to the general; they help you to understand how an individual situation is part of a bigger pattern.

09:30

Sue Webber: Does Scott Heald want to say anything? I am sorry, convener; I am taking over from you.

Scott Heald: I agree with everything that Ed Humpherson said. We need to consider the information technology infrastructure and digital estate across the country. Colleagues who are speaking in the next part of the meeting will be better placed than I am to speak about that.

A lot of the data that we are managing, collecting and analysing in Public Health Scotland is a product of things that happen in local IT systems. One of the challenges related to that is that they do not all join up; they certainly do not join up between social care and the health service. One of our big ambitions should be to make a more joined-up system, so that we can enter the data once, as it were, and have it available for all the different care pathways. We need to recognise that the digital IT part of the issue also needs to be tackled.

Sue Webber: That brings me to my next question. How do front-line staff and those who are involved in data input decide what data should be produced and how? Obviously, you want that data to be entered accurately to start with, which would then stop lots of problems further down the line. Quality is key.

Scott Heald: That is a crucial point. I will answer the question in two parts. We have a good health data state with well-established data flows that come in automatically, particularly from hospital systems. We capture and use a lot of data through that process. Work with local teams, commissioners, nurses and patient groups to help them to understand what the data says in the local area is key. Sometimes it is not until we do the analysis and enable comparisons between a particular local area and the rest of the health board or the rest of Scotland that questions are generated about why there is difference. The difference can sometimes be down to how things are recorded; in that case, we can have a dialogue about that.

The other side of the issue relates to newer data that is not as well established. The users and the people who will be collecting the data are fundamental to conversations about new data. I will give a couple of examples. As was mentioned, we are doing work with COSLA's local government digital office on social care data. Public Health Scotland will become a member of the local government data leads group, and we are keen to talk to those data producers and help them to understand the power of what we can do if we pool data in a consistent manner.

The work that we do on cancer is also relevant. We have been on a big modernisation journey in relation to our cancer data, which is hugely important at the moment. We tackle that with clinical groups and patients. We are having a series of roadshows around the country—for example, we have a presence at the Western general hospital in Edinburgh. People can come and talk to us about the data that we are collecting or planning to collect, so that they understand how it is being used. The approach has been great and has facilitated good conversations with clinicians about how they intend to use the data that we collect and produce.

In summary, there are two aspects to the issue. One is about new data: it is important that users and providers are in the conversation at the start. For well-established data sets, it is important that we continue to have conversations with people so that they understand what the data looks like and what it tells them.

The Convener: We will now look at primary care data.

Paul O'Kane (West Scotland) (Lab): Good morning. Obviously, primary care is very much in focus at the moment, particularly in the context of the pandemic. However, it is fair to say that there has, over many years, been commentary that the data in relation to primary care, and an understanding of who is using primary care and where the trends are, have not always been good or available enough. As an overview, will the witnesses outline what information about primary care activity and demand is currently publicly available?

Scott Heald: I have identified that that is still a challenge. The short answer is that not much data on primary care is published, but we are taking steps to address that and are now collecting data. We now have 700 practices submitting data on disease prevalence to Public Health Scotland. A lot of the focus of the data that we currently collect in Public Health Scotland is on the clinical side of primary care, in order to understand why people go to their GP and what the patterns look like across Scotland. There is less workload data on who is turning up and what the volumes are. There is definitely improved data; we are now looking at how we will publish it in the public domain so that people understand disease prevalence across the community, from the primary care data.

We are working with colleagues in NHS National Services Scotland on capturing what I would class as activity data—for example, data on people who have turned up at appointments in primary care. We plan to have a data set on that in place over the next month or so. Obviously, the next steps will be to look at data quality and to understand the data to enable its publication in due course. That work is making big strides forward from where we have been.

I will highlight something about GP data to explain why it is so tricky. Currently, the GP data is, essentially, held in each individual practice, so we have, in effect, 900-plus instances of stored data. There is no straightforward way of extracting all that, although, as I have said, we now have a mechanism in place to bring in data from 700 participating practices. However, we have learned a lot from the Covid pandemic, during which quite considerable GP data has been brought in at pace, in particular on vaccinations. The work that we are doing with NSS on activity data is based on the work around those data ports.

The key thing to note is that the GPs themselves or the practices are the data controllers, so it is really important that we maintain trust with them about how their data is collected and used. The data is often aggregate data, so it is very anonymous. That still allows us to do a lot with it, but one of the challenges is that we are not able to link that data to other data. We are doing more work on how we can bring in individual-level data. That will require more conversations with the GP community and, in particular, patients.

Finally, the GP IT re-provisioning project is on the horizon; all the GP IT systems are being upgraded. My understanding is that the way in which the data is stored and managed will be very different—it will be much more cloud based. The advantage that that will bring is that organisations such as Public Health Scotland will be able, with the appropriate permissions, to access data much more straightforwardly than they are able to in the current situation, in which we have go to 900 practices individually.

There is quite a lot in that on the background to primary care data. We are making progress on disease prevalence and we are looking at activity data, and there are opportunities on the horizon with the GP IT re-provisioning project.

Paul O'Kane: Thank you for that comprehensive answer. Following on from that, I have two questions. How will we use the data that we hope to bring on stream to chart somebody's journey through health and social care? A person might present to their GP but then go elsewhere, or might feel that it is appropriate to present at an accident and emergency department. There is a discussion at the moment about where presentations happen. How will we link the data to look at people's journeys?

Secondly, how will we chart unmet needs? Some people are not having their needs met in the most appropriate place. I ask in particular in relation to digital formats, which people are using more and more.

Scott Heald: That goes back to my point about the ability to link data, which relies on having individual-level data. We need to have conversations about primary care and, in particular, about individual-level data, which we need in order to do pathway analyses about where people go and their pathways of care—who starts in primary care and ends up in hospital, for example. We need to do more work on that.

However, other datasets and proxies can be used for some of that. For example, in Scotland we have good prescribing data at the level of the individual and we link that to hospital records. That means that, for particular conditions, understanding the prescriptions that go with them are one way of understanding what the pathways of care look like.

We are taking steps in the right direction. For example, having aggregate data and understanding disease prevalence in the community will be hugely important. That will help us to understand what a disease looks like in terms of its prevalence in the community versus people presenting at hospital. Hospital data record the path into the hospital. We know whether the referral was from a general practice or through A and E, for example. Some of the work in the "Insights in social care" report, which Ed Humpherson mentioned, was on such pathways. The report looks at how people ended up in hospital and their path to get there and, importantly, what the pathway was after hospital—where people end up.

There is definitely more to do on primary care data, but there are things that we can do with existing data to answer some of the questions that are being posed.

Ed Humpherson: Availability of primary care statistics and data is a long-standing issue. Over the past five years or so—at least, and probably going back further—Audit Scotland's reports on the NHS in Scotland have highlighted that there is very good data about the acute hospital sector of the NHS, but more limited data on primary care. In August 2019, we wrote to the predecessor to this committee highlighting the point that we are discussing—the difficulty of charting journeys through primary care and community care into the hospital system.

I will say a couple of things. First, I completely agree with Scott Heald's analysis that thinking about community prevalence of disease is an important place to start. That takes us to population health, not what is happening through the system, which is an important thing to understand.

Secondly, I made some positive remarks earlier about the "Insights in social care" report that Scott just referred to, and its insights on primary care. There is as yet no obvious equivalent in the primary care sector that pulls together a range of information, so we encourage Public Health

Scotland to look for some insight into primary care output or something along those lines, because that would be enormously helpful in starting to paint a picture of the primary care landscape.

09:45

Emma Harper: I have a quick question about a patient's journey through the whole system. Would that be supported by giving everyone access to the clinical portal? In that respect, I am also thinking about social prescribing. Could referrals to, for example, men's sheds or the third sector be part of the data processing, too?

Scott Heald: I must be honest and say that I am not so familiar with how the clinical portal works from a digital and data perspective. Colleagues who will give evidence in the next evidence session will know more about that but, from Emma Harper's description, it certainly sounds as though that approach would help in avoiding the issue that we discussed earlier about same data about the same people being added multiple times. I apologise for not having any detail on that; I think that the issue could be followed up in the next evidence session.

The Convener: We will do that.

Sandesh Gulhane: Everything that we are talking about sounds fantastic with regard to the data that GPs are holding and everyone being fully integrated and so on. However, the fact is that the GP systems—Vision and EMIS—do not talk to each other at the moment; there is no data integration between the two. I realise that I am straddling two themes with this question, but what can be done immediately to allow GPs to access data from another GP data source?

Scott Heald: That is probably another question for the digital colleagues who will join you later. However, from a data and statistics perspective what you have described is part of the challenge that we face with the current primary care set-up and access to data. You are right about Vision and EMIS not being able to talk to each other. I am not familiar with the exact detail of all this, but I know that what comes from those two suppliers can be installed in different ways in different practices, so it is not necessarily a simple matter of getting Vision and EMIS to talk to each other. It is more about how we facilitate safe and easy transfer of data across practices—full stop.

I repeat, however, that that is not an area that I am familiar with, and that the digital colleagues in the next session should be able to give more clarity.

Sandesh Gulhane: I have a second—brief—question. You have said that there are 900 different data holders at the moment. Under the Caldicott guardian principles, the GP is responsible for the data, but if we move those data to the cloud and go the way that we want to go by giving lots of other people access to them, who will then be responsible? Surely it cannot be the GP.

Scott Heald: That is a good question; again, our digital colleagues in the next evidence session might have a view on the matter. The important issue, however, will be storage of and access to the data. My understanding is that, because the data will remain theirs, practices will still be the data controllers. The important conversation that needs to take place is about how we build on the good infrastructure that we already have, such as the public benefit and privacy panel for health and social care, which considers access to the wider suite of data and the ability to link data.

When, for example, data from practices becomes available in Public Health Scotland, the current process is very clear: Public Health Scotland becomes the data controller for the data that we hold and is responsible for maintaining its safety and security. The situation is not that practices will not continue to be data controllers—that will still be the case. Colleagues who will join the next evidence session will be more familiar with exactly how it is planned that the approach will work.

The Convener: Stephanie Callaghan has questions on social care data.

Stephanie Callaghan (Uddingston and Bellshill) (SNP): We have been talking about the challenge of pulling together the data and information for effective use in primary care. The situation in social care is wholly different; it has really big gaps. Scott Heald mentioned public trust and confidence; because of going through Covid, people appreciate the importance of access to data, which is helpful. For quite a long time, our GPs have been incentivised to record core data in a standardised way. How could the NCS assist in bringing through something similar for social care?

The Convener: Who would like to go first?

Scott Heald: I do not mind starting. I mentioned that the national care service will provide opportunities. Ensuring that data is at the heart of the legislation to create it will be key. That we have strong health data is largely a legacy of how that was all set up over the years through the Information Services Division, as it was, before it joined Public Health Scotland. We have the learning from, and the legacy of, how we have handled health data, which we need to carry forward into the national care service.

We need to understand the data needs and asks. We have had conversations with people to understand what data is available and what data might be needed in order to answer the questions.

It is important to be clear about the questions that we are trying to answer in order that we can determine the data that we need, rather than doing things the other way round.

