



The Scottish Parliament  
Pàrlamaid na h-Alba

## Official Report

### **PUBLIC AUDIT COMMITTEE**

Friday 22 June 2012



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**PUBLIC AUDIT COMMITTEE**

**11<sup>th</sup> Meeting 2012, Session 4**

**CONVENER**

\*Iain Gray (East Lothian) (Lab)

**DEPUTY CONVENER**

\*Mary Scanlon (Highlands and Islands) (Con)

**COMMITTEE MEMBERS**

George Adam (Paisley) (SNP)

\*Colin Beattie (Midlothian North and Musselburgh) (SNP)

\*Willie Coffey (Kilmarnock and Irvine Valley) (SNP)

\*Mark Griffin (Central Scotland) (Lab)

\*Colin Keir (Edinburgh Western) (SNP)

\*Tavish Scott (Shetland Islands) (LD)

\*Humza Yousaf (Glasgow) (SNP)

\*attended

**THE FOLLOWING ALSO PARTICIPATED:**

Dr Jennifer Armstrong (NHS Greater Glasgow and Clyde)

Lynne Ayton (NHS National Waiting Times Centre)

Lynda Blue (British Heart Foundation Scotland)

Andy Carver (British Heart Foundation Scotland)

David Clark (Chest, Heart and Stroke Scotland)

Nicola Cotter (Chest, Heart and Stroke Scotland)

Dr Aileen Keel CBE (Scottish Government)

Dr Alison McCallum (NHS Lothian)

Dr David Murdoch (NHS Greater Glasgow and Clyde)

Professor Keith Oldroyd (NHS National Waiting Times Centre)

Dr Barry Vallance (Scottish Government)

**CLERK TO THE COMMITTEE**

Jane Williams

**LOCATION**

Glasgow City Chambers



## Scottish Parliament

### Public Audit Committee

*Friday 22 June 2012*

[The Convener *opened the meeting at 13:46*]

### Decision on Taking Business in Private

**The Convener (Iain Gray):** I welcome members of the press, witnesses and members of the public to this meeting of the Scottish Parliament Public Audit Committee and ask both them and committee members to ensure that their mobile phones are off.

Before we start and while we are still fresh, I want to thank everyone involved in organising today's meeting. It is only the second time this session that a parliamentary committee has gone outwith Holyrood for a day of fact finding and a meeting; it takes a great deal to organise all that and we owe our thanks to everyone who helped to set it all up. In particular, on behalf of all my colleagues I want to put on record our thanks to everyone involved in the series of visits that the committee undertook this morning and about which we are going to hear reports. We have received apologies from George Adam, who cannot be with us, and Humza Yousaf, who is running a bit late but will join us later on.

The first item on our agenda is a decision whether to take in private item 4, in which we will decide how we proceed on the "Cardiology services" report that we are considering. Are members agreed?

**Members** *indicated agreement.*

## Section 23 Report

### "Cardiology services"

13:48

**The Convener:** The next item is a report back from the three different groups on this morning's fact-finding visits. I will give five or 10 minutes to each rapporteur. Mr Coffey, would you like to start?

**Willie Coffey (Kilmarnock and Irvine Valley) (SNP):** Thank you very much, convener. You, my colleague Colin Keir and I met Professor Graham Watt, Dr Susan Langridge and Dr Jim O'Neil from the deep end project. In what was an astonishing and revealing meeting, we discussed, as members are probably aware, access problems for people who live in some of Scotland's more deprived communities.

Our colleagues presented us with a number of messages. I was particularly struck by the comments of the two practising general practitioners involved in the project about the need to develop or, perhaps, rediscover the GP's role in providing broader support and identification services to the patients who come through their door. They felt that with developments and advances in medical technology there has been a tendency towards an increasing specialisation among consultants. Such an approach has great advantages, but GPs might also be losing a sense of the bigger picture of the patient's journey through the health system.

One of the most startling revelations was that the ratio of GPs allocated on a per-head basis was very much smaller in some deprived communities than it was in less-deprived communities, and the clear message from the people involved in the deep end project was that instead of focusing on providing an across-the-board service to the communities of Scotland we should be targeting our efforts and resources on the communities that actually need those services. We had a broader discussion on that matter and its long-term impact on the future of the health service; we also discussed whether we should be training our GPs differently and giving them different and broader skills to allow them to engage more directly with patients who present. I do not think that we got an answer to those questions, but we certainly had a broad discussion on the matter.

It was also suggested that those who come to the GP surgery do not so much pretend as give the impression that they are not really ill in the hope that the GP will agree and send them home again. I see from some of the smiles around the room that others recognise that. Dr Langridge

forcefully stressed the need for a better direct connection between such patients and their GPs to ensure that those kinds of presentations are well recognised, understood and captured earlier on. I welcomed that revealing point.

Professor Watt gave us some particularly pointed messages about empathy and whether we properly engage and communicate with others. Ordinary people in the street find it difficult to engage with the language of the medical world and some of them come away from their GP consultation none the wiser about what was said and the advice that they received. It was recognised that we need a better and simpler way for the medical profession to engage and communicate with their patients.

I am just looking through my notes, convener. Please feel free to jump in with your recollections any time you like. *[Interruption.]*

I am back after that break in broadcasting. One of the GPs involved in the deep end project, Dr Jim O'Neil, gave us an astonishing breakdown of the patients who come through the service, highlighting the percentages of those who die early. In his community, for example, the average life expectancy is 68 years, but some people's health conditions can be in place 10 or 11 years before that. Quite frighteningly, Dr O'Neil made it clear that 25 per cent of that community die from heart-related conditions, another 25 per cent from cancer-related conditions, 25 per cent from alcohol-related conditions and the final 25 per cent from a mixture of other natural causes and suicide. Those are astonishing and frightening statistics. One of the disturbing messages was that there is resignation among people in his community that that is just the way it is, and that that is their lot in life. That presents everyone round the table with a huge challenge about how to break that mould and improve people's expectations of what the quality of their life can be.

Both the doctors and the professor were absolutely convinced that the intervention approach of the deep end project, whereby there is horizontal intervention in many aspects of patients' lives, will pay dividends in the future. They hope that that key message from today will be taken on board by the Public Audit Committee and shared with the Scottish Parliament through the Health and Sport Committee, the Cabinet Secretary for Health, Wellbeing and Cities Strategy and others.

I hope that that is a reasonable summary, convener.

**The Convener:** Thank you, Mr Coffey. We will hear the next two report-backs and I will then give folk an opportunity to ask questions of the groups that they were not in.

**Mark Griffin (Central Scotland) (Lab):** Colin Beattie, Tavish Scott and I met patients at Chest, Heart & Stroke Scotland this morning. Our discussion was split into the three themes of pre-diagnosis, diagnosis and treatment, and aftercare and rehabilitation.

One of the striking things that came out of our discussion with the patients about pre-diagnosis was the lack of awareness of symptoms among people in general. Because of that, people who are seriously ill think that they do not want to bother health professionals. One man whom we spoke to this morning felt unwell for two days before he contacted NHS 24. As soon as the operator heard his symptoms, he was rushed into hospital and dealt with straight away. That hammered it home that people need to be made much more aware of the symptoms of diseases that threaten their lives. It might partly explain why people from more deprived areas are not making it to hospital and sometimes die before they get there. It is just down to the lack of awareness of the symptoms of the conditions that people suffer from.

