OFFICIAL REPORT
AITHISG OIFIGEIL

DRAFT

# Health and Sport Committee

**Tuesday 3 October 2017**

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

# Tuesday 3 October 2017

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## HEALTH AND SPORT COMMITTEE
**22nd Meeting 2017, Session 5**

**CONVENER**

*Neil Findlay (Lothian) (Lab)

**DEPUTY CONVENER**

*Clare Haughey (Rutherglen) (SNP)

**COMMITTEE MEMBERS**

*Tom Arthur (Renfrewshire South) (SNP)
Miles Briggs (Lothian) (Con)
*Alex Cole-Hamilton (Edinburgh Western) (LD)
Jenny Gilruth (Mid Fife and Glenrothes) (SNP)
*Alison Johnstone (Lothian) (Green)
*Ivan McKee (Glasgow Provan) (SNP)
*Colin Smyth (South Scotland) (Lab)
*Maree Todd (Highlands and Islands) (SNP)
*Brian Whittle (South Scotland) (Con)

*attended

**THE FOLLOWING ALSO PARTICIPATED:**

John Brown (Scottish Lifesciences Association)
Katherine Byrne (Chest Heart & Stroke Scotland)
Professor Patricia Connolly (University of Strathclyde)
Zahid Deen (Health and Social Care Alliance Scotland)
Malcolm Dingwall-Smith (sportscotland)
Elaine Gemmell (Scottish Health Innovations Ltd)
Alan Johnston (Senscot)
Alex Matthews (PA Consulting Group)
Allyson McCollam (NHS Borders)
Ewen McMartin (Volunteer Scotland)
Kenneth Ovens (Scottish Association of Local Sports Councils)
Andy Robertson (NHS National Services Scotland)
Professor Christoph Thuemmler (Edinburgh Napier University)

**CLERK TO THE COMMITTEE**

David Cullum

**LOCATION**

The James Clerk Maxwell Room (CR4)

# Scottish Parliament

## Health and Sport Committee

*Tuesday 3 October 2017*

*[The Convener opened the meeting at 10:00]*

## European Union Reporters

**The Convener (Neil Findlay):** Good morning and welcome to the 22nd meeting in 2017 of the Health and Sport Committee. I ask everyone to ensure that their mobile phones are on silent. You can use your mobile phones for social media, but please do not take photographs or record proceedings.

We have received apologies from Jenny Gilruth and Miles Briggs.

The first item is the selection of two new European Union rapporteurs for the committee. I invite nominations.

**Alex Cole-Hamilton (Edinburgh Western) (LD):** I nominate Brian Whittle.

**Clare Haughey (Rutherglen) (SNP):** I nominate Maree Todd.

**The Convener:** If there are no further nominations, do members agree that Brian Whittle and Maree Todd will become our rapporteurs?

**Members** *indicated agreement.*

## Sport for Everyone

10:01

**The Convener:** The second item is a round-table session on phase 2 of our inquiry into sport for everyone. We have just over an hour for the session and we have a number of guests with us, who are very welcome. I will introduce myself, then we will go round the table and everyone can introduce themselves.

My name is Neil Findlay. I am a Lothian MSP and convener of the Health and Sport Committee.

**Clare Haughey:** I am Clare Haughey, the MSP for Rutherglen.

**Alan Johnston (Senscot):** I am Alan Johnston from Senscot, where I am the sport and social enterprise co-ordinator.

**Tom Arthur (Renfrewshire South) (SNP):** I am Tom Arthur, the MSP for Renfrewshire South.

**Katherine Byrne (Chest Heart & Stroke Scotland):** I am Katherine Byrne, policy manager at Chest Heart & Stroke Scotland.

**Malcolm Dingwall-Smith (sportscotland):** I am Malcolm Dingwall-Smith from sportscotland.

**Alex Cole-Hamilton:** I am Alex Cole-Hamilton, Liberal Democrat MSP for Edinburgh Western, and my party's health spokesman.

**Alison Johnstone (Lothian) (Green):** I am Alison Johnstone, an MSP for Lothian.

**Kenneth Ovens (Scottish Association of Local Sports Councils):** I am Kenneth Ovens, chair of the Scottish Association of Local Sports Councils.

**Ivan McKee (Glasgow Provan) (SNP):** I am Ivan McKee, the MSP for Glasgow Provan.

**Brian Whittle (South Scotland) (Con):** I am Brian Whittle, an MSP for South Scotland and my party's spokesman on health, education, lifestyle and sport.

**Allyson McCollam (NHS Borders):** I am Allyson McCollam from public health in NHS Borders. I am here on behalf of a group of partner organisations that have made a joint written submission.

**Maree Todd (Highlands and Islands) (SNP):** I am Maree Todd, an MSP for the Highlands and Islands. I apologise for my late arrival—I came down from Orkney this morning.

**Ewen McMartin (Volunteer Scotland):** I am Ewen McMartin, Volunteer Scotland's disclosure services manager.

**Colin Smyth (South Scotland) (Lab):** I am Colin Smyth, an MSP for South Scotland and my party's spokesperson on public health and social care.

**The Convener:** Thank you. We will try to keep the discussion as free-flowing as possible, so please indicate to me if you want to contribute. Members will ask a few questions as we go. We begin with Clare Haughey.

**Clare Haughey:** I welcome all the witnesses. I will kick off. Can you provide us with examples of where sport has made a difference to communities or individuals, and tell us what evidence there is to show that it has made that difference?

**Kenneth Ovens:** I am speaking as the chair of the Scottish Association of Local Sports Councils, but I am also treasurer of clubsport Berwickshire. One of our principal aims is to support athletes at the various levels, from the very local level to international level. We award grants according to the level. We ask them to supply us with information about how successful they have been after having received that money. We also support clubs whose facilities require upgrading, and we get feedback from them on how successful their projects have been.

**The Convener:** Where do you get your money from?

**Kenneth Ovens:** We get our money from Live Borders, which is a leisure trust. There are four sports councils in the borders—clubsport Berwickshire, clubsport Ettrick and Lauderdale, clubsport Roxburgh and clubsport Tweeddale—and they are all given a percentage of the money from the pot, depending on the size of the population in the area that they administer.

**The Convener:** Is that money received direct from the local authority?

**Kenneth Ovens:** It goes from the local authority to the leisure trust, then the leisure trust gives it out.

**Katherine Byrne:** The 500,000 people who have heart and lung conditions or who have suffered a stroke often aspire not to participate in sport, but to be physically active, which is hugely important in secondary prevention of further stroke or heart attack, or exacerbation of lung conditions.

We know that there are enormous barriers to those people being physically active. Just last week, the Scottish household survey produced evidence that only 39 per cent of people who are living with long-term health conditions are able to be physically active, against the national average of 79 per cent. I want to highlight to the committee how important physical activity is to many people who are living with long-term health conditions. Although sport is important, it is very much a subset of that overarching physical activity.

**Alan Johnston:** I echo that in respect of the sport social enterprise network of about 140 organisations that I represent. It is as much about physical activity and the intention to make a difference to people's lives as it is about sport. It is hard to pick out one particular organisation. There is the issue of affordability, as well: we need to make sure that people and families can afford activities.

**Allyson McCollam:** I will continue on that theme—physical activity and the importance of widening access to it. In addition to the sports activities in the Scottish Borders that my colleague referred to, we have a number of initiatives that are promoted through partners whom we need in order that we can engage with some communities who might not be as able to access opportunities to be active. The initiatives include specific referral routes for people with long-term health conditions, and they include many more community-based activities in village halls and in local centres, which are very much appreciated by people who do not have access to leisure facilities, with transport being a particular issue in the rural areas.

We hear a lot of positive reporting back about improvements to people's wellbeing, reduction in social isolation and increased confidence. That applies across a wide age range, including older people. The understanding that sport and physical activity are closely interlinked is really important; some people become physically active then move on to being more engaged in formal structured sport of some kind. However, for a lot of people it is the increased level of physical activity that has the major impact.

**Malcolm Dingwall-Smith:** At national level, we are seeing growth in the big programmes—in governing body club membership and in active schools membership—and in the physical activity benefits and the health benefits that come from that.

At the micro level, we are beginning to see a lot of interesting work. For instance, Dalry community sport hub worked with 10 unemployed people to build up their skills. Of those 10 people, five of them went on to college, three secured places, several of them started volunteering and a couple of them have jobs now, as a result. There are large-scale health benefits, but we should not ignore the smaller benefits that come from communities looking at new and innovative work.

**Alan Johnston:** A lot of work is going on around sport for change, which the committee will be aware of. Sport for change is a good way of demonstrating the difference that sports clubs and community clubs can make in relation to things

such as employability and social inclusion. There are projects addressing homelessness, for example. The sport for change research that has recently been undertaken and the work through sportscotland, which is taking a leadership role, can only be better for communities and population health.

**Clare Haughey:** The committee is carrying out an inquiry into sport for everyone, so we are keen to highlight good work that is being done. What is the recipe for success in getting people physically active? I take on board Allyson McCollam's point about physical activity and sport.

**Katherine Byrne:** To pick up on Allyson McCollam's point about the importance of community-based support, we have about 60 groups across the country providing physical activity in a variety of forms. The groups are very much led by the local community and meet local needs. The groups might provide, for example, a walking group or a gym-based exercise class that is led by a qualified exercise instructor who can support people with health conditions. They may, for example, provide seat-based exercises for people with disabilities and older and more frail people.

One of the keys to success is very much local peer-based support—people being able to go to groups with other people who are experiencing similar health conditions and being able to build up social networks as well, which is vital in keeping them attending regularly.

**Allyson McCollam:** I will follow the theme. One opportunity for communities to work out which physical activities they would enjoy is participatory budgeting. A pilot on that with the Burnfoot community in Hawick—Burnfoot is an area of long-standing high deprivation—was quite astounding. Although the funding did not have many conditions, many applications were related to physical activity and opportunities for particular age groups or within certain settings. They included a boxing-club breakfast for kids in school and an application to purchase bikes and provide cycling classes for children who did not have those opportunities in their families. The principle behind the pilot was striking, to me; it was important to give communities the resources to make choices about the initiatives that they would like, and not to constrain the range of activity to what we might think is preferable for that community.

**Brian Whittle:** I will go on and say what I failed to say at last week's meeting, about how we speak about "sport for all". We have to be careful, because although a lot of physical activity leads on to sport, the majority of people who are physically active are not doing sport. That is why I asked last week about what we mean by "sport". As we do our investigation, we have to bear that in mind. For me, sport is competitive physical activity, and the majority of people do not do that. Jogscotland, for example, is physical activity—it is not sport. Aqua aerobics or a class in the gym are not sport—they are physical activity.

**The Convener:** Is it your view that activity is not sport if there is no competitive element?

**Brian Whittle:** Correct; sport is competitive activity. Tell me I am wrong: show me an example where that is not true.

**The Convener:** I play golf, badly. I do not play competitive golf. Therefore, that would mean that I do not play sport.

**Brian Whittle:** I disagree. You do play sport: you try to beat the course every week.

**The Convener:** What do other people here say? Tell Mr Whittle that he is wrong. [*Laughter*.]

**Malcolm Dingwall-Smith:** Sportscotland takes a wider view of sport. For instance, in jogscotland if a person runs five kilometres every week, we would say that the person is competing against himself or herself to bring their time down. People do that activity for themselves, and it is sport.

Different people view sport in different ways. The Scottish household survey says that 52 per cent of adults and 66 per cent of children have played sport in the past four weeks. That is the majority of people, but I agree that sport is not the answer for everyone, particularly when we are trying to get inactive people to be active.

Clare Haughey asked what is the secret to getting people involved in activity. The answer is that there is no secret. School environments and active schools are involving children and young people more in the planning of sport and talking to them about what they want to do. Similarly, the community sport hub model is not a programme that is imposed from above; it is based on understanding what works in each community. We heard about that from Glasgow Life at last week's meeting.

Particular groups face barriers to sport—for example, people with disabilities or older people. Each individual sport needs to understand the barriers and what can be done. Sportscotland has been undertaking that work, but there is more to do.