I am not so sure about incentivising people, to which Stephanie Callaghan referred. The setting-up of the national care service must recognise that data is important, but we must also fund appropriately the data and IT infrastructures that come with that. We will definitely miss a trick if that is not included from the outset of the national care service.

It will be important to work across the country to get common definition standards and to understand what the questions are, so that we do things consistently from the get-go. Currently, we have at times to grapple with 32 local authorities all doing things slightly differently.

Ed Humpherson: The national care service has huge potential for transformation. Some things that are in its architecture will help with the issues that we have discussed—not simply through having a focus on data and on individuals' data being more complete, but through emphasis, as in the Feeley review, on engaging with the public and the individual. That creates a much better platform for ensuring that data is used to answer the questions that people are interested in, which is powerful.

One thing that I encourage those who are responsible for designing the NCS to give more thought to was raised in the report on the future of adult social care that the committee's predecessor published in February. That committee made lots of points that we have covered today, and it made the important point that

> "more needs to be done to educate and inform the wider public about adult social care"

and to challenge people's assumptions.

I think that that committee was making the point that, aside from when people need to engage in crisis mode with social care for themselves or a family member, people do not have a broader understanding of what social care offers, how to access it or the choices that are available. That committee made the point well that there is a job to be done to inform and educate the public. It would be really nice to build that, as well as all the good things that we have talked about, into the design of the national care service.

Stephanie Callaghan: That is great—thank you very much.

I mentioned that GPs are incentivised, but it is a matter of recording the core data in a standardised way: that is probably the important part of it. What helpful things can we learn from other countries about the minimum data sets for social care?

Scott Heald: We are often ahead of the game in Scotland, but it is really important that we learn from other countries. As Ed Humpherson mentioned, we have what we call the source data set, which is a data collection on social care. That already exists. We went through an extensive period of consultation with local government and various third sector and other groups on the data that we would need to capture to answer the key questions.

It is not that we do not already have data on social care; we do, and we have that to build on. The challenge that I highlighted at the start concerns the frequency of its collection—which is not high—and how it is collected. Data collection happens quarterly, and collecting and submitting it is quite an ordeal for the local areas.

We have a solid foundation already when it comes to the data that we need to collect. Further work is needed on the underpinning IT and digital aspects, and we should harmonise that across the country if we can, ensuring that we have common definitions of standards. We can then use the source platform data set that we currently have as a platform for thinking about where the gaps are and what more we need to add in.

You are absolutely right that we need to understand what other countries are doing, while sometimes taking a step back and recognising that Scotland is well placed in this area. We have Public Health Scotland, our custodian of national health and care data, and few other countries have that ability to link through the other data sets to provide a more nuanced understanding of what happens to individuals as they flow through the system.

I am quite optimistic, although the area will continue to be a challenge without investment and the underpinning digital and data resources in local government.

The Convener: I will bring in Ed Humpherson before inviting some supplementary questions.

Ed Humpherson: Social care statistics and data are a challenge everywhere in the United Kingdom—in Scotland, Wales, England and Northern Ireland. Some of the issues that we have been talking about today arise everywhere. I agree with Scott Heald: in some ways, there is a very good platform in Scotland, based on the source database.

We have not yet mentioned the survey analysis of carers that has been done, which identified the extent of unpaid care in Scotland. I am not aware of such a comprehensive piece of analysis being done elsewhere in the UK. It may exist, but I do not think that I have seen it. There are some really strong foundations there.

That said, there are things to learn from other parts of the UK. It is a benefit for us, as the Office for Statistics Regulation, to be able to look across the UK and identify areas of learning and so on. I will highlight two areas. We have talked about primary care, and I think that there is much richer data on primary care in England. When it comes to linkage, Wales is the place to look—it is at the top of the league table. There is an incredible resource there called the SAIL—secure anonymised information linkage—databank. It is market leading in the safe linking of individual data and in making it accessible in a safe way to both Government and researchers. There are things to learn from other places.

Evelyn Tweed (Stirling) (SNP): Good morning. It was really good to hear Scott Heald say that he is very optimistic about social care data and that Scotland could perhaps lead the way in examining social care data.

From the evidence, it seems that, right now, social care data is quite poor and is not really integrated with the healthcare system. Do we have enough leadership to take social care data forward, and to be world leaders in that area?

10:00

Scott Heald: Yes. It feels a bit odd to say this, but I guess that I am one of the leaders in that space, given my role in Public Health Scotland. Given Public Health Scotland's dual accountability to local and national Government, we are well placed to lead the conversations around social care data and to make progress on it. I know that colleagues from the Digital Office for Scottish Local Government will be joining the committee in the next evidence session. There is great leadership there too, and we are actively talking to those colleagues about how we work together to make that happen.

We are at a unique stepping point now. The decision that was taken, when Public Health Scotland was set up, to give the body dual accountability will begin to pay dividends as we go forward, through the strong connection that we now have with local government.

Ed Humpherson: Absolutely. With regard to leadership, potential exists for some significant changes and improvements to be made in social care data. One reason why I say that—I cannot believe that it is already one minute past 10 before I even mention this—is that we have just gone through a pandemic in which the statistical system in Scotland has shown that it can work collaboratively in an agile way, and produce things at enormous speed. It can now access shared data in a way that probably would not have seemed possible beforehand. Amazing and remarkable things have been done and, by building on the leadership that made all that possible during the pandemic, we have the potential to drive further change.

Of course, the OSR, as the regulator, will be watching the process keenly. We want to see that change happen and we want the potential to be realised, and I think that the potential is there.

Paul O'Kane: I want to follow up on the point about how local government has worked across the piece to drill down into people's experiences and what services they require. I am interested in the work and recommendations of Professor Bruce Guthrie, at the University of Edinburgh, in this area—in particular, the idea that we can use NHS data, such as unique addresses, to understand whether people are living in sheltered housing or a care home, or in a care-at-home scenario.

I am keen to understand how we ensure that, in the national care service, we still get good-quality, localised data and information about a person. That helps us to see the bigger picture with regard to housing mix, housing need and requirements in an individual area, whether it is rural or urban, and other such issues.

Scott Heald: That is a really good point. I know Bruce Guthrie well; he and I worked together on a number of areas during Covid in particular, so I am well sighted on the work that he does. Scotland is well placed to do what you describe. There is something called the UPRN—I have to confess that I cannot remember what it stands for—which fits in with what you are talking about, in respect of understanding where people are and their addresses, and all the characteristics that go with that.

The UPRN is a bit like the CHI number, in the sense that it is unique to an address where somebody stays. The power that comes from being able to analyse and use that information is really important.

To go back to the conversation about leadership, we should recognise that leadership can come from many different sectors. Bruce Guthrie, for example, is well respected in the academic sector, and we work closely with that sector on a lot of aspects, particularly some of the challenges with social care data. We need to ensure that those voices are also heard and that we learn from that work and build it into the underlying data infrastructure that—as I mentioned—will go with the national care service.

The Convener: We move on to questions about workforce data from Gillian Mackay.

Gillian Mackay (Central Scotland) (Green): Good morning. What do you consider to be the biggest gaps in our workforce data?

The Convener: Let us go to Ed Humpherson first.

Ed Humpherson: Could I suggest that you go to Scott Heald first, as I am probably not as knowledgeable about that area as I am about others?

Scott Heald: Thank you. It is an interesting question. Responsibility for workforce data and statistics lies with NHS Education for Scotland, so colleagues from NES will be better placed to talk about the data gaps in that area than I will be. I was involved in workforce data years ago, but I am not as close to it now. Colleagues from NES would be able to answer that question more fully, and I know that NES will be represented on the second panel.

Strong data on the NHS workforce is readily available. That is less the case in relation to other sectors, such as social care, certainly from the perspective of what I am sighted on in Public Health Scotland. I have to confess that I am not hugely close to the issue of workforce data at the moment, because of the fact that responsibility for that now lies with NES.

The Convener: That being the case, Gillian, you might want to save your questions about workforce data for the next panel.

Gillian Mackay: I might do that.

The Convener: That makes sense.

We will move on to questions about data sharing and common data standards from Sue Webber.

Sue Webber: Ed, you talked about the fact that we have been very agile and have moved at pace in respect of data during the pandemic. A specific example comes to mind of how that manifested itself. NHS Lothian was very reticent about accepting the Chrome browser on any of its systems, which was a massive hurdle to the utilisation by patients of the NHS “attend anywhere” platform. How did you get around that during the pandemic? I should probably state that, as a councillor on the City of Edinburgh Council, I had a motion at the integration joint board to get the health board to move over to that system. What was the final trigger that led to the board moving over in that way?

Ed Humpherson: I have absolutely no insight into NHS Lothian’s decision making, but I imagine that such matters get caught up in different people’s responsibilities. Someone will have responsibility for security and someone else will have responsibility for IT procurement, and nothing much will happen until an external pressure comes along that is sufficiently great to shift everybody into more activity. I imagine that that is what happened in the situation that you described. People talk about a burning platform; it is a bit of a cliché, but maybe the cliché is relevant in this case. Maybe the platform was there, which meant that, finally, it had to be done. However, I am afraid that I do not know a great deal about NHS Lothian’s decision making, so I am speculating. I apologise to NHS Lothian if that is not what happened.

The Convener: That might be a question to put directly to NHS Lothian, rather than the panellists we have before us today.

Sue Webber: Sticking with that theme, has the innovation with regard to data collection and statistics that has been displayed during the pandemic allowed a less risk-averse attitude to be taken to the gathering of data by public health bodies and healthcare professionals?

The Convener: Is that question directed at Scott Heald?

Sue Webber: Either witness can answer, depending on who is best placed to do so.

Ed Humpherson: I will give a quick answer, which Scott Heald will be able to supplement, as he has been closely involved in that work in Scotland.

I think that there has been a shift in that regard. One thing that we have not talked about much today is the very rapid development of daily dashboards. Obviously, daily dashboards are very useful for decision makers—for ministers and officials at the centre of Government and in health boards—but we have discovered, by making information available on a daily basis, that there is a huge public appetite for such information.

I think that there have been something of the order of 20 million visits to the Public Health Scotland dashboard—I am sure that Scott Heald will correct me if I have not got that quite right. The experience of the pandemic has unblocked some things—we were just talking about a browser issue, which may be an example of that, and there are many other examples in data sharing and bringing data together more quickly. It has also had an effect on the presentation of data in the creation of dashboards that are really responsive to public interest. Those innovations can stick; they can outlast the pandemic. Scott may want to supplement that.

Scott Heald: I hesitate to correct the stats regulator on a figure, but I will do that if I may—there have been 45 million hits on the Public Health Scotland dashboard, which is phenomenal.

The pandemic has brought about huge innovation in how we work. In the Public Health Scotland digital and data strategy, we have highlighted that we need to build on that, that we must not go back to old ways of working and that we must learn from how we worked in the pandemic.

Our daily dashboard has had phenomenal reach and use in helping people to understand in particular what is happening in their local areas on Covid. It is still getting lots of use each day. However, what is hidden from view is the work in the background to pull it all together, with thousands of data items feeding into it every day.

We have done something that I know the stats regulator has been encouraging stats producers to think about. We call it the reproducible analytical pipeline, and it is about how we automate from end to end, as far as possible, so that manual intervention is as limited as it can be. In essence, when it comes to the processes that are behind the production of the daily Covid numbers—our daily dashboard—I hesitate to say that they are push button, because they are not quite, but they are as automated as they can be, so that we are confident that, each day, we can produce the figures that are required.