We heard from the professionals that paramedics would much rather go out to visit someone and find that they are not seriously ill, rather than for people to risk their lives for the sake of not wanting to bother the paramedics or to call out an ambulance unnecessarily. Men tend to be more reluctant to call on the services of health professionals. More often than not, it is a man's wife or another family member who pushes them to contact the health service. Work to improve awareness of symptoms is therefore not just about the person who is suffering from them, but the wider family. If family members can identify the symptoms, they will be able to push the person to contact NHS 24 or phone for an ambulance.

All the people I spoke to this morning were emergency cases who went straight to hospital. I did not speak to anyone who was referred through their GP. I do not know whether that was also the case for other members who were there. For that reason, I was not able to pick up on the theme of diagnosis and treatment—the process of GPs' identifying symptoms and then referring people to hospital. However, it might well be that there was just no one there with that experience.

14:00

The people whom I spoke to said that, when they were diagnosed, they put themselves into the hands of the medical professionals and went for whichever treatment was recommended as the best for them. When I showed them the point in the Audit Scotland report about some of the treatment levels being around 20 per cent lower than expected in deprived areas, a lot of the

people there could not understand why that was the case. They had full belief in medical professionals—if they were told that a course of action or a course of treatment was required, they would take up that course of treatment. They could not understand why there was a discrepancy, with a lower than expected number of people from deprived areas going through those treatments.

What came across on aftercare was that the more successful aftercare programmes are supported by the whole range of professionals—clinical support, physiotherapy, psychology, pharmacies and dieticians—to give people medical and lifestyle advice on how to recover their health. The need to help people recover their confidence came through loud and clear. Once someone has gone through a serious heart condition, sometimes they feel that they need to stay at home and do almost nothing for fear of overexerting themselves and making things worse. They really need the community support that is available through those groups to build up their confidence and to get back to living independent lives again.

One of the support groups in Paisley mentioned that it is not just the patients who attend the support groups—wives, husbands, sons and daughters often attend the groups with the patients. That is valuable because it means that families know exactly what lifestyle changes the patients have to implement to recover fully—or as much as they can—when they get back home. That means that it is not just a case of the patient having to take the decisions on changing their diet. Someone else in the household knows what is needed and that person is perhaps able to be stricter with the patient than they would be with themselves and to push through the changes that have to be made to the patient's lifestyle.

We chatted with patients about why fewer people access services in areas of high deprivation. One point that they made—other people have mentioned this as well—was about there sometimes being a lack of hope in those communities. Another point was made about people's priorities: often their own health is a much lower priority and they put other people first, whether that is in their work life or in caring for someone else who has an illness. In more deprived areas there is a higher occurrence of other illnesses—people could be caring for others who have a different illness, so their own health is almost secondary. That resignation about their fate and the focus on areas other than their own health were flagged up as possible reasons for people in more deprived areas seeking medical services much less often than those in less deprived areas.

Other members who were there may want to fill in any gaps.

**The Convener:** We will move on to the report on the third visit—there will be an opportunity for any additional comments after that.

**Mary Scanlon (Highlands and Islands) (Con):** Some identical messages are coming through from the different visits. Willie Coffey mentioned the need for GPs to provide broader support and people's attitude of resignation; Mark Griffin mentioned that men tend to be more reluctant to come forward and the problem of the lack of hope—those issues were all evident this morning in the session that Humza Yousaf and I attended.

We went out to the West centre in Drumchapel and met representatives of the NHS Greater Glasgow and Clyde keep well programme in which a hundred GP practices are involved. We spoke about the more hard-to-reach families and the families that are more at risk of cardiac problems. We also met the South Asian anticipatory care pilot project and a keep well practice, including the GP and a patient. Although I found the evidence from all the health professionals and the outreach workers absolutely tremendous, I was most impressed by the two patients, Shellah and Jacqueline, who came along to speak about how the services had benefited them. I do not think that we would have found that information on any piece of paper in Edinburgh. That is a critical message that I have taken back.

Jacqueline started off by saying that there are four takeaways within easy reach of her house, but the supermarket has closed down. It is all very well lecturing her about buying healthy food, but she cannot get healthy food and it is more expensive. The South Asian anticipatory care pilot project told us that it has called on 2,000 people in the past 12 months. The project went through the GPs' lists and identified people who would not normally engage and who are more or less isolated from health services. One of the biggest barriers was overcome by speaking to them in their own language. That instantly broke down many other barriers. I had not appreciated this, but we can tell women from the South Asian community to go to the gym and take exercise or to go swimming, but they do not go swimming at the same time as men and there are no women-only sessions. If we are serious about this, we must tailor facilities to the different cultures.

In Drumchapel, the people who went out to the most deprived areas had to work very hard—all credit to those who followed up—and the response rate was 15 per cent. I learned a huge amount there. Having been on the Health and Sport Committee for a few years, I tend to look at things from a health angle, which is undoubtedly wrong. When I asked why those people are hard to reach

and do not engage, I was told that many have serious housing issues, chaotic lifestyles, poverty issues and literacy issues. If someone comes along and says, "Come and get your blood pressure checked," that is at the bottom of their list of priorities. Willie Coffey talked about the need for broader support. Rather than go along and say, "Right. Come on and get your health checked," we need to get a better understanding of all the issues that contribute to the lack of hope and optimism that lead to that lifestyle.

All the panels mentioned mental health problems, by which I mean stress, anxiety, depression and isolation. Those often led to comfort eating, which tended to involve high-fat, high-calorie, high-sugar, high-salt foods rather than healthy foods, which were difficult to find. The cooking classes that were put on were very much welcomed, but Jacqueline said that a white loaf costs 60p whereas a wholemeal loaf costs £1.30. It is all very well for us to lecture people about eating wholemeal bread, but it is more than twice the price.

We need to understand more about why men are more reluctant to come forward and we need to stop preaching to people. They are a bit scared to come along and use the national health service because they know that they have other problems and that their lifestyle is unhealthy. We need to understand the contributory factors that make their lifestyles unhealthy rather than simply preaching to them.

One doctor said that when he tells his patients that they should change their lifestyle, they just say, "Well, I'll wait until something happens, like a heart attack." I have tremendous respect for Jacqueline McMillan, the patient who came along to see us; she was fabulous. She had had a heart attack, and she had changed her lifestyle to include more healthy food and more exercise. I asked her whether, if someone had knocked on her door 10 or 20 years ago, suggested that she was in line for a heart attack and told her the right things to do to avoid one, she would have taken immediate action. She said, "No. I would have ignored them."

I have certainly learned a huge amount. One of the main issues—which I hope will be included in our report—that I took away from the visits and the three submissions is that there is no health without mental health. We should focus not only on blood pressure and cardiac problems, but on mental health and wellbeing.

**The Convener:** Thank you. There are common themes that we will be able to explore later. Without extending this session for too long, I will give colleagues the chance to add to those comments or ask questions.

**Colin Beattie (Midlothian North and Musselburgh) (SNP):** A couple of fairly common trends have emerged from the group visits. First, there seems to be considerable confusion about when someone is having a heart attack. They do not understand that they are having one because an attack can manifest itself in so many different ways; it seems that even the doctors frequently do not pick it up. The symptoms are not recognised and are very variable, and neither doctor nor patient is on the ball in picking them up. That will, I hope, be addressed at some point.