**Alex Cole-Hamilton:** I will pick up Brian Whittle's point about whether physical activity is sport. As a surfer and a scuba diver, those are sports to me, but I do not compete. Anyone around this table who is a runner will run for pleasure and fitness. Running is a sport—we do not go to any section of a department store other than the sports section to buy our running gear.

The competitive edge speaks to a wider issue. We heard at the start of the meeting that only 38 per cent of people with long-term conditions engage in any physical activity. That chimes with the experience on our field trips—in particular, to the Millennium centre in my constituency, where one person said that they are not engaged in sport because of embarrassment about being overweight and thinking that they would look silly in a track suit.

There is also slight anxiety about the competitive nature of sport. We all have horrific childhood memories of being forced to compete and coming off badly. That is a barrier. I contend to Brian Whittle that competition has its edge, but the elite aspect of sport can be inhibiting. I would be really interested to hear the panel's views on whether the elite aspect is a barrier—or a perceived barrier—to participation in physical activity.

10:15

**The Convener:** There are not many *Official Reports* that have sentences that start,

"As a surfer and a scuba diver". [*Laughter*.]

Would anyone like to comment on what Alex Cole-Hamilton has said?

**Brian Whittle:** I would like to comment—I am actually trying to help here. Competitiveness in sport, especially when people are young, is a massive barrier to long-term participation in sport. That is where I am. Alex Cole-Hamilton will not be surprised to hear me say that I do not mind listening to his opinion before I tell him why he is wrong.

We have highlighted an issue, in that our investigation has not nailed down what sport is—

**Alex Cole-Hamilton:** It is a spectrum.

**Brian Whittle:** For me, the fact that there is a variety of opinions on that question is an issue as regards what we are investigating. In my view, being physically active is what we should be looking at.

**The Convener:** I want to raise the issue of funding and where we should put the money. We have heard from Allyson McCollam about money that goes to community projects at the grass roots. Throughout our deliberations, the criticism has been made of sportscotland that it concentrates too much on the elite level at the expense of grass-roots sporting activity. That criticism might or might not be legitimate. I would be interested to find out from the panellists whether they think that we are putting money in the right places to get more people active.

**Alan Johnston:** I mentioned sport for change, through which a large piece of work is being done to look at sport and physical activity. Organisations including the Robertson Trust are looking to fund activity that is not just about elite sport. Mr Whittle's point about competitiveness is important, but there are also the fun and social interaction that those organisations are keen to encourage. Sportscotland is starting to recognise that it is important to fund those aspects.

**The Convener:** Yes—but we are trying to get at whether sportscotland is putting enough money into those aspects. Is the balance wrong?

**Alan Johnston:** At the moment, sportscotland is not putting enough money into that, but I would like to say that it is trying to address that.

**Ivan McKee:** This has been a great discussion. I would like to get the panel's reflections on what the objective is. There is the proportion of adults who meet the physical activity standard—

**The Convener:** Could I stop you there, Ivan? There are people who would like to respond to the funding question. I will bring you after that.

**Ivan McKee:** No problem.

**Kenneth Ovens:** The SALSC works with all the local sportscotland councils throughout Scotland, of which there are currently 38. We continually hear from them that the amount of money that they receive is decreasing every year because of pressures on local authorities and leisure trusts. Some sports councils are very good and have addressed the situation by looking at different ways of raising funds—for example, by working with companies to get sponsorship and so on—but one or two have decided that they cannot continue as they would like in supporting athletes and clubs. That is down to the pressures that they are being put under.

**Allyson McCollam:** I am not sure whether this is a direct answer to the convener's question, but it will not surprise the committee to learn that, from a public health point of view, I am particularly interested in the inequalities focus. One of the tensions that we are aware of locally is that the fact that the sports clubs and the trusts have a responsibility to maintain the facilities and premises that they have oversight of sometimes narrows the opportunities for them to engage with the wider community and provide opportunities for a range of community groups. There is an issue to do with overhead costs and the need to keep membership levels up. Maintenance of infrastructure is obviously important, but there is sometimes a tension between that and our efforts to stimulate wider engagement with physical activity for the whole population.

That is not insurmountable, but it is hard to quantify where the balance of the resources should go. It is easier to identify what is spent on sports facilities than it is to identify what funding goes into promotion of physical activity, because it is so diverse and is accessed and promoted through a wide range of funding streams and initiatives, which might not be badged as being directly about physical activity and might use the funding as a way to build skills, encourage volunteering and combat isolation. A lot of unintended benefits come through a lot of other routes.

**The Convener:** Is there a deliberate policy to skew funding to benefit areas of most need?

**Allyson McCollam:** There is not sufficient skewing. It is very difficult to do, but it would definitely be good to see more of it.

**Katherine Byrne:** Funding is a systemic issue, in the sense that it extends beyond national health service care. After someone has had a heart attack or a stroke, or when they are diagnosed with a lung condition, they are provided with an NHS rehabilitation programme. Physical activity is a core component of those programmes. People who can access rehabilitation and complete the programmes are far more likely to be physically active months later and to sustain the benefits of that, but provision of rehabilitation is patchy among the health boards. We recently conducted a survey of pulmonary rehabilitation provision across the 14 regional health boards and found that there is capacity for only about 9,000 people. We estimate that around 69,000 people across the country would benefit hugely from such rehabilitation.

**Malcolm Dingwall-Smith:** The committee will be unsurprised to learn that I have a different take on sportscotland's spend. The majority of our budget goes on grass-roots sport, rather than on performance sport. I have followed the committee's evidence taking, and I have heard a lot of references to the good work that the active schools programme and community sport hubs do. Those programmes are funded by sportscotland.

In addition, we put money directly into clubs and coaches. We invest directly in 122 clubs, and we direct funded 3,300 coaches last year with subsidies for them to take coaching qualifications. We also put money out through the awards for all programme and facilities.

The committee has heard evidence about whether money goes directly to clubs or to governing bodies and local authorities for staff. There is a balance to be struck. We can underestimate the value that an individual supporting a club can add. Especially for volunteers, who are time limited, support from a professional is sometimes of more use than direct subsidy. It is also important to note that we represent only 10 per cent of overall public spending on sport: 90 per cent of the sports budget is spent through local authorities.

**Brian Whittle:** NHS Ayrshire and Arran has an excellent exercise programme for stroke rehabilitation in the community. There is fantastic evidence that it cuts readmissions. I just wanted to point that out.

I will take up Malcolm Dingwall-Smith's point. We seem to be focusing on the sportscotland fund when the overall sports budget goes predominantly to councils—£500 million is spent that way. I wonder what the committee's view on that is. Have we looked at funding in the round or have we focused completely on the sportscotland budget?

**The Convener:** Yes, we have looked at funding in the round—several times. We have taken evidence from various people who have highlighted the huge impact that cuts to local government budgets have had on grass-roots sporting activity and the ability of trusts and local government to fund projects direct.

**Brian Whittle:** It is important that we look at funding in the round, because inequalities can probably be focused on more directly through local government funding and making it more targeted.

**Ivan McKee:** My question is related to that and goes back to what we are trying to achieve. There is a metric in the national performance indicators for the percentage of adults who meet the recommended level of physical activity. That figure has been in the low 60 per cents for a number of years. My question to the organisations that are represented at the table is this: do you see that as your primary objective, as one of your objectives or as an objective that we should not be focused on at all. Are other objectives more important? If you think that it is important, what are you doing to move forward with the resources that you have? We have talked about the 37 per cent who do not meet that objective, and in hard-to-reach and disadvantaged groups the percentage is obviously going to be potentially much higher. How does that figure in your focus?

**Katherine Byrne:** That is hugely important to Chest, Heart & Stroke Scotland. We have just launched a three-year initiative in which we will focus particularly on enabling the people whom we support to be more physically active in different ways. We will test new community support and we will pilot new ways of reaching more people and addressing some of the inequalities that Colin Smyth mentioned.

I reiterate how important physical activity is for the people whom we support. Not only does it help

them to regain their lives—some people can be literally trapped in the house without sufficient support to be physically active—but people who are physically active are far more likely to participate in their community and build a network around themselves to self-manage their conditions. They are also less likely to be readmitted to hospital and to have to visit their general practitioner repeatedly, so there are savings to be made for the NHS, as well.

**Allyson McCollam:** I had better come in quickly on the savings for the NHS, which is always a welcome message. We have heard quite a bit about rehabilitation, but I would like to highlight how important physical activity—and increasing it, especially among the most inactive people—is in relation to prevention. We know that a tidal wave of long-term conditions is likely to come at us if we do not do something soon, given the ageing population profile, the increasing prevalence of obesity and being overweight in Scotland, and the continuing low levels of physical activity among many people in various communities.

In the Scottish Borders, we are beginning to look more at the role of physical activity as a preventative measure. We are looking at introducing a diabetes prevention programme to target groups of the population who are likely to be much more at risk; physical activity is one of the main ways in which we can engage with that population and make an impact. We have run a very promising small-scale pilot that has already shown significant gains in terms of clinical improvements for the individuals in it, who have reported a lot of very strong improvements in their health and wellbeing, their social connectedness and their sense of control over their lives. We see that as an area in which there is huge scope for development. An inequalities focus in that work is absolutely critical.

**Malcolm Dingwall-Smith:** At 9.30 this morning, the latest health survey statistics were released. You are right that, there is still no statistically significant increase in adult participation in physical activity, but there has been a small increase. However, there has been a statistically significant increase in children's participation, with 76 per cent of children reaching the recommended level. It is interesting that there has been a particular increase in girls' participation since 2008, from 64 per cent to 72 per cent.

We want participation in sport to increase by more than it is currently increasing. In our large-scale programmes, we are seeing growth in sports participation. The picture is looking pretty positive for structured sport, but that is against the backdrop of an ageing population and changes in lifestyles and culture. We need to look collectively at how we can work to address that and adjust the design of sport.

Brian Whittle talked about what does and does not count as sport. We are seeing more sports clubs offering different types of opportunities; they are offering a wider variety of activities and activities that are more likely to attract people in the door. I could reel off a list of examples, but I think that you have heard about a lot of them from our partners.

**The Convener:** You mentioned large-scale programmes. Can you give examples?

**Malcolm Dingwall-Smith:** Up to 290,000 children are taking part in the active schools programme, and for governing body membership we are looking at 770,000 members of sports clubs. Those are the kinds of things that we are doing.

**The Convener:** One programme that appeared to be really successful was jogscotland, but it had its funding chopped. Why was that?

**Malcolm Dingwall-Smith:** Jogscotland is being funded.

**The Convener:** Yes, but its funding was chopped—it is now being funded via the Scottish Association for Mental Health.

**Malcolm Dingwall-Smith:** It is being funded via sportscotland, as well. It has received funding from SAMH, but—

10:30

**The Convener:** Was that a reversal of the cut?

**Malcolm Dingwall-Smith:** It was a decision to put the funding in. Initially, jogscotland was funded directly by the Scottish Government, then the money moved to sportscotland. There was then a reduction in the funding. It was intended that it would be reduced it and there was an understanding that that would happen, because we were considering the programme's sustainability. We have been working hard with Scottish Athletics on that. We believed, and had discussed with Scottish Athletics, that by the end of the previous financial year, it would be in a position to carry on without that funding, so we put a little bit of money in as a stopgap measure. At the beginning of this year, it became apparent that Scottish Athletics would not be able to continue the programme without that funding, so we put funding back in.

**The Convener:** Did that have nothing to do with political pressure?

**Malcolm Dingwall-Smith:** A number of politicians wrote to us to say that they had had discussions with their local jogscotland groups,

which told them that the programme was providing a valuable service and that it needed the money to carry on. They had identified the same gap. We welcome politicians taking an interest in local sport and raising the same issues as we heard about from Scottish Athletics.

**The Convener:** Had that intervention not been made, would you have reinstated the money anyway?

**Malcolm Dingwall-Smith:** Do you mean if the intervention by politicians had not been made?

**The Convener:** Or if the Government, or whoever, was putting pressure on you.

**Malcolm Dingwall-Smith:** The conversation that we had with Scottish Athletics indicated that the money was needed, so we put money in.

**Alison Johnstone:** I will carry on with questions about the fact that there has been little change on achieving the latest recommended level of physical activity. Mr Dingwall-Smith spoke about a small increase in the number of adults who are achieving it and a more promising increase in the number of children who are. However, we seem to have been more or less stuck since 2008. What do we have to do to increase the figure? If we do not increase it, we will have a recommended level that far too many people are not achieving. Do you have any suggestions about what needs to change?