That legacy of automation—investing in the time that it takes to automate in the first place, in order to get the game further down the line—is a message that we are taking further into Public Health Scotland. One of the reasons why it is so important is that, if we can automate, we eliminate human error. That is critical in improving the quality of what we do. It also reduces our ask of our analytical workforce to do what I will call—I do not mean it unkindly—the more routine and, for them, pretty boring tasks in pulling together the numbers every day, so that they can add much more value in working out what the data is telling us and what it means for Scotland.

A real legacy, certainly for me in my area in Public Health Scotland, is to build on that, so that we automate much more. I want to see much more use of dashboards. I think that I can say that the historical way in which we have produced our official statistics—with, for example, lots of PDFs and Excel tables—is old fashioned. The huge engagement with the dashboard shows that, if we present the statistics in a good way, people will engage with and act on them. We are therefore thinking through the public health equivalent of our daily dashboard for the future—one that will get that engagement with the country. It will be really important to talk to people about that.

We also recognise that Covid is—it is to be hoped—a once in 100 years type of event. It is a huge focus for everybody. Everybody is thinking about Covid and wants to understand it in their local area. That will drive people to our Covid dashboard. How do we build that kind of momentum around all the other stuff that we do, so that we add that value? That goes back to my earlier point about reviewing what we do and how we do it, so that we can make sure that we add value and release capacity to do more on some of the stuff that we have been talking about when it comes to areas in which there are gaps, such as social care and primary care.

While I have the floor on Covid, it would be remiss of me not to mention the huge power of work done by all our staff in Public Health Scotland and staff across the system to maintain that level of output and scrutiny over the past 18 months. I have never known anything like it in my career. It is great that there are real lessons that we can learn about how we do things.

10:15

The Convener: A number of colleagues will want to drill down into the lessons of Covid, but I will bring in Ed Humpherson before I go to Emma Harper.

Ed Humpherson: I want to say two things. One is that I am very happy to have been fact checked in real time by the head of profession for statistics at Public Health Scotland. I am sorry for getting my numbers wrong and thank Scott Heald for the correction.

A bit more seriously, I say that we, as the regulator, very much support the line of thinking that Public Health Scotland is developing around how to develop dashboards that are accessible to the public on a wider range of topics. That is a promising future.

Emma Harper: The information that is available to the public is fabulous, and I have been using the Public Health Scotland dashboard to better inform myself. I am interested in what we can do digitally to support people's health literacy if we are going to encourage people to take better care of themselves outside of the pandemic. How do we support the development of a more health-conscious public?

Scott Heald: [*Inaudible*.] Sorry, I was battling with the mute button there. That is a really good question and that challenge is part of our thinking about the future of how we present our statistics and data on all aspects of health, including public health, to help people to understand what they are telling them. The point about health literacy and people understanding what things mean for them is very important.

It would be remiss of me not to highlight that in Public Health Scotland we do a lot more than the kind of data and stats for which I have responsibility. The question about how we are delivering key public health messages so that they land with people is important. How do we get that buy-in from people, so that they understand what the messages mean for them? It is a challenge.

One of the things about Covid is that it impacts on everybody. Everybody is affected by it, everybody wants to understand what is happening in their local area and everybody wants to know what they can and cannot do. It is more challenging with particular health conditions that are more specific to different segments of the population. That is absolutely at the heart of what we want to do.

We are thinking about the digital tools that we can develop to get that health literacy that you talked about. That is work in progress, but it is definitely at the forefront of our minds.

Emma Harper: Does Ed Humpherson want to come in on that?

Ed Humpherson: I do not have a lot of thoughts about health literacy; it is not a topic that I have given much thought to. I am very often asked about statistical literacy. People will say, “There is an issue with the public value of statistics that is bound up with challenges with the population’s statistical literacy.” I will tell you the answer that I give to those questions, because it may be pertinent to health literacy as well. I am always a bit reluctant to just say, “Yes, there’s a problem with the general population’s statistical literacy,” because if you say that, you are implying that there is some kind of deficit of knowledge or capability in the population, and I am not so ready to sweepingly dismiss the population’s capabilities as quickly as that.

A better way of thinking about it is that people are often quite good at understanding things that relate directly to them and that understanding can be quite sophisticated. The trick for professionals is to communicate things in a way that latches on to and lands with those understandings that members of the public have. That may also be a way of thinking about health literacy. We should not think about it in terms of there being a deficit in public understanding and knowledge; we should think more about how to translate professional knowledge into insights that the public can engage with more easily.

Scott Heald: I would like to build on what Ed Humpherson said—he put it much more eloquently than I did. We need to be mindful of a certain challenge around dashboards. Our Covid dashboard is great and gets loads of traction but, because of the speed with which the data is produced and the nature of how the data goes out, there is not much narrative alongside it to help people to understand what it says about the state of the pandemic. That is why we produce the complementary Public Health Scotland weekly report, which walks people through the different aspects of the data and what they tell us. It is important that we think about how we handle that in the future. Understanding the patterns and trends of the pandemic is of much more interest now than the numbers, which fluctuate every day of the week. There is a point about how the statistical community can help people to understand what the data means, as that will be crucial.

The Convener: Emma Harper has one quick question before we move on.

Emma Harper: It is important not to imply that there is a deficit in public understanding and knowledge. We need to look at the positives. Because of the pandemic, the public are probably extremely well educated about clinical vulnerabilities and so on.

What learning will we take forward from what has been initiated in data collection during the pandemic, and how will we do that?

Scott Heald: As I said, the nature of the ways of working in Public Health Scotland—bringing in more automation, doing things at pace—will continue after the pandemic. Furthermore, going back to your point about the products that we have developed that have engaged the public and which people are using, we need to build on that after the pandemic.

The Convener: We are in our last eight minutes. Carol Mochan has some questions about Public Health Scotland’s digital strategy to round off this evidence session.

Carol Mochan: I am interested to hear your view on the digital strategy. You have stated that you look at the strategy in terms of data and what you call IT solutions. Do you think that that is the best way of making progress in that regard?

My second question concerns the difference between the strategic-level thinking in Public Health Scotland and the thinking at the local level, which is driven more by a business-as-usual approach than by consideration of the initiatives and changes that could be put in place in order to benefit public health in general. How can we move that forward?

Scott Heald: I recognise all that you have just said. What is important is that Public Health Scotland has set the vision about how data and digital can be used to improve public health. We were set up to address some of the public health challenges that Scotland faces. The reason why we have a data and digital strategy is that those two elements have to go hand in hand. Usually, data comes from a digital or IT solution, so it is important that we crack both at the same time. That is why our work with the local government Digital Office, for example, will be key.

I acknowledge the point that you make about the fact that, often, what happens on the ground is driven by the needs of today and not the needs of the future. That comes back to the points that were raised about leadership and about how we engage with the people who provide the data. It is also important that people in other roles in local government in particular understand that they can implement things that cascade through their organisations.

We can talk about great digital stuff and having the best data the world, but we must get the investment right. We have an amazing opportunity to put data and digital work at the heart of the national care service. If we do not get that right, we will have missed a trick. As we think about the legislation for the future national care service, we must ensure that data and digital are at the heart of that, so that we can achieve the ambitions that we are discussing here.

The Convener: Does either of the witnesses have something that they have not had a chance to say and would like to add? We have another panel today—thank you for setting up some more detailed areas that we can go into with them. Is there anything that you would like to add?

Ed Humpherson: My final point may be something that I should have said at the beginning. The essence of what we do at the Office for Statistics Regulation is to ensure that the public can have confidence in the statistics that are produced by Government. A lot of that confidence is connected to filling gaps and to the quality that we have talked about. Trustworthiness is also very important, so that the public can be confident that the statistics emerge from a professional analytical process and are not just what policy makers want to tell the world—that the statistics are not the product of communications effort but are the product of professional statistical effort. More than anything else, we are here to preserve that trust.

That is so important. The lessons learned review that we produced highlighted how Public Health Scotland has played that role and how leadership has been important in preserving that professional independence. That is important and should never be taken for granted. As the regulator, we are vigilant about that and take it very seriously. It would be remiss of me to leave the meeting without making that point, because it is the foundation on which everything else is built.

Thank you for taking the time to ask me your questions

The Convener: The idea of public trust is a good note to end on. I thank both witnesses for their time; it has been interesting and very helpful.

We will suspend for about 10 minutes to allow our next panel to onboard and to give us a wee break.

10:27

Meeting suspended.

10:40

On resuming—

The Convener: I welcome our second panel on data and digital services in health and social care. We are joined remotely by several experts. Before I introduce everyone, I will offer some meeting management. Given that the committee members are all in the room and the witnesses are all elsewhere, it would be very helpful if members could direct their questions to individuals. If a witness has not been asked to come in but has something to add, they should use the chat function in the BlueJeans platform and I will try to bring them in.

I welcome to the meeting Martyn Wallace, who is the chief digital officer at the Digital Office for Local Government; Christopher Wroath, who is the director of NES technology; Jim Miller, who is the chief executive of NHS 24; Chaloner Chute, who is the chief technology officer at the Digital Health and Care Institute; Chris Mackie, who is the digital hub and a local information system for Scotland—ALISS—programme manager at the Health and Social Care Alliance Scotland; and Dr Steve Baguley, who is clinical director for e-health at NHS Grampian and is the chair of clinical e-health leads Scotland. Thank you all for giving us your time this morning.

I will do a round robin of the six of you—in contradiction to what I just said—to tell us whether you support the three aims of the Scottish Government's refreshed digital health and care strategy and believe that there is alignment and support for it in the institutions that you represent. I will go down the list and start with Martyn Wallace.

Martyn Wallace (Digital Office for Scottish Local Government): Good morning, and thank you for inviting me to the committee as a witness. I support the three main ambitions of the new digital health and care strategy. Behind the scenes, we have some great learning from how we responded to Covid and the original digital health and social care strategy from 2018. I agree with what Scott Heald from the previous panel said about data standards, interoperability and principles, which are the core components that we will have to create and implement if we are to make the strategy come to life.

Christopher Wroath (NHS Education for Scotland): Thank you for inviting me along this morning. I wholly support and agree with the aims of the digital health and care strategy, which are entirely sensible. It is the strategy that we would devise if we wanted to take a forward-looking and citizen-centric approach to delivering healthcare and social care in Scotland.

It is not the strategy that is the issue. The challenge is the complexity of the existing landscape that we are working in, given the level of transformation that is required in order to achieve the strategic outcomes. It is a challenge, but it is also an achievable objective.

To follow on from what Martyn Wallace has just said, one good thing to come out of the Covid-19 pandemic is the absolute commitment that everyone who is involved in delivery of the strategy has to working together to make it happen. We have proved not only that the technology that we are adopting is the right technology, but that the approaches that we have developed and worked through are the ones that will take us where we want to go. Although it is still a bit of an uphill struggle, we should be optimistic about where we are and where we are going.

The Convener: Are you saying that the desire is there, but that everyone accepts that the challenge is a tough one?