Secondly, there is the question of hope, which was mentioned by the people whom we met. We were talking about the fact that smoking, drinking and eating the wrong food are bad. We can correct all those things with education eventually, but what seems to be the key factor that prevents people from embracing that change is that they do not believe that things will get better. They are living in a deprived community and there does not seem to be any hope or any way forward. That is a big issue that must be addressed, although it is way beyond this committee's remit. Perhaps we can highlight that as a common factor.

**Colin Keir (Edinburgh Western) (SNP):** Colin Beattie has mentioned a lot of what I was going to say. I found fascinating the relationship between GPs and hospital specialists. There are issues around new entrants into the medical profession and where they are heading in their careers, and how that situation interacts with older views about how one becomes a GP.

Another concern is that although we have world-class hospital facilities that are capable of dealing extremely well with emergencies, the care package that people are given once they leave hospital is perhaps not of the standard that they experienced in hospital.

Finally, Mark Griffin and others pointed out that people do not wish to accept the fact that they are ill. We had a wee chuckle at Willie Coffey's description of that. A patient will go to a doctor and say, "I have indigestion," but the doctor knows full well, after doing the diagnosis, that they have chest pains. The point that springs up all the time, which we discussed with people earlier, is education and prevention—that is the way to go.

14:15

**The Convener:** Thanks very much.

For agenda item 3 on the section 23 report "Cardiology services", we have three panels of witnesses to give evidence, so I ask colleagues to be succinct in their questioning and I ask the witnesses—perhaps more politely—to be succinct in their answers.



Our first panel consists of witnesses from two of the organisations that are involved in work with cardiology patients. From Chest, Heart and Stroke Scotland we welcome its director, David Clark, and Nicola Cotter, who is the lead on the voices Scotland project. From the British Heart Foundation Scotland we have Andy Carver, who is the prevention and care adviser, and Lynda Blue, who is the service development manager.

I ask David Clark and Andy Carver to make some brief introductory remarks.

**David Clark (Chest, Heart and Stroke Scotland):** Good afternoon, and thank you for the opportunity to contribute to the committee's review. I am glad that the committee members who came along this morning to the CHSS patient groups enjoyed the experience and found it useful.

We recognise from the "Cardiology services" report that there has been substantial progress in recent years in reducing deaths from heart disease as a result of both service improvements and lifestyle changes, particularly—the deputy convener alluded to this—once people have had an event. However, the incidence of heart disease has fallen more slowly than mortality. As a result, we now have substantial numbers of people in Scotland—some 235,000—living with heart disease as a long-term condition.

The voluntary sector and charities can play an important role. In our case, we do so through services such as cardiac support groups, phase 4 rehabilitation and heart failure support. However, "voluntary" does not mean "cost free". To ensure quality and patient safety, volunteers need professional support through recruitment, induction, training and on-going management. CHSS spends some £300,000 a year on volunteer support, but for that we get community benefits from the input of trained and supported volunteers that are worth—at a conservative estimate—more than £1.5 million.

We recognise that the committee is particularly interested in issues relating to socioeconomic deprivation. There has been progress in recent years—as evidenced in the Scottish Government's response—and Scotland's excessive rate of heart disease remains tightly focused in eight of our 32 council areas. Outside those areas, our health record is comparable with that of the rest of Europe.

There have been major efforts through, for example, the keep well programme, to identify people who have undiagnosed heart disease and to encourage them to seek treatment. We still await evaluation of the programme, which is mentioned in paragraph 64 of the report, and we urge that it be provided as soon as possible.

Despite such efforts, too many people from the more deprived areas—men in particular, as has been stated—still seek treatment only when an emergency hits. Our survey work shows that twice as many men as women seek help only in an emergency through NHS emergency services and that the rate is highest in the most deprived areas. Emergency, rather than planned, procedures generally result in poorer outcomes for patients and are more expensive for the NHS. As we note in our written submission, working with our British Heart Foundation colleagues over past years we have successfully developed the voices programme, which has helped to provide a patient's view in NHS service development. We would be happy to develop a variant of that programme to focus specifically on identifying and overcoming the barriers to the health promotion messages that appear to exist—as we have heard—in Scotland's more deprived areas.

I suggest that we should work through families in communities—especially through women, because they are often the drivers for change. We must accept that the current activities are not fully achieving the desired outcomes on tackling risk factors or on raising awareness of the signs and symptoms.

The issues in the most deprived communities are not solely about health and cannot be tackled only by the NHS and its partner agencies. However, it is important to work with the grain and to ask people what might work in their area—that will be different throughout Scotland—in order that we can identify more effective approaches to tackling the problems that we have heard about, and so that we can identify the resources to sustain those approaches. We hope that in the long run that will save lives, improve the quality of life for survivors and their families, and reduce the costs that fall on the health service.

**Andy Carver (British Heart Foundation Scotland):** I thank the committee for the invitation to contribute to the inquiry.

We are delighted that the spotlight is being shone on cardiology services by the Audit Scotland report and by the continued interest in the subject of the Public Audit Committee. It is important to broaden—perhaps that is not the right term—that spotlight on cardiology services out to the wider issues around heart disease, further measures to prevent heart disease and to further improvements in cardiac rehabilitation, heart services and so on. Those wider issues include improving diet and physical activity levels, and further measures to control tobacco usage. The committee is probably aware that one of the biggest contributors to health inequalities, and to cardiac disease in particular, is smoking rates: the rates of tobacco usage in the most deprived

communities are roughly double the average for the country.

Please excuse me—I need to get comfortable.

I attended Audit Scotland's presentation to the committee in February at which there was much interest in the variation of revascularisation rates by socioeconomic group. It is also important to look at the differentials in provision of cardiac rehabilitation and heart failure services across the country. It is less clear cut how the services vary by socioeconomic group, but there are clear differences in the provision, access and uptake levels by different health board areas. The detailed audit of cardiac rehabilitation services that was published last month by ISD Scotland shows varying rates among health board areas. It also shows that, although there are continuing improvements in service provision for people following heart attack and following surgery, low provision rates for people with heart failure or unstable angina continue. Again, it is important that the committee focus on those service inequalities.

The other key aim is to improve the survival chances of people with heart disease. We know that—to endorse what Audit Scotland said—the hospital services are excellent, and that once people reach hospital, their chances of survival continue to improve. However—as has been alluded to in David Clark's presentation and the members' feedback on their visit—people lack awareness about the symptoms of heart disease and are reluctant to seek help when they have clear symptoms. I am pleased to say that, in partnership with Chest, Heart and Stroke Scotland, the Scottish Ambulance Service and area health boards, we are doing work to raise awareness of symptoms of heart disease and to encourage people to call for help, rather than delay seeking help.

Another important part of the chain of improved processes to improve the chance of survival when people have an arrest or heart attack is to do with improving emergency life-support skills in the community. The more people who have the skills to intervene and save a life, the better are people's chances of survival. We are calling for education authorities to ensure that all schoolchildren receive those important skills during their time at school.

I thank the committee again. I am happy to answer questions—I hope that I will be more comfortable and focused when I do so.

**The Convener:** I ask the panel to expand a little on the dichotomy or contradiction—if that is what it is, although it probably is not—between prevention and pre-diagnosis work and response. Mr Carver said that the report that we are considering is focused on cardiology procedures and the

response once a problem has developed, but in quite a lot of the written evidence and discussions that we have had, there has been talk about wider screening for conditions and about the kind of checks that Mr Carver mentioned in passing. Given that resources are finite, where is the right place to strike the balance?