**Malcolm Dingwall-Smith:** A really concerted effort across partners is needed on that. It is not just about sport; sport is a contributor to physical activity but not the only part of it. Physical activity includes active travel, active living, dance and play. All those different parts of physical activity need to come together. At the moment, there is a temptation to put the entire responsibility for that goal on sport, but all public sector organisations need to pull together with the third sector and the private sector if we are to make a real impact.

**Alison Johnstone:** Sportscotland's audit of the school estate showed that about 61 per cent of available indoor space in secondary schools is used during term time, which drops to 43 per cent during holidays. For outdoor space, the figure is even lower: obviously, there is a weather impact, but only 40 per cent of outdoor space is used during term time and the figure drops to 28 per cent in the holidays. We might expect that more spaces would be used more in the holidays.

Also, 73 per cent of the space that is used is under a regular extended let, and those lets are difficult for community groups to access. They require people to make bookings and to get money together for them up front. The proportion of casual use is pretty low, at 26 per cent. Why is usage so low? That space is a huge asset for us. How can usage be increased?

**Malcolm Dingwall-Smith:** A regular extended let will generally be held by a sports club or a community group and does not necessarily require up-front payment. Nevertheless, you are right: the audit showed that the level of accessibility is high. The ability to book facilities at some time is high—something like 98 per cent of secondary school facilities are available at some time for community booking, although that availability is not necessarily consistent.

Outside school time, schools are run by local authorities or, in some cases, by leisure trusts or other operators, so the challenge is potentially about the booking management systems. How can people book a casual let? In some cases, it is not as easy to book a badminton court in a school as it is to book one in a leisure centre, which is clearly a problem if we are trying to encourage accessibility. That comes down to working with each local authority or operator on how the management system can be improved, rather than just assuming that schools are not available. It is about how they are managed.

**Alison Johnstone:** You said that, if we are to tackle physical inactivity, there must be partnership working, but we do not seem to have quite cracked that yet, when it comes to access to the school estate. One reason why usage is low during the holiday period might be that janitors are on holiday. In this day and age, we must be able to get together to come up with a model that makes such facilities available all year round.

**Malcolm Dingwall-Smith:** Part of the issue will be to do with availability, but it will also depend on the model to which the school operates. Quite a lot of the schools in the Highlands are run by High Life Highland, which I think the committee has taken evidence from. That model gets round the janitor problem, because it uses a much larger staffing base. The fact that the staff can move between locations means that it is not necessary to rely on a janitor unlocking the door. Use is of the model that involves having a single janitor who is responsible for unlocking the door is decreasing. We are seeing less of that.

It is a question of working across different local authority departments with whoever is responsible for running the school—a leisure trust or a different operator—understanding the needs of the community and understanding when it is useful to have a facility open. It is not always useful to have a facility open during the day even during school holidays, because there might not be demand for access from local sports clubs even though the school is potentially available.

**The Convener:** I liked your question, Alison. We have hospital wards closing and airlines' fleets being grounded because they cannot manage holidays, and you expect janitors' holidays to be sorted out. The naivety of it!

The submission from NHS Borders talks about the school estate in the area being managed well when it comes to access.

**Allyson McCollam:** I am afraid that I am not able to comment on that in any great detail, because it is not an area that I know much about. However, I am conscious that several new schools have been built, the arrangements for which have been much more flexible, so the issue has been factored in to encourage much more community use of the range of facilities. Looking forward, I think that the situation is more positive.

**Brian Whittle:** I would like to go back a level. Does the panel agree that the best place to start tackling health inequalities is in school, because we have a captive audience there? Do you agree that, if we are to invest in tackling health inequalities, that is the obvious place to start?

I also want to ask about the impact of the withdrawal of funds for compulsory free swimming lessons. I presume that you agree that, in order to participate in swimming, it is necessary to be able to swim. However, we know that about 40 per cent of kids go to secondary school unable to swim. If we are to tackle health inequalities, is the school estate where we should start?

**Allyson McCollam:** We need to be aware of the limitations of that approach in rural areas. Although there are many opportunities in schools to improve health and to reduce inequalities, we also need to think about the family context and the community context. In the Scottish Borders, giving children more swimming lessons would not necessarily work, because not all of them have ready access to swimming pools at the weekend or outside school hours, simply because of the geography of the area.

I think that the approach should be more about emphasising the importance of physical activity for not just children but all members of the community at all ages and stages, because the family is a huge enabler of such activity and helps to set patterns. School can have an impact, but unless parents—and, indeed, grandparents and other members of the extended family—are directly engaged in the process, its effectiveness might be quite limited. If we were to adopt the approach that Mr Whittle proposes, we would write off quite a large proportion of the population, to whom we no longer have access in school and whose health could be significantly improved within their lifetime if we did other quite simple things.

**Malcolm Dingwall-Smith:** Curricular sports activity is not the responsibility of sportscotland. That takes me back to the point that I made earlier: all the partners must pull together. The issue that Mr Whittle raises would have to be taken up with Education Scotland and local authorities. That is why it is important for all the various parts of the public sector to get together to discuss how to increase physical activity and participation in sport. Some of that work has been done in the national strategic group under the active Scotland outcomes framework. However, concerning the committee's inquiry, the decisions that it takes and the recommendations that it makes, there needs to be an understanding that sport is a pretty complex landscape and that a huge number of partners are involved in the different aspects of it.

**Colin Smyth:** Allyson McCollam mentioned health inequalities. Do you come across inequalities in the work that you do? Are levels of participation—whether in volunteering, rehabilitation or particular sporting activities—lower among people from more-deprived areas? What have you done to try to tackle such inequalities? Do you even measure inequality? Do you know, for example, how many of the people who come to your activities are from the most deprived areas? Is participation simply about the number of people overall, or do you measure where those people come from?

**Alan Johnston:** Social enterprises that are rooted in the community do not gather a lot of statistics, so I am afraid that the information is more anecdotal. A lot of people look at things such as social impact, which I suppose is a different dimension. Most social enterprises are about working with people in deprived communities, sometimes because there is a lack of activity in a particular community—there could be an affordability issue, for instance. Social enterprises in this area are about addressing inequalities and ensuring that people have access to physical activity.

**Allyson McCollam:** We asked people what gets in the way of their being more active and we identified that one of the main barriers is cost. Small costs can accumulate—people might have more than one child, or they might have to pay a bus fare as well as the entry fee to a facility. It is important not to underestimate that; even with some subsidy, cost can be an enormous barrier to people participating in sport.

The growing interest in walking as a social activity is therefore interesting and important. We have talked a bit about jogging and jogscotland, and about some other sports. The paths for all programme has been really significant in engaging people from a range of backgrounds in walking

and making use of the environment around them, whether in a city or in a rural setting. In the Borders, we have at least 70 volunteers, who are supported by one part-time co-ordinator. Walking has a strong profile in the Borders, and there is a lot of engagement in it by a wide range of groups—which includes an increasing number of people with dementia—but we find it hard to gather the statistics that would give us evidence on which postcode areas individuals come from. People do not necessarily want to be monitored when doing an activity that is about enjoyment, pleasure and being active.

Our sports and leisure trusts also have difficulty gathering information in a format that would help us to look at health inequalities from a public health point of view. However, evidence shows where the greatest inequalities are likely to be; we know which communities in the local area are most affected by inequalities and low levels of activity. We can put different sources of information together, but we cannot always say which communities particular users come from.

**The Convener:** Colin Smyth mentioned volunteering. I have a question for Ewen McMartin. Are there barriers to people from deprived communities coming forward to volunteer, or problems with the number of people who are available to assist in setting up organisations?

**Ewen McMartin:** I am afraid that that is not really my area of expertise—I work on the disclosure service side of things. The wider organisation is doing work based on the protecting vulnerable groups scheme data, but I am afraid that I cannot provide any details about that.

**Malcolm Dingwall-Smith:** I agree with Allyson McCollam that the appropriateness of asking participants for certain information depends on the programme. An inactive person who walks through the door of a community sports club does not want to be asked a wide range of monitoring questions.

We found that participation in the active schools programme is 11 per cent higher in schools with most pupils from the lowest 20 per cent of Scottish index of multiple deprivation areas than it is nationally in schools overall. One possible reason for that is that the majority of activity in the programme is free, so it is potentially more appropriate in those schools, whereas in other areas more young people might pay for activity outside the school environment.

In some of our other programmes, such as community sports hubs, there are lots of great examples of activities being provided for people who could not normally afford them. At the Jack Kane centre here in Edinburgh, holiday programmes are provided free, along with free meals to tackle the problem of holiday hunger. There is great work going on locally.

On monitoring, we do not have national-level data for that particular programme. However, the data that we have gathered on the active schools programme shows that the way that we are delivering it is working in deprived communities.

10:45

**Maree Todd:** I could not let the morning go by without mentioning that this is women and girls in sport week.

We have seen a huge rise in participation in some sports in Scotland. Participation in karate and dodgeball has quadrupled and participation in cross-country running, tennis and rugby union has doubled over the past five years. Does anyone round the table have any ideas about how that has been achieved and how it might be transferred to other sports?

I say to Brian Whittle that getting women active will have a massive impact on the activity level of whole families, and that of society.

**Brian Whittle:** Correct.

**Malcolm Dingwall-Smith:** The stats about karate and so on relate to participation in those sports within the active schools programme. We did a huge amount of work through a programme called active girls, which worked with every secondary school physical education department to get a better understanding of girls' activity and to take a really participatory approach to planning it.

We have also been looking at who is coaching sessions. Getting more young women involved in coaching helps to drive up the number of women, and especially young girls, who participate, because they see role models whom they can take after and approach. As I said, the latest health survey stats show the gap closing between girls and boys in terms of the number who meet the physical activity standards, which is great to see.

Within the club and governing body sector, governing bodies of a lot of sports that have been traditionally seen as male dominated—which was perhaps not seen as a problem a decade ago—are now really focusing on participation of women. As part of the equality standard for sport framework, which sportscotland runs, every sport looks at all its policies, procedures and culture and asks which groups are underrepresented in it and why. By using that approach, which covers not just gender but disability, socioeconomic inclusion and age, a lot of sports are now developing activities that suit audiences that did not previously attend their classes or clubs.

**Katherine Byrne:** It is crucial that we become better able to identify where the gaps are and how we can best support people who are less likely to participate in physical activity or sport, and to tackle that as early as possible. For the people whom we support, that might be at the point at which they receive NHS care; for others, it might be when they visit their general practitioner with health-related issues.

**Alex Cole-Hamilton:** My question relates to the convener's question about volunteering. Brian Whittle was absolutely right when he said that we have a captive audience in schools and classrooms, but not every young person at school is adequately engaged. I am speaking from my perspective as someone who was a volunteer youth worker for many years, and as chair of the cross-party group on volunteering.

Over the past decade or so, we have seen a slow decline in youth work in this country—I mention in particular the closure of the community education department at the University of Strathclyde and the erosion of local authority budgets for detached and sessional youth work. In my experience, it is detached and sessional youth work that leads the hardest-to-reach young people to sport in the first place. Is that a rather bleak assessment? Are there examples of best practice in which youth work is flourishing in this country?

**Allyson McCollam:** I can speak only for the Scottish Borders, where we have a vibrant youth work sector. YouthBorders works with the network of local youth work groups. Those groups work in close partnership with the council's community learning and development service. That is all under the umbrella of our community learning and development strategic partnership.

We have just been through an inspection, in which inspectors spoke quite highly of the examples of good practice that they saw. Physical activity is one of the range of opportunities and skill sets that we would hope to offer young people not just for the benefit of their health, but in order to achieve a range of other positive outcomes.

**The Convener:** Is the budget there going up or down?

**Allyson McCollam:** I could not comment. I would be surprised if it is going up, but I do not think that it is going down too drastically.

**The Convener:** I would be extremely surprised. Could you let us know?

**Allyson McCollam:** Yes.

**Kenneth Ovens:** One of the indicators that is set for us by sportscotland is to encourage more young people to be involved in sport. We have taken it slightly wider than that, because not everyone takes part in sport or wants to take part in sport.