Christopher Wroath: [*Inaudible*.]—of the desire and need of everybody involved to ensure that the services that are currently delivered can be maintained, are safe and are able to keep pace with demand. We would go faster if we were to build in a green field, so we have to find the right balance between citizen safety and care on one hand and the ability to transform services on the other.

That is where the challenge is, but I can say with confidence that the colleagues who I am working with across the entire enterprise of health and care have shown the necessary skills, capability and leadership to get it done.

10:45

Jim Miller (NHS 24): Good morning. I wholeheartedly agree with my colleagues who have spoken on support for the strategy. I will add two points.

First, the strategy has a balance between ambition and choice. It is not an either/or for citizens and users. The idea of inclusion and equality runs through the strategy.

The second point, which we may well discuss further, is that the public's attitude towards, and acceptance of, using the pandemic as an accelerator in how services are transmitted and consumed has changed. The ambition is matched not only by internal capacity but a desire among the people of Scotland.

Chaloner Chute (Digital Health and Care Innovation Centre): Thanks for having me. We support the three aims of the digital health and care strategy. I echo everything that the others have said about recent capacity building around Covid. Aims 2 and 3 are predominantly about how professionals—be they health and care staff or planners, researchers and innovators—use data and data-driven approaches to drive service transformation. That is great and we support it. What is most exciting for us as an innovation centre is the fact that aim 1 is strengthened. It says that citizens will

> "have access to, and greater control over, their own health and care data".

The evidence from the previous witnesses from Public Health Scotland and the Office for Statistics Regulation showed the value of creating that dialogue and giving citizens a more active role—giving them access to data and an ability to manipulate it. Think about what it means for someone who, for example, lives with multiple sclerosis or is on a cancer care pathway if we can start to co-manage the care data with them. Professionals know a lot, but the citizens also know a lot. They are the ones who understand and have the drumbeat day-to-day lived experience that can help to inform more predictive and more personalised care models. Therefore, it is heartening to see co-management of data with citizens starting to come through in the strategy.

Chris Mackie (Health and Social Care Alliance Scotland): Good morning, and thank you for inviting me. The Health and Social Care Alliance Scotland supports the digital health and care strategy. I suppose that the devil is in the detail. When we see the delivery plan and come to implementation, some of the detail on the ambitions that the strategy presents will be exposed. The strategy is about digital health and social care. We must not forget the social care aspect or the bit about people living good lives.

Building on the comment about equalities, I would like human rights approaches to be fully realised. That would allow us to consider not only the protected equalities characteristics, but carers, poverty, migration and, for example, care-experienced people, who need to have their rights upheld.

We have done quite a bit of work on human rights approaches and principles within digital health and care. I will run through those principles briefly.

First, we need to put people at the centre. We need to start with the person, not the shiny digital tools. Second, we should use digital where it is best suited. It is not always the best solution. Third, digital should be an on-going choice. People should be able to opt in or opt out of digital services.

The next principle is digital inclusion, not just widening access. It is about having not just the device and the data connection but the skills to operate the device. It is also a workforce point, because we need to address skills development within the health and social care workforce.

Finally, as has already been said, it is about citizens having access to and control of their data. That point came through quite strongly from the engagement that we did. People are sick of retelling their stories, and would like to see more effective data sharing among professionals, although they would like to retain that control and be reassured about the security and confidentiality aspects. Those are some of the main points that I would highlight in respect of the strategy.

Dr Steve Baguley (NHS Grampian): I would certainly support the aims, and it is great to see the focus on citizen access to data and services, which is absolutely what we need. I am keen to draw out the benefits for staff of aim 2 on taking a person-centred approach to services in terms of removing low-value administration tasks, particularly from clinicians.

As we develop the delivery plan, I am keen to see how we connect the strategy to the levers of delivery in the hundreds of locations across the country.

Sandesh Gulhane: My question is for Martyn Wallace, and maybe also for Christopher Wroath. It is about aim 3, which is about allowing healthcare researchers and innovators secure access to data. How can we give companies and innovators access to anonymised data to improve the services that they can provide, and how do we then get a significant benefit from giving them such access?

Martyn Wallace: Thank you for a great question. Coming back to what Scott Heald on the previous panel said, we need to have data standards and principles established. In the Digital Office, we have set up a data community in local government. For a while now, we have been working with people who create data in local government to look at operational standards and data standards and align things in order to ease the process. Otherwise, we pay out a lot of money to get integration, which is just crazy in an age in which we should have open standards for much of it, while being cybersecure at the same time.

You might also want to speak to Chaloner Chute from the Digital Health and Care Innovation Centre, because the centre has already done much of the work in aggregate anonymised data for test purposes. There is a balance between taking data and informing the patient, customer or citizen about what we are doing with it, and putting safeguards and measures in place to aggregate and anonymise it so that we can do research to find new ways of delivering services.

Christopher Wroath: Unsurprisingly, I support everything that Martyn has just said. One of the key aspects is the technology that we are currently building and deploying in order to make the data meaningful in real time. To allow people to make the decisions that they need to make, we need to have technology based on data standards that will allow people to access the data when they need to do so. That is one of the fundamentals that we need to achieve.

We need to liberate the data that is trapped inside systems and only accessible after a whole series of processes, whether they are technical processes or information governance processes. In order to drive real value, we have to get people to a place where they can access the data on demand. Things are moving quickly now, and people’s expectations are that such processes, business and services will be available on demand. They want the data when they want it, and we cannot predict when that will be; therefore, we need to build technology that allows them to access it on demand. We now have that technology and are in the process of deploying it. If you combine the technology with the standards, you are going in the direction which we need to go.

Chaloner Chute: I absolutely agree with everything that has been said. Something that I guess you will hear a lot about in this evidence session is the need to separate the data from products and systems to give us more independence in how we can use it flexibly and with consent. It is worth noting the data safe havens that have been set up in the north, east and west of Scotland, in which researchers and innovators can access anonymised data sets. Although it is still in the early stages, that work is starting to gear up and is happening already under, of course, strict governance and ethical processes.

When people have conversations about accessing anonymised data sets to drive innovation, they typically go straight to the idea that we need to focus our efforts on getting the clinical record right. However, the reality is that if we are trying to predict and personalise services, the clinical record is only one part of the story. People might have their own activity and daily living data on their smartphones, smart devices and smart home technology, for example, and there might also be social care and social security data. If you want to drive real prevention, you cannot look only at clinical record data, because those are, in the main, records of disease; other systems might have the clues that give us the ability to anticipate issues and to act in a more direct and preventative way with, of course, the citizen's consent.

Chris Mackie: I want to make a very quick point on interoperability and how the different, almost fragmented systems can talk to each other. I managed the ALISS programme at the alliance, and it is built on open standards, which make the process of working with other platforms much more straightforward. Those standards are largely out there—after all, that is the point about openness—and the plea that I would make is that we move in the direction of open referral standards or whatever in the development of new systems. As I have said, they just make the whole process much more straightforward.

The Convener: We now have a number of questions from Gillian Mackay on the national digital platform and, in particular, data sharing.

Gillian Mackay: Good morning, panel. I wonder whether Christopher Wroath could give us an update on the development of the national digital platform and a flavour of the work that is being done on it.

Christopher Wroath: On the question of where we are at with the national digital platform, what we realised through the pandemic—it is one of the lessons that we have learned very clearly—is that the platform itself cannot be one thing. Instead, it has to be a collaboration and collection of pieces of technology, information and data spread across the enterprise of healthcare and social care in Scotland. For example, with regard to specific details on the national digital platform, the mass vaccination programme has driven an enormous amount of data availability into the technology that we were already deploying in the platform's build site. We have something in the region of 10 million records, with the number increasing every day, and they are relevant to 4.5 to 5 million individuals in Scotland. We now have a baseline platform in that space, and we are also starting to build the necessary catalogue for the services that will be required to support it.

The next stage will involve a more collaborative and active dynamic not just with the health boards but with colleagues in all aspects of social care, from local government through to the private and third sectors, to find out what we need to build next to drive maximum value at the earliest time. After all, the ambition behind the national digital platform is to have all the health and social care data pertaining to an individual's care in a single logical space that is available to all the individuals who work with those citizens and, primarily, to the citizens themselves—although that is a big ask and we have to figure out how we drive the platform to deliver maximum benefit against the backdrop of NHS remobilisation and the restructuring of social care around the national care service.

The answer to the question is that we now have something in the region of 10 million records in the platform and that we have a connection to our CHI services that will be fundamental to linking the data. We are putting together a catalogue of the services that we can provide to our social care and health sectors.

11:00

More important is that we are now in a dynamic conversation about the next stages of delivery. There are finite resources available. We must ensure that those resources support both the services that are currently in place and the ones that we will bring forward as we build the platform. We need to get the balance right. That is what we are working on at the moment, with a view to having a delivery plan ready in the early part of the next financial year. We want everyone to recognise that plan as being the best way forward.

At the moment, we are taking a breather. We have put the platform in place and we have the technology there, but we must now ensure that we build it out as fast as possible to deliver the maximum effect. The centre of all that will be delivery to the citizen, which I will explain later in answer to other questions.

Gillian Mackay: What work is being, or should be, undertaken to ensure that information sharing can take place between the wider primary care team, the multidisciplinary team, the acute sector and social care so that we have all the records in the right place at the right time? What problems have there been in joining up all those records?

Christopher Wroath: We have already touched on some of the problems; we will reiterate some of the answers. There is an enormous and disparate firmament of systems at the moment that we must try to draw together. There is no single logical health and care record for a citizen in Scotland. There is a good reason for that. Systems have been developed to support services, whether they are in primary care, the acute sector or social care. Individual organisations and groups of people that deliver services to citizens have had to build their own technologies independently and in a way that has not always been about interoperability. It has been about delivering the services that people want.

At this point, CHI will be the right connector. Personal identification may become more sophisticated as we try to become more pan-public sector, but CHI is fundamental to the success of that in the context of health and care. As long as we can standardise the data structures that we need inside the systems that exist already, then bring all the data into a single place, we will be fine.

The barriers to success are now not organisational or even about information governance, although we do have significant IG challenges. The problems come from the technology itself. We have to move away from the technologies that have been very good at supporting the type of services that we wanted to deliver. The technologies that exist in our health boards, and to a certain extent in social care—although I am not much sighted on that—have been good and fit for purpose and have been excellently supported and delivered. The issue is that those technologies are designed to support processes. They support capture of data and information to target specific outcomes in specific organisational settings. They are not designed to provide services to the citizen. We have to make that transformation. The barrier is in being able to deploy the technologies that we know will succeed in that while not disrupting services.

We are on the cusp of being where we want to be, but we still have some challenges in delivering the technology without disrupting services. We have a finite number of people whom we can deploy to make that work. They are all tired and stretched, and are trying to remobilise services in health and care.

Dr Baguley: Regarding all staff being able to connect to that data, it is important to bear in mind the role that health boards have in delivery. Different health boards have different capacity and resources to meet their priorities. They have different information governance capacity to deal with novel information flows. That brings us to the question of how strategy connects to delivery on the ground, and how we can strengthen that connection to get the benefits of all elements of the strategy, including the central data spine.