**Andy Carver:** That is a difficult question. The continued improvements in the heart disease mortality rate is obviously welcome; there have been huge reductions in premature mortality in the past couple of decades. Academics have studied the issue and concluded that just over 50 per cent of that is because of improved lifestyle, improved management of risk factors by primary care and work that takes place after someone has had an event to prevent recurrences. Just under 50 per cent of the reduction is a result of improvements in care in hospital. That suggests that there is scope for continued improvements in all aspects. On the difficult decisions about where investment has to be made, the simple, glib answer is that it must be made across the board. I am sure that there is still scope for improvement in all aspects of services.

**The Convener:** I will be specific and a little provocative. You referred to the cardiovascular health checks that are carried out under the "Better Heart Disease and Stroke Care Action Plan". Those checks, which are referred to in paragraph 63 of the report, are made based on regular risk factors such as blood pressure, cholesterol level, smoking, diabetes and whether someone lives in a deprived area. In our discussions with GPs earlier today, they expressed a view that that is a box-ticking exercise and that their having more time to spend with their patients would be more valuable and would have a much more powerful effect in the long run. Is there a danger that we put the resources into something that makes it look as if we are trying to make a change, but that actually will not make a difference? The issue is about the quality, not the quantity of checks. I presume that most of those checks do not turn up a problem. I guess that that is wasting resource on checking something where there is not a problem.

**Andy Carver:** My understanding of the checks is that they are targeted at the more deprived communities, and therefore at people who are more likely to have problems for which there is scope for intervention. As David Clark said in his opening remarks, we await the evaluation of the keep well programme to find out how effective it is in identifying people with problems and intervening appropriately at an early stage. *[Interruption.]*

**The Convener:** Judging by the thunder, I have obviously upset somebody.

14:30

**David Clark:** Someone up there does not like what we are doing.

One of the difficulties is that until we have the full evaluation of the keep well programme—which has been well resourced and well run—we do not know, within the broad range of socially deprived areas, which groups within the population are taking up checks. If we are focusing on inequality, a lot of research shows that general health checks tend to be accessed by those who would access services anyway. We are still left with the problem of getting through not only to the most deprived communities or areas but to the people who we are trying to get through to. I am always slightly wary of postcode identification because they are very broad categories. Again, if we genuinely want the most effective investment, we need to identify what is going to get through to the individuals and families who are most in need of support.

**Tavish Scott (Shetland Islands) (LD):** To continue that line of argument, as a society we spend a huge amount on big national health promotion messages. However, following on from Mr Clark's point, it strikes me that such messages get to people like us but not necessarily to the people to whom we need to get them. As the convener said, there is a finite pot. Is there an argument for moving spend away from the enormous campaigns that all Governments do—because that is what they are advised to do—and in to the real ground work that we heard about in this morning's evidence?

**David Clark:** I certainly agree with that, but the fact is that we do not yet have the answers to what might work in the more deprived communities. We almost have to take a step back and to pilot different approaches.

Instead of approaching the issue from the top and trying to dream up things in an office in Edinburgh, we should go out and consult. There are lots of community groups in even the most deprived areas, where we need to consult people. As has already been said several times, we will find that the problem is not just about health. However, we have to ask first, then decide what might work.

**Tavish Scott:** I take both the points—

*Temporary loss of sound.*

Are you suggesting that nothing has got better in this area in 13 years of devolution? Have we, as politicians, completely failed to identify what we need to be doing to address the issues in deprived areas?

**David Clark:** Absolutely not: as far as we can see, programmes such as keep well have been

successful. We would just like to tease out what it is that is successful in such programmes.

**Tavish Scott:** I guess that my point is that we were at this before devolution and we have been at it since devolution. We have spent tens of millions of pounds on programmes to assist in this area. What Audit Scotland is driving at us is that there is still an awful lot to do. When will policy makers have answers on what works in the communities where what we are doing is clearly not working at the moment?

**David Clark:** I hope that the evaluation of the keep well programme will provide answers.

**Tavish Scott:** What is the timescale?

**David Clark:** I think the report notes that the evaluation will come between 2012 and 2015.

**Tavish Scott:** Is the keep well programme aimed specifically at establishing what can be done in deprived areas and what instruments or mechanisms will reach people whom we are clearly not reaching at the moment?

**David Clark:** The keep well programme has been running for some years, during which we have seen increased prescribing of statins and other preventative medication in deprived areas. What we do not know yet is the overall outcome for patients.

**Lynda Blue (British Heart Foundation Scotland):** I think that it is important that we have the evaluation, but we must keep thinking about what we do with what we identify and with the people whom we identify as being at risk. That may be where things sometimes fall down and make the programmes less effective. We must be mindful of that.

**Andy Carver:** We have the information about the number of health checks that have been conducted. We know that the programme is successful at reaching people and, as David Clark mentioned, that there are early indicators of the increased use of statins. However, we are still awaiting information on the longer-term benefits, in terms of the programme's real impacts on levels of heart disease and premature mortality from heart disease.

**Tavish Scott:** I accept all that. I just do not want to come back in 13 years and be in the same place again.

**Mary Scanlon:** I want to move on to discuss inequalities in hospital services. The Audit Scotland report states, on page 20:

“One six-year study that reviewed around 5,500 patients in Glasgow who had a heart attack found that people in more deprived areas were more likely to have a heart attack, less likely to reach hospital alive and more likely to

die during the heart attack, therefore reducing the opportunity to receive hospital treatment.”

I am looking at exhibit 8. People in more deprived areas receive 20 per cent less revascularisation, angioplasty and so on, and people in the least deprived areas receive 60 per cent more. My point is that we have been concentrating on prevention, the hard-to-reach people, better lifestyles and so on, and there are some reasons for the higher rates for sudden death involving people who smoke and so on, but I wonder about inequalities at NHS level.

Chest Heart and Stroke Scotland states in its submission:

“Some patients express the view that smoking or alcohol are the only enjoyable aspects of their life, rather than undertaking light exercise or healthy eating”.

I am looking at that approach. At NHS level, the services exist, but people in the least deprived areas are getting more than 60 per cent better services for various reasons. Will you clarify that?

**David Clark:** We need to be clear about what exhibit 8 shows: it shows the variation between the actual revascularisation rate and the expected rate. The crude rates per 100,000 of population are actually higher in the most deprived areas, but not as much higher as we would expect when we take account of deprivation. The latest available data seem to show that the gaps are beginning to reduce, so we hope that there are some good signs there.

As Andy Carver said, there is no evidence that, once they hit the NHS, people from deprived areas get a less good service. As has been mentioned, the fact is that they tend to hit the NHS in poorer health and with more comorbidities, and are more likely to arrive in emergency situations. Sometimes, the revascularisation procedure cannot be undertaken or the patient has died before it can be undertaken. However, further research is needed, as the report states.

**Mary Scanlon:** The report is clear.

I know that we are short of time today, but I return to Tavish Scott's point, and I will quote from paragraph 55 of the report. I am talking about the 60 per cent more treatments than would be expected in the least deprived areas, which

“was first highlighted in a national report published by the Scottish Executive in 2001, and implies a lower level of access to these treatments for people in more deprived areas.”

That seems to be quite clear to me, and the figure is 5,500 patients. I am not sure that you can argue about that. If you have other figures, we need to know about them.