We need councils and member clubs to run sports. We actively encourage young people with different skills, for example in social media or journalism, to become part of a sports council and to learn how to run one. In fact, we now have young people involved in 12 of our local sports councils and they are doing great work for the people.

The trouble with sports councils is that because it is nearly all volunteers who run them, the average age is 60-plus. It is great to have a different view from 18 to 25-year-olds, which is the main age that we are looking for. They bring a different perspective on how sport needs to be run and what needs to be done with sport. We actively encourage people to become involved in that side of things.

**Malcolm Dingwall-Smith:** Again, I am not well positioned to comment on funding for youth services in local authorities. In the past, a distinction used to be made between youth work on the one hand and sport on the other. There is more of an understanding now that sports coaches can be youth workers, and that youth workers deliver sport. We should not necessarily draw a distinction between them. At a strategic level, we work with Youth Scotland. However, Scottish Rowing is delivering a programme in the Firhill basin on the canal in Glasgow that engages young people who are disengaged with education and sport. The programme takes a youth-work led approach.

**Alex Cole-Hamilton:** My experience of youth work is that the hardest-to-reach young people can be reached when positive relationships are established. Relationships are at the heart of youth work and, irrespective of the activity that is being undertaken, it is the relationships that germinate the interest. Relationships are important—they get young people to commit when they have perhaps never engaged or had staying power.

I am glad to hear that the distinction has been blurred between youth work and sport. If it was felt that sports coaches were the sole arbiters and deliverers of sporting education, that might have been a barrier. In fact, some amazing detached youth work is going on there, with youth workers starting street football, street hockey and late-night boxing, which introduce young people to sport who would never have had the courage or social inclusion to join a club or try out for a team.

**The Convener:** That was a statement, not a question.

**Alex Cole-Hamilton:** It was. Am I not allowed to make a statement?

**The Convener:** You could finish by saying, "Am I correct?"

**Alex Cole-Hamilton:** Or "Is that your understanding?"

**Brian Whittle:** Perhaps we could tie the issue of volunteers into the Commonwealth games legacy, and the extent to which the legacy is linked to an increase in the number of volunteers. At the end of the day, if you are going to raise the number of participants, you have to raise the number of volunteers. I am thinking specifically about a programme that worked particularly well, which was the club together programme. For the benefit of the panel, the programme paid for a part-time position—15 hours a week—in clubs. Malcolm Dingwall-Smith can correct me if I am wrong, but I think that it was funded by sportscotland, the club itself and private funding. The cost was about £7,500 a year. Again, correct me if I am wrong, but I think that that has led to an increase of about 400 volunteers into the sector and about 3,000 athletes. Was the increase in volunteers part of the Commonwealth games legacy?

**Malcolm Dingwall-Smith:** Scottish Athletics ran the club together programme, which was very successful. It built the capacity of clubs, because growing a club needs the people who run it—coaches, administrators, safeguarding officers, treasurers and so on—to be able to increase capacity, deliver extra sessions and do the fundraising to support all that. Ahead of the Commonwealth games, Scottish Athletics took the conscious approach that a legacy would need the capacity to take on new participants. A lot of athletics clubs in Scotland have had good growth.

On the wider question about volunteers and the Commonwealth games legacy, active schools have had a 50 per cent increase in the number of volunteers in the past five years. Whether that increase can be linked directly to the Commonwealth games raises a question of attribution. I think that Scottish Athletics used the phrase, "Legacy is what we do every day"—it is about all the bits of sport that are built into increasing the number of people who come through the doors of sports clubs across the country and ensuring that the infrastructure is in place to deliver.

**Brian Whittle:** Similar to the Commonwealth games, 2012 was all about increasing the number of participants. With that target to increase the number of people who participate in activity, was the need for volunteers properly taken into account?

**Malcolm Dingwall-Smith:** The answer is yes; you have given a great example of a sport that took that approach, and I know that it is not an isolated example. A large number of sports understood that they would need more volunteers if they were going to increase the number of people who played their sport. As I said, we actively qualify a huge number of volunteer coaches every year.

To support sport to grow, we need to support the volunteering arm. We do that in a number of ways, through coaching subsidies and providing training to clubs to ensure that they understand how to manage volunteers. That is important, and I am sure that Volunteer Scotland might have more to say on the matter. It is not good enough to have a volunteer walk through the door then leave them to it. A club needs an ethos that understands how to support a volunteer once they are in place.

**Katherine Byrne:** Chest Heart & Stroke Scotland does not have sporting volunteers, but I make the point that recruiting and retaining volunteers is a challenge to organisations across various sectors. We are one of the biggest volunteering organisations, with a workforce of around 1,600 people. Even then, we have to re-recruit about 400 people every year because of the massive turnover.

We have invested hugely in supporting and providing training for our volunteers, but key for us has been identifying the motivation for volunteering in the first place and playing to that as a strength. If people are looking for particular skills and experience, we try to give them that. At the moment, we are working with Queen Margaret University, which has a new degree course on physical activity and wellbeing. We will work with second and third-year students to provide volunteer placements where they will help our service users to be physically active and to participate in community-based activities.

**Clare Haughey:** The panel will be aware that the committee has looked at the PVG scheme in relation to sports coaching, particularly in youth football. How does Volunteer Scotland view the current PVG scheme? Has it had any impact on volunteering?

**Ewen McMartin:** About 266 sporting organisations access free PVG checks through our organisation; that figure includes the governing bodies that the clubs feed into. In the past year—certainly since January up to September—there has been a marked increase in applications for PVG checks, which are up by about 200 per cent. The clubs know that they have to do the checks and the volunteers are aware that they have to go through the process and are more than happy to do it. The Scottish Youth Football Association obviously had a huge increase in PVG applications, given the situation that it found itself in last year, but the Scottish Rugby Union experienced an increase of more than 400 per

cent in the same period—January to September—compared with last year.

11:00

**Clare Haughey:** What does your organisation put the increase in PVG forms down to?

**Ewen McMartin:** The media coverage and what has had to happen—what organisations should be doing and what a regulated role actually is.

**Clare Haughey:** Are you suggesting that there were sports groups that did not know that they had to—

**Ewen McMartin:** We are certainly working with a lot of sports organisations to help them understand what they should and should not be looking to PVG check.

**Clare Haughey:** Are you monitoring exactly who is currently putting in those applications?

**Ewen McMartin:** Yes, we regularly do that, and I can provide the numbers to the committee. There is no problem with that. Those show where the applications are coming through.

**Clare Haughey:** That would be very helpful, because you have raised a bit of a concern for me that organisations perhaps were not complying with PVG disclosure.

**Ewen McMartin:** There was certainly a lack of understanding, as has become apparent.

**Clare Haughey:** Who is responsible for ensuring that sporting groups and clubs have an understanding—

**Ewen McMartin:** Well, understanding is their responsibility, but our organisation is there to support them, as is Disclosure Scotland. I can provide the details so that you can see where the numbers are.

**Clare Haughey:** I am very keen to have a look at those.

**The Convener:** You said that there has been a 200 per cent increase in PVG applications overall.

**Ewen McMartin:** Yes.

**The Convener:** And there has been a 400 per cent increase from the SRU.

**Ewen McMartin:** In the region of 400 per cent, yes.

**The Convener:** I would contend that there has not been a 400 per cent increase in participants.

**Ewen McMartin:** No, I would not have thought so.

**The Convener:** Are you seeing similar increases in other sports?

**Ewen McMartin:** There have been large increases in some other sports, yes. There is now an awareness; things are becoming more apparent and organisations are trying to get their houses in order.

**The Convener:** If organisations are registering people for PVG who were not previously registered, and if they are doing that properly, with your guidance—if they are registering the right people, and therefore people who have no need to be PVG checked are not being PVG checked—we can only surmise that a large number of people who should have been checked were not checked.

**Ewen McMartin:** Potentially, yes.

**The Convener:** That is very concerning. I think that we need to get much more information from you about where applications are coming from, where the big increases are and why organisations were unaware that they had to PVG check people who presumably were taking part in regulated activity.

**Ewen McMartin:** Yes, that may be the case. I can certainly provide the numbers—that is not a problem.

**Clare Haughey:** Given the information that you have just given us, Mr McMartin, how many people did not pass PVG checks?

**Ewen McMartin:** I do not have that number in front of me.

**Clare Haughey:** That is a really important piece of information, which it is important for the committee to have quite quickly.

**Ewen McMartin:** I would not be able to tell you who—

**Clare Haughey:** I am not asking for individual names; I am asking for numbers for each organisation.

**Ewen McMartin:** Okay.

**The Convener:** I am somewhat surprised that we found out this information in this way. The committee really needs to follow up on why that information was not volunteered by Disclosure Scotland, or whoever.

**Ewen McMartin:** The information came to light only when we picked up on and dissected the data that we have had in this year.

**The Convener:** But had Clare Haughey not introduced that line of questioning, we would not have known. Was it the intention of Disclosure Scotland to write to the committee?

**Ewen McMartin:** It was certainly my intention to pass the information on.

**The Convener:** Okay. We will most certainly write to seek that information.

If no one wants to raise any final issues, I thank the witnesses very much for their attendance. We will suspend briefly for a change of panel.

11:04

*Meeting suspended.*

11:14

*On resuming—*

## Technology and Innovation in Health and Social Care

**The Convener:** Item 3 is the committee's first evidence session on technology and innovation in health and social care. We have a number of guests, and we will start by introducing ourselves.

I am a Labour MSP for Lothian, and I am the convener of the Health and Sport Committee.

**Clare Haughey:** Good morning. I am the MSP for Rutherglen and the deputy convener of the committee.

**Professor Patricia Connolly (University of Strathclyde):** I am the director of the Strathclyde institute of medical devices at the University of Strathclyde.

**Tom Arthur:** I am the MSP for Renfrewshire South.

**John Brown (Scottish Lifesciences Association):** I am the director of policy for the Scottish Lifesciences Association, which is a trade body that represents 140 companies in Scotland that do life sciences, including e-health.

**Andy Robertson (NHS National Services Scotland):** Hello. I am the director of information technology at NHS National Services Scotland. We run most of the big national systems that support the health service in Scotland.

**Alex Cole-Hamilton:** Good morning. I am the Lib Dem MSP for Edinburgh Western.

**Alison Johnstone:** I am an MSP for Lothian.

**Elaine Gemmell (Scottish Health Innovations Ltd):** I am head of project development at Scottish Health Innovations. We work with the NHS to help to commercialise innovation in the health service.

**Ivan McKee:** I am the MSP for Glasgow Provan.

**Zahid Deen (Health and Social Care Alliance Scotland):** I am digital health and care strategic lead at the Health and Social Care Alliance Scotland.

**Brian Whittle:** Good morning. I am an MSP for South Scotland.

**Professor Christoph Thuemmler (Edinburgh Napier University):** Good morning. I am a consultant physician, a general practitioner and a professor of e-health at Edinburgh Napier University.

**Maree Todd:** I am an MSP for the Highlands and Islands.

**Alex Matthews (PA Consulting Group):** Good morning. I work for PA Consulting; I lead our digital work in health and social care in Scotland.

**Colin Smyth:** I am an MSP for South Scotland.

**The Convener:** I am sorry—it was remiss of me not to mention that members might have some interests to declare. I declare that a close relative of mine works for a company that is involved in e-technology. Does anyone else have a declaration of interests to make?

**Brian Whittle:** I am director of a technology company that creates collaboration and communication platforms for organisations, including healthcare organisations. I no longer receive remuneration from that company and do very little work with it at the moment.

**The Convener:** Who would like to ask the opening question?

**Brian Whittle:** I will start with a very general question. How easy is it for new technology to make its way into working practice in the NHS?

**Professor Connolly:** There are several routes in in Scotland. There is the SLA and its help with Healthcare Improvement Scotland. There is a route through the universities—a knowledgeable small company or a very large company can get in by finding the right clinical connections. The academic groups can do that.

The problem goes beyond that. As soon as such technologies get proved or CE marked—in other words, ready for market—the barriers to uptake become very high. I think that we are quite good at setting up the initial research programmes, but I think that we are very bad at implementing our own technology in Scotland.