Martyn Wallace: [*Inaudible*.]—one of the points. We also interpret information governance and data governance in completely different ways, depending on which council the person is at or which health board the person works for, or whether they work in central services. We need to tackle that in an ethical and secure way, and data literacy needs to be promoted to the citizen so that they understand fully what is happening to their health and care data record and how we will use that record to help with better outcomes, and to give them the opportunity to get in through the front door—obviously, that is in the health and care strategy refresh—to get access to health records and make more informed choices about how they want to be looked after or what care and services they wish to take. There is an element that has slowed things down at times.

It is not just about access to additional health and care records; it is about collaboration between multifunction teams, which were mentioned in the question. We are doing work with Microsoft. Microsoft Teams has been rolled out across healthcare and social care at great speed during the pandemic.

It is also about how we create common platforms that mean that we do not have to retrain or use different systems to access different health records. We are using common platforms to get the right data at the right time to make the right decisions so that we can increase the health and wellbeing of the citizens of Scotland.

The Convener: Sue Webber has some questions on that area.

Sue Webber: I am sorry, convener. Are we on theme 3?

The Convener: No. We are still on data sharing and the national digital platform.

Sue Webber: Thanks. It is great to hear about the work that is being done, but the reason why we are having this discussion today is that we had a sense that a lot of groups were raising concerns that there was data on which decisions could be made is not available. My question is for Mr Miller from NHS 24, because it is almost the public face of the data. How can we help with the disconnectivity between everything that is going on and the impressions from third sector organisations and other people who have spoken to us about their concerns about data?

Jim Miller: That is a very good question. In some respects, NHS 24 as an organisation is almost a recipient of the ambitions of the strategy, and it faces the challenges that have just been discussed. National organisations such as NHS 24 have a place almost as the manifestation of the idea of the front door. We talk about the front door, but we need to be careful that that idea is well understood by the public and users of our services.

NHS 24 has close on 40,000 calls a week, and we are able to supplement engagement with those members of the public with supportive documentation to say why we ask questions, what we do with their information and whom it is shared with. We can use our digital and online resources to act as a trusted point of truth on how organisations in health and care use information. It is clear how NHS 24 shares its services and how other parts of the health and care service do so, but NHS 24, as a national organisation, has the advantage of being able to provide answers to questions that citizens are increasingly asking.

Sue Webber: I suppose that my next question is to Mr Wroath of NES. How do you look to collaborate with other stakeholders and organisations? You have spoken about a collaborative and active approach, and Dr Baguley mentioned that a strategy is needed to deliver on the ground. What is being done tangibly to do that?

Christopher Wroath: I directly engage with a number of governance bodies, such as the enabling technology board, which is part of the strategic portfolio delivery board for digital health and care.

I am actively in the process of directly engaging with organisations—my calendar is fairly full with meetings with individuals who have recognised the significance of the role that I am privileged to be playing in this work. I am directly engaging with organisations at executive level and my teams are engaging with individuals. It is about painting the picture and getting the overarching view of what is important and significant to organisations in the third sector, local authorities and IJBs. In addition, I have an extensive network of communications in and around our health boards. It is an active process, and it is encouraging that people are coming directly to me as the person with responsibility for co-ordinating this role. It is not as though people do not understand where to go in order to be able to work on this.

It is important to state that governance bodies are important in the context of being able to create the necessary landscape for prioritisation. As I touched on before, it is not difficult to figure out some of the basic things that people want. We can make statements to the effect that people want access to their data and organisations want access to sets of information and data about citizens and service users. All those things are relatively straightforward and easy for us to figure out. The issue is not so much what we are doing and the direction in which we are travelling; it is about prioritisation and what steps we take to get us to that place.

There is almost no area in health or care in Scotland that is not crying out for some form of transformational change, all of which, in turn, leads back to the same thing: people need access to data. I do not want to use terminology such as “locked away” and “trapped inside”, as those are negative terms, which I do not want to get into. However, in terms of technology and, to a certain extent, information governance, as Martyn Wallace touched on, the data is not easily accessible. We have to move from a model that we have been used to—and which has worked successfully—to a different one.

To return to the question, I am actively involved in a series of conversations with a raft of organisations, including DHI, in order to work up models for how we will do it. As I said, the real challenge is about prioritisation and what we do first. I will return to that theme again and again over the course of the session. There are so many different ways in which we could address this, but we should use the one that delivers the best value to the citizen as fast as possible. That is not obvious at the moment, but we are working on it.

Chaloner Chute: Building on what was just said and reflecting on your comments, I think that the frustration is about supply and demand, as Christopher Wroath alluded to. There are not enough people who are able to create the supply of digital platform technologies to meet the demand. There will be an enormous number of health and care organisations, charities, social care innovations, Scottish businesses and academic institutions that are looking to contribute. However, it is difficult because, historically, the platform components have not been available to anyone other than the NHS people who are building them out.

On prioritisation, a platform is only a platform if other people can use it. If there is just one team gatekeeping the ability to use such tools, we will be throttled for ever by that capacity. If we look at what the NHS has done across the UK with NHSX and so on, we can see that it focused on making the first task to test in sandbox environments all the platform components. Those were available to the broader innovation community—charities, independents, universities, businesses and others—to enable them to learn by doing and to self-service, so that not everyone is dependent on the NHS to hold their hand and take them through processes. That does not necessarily mean that the things that they do will be switched on in live service, because that is still subject to governance and strategy. Nonetheless, the highest priority is ensuring that we activate as much as possible of our innovation community by giving them open access to an open platform, which is what we were missing prior to the pandemic. Although vaccination delivery has shown what is possible, it is still possible to enact only for a relatively small group of people inside the body of the NHS, and we must open that up and give people more access.

11:15

Chris Mackie: I will expand a little on the role of the third sector. When we talk about involving different partners and having conversations, the inequality of resource that third sector organisations have is a factor and, to get to where it needs to be—in order to work with the likes of the national digital platform—the third sector has some way to go. Also, we should not forget about the independent sector, which is an important provider of social care, as members are already aware.

Finally, the role of libraries has come through from the engagement group work that we have done. We have done quite a lot of work with libraries, whose contribution to health and wellbeing—including in the digital sphere—is often forgotten about.

Sandesh Gulhane: I have a question for Christopher Wroath and perhaps Steve Baguley. Does the NHS, including primary and secondary care, have the appropriate hardware and broadband speeds to access the digital platform, cloud sharing and all the wonderful innovations that we are looking to introduce?

Christopher Wroath: The answer to that is yes—mostly. One of the key elements of the technology that we are delivering is that the systems are essentially agnostic, so any device, whether it is an iPad, tablet, phone, computer or laptop, is able to consume the information and data that we will be supplying off the platform. Again, that is one of the exciting things about the new technology.

With regard to broadband and connectivity, we used to be a curate's egg—in that we used to be good in parts—but, now, we are generally good, with bits that are not so good. Unsurprisingly, a lot of that is to do with the geography and topology of this fabulous nation, because it is not easy or straightforward to get connectivity into the inner mountains of the north. However, it is worth pointing out that the mass vaccination programme was delivered in 8,600 spaces across Scotland, using the internet connectivity infrastructure that Scotland has. That is pretty impressive; there have been 10 million events, and 4.5 or 5 million people have been able to access healthcare in environments that have never been used before. Who knew that Motherwell football ground would be a health environment that we needed to deliver into? Yet the technologies that we are now building and delivering are exactly the ones that mean that we can do so, as and when we need to.

We should not be complacent about connectivity and we cannot ignore it; we need to keep pushing on it. The Scottish Government reaching 100 per cent—R100—programme will be incredibly important, because the success of our work is predicated on connectivity. However, we have come a long way in the past five years. It is one of those areas where I am optimistic that we are heading in the right direction, because we have proved that we have enough infrastructure to get to the entire population. To do that on a daily basis, we need to push further still so, although we can always do better, we are doing well.

The Convener: Thank you. We move to the development of a range of digital services, particularly during the pandemic.

Paul O'Kane: Good morning. Witnesses have already touched on the necessity during Covid to upscale and move forward what we are doing in relation to digital. Obviously, NHS 24 has had a key role in developing many of the services, and it is fair to say that, within that, there has been a degree of quick movement and upscaling of projects that were already planned.

I want to get a sense of Jim Miller's reflections on what has worked well and what has been challenging. In my experience, certain applications have worked better than others and have needed refining and testing. Jim, can you kick off with your reflections on that issue?

Jim Miller: The simple answer is that the speed of implementation has benefits and challenges. It allowed for a unique approach in the early days of the pandemic when we as a nation had the single aim of protecting ourselves against the virus however we could. That gave a clarity of thought that provided a push in drive and innovation, so it was fertile ground.

From an NHS 24 perspective, you are right to say that many of those plans were part of the strategic ambition, and we moved from an organisational level pre-pandemic when we were predominantly an out-of-hours service, where services would not be otherwise available, to a truly 24/7 service, which we have been for almost two years.

The benefits of that are manifest and continue as we are still in the pandemic. The public's attitudes, behaviours and expectations have changed and they accept various ways of requesting and receiving services, including from NHS 24. For example, people now have a choice of services and hours—not just Monday to Friday, 9 am to 5 pm—to access GP services, primary care or digital-based services from NHS 24, and the numbers of people accessing those are steady or increasing. People are making that conscious choice time and again, which tells us that we have got many things right.

I move on to the challenges. The 25 to 34-year-old demographic expect an enhanced transactional ability for some services, which they are used to from their broader digital interactions. We are moving at a slower pace on that, so they are perhaps disappointed with the lack of ability to interact with those services. It might seem old fashioned to the younger people who think that they can do things completely digitally, but some services still require to follow information governance protocols or have a lack of transactional ability that requires further telephony or face-to-face follow-up. I am not sure that that is a bad thing, but it goes back to the ambitions in the strategy about making sure that everything is people centred, that people understand what we are trying to develop and that we are not pushing solutions on people.

It is important for all organisations to consider what they have developed at pace over the past 18 months and to check whether those services have become business as usual. If those services will be maintained, will they be as fit for purpose in the long term as they were as an expedient? It is incumbent on all organisations across health and care, including NHS 24, to review those services. For example, a service that is built and implemented over a weekend may be different from one you would build if you had more time.

NHS 24 has done remarkably well and the staff have done a fantastic job at running services with the required pace. There should be a period of reflection as we, I hope, move out of the pandemic and those services become business as usual.

Paul O'Kane: Your assessment is fair. There is a sense that there were challenges in relation to getting things up and running initially—for example, on proof of vaccination, which took a while to come on stream in a digital format.

You make an interesting point about that younger cohort. However, my sense from my inbox is that it goes across age ranges—people have a real desire to have things in one place, such as in one app, particularly when it comes to their vaccination status. There have certainly been issues around where people can book vaccinations and so on. Covid has brought all that to fore.

There is ambition to bring those seams together and to have that one-digital-door approach. More broadly, it is also about how we access services. The question is how we bring all the parts of that together. Is there an ambition to have a one-door app that would allow us to access our medical records if we require them and also to use services? That might be Jim Miller's bailiwick.

Jim Miller: I am happy to pick up that question, although I am sure that others will also have a contribution to make.

Speaking from an NHS 24 perspective, you are absolutely right. NHS Inform is an example of what a front door could look like. It has grown in public trust and in its transactional capabilities—in other words, what we can do in that space. At the start of 2021, which was fairly heavily into the pandemic, NHS Inform was running at just over 5 million hits a month. Towards the end of last month that was up to 8 million hits a month. That is partly due to the content and, in particular, the increased content around Covid and vaccination status. People are moving towards where they see there being a coalescence of data and services. There is definitely a demand there.