**The Convener:** This is an interesting area. Mr Clark—did you say that there is more up-to-date

information that suggests that exhibit 8 overstates the position?

**Andy Carver:** I do not think that it is more up-to-date information. In effect, it is the information on which the exhibit is based. The exhibit shows the actual versus the expected rates, and—

**The Convener:** I understand that. That is what Mr Clark said. It shows that someone in a deprived area is 20 per cent less likely to receive the procedure than would be expected taking account of the context. Someone in a more affluent area is 60 per cent more likely to receive it than would be expected. I thought—and, I think, Mrs Scanlon thought—that Mr Clark said that there is now information that suggests that that gap is closing.

**David Clark:** I think that, over time, we would expect it to close.

**The Convener:** That is not what you said; you said that there is information.

**David Clark:** I meant fuller information, as Mr Carver said.

**Mary Scanlon:** The report is quite clear about it. It is an observed fact versus an expected outcome, and it says that there are fewer procedures being carried out for people in more deprived areas.

**David Clark:** That is what we would expect. There are fewer than expected.

**Andy Carver:** I would say that we are confident that there is no active discrimination once people are actually in the system. Again, that was discussed in reporting back from this morning's sessions, with regard to people's behaviour in accessing primary care services. Of course, there might be issues around access to primary care services if we hear that provision is less in the more deprived areas, purely based—

*Temporary loss of sound.*

**David Clark:** The deputy convener made a point about some patients expressing the view that smoking and drinking alcohol are their only pleasures in life. That quotation was from work by a benefits adviser whom we support in Fife, but the findings would be true across Scotland.

The question comes back to the need to work on primary prevention. The improvements in the mortality rate have come about as a result of better treatment and lifestyle changes, in roughly equal measures. However, the lifestyle changes have been mainly among people who have already had an event. We must focus on catching people before they have had their first event; that is where we need to make further progress.

**Willie Coffey:** Despite the gathering storm outside, it is not all doom and gloom. There is a

good story to tell, and Tavish Scott almost led us into it. The paper says that, from 2001 to 2010, the mortality rate in the most deprived communities has reduced by 34 per cent but that, in the least deprived communities, it has reduced by 18 per cent. That shows that some good work has been done in the past 10 years or so, and that good achievements have been made.

This morning, Dr Langridge seemed to talk about a kind of collusion with patients, and about patients being given false assurance. There is an issue about early engagement with people—they engage with the health care system in the hope that they will somehow be told that they will be all right. She did not mean that there is collusion in a negative sense, but that there is almost a sense that people want to be talked out of entering a care process. Do you agree? Do you recognise that from your experiences? Might intervention at that level overcome people's fears and enable them to engage more directly and earlier with the health care system?

**David Clark:** That is an interesting point, which I certainly accept. The last page of our submission contains quotations from people who had heart attacks but thought they were having indigestion, even after two days. Most of us are natural optimists and hope that nothing is seriously wrong. As Andy Carver said, we are working with colleagues in the Scottish Ambulance Service and with individual NHS boards to raise people's awareness of the signs and symptoms of heart attack. We have undertaken a similar campaign on stroke, which has been quite successful.

We have not used massive advertising campaigns; instead, we have used the experiences of real people to get through to other people with case studies, newspaper articles and so on. People seem to pay more attention to the story of a person who is a bit like them. In this morning's discussions with the patients in our groups, there emerged a theme of using individuals who have been affected to get the message through to others.

**Andy Carver:** My colleague, Lynda Blue has recent clinical experience of the issue.

**Lynda Blue:** In relation to how news is broken to patients, there can often be only a short window of time. That can be quite damaging, because the patient can feel hurried. People should consider allotting double appointments to people in such situations.

**Willie Coffey:** I apologise for not saying so, but Professor Watt said that one of the key messages was that there was a need for more time to consult patients. The need for broader engagement with patients was a strong message that I took from

this morning's meeting. Thank you for strengthening that point.

14:45

**Andy Carver:** One of the main features of the keep well programme is that there is funding for dedicated nurses, who spend much more time with patients doing the initial assessment and addressing any risk factors that are identified. Such appointments are not kept down to the standard general practitioner appointment time.

**Colin Beattie:** I have a couple of questions. The first is to seek clarification of what CHSS says on page 4 of its submission, where the first bullet point states that

"Males were more than twice as likely as females to seek help for the first time following an incident of sudden acute pain",

which implies that women do not tend to come forward with acute pain. The next bullet point says that women seemed more likely than men

"to turn to NHS services as a result of a gradual deterioration of their health".

Could you clarify that?

**David Clark:** The bullet points come from a survey of patients' views. I might ask Nicola Cotter to say a bit about the impact of cardiac support groups in getting messages across. The point that was being made was that it seemed that women recognised signs and symptoms further in advance and would visit their GP. We asked when people first became aware that they had a problem with their heart. Women tended to say that their health had been getting poorer, so they went to the GP, had the normal tests and were told that they needed a procedure. Men tended to ignore such signs—the first time that they noticed that something was wrong was when they had a heart attack. That is an oversimplification, but the point that the submission is trying to get across is that the first contact from men is more likely to be in an emergency situation, following sudden acute pain.

**Colin Beattie:** The second point that I want to make relates to the submission from the British Heart Foundation, one of whose highlighted recommendations is that

"substantially increasing the numbers of Scottish children who are taught Emergency Life Support skills at school"

would be a good idea. It certainly sounds an interesting one. On Wednesday, I was at an awards ceremony for two children in Midlothian who had saved the lives of members of the community through their actions. I sympathise with the idea, but I am not sure what age you are talking about. At children of what age would such an initiative be aimed? I cannot imagine such

training being provided at primary school. Maybe it could be done at secondary school.

**Andy Carver:** Different skills can—

**The Convener:** I am sorry to be impolite. We know that the sound system is not working very well. If you could wait until the microphone comes on, it will pick you up. It is on now.

**Andy Carver:** Different skills can be taught at different ages. It is possible to get over some simple messages to quite young primary school children, such as knowing how and when to call for help. In the latter stages of primary school, it is possible to start to teach basic emergency life support skills.

The main focus would certainly be on secondary schools. We support a scheme called heart start. There are a number of heart start schools in most local authority areas in Scotland. About 10 per cent of schools are covered, and we would like that number to increase hugely in the coming months and years. We are working with Chest, Heart and Stroke Scotland and with a number of other charities with an interest in this area to lobby local authorities to get them to support the scheme and to get such skills taught as part of the school curriculum.

**Colin Beattie:** It certainly sounds an interesting initiative. Teaching a large number of pupils in school the basic skills sounds an interesting idea. You say that 10 per cent of schools are participating. Do you mean 10 per cent of secondary schools, 10 per cent of primary schools or 10 per cent of schools across the board?

**Andy Carver:** That is an approximate figure. Some 10 to 15 per cent of secondary schools are participating; I think that the figure is a bit lower for primary schools.

Some interesting innovative models have been tried out. A particular model that may be of interest is the one in North Lanarkshire, in which senior pupils are used to do part of the training for the younger ones. That is a much more sustainable model, as it is not hugely dependent on a lot of external trainers going into the school. Once the initial skills are taught, people can keep reinforcing them. The older pupils can be used to train the younger ones with simple messages.