**Alex Matthews:** I will answer the question in a different way. Under certain circumstances, it is incredibly easy to introduce new technology into the NHS in Scotland. We have direct evidence of having worked with NHS Education for Scotland to do just that. We implemented a live system to help to manage the education and training of trainee doctors in just four months. My answer is that it is incredibly easy to introduce new technology into the NHS; it is just necessary to have the right conditions in place.

**Professor Thuemmler:** I am a little surprised by Alex Matthews's answer. My experience from years of working in the NHS is that the situation is more as Patricia Connolly described it to be. It is not really that easy to get new technology into the NHS. The more complex the technology is, the more complex the process will be, simply because of the structure of the NHS.

In my opinion, what is lacking is a comprehensive policy approach in Scotland, and we need to talk about that. We need to be more detailed in our planning of what we want, because technology is moving forward rapidly. I appreciate that Alex Matthews might have been talking about certain specific technologies that could indeed have been introduced in four months, but when it comes to key technologies that are relevant for things such as tagging, tracking, managing patients and managing pharmaceuticals, we do not have the right technologies. At the moment, we have a very difficult process for trialling such new technologies and implementing them, and that has economic implications.

**John Brown:** Five years ago, the Government launched the innovation partnership; in fact, Ms Sturgeon launched it when she was the Cabinet Secretary for Health and Wellbeing. My organisation was given the job of delivering the partnership, and we partnered about 180 companies with more than 1,000 clinicians, who were self-selecting early adopters.

The outcomes are starting to come through to the procurement level. I would not say that it has been easy—I agree with Christoph Thuemmler's remarks—but it has been a mechanism to help. Where we find a barrier is after that, even when the NHS has bought a new device. We have specific examples of that barrier; in one case, NHS procurement bought 30,000 devices that were better for patient outcomes and cheaper than existing products, but then they were put in a warehouse in Lanarkshire and there was silence. We call the issue of getting the information across adoption and spread. You can do all the research, prove that a device works and have a bunch of eager clinicians, but unless you do adoption and spread across the board, the result can be a damp squib.

**The Convener:** If those devices are still lying in a warehouse, who is held accountable for that? It is a huge waste of public money.

**John Brown:** They are not complex devices.

**The Convener:** What are they?

**John Brown:** They are drain tubes for surgery with a clever novel way of adjustment so that they are not stitched into the patient's body.

**The Convener:** Why are they sitting in a warehouse?

**John Brown:** The reasons are information not being available, the fact that people have always used the old devices and the fact that the suppliers of the old devices are quite keen not to have their market taken away.

**The Convener:** Who is accountable for that?

**John Brown:** We have had a meeting with the NHS director of strategic sourcing—

**The Convener:** Is he accountable?

**John Brown:** He is very interested in the device.

**The Convener:** The issue is not who is interested. Is he the person who commissioned that contract and who is, therefore, accountable for that decision?

**John Brown:** I do not work for the NHS but, from my viewpoint, the answer to the question is yes.

**Tom Arthur:** What sums of money are you talking about?

**John Brown:** In this example, the devices cost pennies—maybe £1.50 or something similar. It is a piece of low-tech but very useful innovation. It is patented and the NHS was very good about saying, "Yes, we will buy 30,000." However, adoption and spread is the issue; how does the information get out for whatever it is—it might be a simple piece of plastic or it might be a complex e-health system.

**The Convener:** Is the example that you have given repeated in many other areas?

**John Brown:** Yes; I could give you other examples.

**The Convener:** Will you write to us with more examples?

**John Brown:** Yes, I will.

**Tom Arthur:** You mentioned the cost. In terms of clinical application, what is the impact on patient outcomes if this method is not being used? I presume that patients are losing out.

**John Brown:** We have evidence from the NHS assessment organisation, which is called the Scottish health technology group. It has assessed the device and has written a positive report; the device was cost effective, the patient outcomes were better and they recommended it for NHS procurement. We were delighted with that and thought, "That's it," but—

**Elaine Gemmell:** I come at this from a slightly different viewpoint. I stand beside the NHS and we look at the innovation that originates within the NHS and how it can be rolled out more widely. We find a willingness to innovate; the facilities to make that happen are very good in the NHS. We can go in and work with companies and bring expertise to bear.

John Brown alluded to the fact that, once a product is available that we are looking to roll out more widely, it becomes more difficult. There is certainly an area where success is not disseminated and practices are not shared as well as they could be. Attacking this more at national level might lift some of those barriers.

**Maree Todd:** I really just have a comment. As politicians, we do not often hear pleas for things to be centralised, but a common theme in the written evidence is that variation at health board level causes a challenge on the ground, and that centralising commissioning and distribution would be a good thing. That is a challenge for us, so I wonder whether the witnesses would like to comment on that.

**Elaine Gemmell:** There is an appreciation in the community that lots of people can play a very important role. If criticism has been levied in this environment, it is that there is some confusion about the roles of organisations. Each organisation has an important role to play, and we would like there to be a co-ordinated effort to define roles and responsibilities, and to facilitate organisations coming together and working in a complementary way.

**Professor Connolly:** When we talk about centralising, many people envisage committees and large structures in the centre. The problem with centralisation, or at least with introducing similarity across the NHS, goes to front-line staff. Many of us will have experience of devices for patient monitoring in the home or the community. There tends to be enthusiasm for such things among certain groups, who can see cost or time savings—there tends to be what we call "pilotitis", where everyone wants to pilot a bit of something—but I have to say that we tend to get kick-back from front-line clinical people. That is partly because digital medicine, e-health and personal monitoring are very challenging. They challenge both the clinician and the patient—and they monitor both, too. If a community group tries to introduce something without having a mandate for doing so and several nurses in the group do not want to use it, it will never be adopted. There will be no uniformity, and it will be very difficult for that group to get the business change mechanism.

For example, I have a device that saves time on wound care. However, unless a nurse uses electronic nurse management to manage their day and says, "I don't need to see that patient because the results say that it is okay, or it is diabetes or blood pressure," the current paper-based system, in which a nurse takes their bag out for the day, makes it very hard to change things. Digital technology is making fundamental changes to everything from diary management to who picks up results and who monitors what is happening. It is introducing centralisation and similarity, but in a different way.

**The Convener:** More pilots than Ryanair, perhaps.

**Elaine Gemmell:** Yes. It is also very important to ensure that we look at requirements and that things are implemented across the board. It is very easy to implement something that is suitable only in a small geographic area. If implementation is opened up to a much wider area and it is managed coherently, we can ensure that the solutions that are put in place are suitable across the board rather than just in niche areas.

**Andy Robertson:** NSS spends a lot of time doing centralised activities. To take Alex Matthews's point, certain conditions make things a lot easier when new innovations and technologies find their way to NSS. For example, it is easier when there is sponsorship by national bodies and when connections are made back into all the different health boards that are looking to deploy such technologies.

We have a proposal, which we put in our written submission, for a service that might support a single process—a funnel, if you like—for new technologies to find their way to the front line and provide the support that such initiatives require.

11:30

It is a question of being able to get beyond procurement law and beyond governance, and of being able to get the funding for implementation and the support models that go with it. Funding for the tail needs to be obtained on an on-going basis. Often, funding is provided for the initial deployment of a new technology, but in order to run that technology for the health service, five or 10 years' worth of funding needs to be made available to support it. The boards struggle on a daily basis with the sheer volume of the demands that are placed on them, and they need to be helped to implement change as they do the day job. Some central support needs to be provided. I do not think that we are saying that a central organisation should deliver the new technologies, but there is certainly a role to be played in supporting the boards.

**The Convener:** What you have described appears to be a very cluttered landscape involving numerous hurdles that have to be overcome before a new technology gets to patients. Given the speed of technological development, are we not in a position in which much of the technology that is implemented will be yesterday's news by the time it has got through that whole tortuous process?

**Andy Robertson:** Many of the controls that are in place are there for fairly good reasons; they are to do with things such as value for money, sponsorship and the willingness of boards to deploy. John Brown gave an example of the fact that there is no point in us buying new technology if the health boards are not willing to deploy it. We cannot control that, but we can certainly support the introduction of such technology. However, that takes time.

I am sure that I am not telling members anything that they do not know when I say that the NHS is an extremely complicated organisation. It covers many different clinical disciplines and comprises 22 health boards and 170,000 employees. There are 3,500 different locations on the end of our network. I can understand why people would have the impression that there are many hurdles, but that is because of the organisation's complexity and the governance structures that sit underneath it.

**The Convener:** Could all of that be radically streamlined?

**Andy Robertson:** I think that it could be.

**The Convener:** Is there a willingness to do that? Is there evidence that that is happening?

**Andy Robertson:** I think that it is happening in places. Alex Matthews touched on this earlier—it is probably wrong to create the impression that nothing new is happening in technology in the NHS. That is extremely unfair. We are currently working on a number of things on a number of fronts.

**The Convener:** I do not think that anyone is suggesting that.

**Andy Robertson:** No, but committee members could perhaps come away with the impression that nothing new is making it to the front line, and I think that that is not true.

**Professor Thuemmler:** I understand everything that Andy Robertson says, but the problem is that new technologies evolve, and they evolve on a global scale through globalisation. I understand that the NHS has all the problems that have been described, but the technology developments that we are talking about will not wait for the NHS. We need to find pathways that will help us to evolve and develop such technologies in Scotland for economic reasons, and then implement them in the NHS. We cannot take new technologies from a grass-roots level into the NHS and wait until they evolve at the speed of the NHS because, by that time, they will be yesterday's news, as the convener said. That will never work. We tried that in the past, and it did not work.

**Andy Robertson:** There are risks in throwing 200 pilots at clinicians who are up to their necks in high levels of demand and who already have to deal with technologies that do not integrate with the existing platforms. Introducing a level of change that interferes with operational delivery will not help. There is no single right or wrong answer. We need to get the balance right. To respond to

Neil Findlay's point, there is an opportunity for us to look at how we streamline the process and make it more effective than it is at the moment. I am not denying that there is a need to do that.

**Elaine Gemmell:** We have touched on the length of time that it takes to develop such technologies and how quickly they change, but it is also necessary to look at how long it takes for new devices and technologies to get regulatory approval for implementation. At the moment, it takes an inordinate length of time for an examination of a technical file to be carried out. A company could have all the evidence ready to get something on the market as a CE-marked device, but it might have to wait six to nine months for a notified body to come and do the approval process.

**Ivan McKee:** First, the convener's interaction with John Brown about the new devices that are stuck in a warehouse may get to the core of the problem. The initial reaction was to ask, "Whose fault is it? Who do we blame? Who bought this stuff that nobody is using?" Surely, the person who bought the stuff was doing the right thing by taking a risk, which is a key part of innovation. The problem is not there; the problem is with the roll-out of the stuff and how to engineer that. If we go back and blame the person who bought it, nobody else will buy anything new ever again, which will mean that we do not move forward. That mindset is critical to moving the innovation agenda forward, in my experience.

Secondly, there are ideas about innovative technologies that I assume could save money, make processes better and more efficient and mean that people get through the lists quicker—I assume that they tick all the boxes that health board managers would want to deliver on. There is no shortage of health board people who come here and tell us that they have not got enough money and resources to do stuff. If they are under that pressure, you would think that they would fall over themselves to adopt ideas or products that make things more efficient. Something is clearly missing in the chain of how people see their role as health board managers or directors that means that they do not grab that stuff and run with it. It might be their awareness of what is going on or their ability to execute policy in their boards. The panel may want to comment on that.

The last question that I will throw out is on what Elaine Gemmell talked about. Can somebody map out for me the pathway for innovative ideas? If I am a health service employee who works in a ward and has a good idea—probably not a high-tech idea, but perhaps an idea about how to reorganise the way in which things are laid out, do something a bit differently or change the information flow—how do I get that idea through the process? Who do I talk to and what do they do with it? Where does it go and how do we trial it? Unless you have innovation and continuous improvement bubbling up from the bottom, and unless people feel that their good ideas will be taken forward, you will not innovate or make improvements.