On your point about making it simple and having all the information or services in one place—the idea of a front door that you enter and then being offered choices once you are inside—it is clear that that is beneficial. Without making a sales pitch, NHS 24 has a fantastic opportunity to act as that front door. Reflecting on some of the potential opportunities in the national care service, NHS 24 clearly still has more of a health, rather than a care focus, but that may not always be the case. Is there an opportunity to expand those services using the technology, the approach and the acceptance of the public in understanding the NHS 24 suite of services? What if those were to be expanded across the social care environment?

There is more to be considered in that space, whether that is through NHS Inform or an NHS 111-type service or something else. There are lessons that can be learned from our experience.

Chaloner Chute: I agree with the points about the successes that we have had around some of the Covid elements and the standardisation of access to some of those assets.

However, I add a point of caution. What we are talking about as a front door was previously called a national patient portal. We have done a systematic review of that and, globally, the literature is not positive about the benefits, impact on citizens and deliverability of that kind of central, one-stop-shop experience. That tends to be because the health and care experiences are diverse, with many localities, groups, conditions, specialities and needs—it becomes incredibly difficult to create an experience that meets the needs of such diverse groups, regions and peoples.

Having said that, some things will land well in that space, such as booking a GP appointment or a repeat prescription, and accessing a vaccine appointment or record. Those are the high volume, easily standardised things that we should be thinking about in relation to that kind of single experience.

However, if someone who is living with multiple sclerosis interacts with 10 to 14 organisations and with a dozen carers and support people, and if they have complex care needs, the single experience is highly unlikely to cut it. If someone possibly feels stigmatised about going in for an experience in relation to a sexually transmitted infection, they might not want to go through the front door, if that makes sense. For lots of experiences, people might need to be somewhere else, and a bit of separation might need to be created. We absolutely should create standard experiences, but we must not force everything into one space—I promise that doing so would disenfranchise millions.

11:30

Martyn Wallace: I have the pleasure of chairing the Scottish Government's digital identity Scotland programme. Getting in the front door is the easy part; the hard part that we must deal with as health and care services is getting the rooms in the house in order so that the patient and the member of staff can walk through the GP room, the dentistry room, the pharmacy room and the clinical room and can get appointments. As the technologists, we need to build the building blocks for such rooms around the individual while we are still delivering services and protecting families, which is a challenge.

Local government has for seven or eight years had a front door for councils that is called myaccount, which 25 councils use. A few years ago, we did a proof of concept with NHS Greater Glasgow and Clyde on accessing a patient record, so the technology is there, but the challenge is dealing with the building blocks for the rooms, the governance, the ethics, the cybersecurity and the different ways in which we do things. Building out that capability is more complex, but plans are in place to make that a reality, and there is work with the digital identity Scotland board at the Scottish Government to make that a reality, too.

Chris Mackie: I will echo points that have been made. It is hard to argue with the "Once for Scotland" approach to reduce duplication. If investment funds are tight, it does not make sense to do multiple things. However, when we look at communities and at how life is, we see a diversity and a complexity to the landscape, given what the third sector looks like and what the independent sector looks like in localities.

People might not want one front door—side doors or a back door might be needed to enable people to access the services that they need. As has been said, the approach makes sense for things such as repeat prescriptions but, when a more person-centred and people-based service is required, I question how the approach will operate in practice. Can we make sense of bringing everything together? That makes sense for health but, when we look at social care and the wider health and wellbeing picture, can we make sense of all the complexity and bring it together in a way that makes sense?

Paul O'Kane: The point is well made that the approach cannot be one size fits all and that we need to look at varying aspects. NHS England operates an app that covers all the things that Chaloner Chute mentioned, such as GP appointments, prescriptions and Covid status. What are we learning from that? That has been in place for a period—why do we not have an equivalent? Does Jim Miller or anyone else know anything about that?

Jim Miller: Unfortunately, I am not very close to such development. We host another organisation, NHS National Services Scotland, which is responsible for the development. I think that it is work in progress. You are right that, if there is an opportunity to add functionality to the existing app, we should do so. Clearly, Scotland has a different structure from England in terms of the relationship with primary care colleagues, which adds a level of complexity. However, I am not saying that such an app should not be an ambition.

From an NHS 24 perspective, we have the capacity, but it could be expanded. The last thing that we would want, from an experiential perspective, is circular routings, where someone contacts one part, they are foisted to another part and then they end up back where they started. That is a bad journey—a bad experience—regardless of that person's requirement. The opportunity to speak to an organisation such as NHS 24 and be immediately directed to another part of health and care would be a really positive thing.

Committee members may be aware of the redesign of urgent care, which has really improved things and taken pressure off A and E attendances. If someone contacts NHS 24 and there is potentially a requirement for them to attend A and E, they no longer simply turn up. Instead, they will be given an appointment time via bespoke local phone navigation centres that understand local services. The point about locality is important here. The end-to-end journey time from speaking to NHS 24 to being triaged, diagnosed and treated at A and E is much shorter and, as I say, the flow is balanced for A and E.

We could think about what else we could do with that example, particularly in the primary care space. It is not quite a one-stop shop and it does not quite take away responsibility from other parts of the system, but it could smooth demand across the system and signpost where other services are available. There is potential there.

Chaloner Chute: I am sure that Christopher Wroath will say something similar to what I will say. The NHS app in England is a good example of a single user interface for common transactions. The important bit, though, which is not often publicised, is the thing that makes that app work, which, as Martyn Wallace put it, is the walls, the door frame and the rest of the house. The app has an appointment scheduling system that is separate from the user interfaces, which means that a number of different user experiences can be built by a number of different groups using a common engine. The appointment system works in a coherent way, but you do not necessarily have to use the NHS app.

In principle, a charity could help people with appointment booking through its own interface and might do it in a slightly different way. Imagine, again, that you were dealing with people who had survived trauma and you needed a more gentle up-ramp, and a bit of counselling and support, and that, as part of that process, you needed to book into an NHS service, for example. You can imagine that that experience could be quite different from expecting someone to turn up, download an app and self serve. I guess the point is that you can have both. The infrastructure, or plumbing, that you put in place to make that NHS app work can be reused flexibly by a range of groups and people for a range of experiences. You then standardise what you can, with common standards, common language, common definitions and, ideally, a common look and feel. You get a sense of coherence but, at the same time, there is a bit of flexibility, and a number of different interfaces that you could use, depending on need.

Christopher Wroath: Unsurprisingly, I support everything that has been said. This is one of the few areas where we need to recognise absolute scale. In turn, that means prioritisation around the resources that are available in Scotland.

To massively oversimplify, I note that in England, if you want an app to do these things, you have 10 or 20 times the resources to be able to build that single outcome. In Scotland, if we want that single outcome, we have one tenth or one twentieth of the available resource, and it is already spread pretty thin around the outcome. We have to prioritise. In England, they are able to go off and build an app. In Scotland, we have to slot that into all the other demands.

I believe that we are prioritising correctly because, as Chaloner Chute and Martyn Wallace said, we are prioritising the back-end architecture that will allow us to build out slowly and incrementally. It is the back-end architecture that is going to give us the data, and when we have that, the app that we will then build and extend out will be even better, as we will be able to co-ordinate the data that is required. We are building the house, but we have only a tenth of the builders. We need to be aware of that, although it is a relative issue. That is not to say that we are not doing this; I just do not think that we can get there as fast as we might want to if we had 10 times the resources that are available. However, it is just one of the things that we need to bear in mind.

The Convener: Stephanie Callaghan has a couple of questions on digital services, after which I will bring in Sue Webber.

Stephanie Callaghan: I thank the panel for being here today and for the interesting stuff that is coming out. I am reminded of an NHS worker out in Lanarkshire who said that all this is like building an aeroplane while you are flying it, which was something that I could really relate to.

I am very interested in Chris Mackie’s comments about keeping people at the centre of things, choice, inclusion and citizens having not only access, control and ownership but security. The pace of things has been pretty mind blowing, but we are also facing huge demographic changes. We do need to reflect on what is happening, but how can we ensure that we keep the pace up and, indeed, accelerate things?

The Convener: Are you directing that question to anyone in particular?

Stephanie Callaghan: It is for Chaloner Chute, convener.

The Convener: If anyone else wishes to come in, please indicate that in the chat box.

Chaloner Chute: I am sorry. Can you hear me?

The Convener: Yes, we can.

Chaloner Chute: I am sorry—the sound is a bit crackly. Can you repeat the question?

Stephanie Callaghan: I was just saying that this is a bit like building the aeroplane while we are flying it, and Chris Mackie talked about keeping people at the centre of things, choice, inclusion and people having not only access, control and ownership but security. The pace has gone through the roof, but although we can reflect on what has happened, we actually need to keep up the pace with the huge demographic changes that we are facing. How can we do that?

Chaloner Chute: There are a few things in that question. As the Scottish Government’s Digital Health and Care Innovation Centre, we grapple with this in everything that we do. How do you spend enough time putting fuel in the chainsaw? You have to put down the axe for enough time to do it. Creating that kind of capacity is always really difficult.

I guess that, for us, as an innovation centre, the highest priority is ensuring that we activate the largest possible number of collaborators within a common standard framework. We have a number of Scottish universities and huge groups of clinical, academic, industry and third sector innovators who are queuing up to offer support, but the problem is that it is difficult to activate them if we do not have a common infrastructure that is openly available or accessible. There is a chance that they will just go off, plough their own furrow and thereby add more noise without necessarily helping to keep the system together.

I have been reflecting on what NHSX has done well, and it is the sort of thing that Christopher Wroath has described. We need to focus on putting in place a national clinical data store, test environments where people can work with the data on a self-service basis that does not depend on our providing staff to help them, and a set of guidance and standards. Basically, if those people can then show us that, working with a charity, business, university or whatever, they can deliver a local service to someone living with a frailty or otherwise with improved outcomes, in accordance with the standards and using the common infrastructure, we can talk about activation and think about what it might look like as part of the bigger picture. It is almost a case of crowdsourcing some of the bottom-up will to change, with the tools to do so in a standardised way and then letting the flowers bloom, as it were. I would argue that we need to tap into that broader Scottish community or network, have some sort of process for figuring out the acceptance criteria for the things that people build and work out what formal health and care services can fully help them on board and into the national infrastructure.

As I said, at the moment, everyone is queued up at the door, but there is no door handle.

11:45

Martyn Wallace: It goes back to first principles about how we help individuals in Scotland with health data literacy and how we help them to understand what is available to them. That applies from people in the most vulnerable parts of society to those in the higher classes of society for whom it is de rigueur to use a smart phone because they use one every single day to live their lives.

I would bring it down to three points—ACE for short. The "A" is for assets. Last year, we had the Connecting Scotland programme, which was a massive multimillion pound investment in getting devices for vulnerable children and families. We now have the Government's commitment to providing a digital device for every child in education. It is about what physical assets there are to enable individuals to get learning support. That could happen through the third sector—for example, by using the essentials digital skills initiative that is provided by the Scottish Council for Voluntary Organisations.