**The Convener:** Mr Yousaf has a question.

**Humza Yousaf (Glasgow) (SNP):** Thank you very much, convener. Good afternoon.

**The Convener:** You, too, will need to wait for your microphone to come on.

**Humza Yousaf:** I should have known.

Everybody has touched on the idea that addressing issues around cardiology in deprived

areas is about more than just heart conditions; there are issues relating to money management, financial inclusion, and drug and alcohol misuse, for example. How closely does the third sector work together to address all those issues? I am keen to hear about that.

I will wait for the answer to that question before I come back with a follow-up question.

**The Convener:** Who would like to speak on behalf of the third sector?

**David Clark:** I am sorry, but was the question about how well the different agencies in the public sector work together?

**Humza Yousaf:** How closely do third sector organisations that manage or deal with debt and money issues and third sector organisations that work with family breakdowns work together? How closely do you all work together when you identify such problems? It has been said that there is not just a health issue.

**David Clark:** Obviously, that varies enormously across the country. For example, we work in three of the most deprived parts of Scotland with citizens advice bureaux on financial inclusion. In Glasgow, there is an award-winning financial inclusion service in which several agencies are involved—Glasgow City Council, the health board, us and other charities. There are some excellent models of good practice that could probably be rolled out. One would hope that the forthcoming move towards greater integration of health and social care might move us further in that direction.

**Andy Carver:** We have not particularly worked on the issues to do with benefits and so on that you are considering. Our main focus has been on working with health boards and local authorities directly on risk factors for heart disease. We have worked on improved education and recognition of risk factors and on improved services for people who live with heart disease, and we have the hearty lives programme. The hearty lives programme in Dundee has worked with NHS Tayside and Dundee City Council. It very much focuses on clear and immediate risk factors for heart disease rather than wider determinants of health.

**Humza Yousaf:** It was clear from visiting the keep well practice this morning that a much more joined-up approach is needed nationally. We heard time and again, especially when we were talking to patients, that the message was given to children that they must exercise and must eat five portions of fruit and vegetables a day, but there was not a shop within a mile radius that sold healthy food, including fresh fruit, and, of course, healthy food is comparatively expensive. [Interruption.] It is clear from that thunder that that has angered somebody.

Clearly, those are issues. There does not seem to be enough of a joined-up approach. What is the point in preaching to schoolchildren about eating healthily when healthy food is not available? Do we need to take a more radical approach?

**The Convener:** What kind of approach do you mean?

**Humza Yousaf:** I do not really know. Let us take smoking and alcohol. Over its term, the Scottish Parliament has had a good record on being radical and leading in that respect through the smoking ban, the ban on the display of cigarettes and the minimum pricing of alcohol. Do we need to start treating unhealthy foods almost in the same way? Do we need to take more radical measures in that direction?

**Lynda Blue:** First, we need to increase local access to vegetables and fruit where the shops are closing down. Many areas of the city have only takeaways and corner shops, where it is expensive to buy anything. There is no easy access for people who do not have their own transport. There are a lot of things for us to address before we do anything else.

The hearty lives community projects that the BHF is working on are focusing on active families and healthy eating, addressing obesity not just in children but in the whole family. They are taking people out to buy vegetables and showing them how to make soup—it is as basic as that. Some people just cannot cook, and their grandparents cannot cook. That is another strand that the BHF would like to take further with future projects.

**Andy Carver:** I agree with Mary Scanlon that it is no good preaching and focusing purely on education. We need to take radical steps to encourage food skills. As Lynda Blue says, cooking skills are dying out and there is scope for them to be taught in schools. There are some schemes to ensure the provision of food and vegetables. The Government is working with the Scottish Grocers Federation to improve access to fruit and vegetables in corner shops, but I do not know how successful that has been. Those types of measures need to be taken to ensure provision; we should not rely just on education.

**Humza Yousaf:** I will probably follow that up with the next panel of witnesses. Thank you.

**Mark Griffin:** You mentioned the drop in mortality rates, which means that more people are living with a heart condition. I met some people this morning who gave fantastic examples of rehab programmes in their areas. What range of rehab is provided across the country? Are there big disparities between areas? How can we ensure that some of the excellent initiatives in Paisley are made available to people living with heart conditions elsewhere in the country?

**Nicola Cotter (Chest, Heart and Stroke Scotland):** As was evidenced this morning, a wide variety of rehab is available throughout Scotland operating to different degrees of excellence. In some areas, they have got it totally right.

We have talked a lot today about people having to make lifestyle changes, and the NHS provides a fantastic cardiac rehab service that gets people on the right track. It is important, though, that that is not just for those 12 weeks. Especially in deprived areas where motivation levels are lower, we must ensure that we maintain that rehabilitation. We need programmes such as cardiac support groups, which provide maintenance of rehabilitation plus education and information for people. In Paisley, the families come along, too. The difficulty is that families sometimes use that as a bit of respite while the person goes off to their group to do their exercise. That is not typical, but it is worth encouraging other groups to get their families along. It would be great to see families across Scotland being invited to the phase 3 cardiac rehab that is provided by the NHS, as that is the stage at which family members can have a big impact through encouraging people.

You asked what rehab is like throughout Scotland. We were talking about the difference between urban areas and rural areas. In some rural areas, there is fantastic maintenance where the community comes together to provide it; in other areas, where there is not enough motivation or there are not enough patients to sustain a maintenance group, it is quite difficult. There is still work to be done, but we have made great inroads by working with other organisations to make maintenance an important element of programmes and to get it integrated so that the NHS refers people to the maintenance groups.

15:00

**Andy Carver:** Mark Griffin is quite right to say that one key consequence of improved treatment is that more people are living with heart disease and heart failure rather than dying from it. Lynda Blue has some interesting points to make around the provision of specialist heart failure nurse services.

**Lynda Blue:** Both Chest, Heart and Stroke Scotland and the British Heart Foundation support heart failure specialist services across Scotland. We published a review paper on specialist nurse services in 2008 and, since then, there has been a small reduction in the number of specialist heart failure nurses in Scotland despite the fact that their case loads four years ago were a lot smaller and some of those services were quite new.

An increasing number of patients are living longer because they are surviving heart attacks,

but they are going on to develop multiple long-term conditions. We have to consider, in the current economic climate, the on-going maintenance and management of those people within that resource. The specialist nurses are very stretched, with big case loads, so it is difficult for them to provide education for primary care practitioners.

Looking forward, we need to think about upskilling generalists—including general practitioners and primary care staff—to be able to take the less complex cases and manage those people in GP practices rather than putting them under the umbrella of a specialist nurse. Both organisations are doing a lot of work in that area.

**The Convener:** That is a key point, which Willie Coffey and Humza Yousaf were getting at in some of their questions. If patients in more deprived parts of the country are presenting with comorbidities—they may have a heart problem, but that is unlikely to be the only problem that they have—that is part of the difficulty. Equally, if we are successful in helping patients to live longer with heart disease, that will inevitably mean that they will have to live with that and other conditions, too.

How useful is it, then, to have organisations such as the British Heart Foundation and Chest, Heart and Stroke Scotland, and specialist nurses? They deal with specialist problems, but we are saying that part of the issue involves the need to look at the patient in the round—not just at their chest or cardiac problems but at their mental health or social problems, too. All the witnesses have talked about benefits advice and housing advice. How do we achieve that holistic approach? Is it about specialisms or about the whole patient?