**The Convener:** The witnesses have only 43 questions to answer. [*Laughter*.]

**Ivan McKee:** I have waited for 15 or 20 minutes to get in, convener.

**The Convener:** Everyone wants to get in—that is the issue.

**Elaine Gemmell:** I will address the last question first. Scottish Health Innovations was set up in 2002 specifically to work with the health service to identify innovation that happens in the health service. When we started, we asked people about innovation and they told us that they did not innovate because it was not their job. Over the years, we have used evidence to build a pathway for them to get those ideas through. Four of the major health boards are represented on our board, and we work with the 14 health boards under a service level agreement. We have a relationship with each health board's research and development department, and, if an employee has a good idea, the first port of call will be their own management, who will direct them to the research and development department or, in some instances, to Scottish Health Innovations.

We will evaluate the idea to determine whether it is useful and innovative. If other things might answer the same question, we point people in their direction. If it is truly an idea that should be developed for better patient care or better ways of doing things, we will pull together a team of people to take the innovation from the first idea right through the whole process. We will help with advice and resource and, eventually, by finding partners who will take it on to the market.

**The Convener:** Does that address the issues that you raised?

**Ivan McKee:** I am happy with that answer. Are there any comments on the other issues that I raised?

**John Brown:** I have talked about the 1,000 clinicians who work with 200 companies. They are the early adopters, but they are busy clinicians who see the point of innovation and want it. They are also happy to work collaboratively. The other people who get it are the top management of the NHS. Paul Gray, the chief executive, had a career in Government IT and really understands the issues.

One block or barrier is a lack of management support for innovation, which is not yet in the job

description of senior managers in boards. Those 1,000 clinicians do this work off the end of a busy workload. Rather than rely on their goodwill, the healthcare system needs to fund a bit of clinician time to work on innovation with collaborators. That happens in many places, but it is not done yet in Scotland. The work relies on altruism or on clinicians who are interested in innovation for its own sake and find it enjoyable to work with companies to develop new products, but you cannot depend on that to create a system that will pick up innovation and implement it across the board.

**Christoph Thuemmler:** We are speaking a lot about the NHS and what we can do within NHS structures, but it is also important to consider parallel universes. For example, at the moment, there is a lot of discussion about information technologies, mobile technologies and other new communication technologies such as 5G. Those technologies are the future. On a European level, they are being pushed forward, and there will be early prototypes in America in 2020—they are already on the way.

Those technologies will be essential to the way in which we will treat patients over the next decade or the next 20 years, so we need to talk about them. What we are doing at the moment is good—we are talking about the NHS, what is working or not working and how to get innovation out of the NHS—but we also need to look a couple of years into the future, otherwise we will all be on the back foot.

England invests double-digit million figures in that technology, whereas we have not a penny available in Scotland at the moment, so we are completely cut off. Those things need to be discussed. You cannot look at health technology as a single standing issue, because, in the future, we will treat more and more patients outside hospitals—that is a fact. When we do that, there must be connectivity with the point of care, which will shift out of the NHS and into the patient's home, so we need communication technologies to connect in order to deliver the next generation of healthcare. It is important to look a little bit ahead rather than discuss what has happened over the past few years and where we stand.

**Alex Cole-Hamilton:** I am interested in how decisions are made about adopting tech in the health service. During the summer recess, Alison Johnstone and I made a fascinating visit to the cancer research centre at the Western general hospital in Edinburgh, where a guy was testing drugs with a new machine that looked like a fish tank. It cost £250,000 and allowed him to do his job 67 times faster than he used to do it because of the number of drugs that he could test in a day. That led me to wonder about the parameters that are put around decision making on such technologies. What is the fulcrum over which a decision is taken to invest in that kind of tech or innovation against its not being cost effective?

I am conscious that we do not operate in a vacuum. Tech companies are lobbying clinicians and decision makers to choose their brands and are extolling the virtues of their machines. Can I have some views from the panel on how those decisions are currently taken? What parameters are used to decide, and are we getting it right?

**Professor Connolly:** I wanted to follow on from what Christoph Thuemmler said. We must be cognisant of what is going on elsewhere. Apple now has a complete med tech division and is promising such innovations as glucose sensors on its watches. There are commercial developments that patients want to access, and they will push us hard. Justine Ewing mentions Push Doctor in her submission. With Push Doctor on your phone, for £20 you can get a face-to-face consultation with a qualified GP and a prescription if you need it. I read every weekend about the locum problems all over Scotland and the millions of pounds that are being spent on locums, and I wonder why we cannot take some subscription to Push Doctor for patients through NHS 24. That would probably get rid of many of the actual go-and-see patient problems.

Those are commercial developments, and I know that it is a bit taboo to be considering them. We are rightly proud of our NHS, but we must look at areas where companies have developed the right solution rather than do it from scratch. That is true for much of the home monitoring, which is another area that we will come on to.

The other thing that we are falling behind with on that side is our innovation pipeline. We are not funding devices and med tech development in Scotland as we should be. I work with people around the world—in Hong Kong, Singapore and the United States—who are building up large wealth packages because they are developing companies and research projects together. We really have fallen behind.

11:45

Going back to Alex Cole-Hamilton's question about decision making, if a company has a very large piece of equipment such as a surgical robot, it can apply to the health boards. It would need very good cost-saving arguments, but big companies perhaps can do that. It may be worth talking to companies such as Medtronic about that.

With small and medium-sized enterprises and more day-to-day stuff, it depends on whether they have clinical opinion leaders and whether they can

push through clinical barriers—people's natural resistance to changing their way of working. Imagine that a big organisation is trying to roll out a piece of human resources software. In the NHS, everyone gets to try the software and say, "I don't like it. I'm not using it in my job." We might have a complex clinical management need, but everyone is empowered to say yea or nay to new pieces of technology, so things become difficult. That is a natural human reaction—I understand that push-back.

**Zahid Deen:** On innovations that come from elsewhere, we must recognise that, although the third sector is a major innovator in both digital health and digital care, there are few—if any—examples of its working with or connecting into the NHS and social care. That is partly because it is seen not as a partner but as a safety net, whereas it actually provides a third of social care services and does a huge amount of clinical research. That issue could be addressed by giving the third sector a seat at the table, including on decision making. It needs to be considered as part of the fold, not as an afterthought.

**Andy Robertson:** The answer to the question is that adoption is highly situational—it depends on the technology and the linkage into the clinical community. A new piece of technology is normally picked up by clinicians. If a national organisation is involved, technology has a better than average chance of being adopted, but governance of the adoption of new technology is, by default, at the board level. If a decision is made to adopt something nationally, a layer of national governance will be put in place to oversee its deployment board by board. If a piece of technology passes that initial threshold—if it is picked up by people who are willing to sponsor it through the health service and push for it to become a national programme—things become a bit more straightforward.

**The Convener:** There is a rough guide to lobbying in the NHS and getting products through the system.

**Andy Robertson:** I am sure that there is—or there should be.

**The Convener:** You just gave us it.

**Alex Matthews:** I will not comment on the decision-making process, but we need to recognise that, although it is often easy to identify ways to save clinician time, translating that saved time into a cost saving is complicated. At the heart of the issue is the ability to take a clinician time saving and translate it into a better balance between health and social care that achieves a shift away from hospital, residential or locality-based care towards care in people's homes, whereby people take more responsibility for their own healthcare and start to self-diagnose, self-treat and engage a little more in their care.

**Alex Cole-Hamilton:** I am grateful for that. Committee members are all too aware of pharma companies' efforts to lobby MSPs to exert such influence as we have on the Government in respect of its dealings with the Scottish Medicines Consortium and the licensing of drugs. Tech in the health service is commodity based—it is about selling goods to the health service.

Last year, the Parliament passed the Lobbying (Scotland) Act 2016, which will tighten up the rules on lobbying parliamentarians. How pervasive is lobbying from tech companies that are trying to sell their equipment to the NHS, and how effective is that lobbying?

Andy Robertson talked about the situational aspect of adoption. Where do we need to tighten up the rules in that regard?

**John Brown:** Before I respond to your second point, I want to respond briefly to your first. It is about adoption and spread. Your example is about adoption; the issue is spread. To go back to Andy Robertson's point, as long as that happens board by board, it will not be easy.

A once-for-Scotland approach would be a great step forward. If NHS Greater Glasgow and Clyde, which is the biggest health board in Europe, decides that technology A saves it a lot of money, why do the other 13 boards get to say, "We're not interested"? That happens; it is the sort of thing that we get all the time. A once-for-Scotland approach—

**The Convener:** It might be that NHS Greater Glasgow and Clyde is wrong.

**John Brown:** It might be, but it will have evidence to back up its decision.

The current approach leads to siloisation. We are a tiny country. The NHS in Scotland looks after a population that is smaller than that of Yorkshire, and the current approach is not optimal, at least in terms of the uptake of new technology.

A big global company with a big budget can afford to lobby. One of the things that drive me is the Scottish economy, and Scottish companies are nearly all small companies and cannot afford lobbyists. They develop stuff and work with clinicians, and they do what they can to spread the word about what they are doing. I agree that hard lobbying by big pharma—we have big pharma members—can be counterproductive; sometimes big pharma deserves that.

Most Scottish companies are trying to develop a home market. If, when their salesmen go to the United States and are asked how many of their products they sell in their home market, the

answer is “none”, the people in the US say, “Well, why should we buy it?” Most life sciences companies in Scotland are small or medium sized and do not lobby, because they cannot afford to. Rather, they work with clinicians to try to get the message across.

**Alison Johnstone:** Professor Thuemmler, you talked about how essential connectivity will be in future if we are to treat more and more people away from traditional clinical settings. Concerns have been raised about security and privacy when it comes to sharing the electronic patient record. In your submission, you referred to

“Bad press related to unauthorised data dissemination, for example the case of the Royal Free in London which did pass on rich patient data to Deep Mind”.

PA Consulting received some negative press a couple of years ago regarding the uploading of data sets on to a Google tool, and potentially uploading patient data to offshore servers—I know that you maintain that you safeguarded that data appropriately.

People have concerns about privacy and security. You said:

“Central databases are susceptible to malignant attacks such as ransom attacks”.

You also said

“A comprehensive merger of all existing information into one centralised data base will be almost impossible.”

You described a tendency towards

“Uncritical and uninformed procurement with excessive spending on technology consultants”.

It seems that there is a lot that we are asking the NHS to get its head round—we are almost asking it to be in the vanguard of digital security. Do we have the staff to do that? Are we training people appropriately? Are we always going to be running to catch up?

**Professor Thuemmler:** Thank you for the question. We all know that there are issues to do with security—I need only remind you about the WannaCry attack. Of course, these are the risks and issues that go with centralised databases.

If we are talking about the electronic health record, the question is this: what do we have in mind? What are we looking at? The future is not the electronic health record, because we still have and will always have—even more so in future—distributed databases. They are growing everywhere like mushrooms—at the different NHS trusts, at GP practices, at dentists, at pharmacies and at physiotherapists. The problem is that we will always have distributed databases rather than a database that sits in one computer. That is not so bad, actually, because it gives a little bit more protection. Imagine if all that data were in one supercomputer. Even if that machine were mirrored into different locations, if it came under attack, it would be a huge problem. You do not necessarily want that. That is why we will see more and more distributed healthcare and, consequently, more distributed databases, and that is why we need modern communication strategies. That is extremely important. I cannot stress enough the importance of the developments around those new technologies—5G and so on.

In answer to your question about how many staff and how much effort and so on we need, I am not telling you anything new when I say that the NHS is a 70-year-old organisation that works in almost the same way that it worked back in the 1940s. Of course we need to think about new strategies for managing it. We have to look into how the big technology companies, such as Apple, do these things. Big organisations such as Apple and the pharmaceutical companies are basically going into the health market—industrie fordert so. Those organisations do not want to sell technology devices; they want to provide services in the future. We have to get our head around the fact that in the future many services will be provided by third parties and integrated in organisations such as the NHS. Therefore we need a new strategy and a new structure—it is inevitable.

**Andy Robertson:** I agree with Professor Thuemmler that the electronic patient record needs to be distributed; that is precisely the policy that we have been pursuing for some years. There is currently no one big central database for the health service. The WannaCry attack—which I came to the committee to explain the details behind—had nothing to do with databases and how data was distributed.