The "C" is for citizen. From the point of view of the citizen, it is about going to where the citizens or customers are, understanding what matters to them and how we support them, and helping them to understand how they can do things digitally and with data, with connectivity around that.

Last but not least, the "E" is for employees. That is about making sure that employees are engaged and that they get the right information at the right time to make the right choices with the individual citizens they deal with daily. Mechanisms are already in place that we could use to manipulate that. We work as one—[*Inaudible*.]—with the third sector to make that deliverable happen.

Dr Baguley: It will be a challenge for some of the smaller health boards and local authorities to maintain pace with the larger organisations. That echoes what Christopher Wroath said about England versus Scotland. The same is true of the various organisations in Scotland. For example, Glasgow and Shetland are very different in scale. We need a different model for delivery in which more things are supported nationally but there is local domain knowledge of what is happening on the ground in places such as Lerwick. That will help good things to happen in those places.

I am concerned that, with the current model, the pace will slow down, because the smaller organisations have a relatively limited resource when it comes to change and implementation of electronic patient records.

Chris Mackie: I will build on the theme of human rights, which I mentioned earlier. With the pandemic, we have seen a rapid pace of change. As has been said, with some of the things that happened, if we had considered them over a longer period, we might not have done them in the same way. There have been instances of people's human rights having been overlooked in the interest of getting something out there or getting something done. People's rights should be respected, even though we have exciting innovations coming through. We can do that through meaningful co-production with disabled people, people living with long-term conditions and unpaid carers. We need to use the Scottish approach to service design, which seeks to achieve meaningful co-production.

I will mention a couple of examples of work that the alliance has done. One of those is the ALISS platform, which has been around for about 11 years now. That was a co-produced piece of work that involved the democratic crowdsourcing of community assets to benefit people's health and wellbeing.

The alliance also hosts the digital citizen panel, which seeks to support the work of the digital citizen delivery board. With the citizen panel, we have been bringing citizens into the conversation about health and wellbeing and digital health and wellbeing, so that it can better support their independent living.

It is possible to achieve meaningful engagement and involvement with people. My main point is that innovation is great, but let us check in with people and ensure that we are respecting the needs of the whole population.

The Convener: Sue Webber has a quick question.

Stephanie Callaghan: I am sorry, convener—could I ask one more question?

The Convener: Make it a very short question, please. We need to move on to Sue Webber's question.

Stephanie Callaghan: It is very short. There has been quite a bit of talk this morning about diversity and variation across the country, but I note that there is not a great deal of diversity on the panel today. Is that an issue that needs to be addressed, or do we have diversity across the teams as part of the collaboration and co-production? I just want to check whether that is the case.

The Convener: Christopher Wroath is nodding. Would you like to come in, Christopher?

Christopher Wroath: I set myself up there, convener.

To a certain extent, the lack of diversity reflects the traditional development and career path for people who work in and around technology. I think that that is what you are seeing, given that this session is on technology. In the United Kingdom, technology has historically been a profession in which those who come through tend to be individuals like me.

Working in the NHS in Scotland, however, I know that, overall, the diversity is enormous. The leadership is very diverse. In addition, I am pleased to say that the situation with diversity in technology has now entirely changed. There is a significant degree of diversity among the individuals I am privileged to lead in my group. I am very pleased to be able to articulate that.

Another—slightly bland—point is that it is not just new technology that will change everything in the public sector, but the application of relatively new and agile methodologies. I go back to the point that the only way that we are ever going to build systems that people are going to use effectively, in the way that they want to, is by building the systems with those people. That is what agile methodology does.

NHS Education for Scotland and the other groups that I work with apply that methodology to development. We target the individuals who are going to use the software and ask them how it should work. That goes back to a previous point, which is that there is no one way of doing it. We must not make the mistake of thinking that, just because having a single front door or everything on one app makes sense to us, that is how people want to interact with their information and their services. We do not actually know that, so we must not go down the road of assuming it.

We must ensure that our developmental processes, methodologies and outcomes are all focused on saying that, while we know what the outcome is and what data we can bring to bear—we have the start point and the end point—we have to engage with the audience who are meant to use the software at the stage in between, when we actually build it.

When we talk about Scotland, we are talking about an enormously diverse group of people. We know and understand that, and I was reassured to hear Chaloner Chute make that specific point earlier. We understand that, but we cannot assume that we know what it is that people want to do and how they want to do it. That approach is, in turn, driven by a human-rights approach in that the system has to be citizen centric. We have the methodologies and the technologies for that. What we need is more time, but we are getting on with it and there is diversity. I hope that that makes sense.

The Convener: Of course, we need to remember that a significant amount of people are still digitally excluded.

I see from the chat box that Chaloner Chute wants to come in on that point.

Chaloner Chute: Although it would be tempting to try to invest more time and effort in making technologists more diverse, we are noticing in parallel—I hope that this continues—that technology is being seen less and less as something that the IT department does and more as something that everyone does. Over the next decade or so, we will probably start to see more people from caring, citizen, clinical and broader managerial and workforce groups become part of the digital team.

Perhaps we can even—I hope—stop talking about digital health and care, as digital will simply be part of health and care. If that trend continues, it will help with diversity, because everyone will be part of the digital leadership.

The Convener: I will bring in Chris Mackie before we move to Sue Webber's question.

Chris Mackie: On diversity, the alliance has 3,000 diverse members across the third sector, including disabled people, people living with long-term conditions and unpaid carers. Our DNA is equalities and human rights. We actively reach out to seldom-heard groups to hear those voices.

I would like to highlight our discover digital programme, which is raising awareness about digital tools that improve health and wellbeing. We have given grants to community organisations that work with seldom-heard groups in order to hear from them about their experiences of, and their views on, the effects of using digital tools for health and wellbeing.

Dr Baguley: On the diversity of the next generation of clinicians who are coming through, there have traditionally been lots of doctors like me working in healthcare IT, but we have the fantastic digital health and care leadership programme for nurses, midwives and allied health professionals—NMAHPs—has been going for a number of years and some fantastic people have come through it who are already contributing to the debate and to the direction that we are heading in across Scotland.

Sue Webber: This question might be most appropriate for Steve Baguley, but others can contribute. We are seeing a significant issue with delayed discharge, a lot of which is down to care-at-home capacity not being there. We are now also seeing what is being called interim discharge. How could and should home and remote health-monitoring technologies be further developed? Can you see them helping—in the short term, medium term and long term—with the crisis in the discharge process?

Dr Baguley: I think that you are talking about the acute care at home model, in which people are discharged from hospital but are supported in the community for longer. That is definitely a trend, and there are various examples of that happening as business as usual across the country.

The current crisis, as I see it—given the local data that I looked at yesterday, at least—is in the number of beds in care homes and the number of staff working in the home care sector to support people who are discharged from hospital rather than in the continuation of acute care to get them out of hospital. The crisis is in not having places for people to go to be supported in their communities, and that links in with the whole debate around social care staffing.

That is not to say that there is no role for technology in helping with that. Even basic information, such as the social care team knowing whether an individual is in hospital, could improve efficiency in many ways and allow resources to be diverted. There are lots of other ways in which social care teams and health centres could be better connected in order to manage that interface. Indeed, we have a national programme of digitally enabled care homes, which is helping to an extent. However, you cannot get away from the workforce limitations in this area, which are behind a lot of the challenges that we see.

Martyn Wallace: It goes back to another committee member’s question, which was about investment in data, hardware and connectivity. In my other role, I am the senior responsible officer for the analogue-to-digital switchover of telecare in Scotland. In September 2023, the UK phone carriers will stop initiating analogue services on traditional exchanges, and in 2025 we will have a switch-off of traditional telephone lines in the home. We have 180,000 people using telecare alarm-receiving kit at the moment. We have been working with technology-enabled care, with COSLA and with the DHI on what challenges those changes will bring as well as what opportunities they will provide. We have to look at investment in hardware in these areas, because there is an increase in costs and in challenges in relation to cybersecurity. We have done mitigation around that in significant ways, over the past three years, as part of our programme, but, to be able to discharge somebody from hospital into the community, we need to have the interoperability that NES and others, such as ourselves, are trying to build, so that data flows to open data standards.

We have worked with technology-enabled care on data standards for telecare services and there is an opportunity to put that platform in care homes so that we are using one platform, one cybersecurity model and one data standard model to help with the flow. In that way, people can live independently but still have peace of mind and security at home, or through social care services, if anything untoward happens to them. Again, that requires investment, but it also requires our helping to find the building blocks, the data and the intelligence to get the outcomes that we want.

12:00

Chaloner Chute: I am sure that Martyn Wallace would say that there could be one platform but possibly many products. We will keep coming back to the idea of how cohesive planning allows a number of things to co-operate and work well together.

The question was about mobile and remote monitoring. That can include the management of long-term conditions such as chronic obstructive pulmonary disease, hypertension and diabetes. I am sorry to sound like a stuck record, but there are many digital tools and products that have been demonstrated to create an impact here. For example, work has been done in Glasgow to significantly reduce hospital admissions and occupied bed days for people with COPD. That is done through co-management and on-going, dialogue-based remote care.

There are many products that can do that; the difficulty is in how those products integrate within the system and speak to each other. It comes back to infrastructure. Martyn's answer was about social care. If we are trying to help the NHS to remobilise and to reduce waiting lists, there are many solutions, products and digital service offerings and many collaborative partners in industry, academia and the third sector are already working on deploying those. We need to give them more connective tissue or plumbing to help them to do that at scale and consistently. All roads lead to Rome, unfortunately.

The Convener: We have given the digital service a good airing. Before we move on to talk about local delivery and once for Scotland, Martyn Wallace and Dr Baguley want to talk about the connectivity issue that Sandesh Gulhane raised.

Dr Baguley: The question was whether we have the network capability to do everything that we want to do at the moment, and the broad answer is yes. There is a big network reinforcement project going on in preparation for reprovisioning IT for GPs, which will ensure that all outlying GP practices in rural areas have a strong connection to the cloud centre. We can always do more with healthcare IT systems. There is a constant requirement for optimisation, but things seem to be broadly okay at the moment.

Martyn Wallace: I may have dealt with the point about connectivity in my previous answer. We have a significant challenge as analogue services are switched off. There will be milestones for that in 2023 and 2025. We need to work together. We took a paper making a national business case for digital telecare to the digital citizen delivery board last week, and that was signed off. We are about to publish that and to work up what else needs to be done and how to attract the investment to make that a reality.

I worked in the telecoms industry for a number of years and I know Scotland's connectivity challenges only too well. The Scottish Government's R100 programme should help with infill. We are getting there. We are also looking at alternative connectivity technologies, such as 5G satellite infill and the internet of things. There is a range of things that we can do to fill those gaps, but we should never stop progressing just because a certain area does not have the technology yet. We must push ahead and then work with the R100 programme and others to ensure that we have the investment and connectivity required.

Emma Harper: A number of witnesses have mentioned the once-for-Scotland approach. That seems to fit some areas, whereas other areas need a tailored approach. The Datix Cloud IQ system is a cloud-based reporting mechanism for recording adverse events and safety concerns and for looking at quality assurance and the improvement of care. Would that be a "Once for Scotland" approach, whereas the ALISS approach seems to involve directing people to, for example, specific social prescribing in their health board or local authority area?