**Lynda Blue:** It is about the whole patient. There are a finite number of specialist nurses, and we need them to enable the generalist primary care staff to tackle—

*Temporary loss of sound.*

We need to think about existing resources because, ultimately, that cannot be achieved without extra resource, but the resources do not have to be huge. As we now have chronic long-term cardiac patients, which we did not have before, we need to look at innovative ways of making the most of existing services rather than bringing in new services or new people.

One of the projects that the British Heart Foundation is currently funding delivers intravenous diuretics at home to patients who would normally be admitted to hospital. The patients do not want to come into hospital as they are more at risk of infection, and it is expensive. There are quite a lot of things that we can look at and, as an organisation, we are trying to address

those issues by piloting and evaluating certain approaches.

**The Convener:** Thank you very much. I thank the first panel of witnesses; we need to move on now, but your evidence has been much appreciated.

15:04

*Meeting suspended.*

15:10

*On resuming—*

**The Convener:** We now move to our second panel of this afternoon's evidence from the NHS. I welcome Dr Murdoch and Dr Armstrong from NHS Greater Glasgow and Clyde, Dr McCallum from NHS Lothian, and Lynne Ayton and Professor Oldroyd from the NHS National Waiting Times Centre.

Most of you were here earlier and saw our problem with the microphones. Please wait until your microphone comes on before you speak. I am told that the problem lies with the lightning. I cannot do much about that, I am afraid, but that is the excuse.

I invite someone from each of the three different NHS arms to make a short opening statement.

**Dr Alison McCallum (NHS Lothian):** Thank you. I want to say three things. First, although there is a section of the population that carries a significantly greater burden of risk, there is a gradient across socio-economic groups. It is important not to focus just on the most deprived population. However, for people in their 40s, about 20 per cent of those in the most deprived section of the population will have multiple morbidity, compared with 9 per cent of those in the most affluent section of the population. It is possible to engage with excluded populations, such as the homeless, Gypsy Travellers and people from the most deprived parts of minority ethnic communities, but we need to move from having projects to having established services that are based on evidence of what works.

Given the gradient of mortality, if mortality alone is used as the measure of need, there are clearly people for whom we could intervene earlier and differently. However, when we systematically audited socio-economic differences in service use during the late 2000s, we did not identify socioeconomic differences in relation to primary care, rapid access chest pain clinics or planned treatment, other than in relation to coronary artery bypass grafting for the most deprived men. At the time, we did not have sufficiently good data to have a robust level of need to adjust for, and we



did not have sufficiently robust data on people from minority ethnic groups. We now have that information. I should probably stop there.

**Dr David Murdoch (NHS Greater Glasgow and Clyde):** I am a consultant cardiologist in Govan, where I have worked for the past 20 years. I was not going to make any opening remarks, but I feel that we have to clarify exhibit 8.

There has been a misunderstanding of what exhibit 8 actually shows. The exhibit shows that, among the most deprived people, there are 20 per cent fewer procedures than we would expect, based on age, sex and the death rate in that community—it does not show absolute numbers. Exhibit 9 shows that Greater Glasgow and Clyde NHS Board carried out about 3,500 coronary angiographies in one year. I can tell the committee that 50 per cent of those were among the 20 per cent most socioeconomically deprived group in our city. In absolute terms, we do far more angiography and revascularisation procedures in the most deprived communities in our city.

Therefore, the statement from Audit Scotland in exhibit 8 is incorrect. It states that fewer procedures are being done in deprived communities, but that is not a correct statement, based on Audit Scotland's own figures. Audit Scotland also highlights the issue in a soundbite at paragraph 55, the headline for which states:

"Procedure rates are lower in more deprived areas".

That is not a correct statement, based on Audit Scotland's figures.

15:15

**Professor Keith Oldroyd (NHS National Waiting Times Centre):** I speak on behalf of the NHS National Waiting Times Centre and the Golden Jubilee national hospital. I thank the committee for giving us the opportunity to comment on Audit Scotland's report on cardiology services. We are a tertiary referral centre, so we have a slightly different perspective on the report in general, but we would like to make just a few comments, which I hope will be brief.

There is no doubt that improved survival is multifactorial, but one important contribution has come through the introduction of emergency angioplasty for patients with heart attacks. We do not see any evidence of bias in who receives that treatment, but we certainly support the recommendation that the time window for the treatment be extended. Again, we see no evidence of bias in who receives sophisticated pacemaker therapy for heart failure, but we support Audit Scotland's recommendation that there should be more such treatment in Scotland, as our rates are low in comparison with those in

the rest of Europe, and even in comparison with those in England.

Paragraph 24 in the key messages document comments on coronary angiography, which my colleague Dr Murdoch has just highlighted. We certainly agree that coronary angiography is not necessarily the first-line investigation for patients with chest pain, but there is an issue in Scotland that Audit Scotland did not address, which is the continued performance of angiography alone in hospitals that have no ability to fully assess the significance of any disease that they identify or to perform angioplasty as a single follow-on procedure if that is indicated as necessary. That frequently compels patients of either sex and from any ethnic or socioeconomic background to undergo a second procedure in an interventional centre, with additional cost, inconvenience and risk. That issue needs to be addressed.

There is a fairly long section in the report on length of stay. The length of stay for most cardiological procedures is still fairly short, but thousands of patients from all socioeconomic backgrounds are admitted to hospitals in Scotland every year with a type of heart attack that is known as non-ST elevation myocardial infarction, and there is major scope for reduction in the length of stay of those patients. They are generally admitted to the local hospital, where they wait for some time to be transferred to an interventional centre. One reason why our capacity to transfer the patients is limited is because the number of beds is very limited. Some reallocation of bed numbers and having seven-day working, rather than five-day working, which makes obvious sense, should be introduced as quickly as possible to address that problem. All patients from all socioeconomic groups would benefit from that.

On cardiology out-patient services, specific issues will arise in Glasgow in the next two or three years as a result of the completion of the acute services review.

I have a joint appointment at the Western infirmary in Glasgow, and the view of my colleagues there is that, given that the Western infirmary will close in 2015, the relocation of cardiology out-patient services from the Western infirmary to the Golden Jubilee hospital would be worth considering, as that would restore some continuity of care between the general cardiological service and the tertiary facilities that exist. Of course, another issue is that the parking is a lot easier at the Golden Jubilee than it is at the Western.

**The Convener:** Thank you. I will start with a couple of questions to follow up.

Dr McCallum, in your opening statement you used the well-worn phrase "evidence of what

works". That is the substance of what is supposed to concern us on the Public Audit Committee. We have chosen to focus so much on inequalities because it is clear from the report that although outcomes generally in the area are improving significantly—for example, there has been a significant drop in deaths from heart disease—the inequalities still exist and seem systemic. You referred to preventative work. What evidence do we have that that is working at all in reducing differences in health outcomes rather than in relation to outcomes generally?

**Dr McCallum:** The reduction in smoking, for example, has happened across society over time, but it has been accelerated by the smoking ban. However, at the same time, we have seen a rise in the prevalence of obesity. For example, 65 per cent of adults in Lothian are obese or overweight and there is an interaction between diabetes and deprivation in women in relation to the risk of ischaemic heart disease—there is a three-fold increase on the baseline. In more deprived populations, we see an interaction between a series of levels of risk and deprivation, which amplifies the risk greatly.