We have been pursuing a policy for some years now on these technologies, but it is very difficult for us to pursue the things that 5G will bring to bear when some parts of the country do not have 3G and some parts do not have fibre to the cabinet. As we try to keep up, we have to consider that to some extent there is a least-common denominator with the NHS.

With regard to the companies in other countries that are investing, we put 2 per cent of our NHS revenue into IT, but the US, where Apple and some of the bigger companies are, is at 6 per cent and above. In general, we are struggling to keep the lights on with the complexity that we already have. Innovation brings another layer that will need to be funded and supported from a change management point of view.

I am happy to explain what we have done in terms of the architecture of the systems in Scotland. We have not pursued the Big Brother approach of having a big centralised database. We are trying to move things to the cloud and

adopt the new technologies, but it is complex and is going to take us time.

**The Convener:** I saw Professor Thuemmler smile wryly when Andy Robertson said that the WannaCry attack was not a database issue.

**Professor Thuemmler:** It is true that the problem was that the Microsoft files were not updated, because the update patches had not been loaded. It was a database problem, although not one caused by a technical issue; it was caused by human error because someone had not updated.

I agree with the point that Andy Robertson made about spending on IT, although the absolute figures that the NHS spends on IT are quite significant. Where I struggle to agree is when he says that we cannot think about 5G when some parts of Scotland do not even have 3G. That would mean that we would always live in the past, and Scotland could never evolve to top technology simply because it does not have 3G in some areas. I would dispute that, because we need to play in that upper league in order to give our technology SMEs a chance. They cannot develop if we do not have the infrastructure. It is not necessarily an NHS issue—the problem lies in digital. We put a very strong emphasis on health, but we also need to talk about digital health. Where is our infrastructure? How can we convince the telecoms operators to provide technologies such as low-power wide area networks? They have that in England but we do not—why is that? In a way, that holds us back.

12:00

**Alison Johnstone:** Mr Robertson, do you think that spending only 2 per cent of revenue on IT is inefficient? Does that have to increase?

**Andy Robertson:** It inevitably needs to increase. The strategy for the digital transformation of the health service is under development right now—it is due in December. We are at the stage at which you have to invest more in IT to get returns in your business. That is not to say that the NHS has to spend more, but I think that we have to spend more on technology and innovation in order to fund the service transformation that has to take place.

**Brian Whittle:** I am interested in the adoption of technology in the Scottish NHS compared with its adoption in the global marketplace, because technology is never developed just for the Scottish market. With that in mind, we have developed a digital health and care institute in Scotland that was specifically designed to enable the testing of new technology followed by its adoption by the Scottish NHS. Do panel members have any thoughts about whether that has been productive or whether there something is else that it should be doing? Should it be working differently?

**John Brown:** I will answer the last question first. We have been tracking the work of all the innovation centres over the past six years. Three of them are in the life sciences area, including the DHI. We talked to our members in digital health, one of which—Sitekit—is based on Skye. Campbell Grant, its owner, was part of the DHI board at the beginning. I will speak carefully because I know that I am on the record, but let us just say that the innovation centres have not delivered the economic benefits that the Scottish Government wanted them to deliver five years ago. There are reasons for that, which I can go into in detail.

The Scottish economy is another aspect, along with Mr Whittle's point about comparison with other healthcare systems. Some of you will know that new mothers get a post-natal document called the red book. About three years ago, Sitekit, which is based on Skye and has an Edinburgh office, developed an e-red book and tried to sell it to NHS Scotland. The lead clinician loved it but procurement was an issue.

Campbell Grant is now selling that e-red book very successfully to English health trusts. They seem to have managed to get to a place where they can take on such innovations, and Campbell has now opened an office in London with a lot of software engineers. He is a proud Scot; he comes from Skye and I do not think that he is going to move his company to London soon, but—as our submission says—if we do not crack the issue within the next few years I do not think that we will have a digital health sector left in Scotland. It will go where the market is.

**The Convener:** Maybe you could write to us to follow up the issue of why those innovation centres have not delivered.

**John Brown:** I am happy to do that.

**The Convener:** Does anyone else want to come in on this issue?

**Professor Thuemmler:** We have dealings with the DHI, the basic idea of which is good. I also want to be careful here. At the university level, we are involved in global 5G research. I am the convener of the health vertical at the Institute of Electrical and Electronics Engineers, which is a worldwide engineering association with more than a million members. I am also the convener of the health vertical at the 5G Infrastructure Public Private Partnership, which is a European initiative. We are linked into that, but the contributions so far to any 5G work at Napier is zero—zero from the Scottish Government, and zero from the DHI. I know that Strathclyde is also struggling.

As I said, the money that goes from the English Government to English universities looks completely different. We are talking about a first wave of double-digit figures in the millions, with the prospect of hundreds of millions over the next year being distributed to three universities. In Scotland, the investment is zero. I hope the situation will change, but that is where we stand.

**Clare Haughey:** I want to pick up on a point that Patricia Connolly made earlier. It sums up some of the discussion that we have had today about how, although we can procure a lot of this new technology, getting staff and clinicians on the ground to use it can sometimes be challenging, even if we adopt a once-for-Scotland approach. If we have so many local variations, even within health boards—some surgeons operate in one way and some operate in another even within the same department—how do we get clinicians to accept and adopt new technology and use it in their practice for the benefit of the health service and their patients?

**Professor Connolly:** Business change is a real issue and the NHS needs to address that. We have been doing some work with John Jeans, who advises the Prime Minister's office on medical technology and chairs the DHI. He is very medtech savvy and has been around the industry for many years. We have been looking at some of the things that are coming up.

People are busy in the NHS. When someone wants to save time by putting in more monitoring that patients can use for themselves in the community, there is really nobody with the expertise to do that. I would create a team in Scotland to fund the universities and work with them to bring on their companies and technologies. It would analyse the situation and spend some time and money on changing, for example, management at home or diabetes chronic care.

We need to send in a business change team as well as the clinical team. When something is implemented well in a small community, it can be rolled out and mandated as the way to do things, once it has been proved that cost savings have been made in the area.

I am sure that, like me, Christoph Thuemmler and many others have talked about this many times. How do we get over the barrier? It will mean taking a different type of look. I would also get providers—the Apples and Googles and so on—involved. There might be some incentive for them, or some funding could come from them. They could make money in lots of different ways, such as from adverts rather than from selling services directly.

If people are happy using social media and different types of monitoring to interact with some of the big providers we should not be afraid to start thinking outside the box about how we make savings.

**Elaine Gemmell:** It is also important to understand that certain requirements have to be satisfied. We must not underestimate how important it is for the end users to be part of the development process. They have to be on the ground and invested in the innovation as it moves forward. That means that you have an invested stakeholder who wants the innovation to be a success.

You then have key opinion leaders who can take innovation and roll it out to their colleagues. They can underpin all the—

**Clare Haughey:** I am sorry to interrupt you, Elaine, but you are using a lot of jargon—"key stakeholders", "end users" and so on. Could you use plain English, please?

**Elaine Gemmell:** Apologies. People who are going to use the technology need to know why it is useful for them. What will it do for them? What improvements will it make for them?

If they are involved in the process of developing that new technology, rather than having a solution imposed on them, they will be much more likely to be invested in using it.

**Clare Haughey:** Are you talking about clinicians or patients?

**Elaine Gemmell:** For this particular question, I am talking about clinicians, who will see a benefit from it.

**Clare Haughey:** How do we do it, then? I suppose that the committee is looking for some answers.

**Elaine Gemmell:** We talked earlier about there being lots of people in the innovation landscape who can brings lots of different skills to bear. It is important to realise that the NHS also has a significant role to play in that and should be part of a development team. The technology in industry and SMEs is part of the jigsaw puzzle, but the clinicians in the NHS, working from the inside out, also have a role to play in showing what will be required in infrastructure, training, how technology will fit with current practice, and any changes to care pathways. If clinicians are in at the beginning, the technology will develop in a way that is helpful for the people who are going to use it.

**Zahid Deen:** The people who access the services also need to be at the heart of the process, so that we build solutions that address real rather than perceived needs. That is called co-design: it is an approach that understands

people's needs and involves them in creating services, rather than build something that no one is going to use. We have a great example of that in our project called our GP. We have collaborated with more than 1,000 citizens and practice staff in creating three innovative GP digital services, which are there for potential implementation.

Thinking about adoption, we need to consider the awareness of digital health and care among the public and ask what people know about it. In England, where they have made access to GP digital services pervasive, there is still very low take-up, because most people do not know that those services exist. We must consider marketing and what will happen to raise public awareness and change the way in which people think about how they access the NHS.

We must also consider what we will do about the digital skills that people need to access services. The fundamental statistic is that a third of people with long-term conditions do not use the internet. How will we bring them on board, and how will we do that in a way that does not increase or exacerbate health inequalities?

We can consider structures, clinicians and the NHS, but until we involve and consider people, we will not solve the problem.

**Alex Matthews:** I agree with everything that Zahid Deen just said. We have started to pull out some points from Clare Haughey's question and we have come to the point that Patricia Connolly made earlier. The technology that we need to deliver better health and social care is becoming increasingly commoditised and as a result is becoming easier to buy. That has moved the focus on to the other things that we have been talking about, such as decision making, technology selection and work to develop and implement the technology and deliver the business change around it.

One of the things that we see most commonly is that the skills, capability and capacity to do that work are not readily available in the NHS and other health and social care organisations. For me, the key is, first, to ensure that those skills and capabilities are made available, so that we can do the work to select and implement the technology, and secondly, to build on that on an on-going basis, so that health and social care organisations can take responsibility for delivering technology themselves. At the moment, that is something that does not happen as much as it should.

**Professor Thuemmler:** You make a very important point. It is clear that the NHS as such does not have many of the skills that are needed to come up with the technologies that we are talking about and envisaging. We need to somehow build those collaborations with the skills that we have in Scotland. We have excellent universities with departments that have skills that could be more than useful to development and implementation but we are not making enough use of those skills and resources that we have. It is important that we bring together the resources and skills that we have in Scotland to manage the processes.

**John Brown:** I want to pick up on Ms Haughey's question and I am afraid that I am going to use a bit of jargon. There are two barriers, one of which is called clinician autonomy: the doctor can take the decisions that she or he thinks are the right ones for the patient, no matter what. You might say, "This new way of doing it is much better and it costs half as much", but the doctor might say, "That doesn't matter. This way works, I know it works and I am not going to change my mind." That is not an insurmountable barrier, but you have to know that it is there in order to work out how to get past it.

Another barrier is service redesign. Many new technologies and innovations need the whole process to be redesigned. Christoph Thuemmler said that we need expertise in taking on innovative systems, but I would go further. The previous chief executive of NHS Scotland said to me, "This is like trying to redesign and rebuild an aircraft while it is flying." Doing the service redesign while the service is still helping patients is a very tough job.

However, I see well why you are looking for solutions. One idea with which we have toyed is that boards should be given, dare I say it, an aspiration—I will not use the word "target". Somehow or other, the adoption and spread of innovation should be part of what boards are expected to do and, if they do not do it, questions should be asked. At the moment, that does not really happen.

12:15

**The Convener:** I will come back to that point in a minute.

**Professor Connolly:** I will echo what Zahid Deen said and talk about the users. If we look at the adoption of technology for self-monitoring, we find that when we put such technology in patients' hands it is well received.

In our submission, we mentioned the piloting of NHS Florence. All that somebody needs to do to be monitored by the Florence app is to be able to text and answer some questions or take a fairly simple measurement on an instrument. Overwhelmingly, the patients really like the system, whether they are monitoring diabetes, blood pressure or heart failure. We have also tested it a little bit for wound care. However, it is becoming difficult to disseminate the app because

it pushes the clinicians into a different way of working. They need to decide who will look at the Florence results and who will talk to the patient if they need to talk to a clinician.

There are barriers for patients. One is that we are not providing them with access to such technologies to find out how they can improve—and how their mental wellbeing improves, too, when they feel that their chronic condition is being monitored.

**Maree Todd:** I will ask about some of the cultural barriers to the use of such technology in the NHS. I was looking particularly at the attend anywhere pilot. I am a Highlands and Islands representative and it is key that we cut down on journeys to hospitals for routine out-patient appointments. We need to do that systematically. It will save us huge sums of money and save us flights. As a busy working mum, I know that it will enable people to be a lot more productive while they interact with the healthcare system. However, I am disappointed to see that only one patient was enrolled in the pilot in six months.