Chaloner Chute: I do not know a huge amount about the reporting side of things, but I would assume that, from a health and care in Scotland point of view, having a standardised single way of reporting those things, so that there is some quality assurance around that, is a priority.

ALISS, on the other hand, is a great example of an infrastructure that is designed to support a variety of actors and people. When we talk about a "Once for Scotland" approach, we sometimes overuse the term to cover everything. Our mantra is that there should be a "Once for Scotland" infrastructure and diverse experiences. We need to separate out in our heads the things that we do as plumbing, which should be done once, and the things that we do for people's experiences, which should be proportionate and personalised as much as possible and localised where necessary.

Dr Baguley: To go back to what Christopher Wroath said at the beginning, I think that that approach works very well when there is a green-field site—when we need to provide something that does not exist anywhere. We can scale that up, roll it out and build on it, and possibly extend it to areas where solutions already exist but they might be suboptimal.

When it comes to doing things once for Scotland in places where there is existing provision on the ground, that is a lot more challenging. That is the area that we need to get into. There are places around the country where we are duplicating our results stores, our document stores and so on, which creates waste from the point of view of duplication, as well as access challenges. We need to get into that area next. It is certainly possible to do that on a "Once for Scotland" basis, and that needs to be in the delivery plan for the strategy.

Chris Mackie: The ALISS programme seeks to bring together the diversity of communities and the different supports and resources that are out there. Such things—ALISS in particular—require investment so that they can keep pace with technological advances and the way in which the population is evolving in terms of demographics and of need. We have just put in a funding application to UK Research and Innovation with a view to stepping up what ALISS is all about.

Moving away from the specifics of ALISS, I think that there is an order of magnitude difference between the resources that the third sector is dealing with and the resources that the statutory sector is dealing with. It is almost the same as the difference that we have spoken about between the resources that England has and those that Scotland has. When it comes to resources in the third sector, there is a step down in level, certainly when it comes to digital services and the numbers that the third sector is able to play with. It is not a level playing field.

Emma Harper: I have a quick supplementary about Scottish Government policy versus local delivery. Are there any barriers in health boards, IJBs, local authorities or even the third sector that might hinder the successful implementation of the Scottish Government's programmes? How is the digital capability being kept up to support people whose first language is not English?

The Convener: I will take volunteers, unless the question is directed at anyone in particular.

Emma Harper: Perhaps Chris Mackie could start.

Chris Mackie: I am sorry. Can you repeat the question, please? The sound broke up for a second.

Emma Harper: There is sometimes a disconnect between what the Scottish Government wants to implement and local delivery. I am interested to know whether there are barriers in local authorities, health boards, third sector organisations or IJBs. We know that there are early adopters and that there are folk who arenae. Are there any disconnects that hinder successful implementation of what the Scottish Government wants to take forward?

Chris Mackie: There is diversity in terms of the success of the integration agenda—for example, the involvement of the third sector in IJBs is varied. How national agendas get implemented is very much dependent on the politics around the integration process, how well involved the third sector is and how well the public are involved in IJBs. Those can be barriers but, equally, IJBs should be encouraged to come up with local solutions, presumably within a framework that is set nationally. What works in Highland will not necessarily work in Glasgow.

In relation to our engagement, we have heard a range of different experiences of digital services—for example, the use of Near Me has been a great success in many cases, but the experience of citizens is that it is not always offered. Some professionals like it and are able to use it and others are not, so there is a workforce issue to do with the skills and confidence of staff and clinicians in using Near Me or whatever digital tool is required.

Martyn Wallace: [*Inaudible*.]—the question about the challenges for community-based outcomes from that piece of work. That comes back to national common data standards and principles to link the data and the differentials in information governance between the councils, the 14 health boards, the four special boards and the third sector, so something needs to be done. There is a central policy, but we need to consider how we use that process in an ethical and secure way to get the data that we need to join stuff up and deliver those community outcomes. I hope that that answers the question.

The second part of that is that we have, through this office, worked with the data professionals in the driven-by-data community to build up our principles of data document, which is in development, in order to tackle some of those challenges, but that requires strategic thinking across the public sector so that everybody joins up to that as a national data standard or we will not get anywhere.

Dr Baguley: There are multiple factors behind the risk of disconnects between Government's policy or ambition and local delivery. One of those is that the executive leads for digital in health boards need to be brought into the strategy and have the tools and capabilities to be able to implement them locally.

There is sometimes a significant difference between the contracts that are arranged between different health boards and our major suppliers, which can have significant impacts on what is possible at the health board level. There can also be specific local pressures that mean that an organisation has to do a certain thing first before doing what the Government recommends has to be done in its strategy. I made a point earlier about resourcing being allocated in such a way that some of the smaller health boards are at a disadvantage in relation to being able to deliver on the ground at scale.

Gillian Mackay: I will round things off, you will be pleased to hear. Thank you for your patience. We are a bit over time, but we want to talk about public engagement and pick up on some of the things that you have said.

Evelyn Tweed: My question is for Chris Mackie. Some groups are still digitally excluded, including older people, those in poverty, ethnic minorities and others. How can we reach those groups?

12:15

Chris Mackie: In some work that we did at the Health and Social Care Alliance, we brought people into the digital citizen panel, for example. It is important to consider not only who is there but who is not there. Some people will engage with an organisation such as ours, but others will not come forward.

We need to go to where people are and talk to the organisations that are right at the coalface of the groups that are seldom heard, whether the refugee community, Gypsy Traveller communities or any number of different groups that are traditionally underrepresented. To some extent, that is about the approaches that we take as a national third sector intermediary, but it is also about how we engage with our members who are on the ground in the third sector and in communities.

We must not forget the exclusion that exists, whether that is to do with English not being a person's first language or them not having devices or connectivity. However, an element of choice must be factored in. People must be able to choose not to engage digitally, as long as they actively make an informed choice with full knowledge of the implications.

There is a lot of work to do on engaging with different communities to address the digital exclusion that definitely exists.

Chaloner Chute: I agree with what Chris Mackie just said. DHI, as an innovation centre, does a lot of co-design with the people of Scotland—citizens and professionals. We also listen to a lot of academic insight on the matter. There is something called the dominant discourse, which says, in effect, that the people in power set the tone and pick the place so there is nothing that we can do to bring citizens into boards and organisational structures that will not disenfranchise them or turn them into professional patients, if that makes sense. Therefore, we have to go to them. We have to go into their normal communities, go where they feel comfortable and engage on their terms. That means changing our language, asking more questions and listening more.

I have a success story on that point. As part of the contact tracing service delivery, we developed the ability for citizens to contact trace themselves. Part of that involved us working with the University of Glasgow and the alliance. The alliance helped us to reach out into some of the communities that would otherwise be excluded. We found that we were able to design tools such that many groups preferred the idea of contact tracing themselves digitally to taking a phone call from a stranger. In many cases, people did not feel that they would be able to pick up the phone for a variety of reasons. Through those methods, we got a very high uptake of people engaging with the contact tracing system when, otherwise, it might have left them behind.

Evelyn Tweed: There has been huge public interest in the Covid dashboard and the public have been engaged with data on Covid. How can the Scottish Government build on that engagement? How can we get the public interested in and understanding the use and value of health and social care data?

Jim Miller: That is a great question. I hope that, in some respects, that is happening naturally rather than systematically. The interest in Covid-specific data has also re-energised the public's appetite for control of their own personal data, but they have become much more interested in general in data and, indeed, the information that is available on dashboards.

With regard to health and social care, there is more to be done on transparency. In the previous evidence session, Scott Heald talked about trying to move away from less transactional things such as Excel and PDF presentations to more truly interactive dashboards. There is more to be done on that in health boards such as mine and across health and care in general. However, we are on a little bit of a journey to encourage and foster that interest at citizen level, and we should perhaps not jump away too quickly from PDFs and other forms of presentation. I say as a non-technologist that there is a place for such things, too.

On the earlier question about ease of providing translated information, rather than suggest that we wait for some elegant solution that might take some time to develop, I would point to the fact that information on NHS Inform was translated into more than 18 languages. That was done at pace, although it was presented in PDF form. This sort of thing should be done incrementally, in recognition that there might be improvements along the way.

Nevertheless, I genuinely believe that there is strong interest from the public in being better informed, and in that respect, I pick up Chris Mackie's point about informed choice. Where options are available, people need to understand why they exist so that they can make that kind of informed choice.

Dr Baguley: We can get people more interested in data by allowing them to see their own data. At the beginning of the meeting, Sandesh Gulhane asked about ethnicity data. I think that, if we could show people what ethnicity data we hold on them, that would be a great mechanism, and people could check and, if required, correct it. The same applies to a wealth of other data that we are starting to provide access to through the tools that colleagues such as Christopher Wroath, Chaloner

Chute and many others are beginning to put in place.

Martyn Wallace: [*Inaudible.*]—improving the data culture and skills across the whole public sector, and striking a balance between providing a menu of what data is available through different dashboards and publishing open data with open standards that people can manipulate and play about with themselves in a safe and secure environment for their own benefit. I would also go back to Scott Heald's earlier point about giving citizens access to the data to allow them not only to see what we have on them but to make their own life choices as a result.

This requires a three-pronged attack, and we need to work potentially with the Scottish Government digital directorate and Albert King's team on how we strategically make that a reality across the whole sector. As I say, we need a multipronged approach, but I think that it can be done.

Chaloner Chute: [*Inaudible.*]—let them see their data, and I am thinking more about personal data than the big data. People are always saying that they want to do something with their data; accessing it is one thing, but being able to do something with it is another thing altogether. Studies from the US show that the single biggest transaction made through healthcare portals was by new parents accessing and downloading their baby's ultrasound image and either printing it out or putting it on social media. That is a very tangible example of how people might use something, what the emotive value of that thing might be and how it might allow people to have good conversations, build relationships and so on. This is about giving people the means to use these things, not just see them.

The Convener: Before I wrap this up, I believe that Christopher Wroath wanted to say something about the issue of exclusion.

Christopher Wroath: Thank you, convener, and sorry for taking you back in time.

NES, which I work for, is essentially a workforce-orientated organisation in which we look to support, develop and train our workforce. As a digital person, I am aware of exclusion issues not just among the workforce but in the wider population, and I have had to think about what digital people do about people who do not use digital. It is quite an interesting place to be.

In that respect, I have come to the conclusion that we need to automate and do the things that Steve Baguley said at the beginning of the session. We need to get the machines, wherever possible, to do the things that they can do, and that needs to free up time. It has been said that exclusion can be addressed by going to the people who are being excluded, but to do that, we have to free up the time of the front-line workers who actually interact with and provide services to our citizens. The best way of doing that is to take away all of the low-value administrative tasks and look not just at the things that directly affect the services that we provide to people but at ways of freeing up our workforce's time so that they can develop better and more focused digital skills. Those skills can then be applied to automating more of their services so that they can spend more time with individual citizens. That is where we need to go with that.

Thank you for allowing me to go back to what I think was an important point, convener.

The Convener: It was no problem at all.

I thank all the panellists very much for their splendid and helpful contributions. At our next meeting on 30 November, the committee will take evidence on sport and physical activity from a panel of stakeholders.

That concludes the public part of the meeting.

12:26

Meeting continued in public until 12:38.

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