The technology is not new at all and it is not difficult to use. The barriers must be cultural. There must be barriers among the patient group, who expect to go to see a doctor face to face, and barriers among the doctors, who like to have patients in front of them. The savings and improvement in service are obvious and the technology is not even new, so if we cannot get people to adopt new technology for the attend anywhere pilot, how will we get them to do that for anything?

**Andy Robertson:** I am familiar with the attend anywhere pilot. It has not been that bad. I think that the example that you got from one of the submissions was a particular surgery where there was uptake of only one, but it has proved quite popular with clinicians.

It is helpful if we can identify technologies that become popular with the clinicians, who then have to amend their back-end way of working. That is the business change element that we spoke about. Clinicians see the attend anywhere platform as being helpful to them in the short and long term, especially in remote and rural locations, where such contact becomes quite critical. In fact, we have taken that technology and put it into secondary care now: GPs are using it to contact secondary care clinicians to help them with the assessment of patient results.

There is an inevitable march of technology when we put such measures in place. Admittedly, the attend anywhere platform is not advanced technology, but it is a big step forward for a GP who is trying to manage a broad base of patients. Some patients like it, but some like going to their GP, if that is the point that you are making about culture. However, we need to stick with such technologies and ensure that they are available and that we give patients choices as technology is adopted throughout the country. It would be wrong to give up on such innovations and put them on the back burner.

**Zahid Deen:** Maree Todd raises an interesting point. We should not just dump technology on the NHS, on clinicians or on other people. A lot of investment is needed in change management and the softer stuff—the cultural change that is required, the training and the time to understand the technology and how to use it properly. It is about changing processes and changing thinking. That investment is not taking place; it needs to happen across the spectrum. We are just putting money into the hardware and the software; we are not putting it into those softer elements, but the success lies in doing that. We have lots of innovation and technology, but it has not been rolled out and it is not being used.

**The Convener:** We have taken evidence on NHS governance, which is another area that we are looking at, so we know that in the current climate, where budgets are declining, people have less time for training and for doing things like this. What we are hearing here ties in with the evidence that we have taken.

**Professor Thuemmler:** Just a word of warning on the systems that we are talking about here—telemedicine, basically. There is a problem, in that medicine is not only see, speak and hear. Medicine is touch, feel, and smell—everything. I can say from a physician's perspective—indeed, a GP's perspective—that if I can only see a patient I might miss out on a lot. I love patients to be close by so that I can assess them through touch, feel and so on. I can then make an assessment and go through a whole process so that I can really get a result.

However, there is progress on that front. We are talking about things such as the tactile internet, where you can remotely touch people. I am sure that more of these things will come. I make the point again that without communication technology, such things are not going to work. There are reasons why these technologies do not experience an explosive uptake, but I think that they will come. It will just take time. We also need to build on our digital infrastructure to enable them.

**The Convener:** I was looking at the dictionary definition of "innovation". It says, "a new method, idea, or product". Innovation has a positive connotation, but some innovation might not be positive. For example, years ago, you would have to physically walk to the doctor to make an appointment. Now, you phone up. However, if you

have to phone 96 times to try to get an appointment, as one person recently reported to me that they did, that is not necessarily a positive innovation.

I use that as an example to make the point: are we evaluating current practice adequately to assess whether innovation is needed to improve services or is just trying to patch a hole in the system?

**John Brown:** I will talk about innovation in relation to medical devices. My information is that well over 40,000 different medical devices are in use every day by NHS Scotland. The Scottish health technologies group, which is the bit of the NHS that does the assessment—much as the SMC does for drugs—has probably assessed about 60 of those over the past five years, since it was set up. That is a very rough assessment but it is of the right order of magnitude.

You touched on assessment; the scale of that is an issue. The SHTG has developed a fast assessment method called the innovative medical technology overview process, which is a maximum 12-week programme. We like it very much, because SMEs find it easy to use and it gives them a fast response. Sometimes the most useful response is, "We will never buy that." It is good that they know that quickly so that they do not waste money trying—

**The Convener:** This is for devices—

**John Brown:** Yes, it is for devices.

**The Convener:** And where does it fit in with the Medicines and Healthcare products Regulatory Agency?

**John Brown:** One aspect of the assessment is that you have to have an EU regulatory marking for your product. That is taken as given.

**Maree Todd:** It is similar to the way in which the SMC acts on pharmaceutical products. The MHRA licenses the devices and then the SHTG—

**The Convener:** And then the SHTG makes a decision on whether a device goes into the NHS. Is that how it works?

**John Brown:** Yes. A company that tries to sell the NHS something that does not have a CE marking will not sell it. Everyone understands that.

**Professor Connolly:** For clarification, I note that the SHTG does not say whether a company can sell to the NHS or not. There was maybe a misunderstanding about that.

**John Brown:** The NHS will never buy anything that does not have a CE marking or other regulatory approval. The assessment of whether an innovation will pay for itself and will deliver—the things that we are talking about round the table—is difficult because of the scale. Most of the 40,000-odd devices that have been sold to the NHS are in use, even some of the more innovative ones. However, the innovative medical technology overview process is a huge step in the right direction.

**The Convener:** So we do not know whether devices will provide value for money or do what it says on the tin.

**John Brown:** For most of them, that may be the case.

**Professor Connolly:** Maybe I can say a bit more, as somebody who is connected to an SME and works with other SMEs and bigger companies. Most companies put an enormous amount of effort into gathering evidence on the benefits of devices and doing calculations on the health costs. Papers on that are provided to the NHS by the companies, and most devices will not move to sale unless they can show such benefits.

I think that the problem arises when, whether they have those papers or not, every group in the NHS wants to pilot devices for itself. That is an exhausting process for staff and everybody else. However, it would be unfair to say that the medical devices industry does not put great efforts into providing information on the efficacy and costing of its devices.

**The Convener:** We have seen costings with regard to how some devices impact on patients, and unfortunately they show very high costs as well.

**Elaine Gemmell:** Working with the NHS, we have created an innovative environment that lets clinicians and healthcare workers come to us with ideas for innovation. We have a responsibility to make sure that that goes on and that ideas can be developed into things that will be useful.

We have talked about very specific ideas that will work in one geographic area but not necessarily in a wider area. Part of what we do is a very full evaluation of proposed technologies before we determine whether they should be developed further. That brings in whether the idea is a good one, whether there is already a solution, whether the company is trying to solve a problem that has already been solved in other areas, what the intellectual property position is, and whether the technology is currently available. All of that will happen before we start to develop IP.

As things stand, we move forward with only approximately one in 10 of the innovations that come to us from the NHS. There is always a good reason or explanation as to why we will not move forward with an innovation. Sometimes it is just about putting people in contact with areas where development is already going on, because we do

not want to reinvent the wheel. That brings me firmly back to the idea that, if there is a co-ordinated effort towards innovation, we can identify pockets, put people together and help them to work towards a solution, rather than having many different solutions in place throughout the country.

**The Convener:** Can I clarify something? An innovation goes through that process, and then ultimately it has to go to each health board for analysis. After going through the process, it then has to go through another 14 processes.

**John Brown:** Even if a company has SHTG endorsement or a big green tick from the innovative medical technology assessment, it still has to sell most products board by board. There are big strategic procurements that are done centrally, but—

**The Convener:** Each board will review the papers and all that stuff, so there are another 14 rounds to go.

**John Brown:** Yes. That is the spread issue.

**Maree Todd:** Is that similar to the SMC process for pharmaceuticals? A company gets a central approval for use of a drug in NHS Scotland, and then each health board assesses it and decides whether there is a role for it within its area. That happens quite routinely within a certain time after the central pronouncement.

**John Brown:** There is a similarity. As far as I know, the NHS would not take on a drug in Scotland unless it has been through the SMC process—unless it is a cheap generic or something like that.

**Maree Todd:** The fundamental difference with the technology assistance is that it can get through without the central assessment.

**John Brown:** Exactly—and there are so many of them.

**The Convener:** I am sorry; we are running very short of time. I want to give everybody an opportunity to make one final comment. A number of points have been raised and the discussion has been very interesting. This is a very clichéd way to do it, but that is me: if witnesses want to get their tuppenceworth in to develop the future strategy, what is the key point that you want to put in? We will go round the table.

12:30

**Professor Connolly:** I would ensure that the innovation pipeline from university through to the NHS is properly funded, as the university end, in particular, is neglected. With that funding, I would ensure that patient groups are brought in as real end users to help in the development and testing of products and incoming technologies.

**John Brown:** We have pretty good strategies and we do not need another one. We need to make the ones that we have work. I support a one-liner that Andy Robertson drafted in the NSS submission to the committee:

"At the heart of the main failures"

of strategy

"has been the inability to translate the strategy, governance and relationships into consistent widespread delivery".

That is at the core of everything that we have talked about. We have strategies most years, but seeing a change is what matters.

**Andy Robertson:** The systems and infrastructure are a sound foundation—I am not sure whether that has come through today. As I said earlier, if we truly want to be innovative and to change and transform the NHS's services, we have to look at different methods of investment to bring new technologies into our environment. Governance and linkages to the academic world, and a different flow, with a recognised single funnel for innovations, can all be done on the back of the new strategy.

**The Convener:** What do you mean by "different methods of investment"?

**Andy Robertson:** The e-health funds that are in place today are the 2 per cent of NHS revenue that goes to IT. If that cannot be bolstered, we will have to look at other ways to bring in investment to support the deployment of new technology. I am not sure whether that would count on reductions in cost in other parts of the health service that technology could support or whether it would be new investment from Government decisions, but we need that increased investment to be able to bring innovation to bear faster than it does today.

**Elaine Gemmell:** My message to leave you with is this: do not underestimate the innovative nature of the NHS and the talent and ability to innovate that is within it. Clear roles and responsibilities are important, as is an innovative environment to help to coordinate all the various bodies that can help innovation.

**Zahid Deen:** I echo what Patricia Connolly said about co-design being needed as part of the strategy, so that people and the third sector are involved in creating and designing solutions.

The previous strategy did not have an implementation plan, and that is why we have failed to see the progress that we want. We did not know who was to deliver what, or when it was to be delivered by. We still do not have any widespread national patient-facing service, not

even for online booking of appointments or repeat prescriptions—that cannot continue.

We need coordination on innovation; we need a national innovation lead or someone who will take this issue strongly and help to coordinate all the partners who are involved.

**The Convener:** Is leadership the key thing?

**Zahid Deen:** Absolutely.

**The Convener:** That is a point that we did not get in, but we should have done. Time has beaten us.

**Professor Thuemmler:** I have been asked to clarify 5G PPP—it is the 5G Infrastructure Public Private Partnership, which is a European technology programme that is running between 2012 or 2013 and 2020.

We need to have another look at how the NHS R and D development funds are distributed. It does not make sense that each trust tries to develop its own things. Even if development is controlled by agencies on an NHS-only basis, we need to enhance the collaboration of the NHS with outside companies, such as SMEs and Scotland's universities, as Patricia Connolly has said.

Protected time for NHS staff when they do trials is also important. You cannot ask a workforce that stands with its back to the wall to trial new things; the outcome will not be good. Nobody would do that.

**Alex Matthews:** In almost every instance, the technology that we need to deliver excellent health and social care in Scotland exists. Therefore, the challenge is to establish the right conditions to put it in place. That covers a lot of what we have discussed. It is about making sure that there is sufficient clinician and patient involvement in developing and deploying technology, strong top-down and, at times, directed leadership on how the technology should be deployed consistently across the system, and sufficient investment in business change to make deployment successful on the ground. We need to embrace modern technologies and the methods for deploying them, and we need to be proportionate about how we apply governance to the projects and programmes that are charged with bringing in technology.

A wider observation is that I am always concerned about talk of establishing a single place for innovation within an organisation or system, as that can prevent innovation from happening elsewhere.

**The Convener:** I thank everyone for a very interesting discussion. Many of the points that you have raised will give us food for thought as we take this issue forward. If you have any more information for the committee, please do provide it subsequently.

The meeting will now go into private session.

12:36

*Meeting continued in private until 12:53.*

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