For prevention, what works is, for example, reducing the availability of tobacco, alcohol and foods with a high-salt, high-sugar and high-fat content, increasing the price and reducing portion size in terms of drinks with a high alcohol content and changing the composition of food. Those are not things that—

**The Convener:** I am sorry to interrupt, but my question is where the evidence is that those things work.

**Dr McCallum:** We know that—

**The Convener:** Some of those things are aspirational. For example, I do not think that we have restricted portion sizes. If we have not done that, how can there be evidence that it has worked?

**Dr McCallum:** We have not done that, but other countries have.

With specific interventions such as the keep well programme, we have been able to work with the Gypsy Traveller population and have identified that 90 per cent of them have smoked and that the behaviour of those with whom we have engaged is starting to change. That work has been intensive and it has been based on developing personal relationships and ensuring continuity of care. We have found the same with people who are homeless and prisoners.

We also have an advantage in that some of the best general practitioners in Scotland are in our most deprived areas, and they have systems in

place for identifying, following up and caring for people.

Those matters involve the identification of risk and secondary prevention. We could make a big difference to a large number of low-paid workers by improving in particular the food that is available in the public sector through our hospitals, schools and local authorities. From studies done in other countries, we know that that reduces risk and sickness absence, and it improves people's working environment.

All those things make a contribution, but we need to tackle structural things. Five per cent of the population in Lothian lives in a household that has an income of less than £5,000 a year, and the household income of 22 per cent of the population is less than that required for healthy living, so those people have difficulty complying with any recommendations. If we have ways to ensure that that burden is reduced, we will start to tackle some of the multiple risks.

We have good-quality, individual-based prevention services. Our smoking cessation services work well and our cardiac rehab uptake in Lothian is now 93 per cent. For me the issue is not about having more projects, but about having properly funded research and evaluation and adapting things that work, even if we have not invented them ourselves—scaling them up, rolling them out systematically and making them sustainable. We will have failed the people with whom we have engaged if keep well just becomes yet another project.

**The Convener:** Dr Murdoch made some play of the way in which Audit Scotland has characterised what I think is the core of our concern. We can accept a lot of the points about lifestyle, but the real issue in the report is that, in certain circumstances, for some reason, those who have cardiac disease find it more difficult to get access to procedures than they should. That is what is summarised in exhibit 8. Paragraph 55 makes clear my understanding of exhibit 8: someone in an affluent part of Scotland is 60 per cent more likely than would be expected to have access to procedures, whereas someone in a poorer part of Scotland is 20 per cent less likely than would be expected to have access to procedures. If we can agree that exhibit 8 says that, why does it happen?

**Dr Murdoch:** I think that you are right. In absolute numbers, we do more procedures in less deprived areas.

**The Convener:** I understand that, but I would like to know why, in relative terms, there is a difference.

**Dr Murdoch:** The difference is based on death rates. You referred to someone being 20 per cent

less likely than would be expected to have access to procedures—that “expected” relates to the death rate, because the death rate is so high in deprived communities. If you look at age and gender distribution, we do more than would be expected in deprived communities. Your question is really whether we are doing enough. We are doing more than enough, based on age and gender distribution in the more socioeconomically deprived areas. However, is that more than enough? I do not think that I can answer that.

I have some issues with the use of the death rate, because that is a proxy measure for need. The operations do not prolong the life of most patients—they are not things that will stop people dying, for the most part. They are treatments for angina—that is, chest pain. Doing more such procedures among the more socioeconomically deprived will not change mortality.

**The Convener:** So you are saying that the table demonstrates a statistical quirk, because it uses the wrong statistics.

**Dr Murdoch:** That is one argument. There may be a signal there—

**The Convener:** Sorry, are you saying that there is no problem?

**Dr Murdoch:** No, I am not saying that. There are other reasons why the death rate is so high. It is not because there has not been enough bypass grafting and revascularisation in those communities. You cannot say that on the basis of the figures in exhibit 8.

**The Convener:** The committee is not attempting to do that. We are attempting to say that, on the basis of the exhibit—in relative, not absolute, terms—it seems that some sections of the population are not getting as many of those treatments and procedures as one would expect. You are telling me that that is because of a mistake in the statistics.

**Dr Murdoch:** No.

**The Convener:** Well, it is a mistaken use of mortality rates, because they are a proxy measure.

**Dr Murdoch:** I accept that the death rate is a proxy measure for prevalence or need in the community. I also have a problem with equity of access, because the major push in the health service over the years has been to provide the same services in all sites in the city, for all parts of the community. No matter where someone lives or where their GP is, they will have access to the same service with the same waiting time. That is certainly the case in Greater Glasgow and Clyde. Regardless of whether a GP is in the east end or the west end, they can send their patient to the

same chest pain clinic with the same waiting time and get the same tests done.

15:30

**The Convener:** I am not sure that that is at issue. There is no suggestion in the report or in any of the evidence that we have taken that the acute sector of the NHS is deliberately opening its doors more widely for a particular segment of the population. However, in the discussions that we had with GPs this morning, they certainly said that they find it more difficult to get their patients from more deprived areas to present, in a way, and to accept their symptoms, which allows them to make the referral on to your services that you want them to make. That is what we are trying to get at.

**Dr Murdoch:** Yes. I accept that that is the problem. It is about what happens before the person sees their GP. Once they see their GP and there is a diagnosis or the condition is suspected, there should be an unbiased service from then on, no matter where the person stays or which socioeconomic group they come from.

**The Convener:** The GPs also said that, with this group of patients, comorbidity and complex comorbidities, particularly from much earlier in life, represent a bigger problem than in other parts of the population, and that in their experience the acute sector is becoming increasingly specialised and therefore does not take account, or is unable to take account, of such comorbidities. In other words, they feel that the acute sector treats their patients for one specific thing and does not consider their wider concerns.

**Dr Murdoch:** We recognise that. Over the years, there has been an increasing demand for more specialist services, and we have now reached the stage where we realise that we have to step back from that and have a more generalist approach. At present, the GP is the generalist or the case manager for most patients. We are looking at having joined-up cardiovascular clinics with diabetic clinics in hospitals to try to take account of the comorbidities.

**The Convener:** Thank you. I call Mrs Scanlon.

**Mary Scanlon:** Thank you, convener, and thank you for helping to explain exhibit 8.

Because I am a Highlands and Islands MSP, my second question will be about the 40-minute travel time to reach the nearest regional centre. I do not know whether any of you will be able to answer that, but I hope that you will.

Humza Yousaf and I visited the keep well project this morning, and we were very impressed by what it is doing and the progress that it is making. Two things stand out for me. One is that, in the *British Medical Journal* research by Helen

Mary Richards, Margaret Reid and Graham Watt, the response rate to interviews was 49 per cent in the deprived group and 73 per cent in the affluent group. I put that alongside a point that has been made several times today, namely that people make lifestyle changes only after the event. Many of you have spoken about people accessing cardiac services and rehabilitation services after the event.

Will you give us some advice from your perspective about what should be done before the event? How can we persuade people to make lifestyle changes before they have a heart attack rather than waiting for it to happen? We also heard that emergency treatment is more expensive, and as this is the Public Audit Committee rather than the Health and Sport Committee, we obviously look at the matter from that point of view.

**Dr McCallum:** I will make some comments from our experience, which has been based on international evidence. We know that, as you mentioned, patients present with symptoms in different ways. Part of the work that we have done involves training health professionals so they are better able to understand different presentations. We use techniques such as teach back, which enables the patient to participate more actively because they teach their symptoms and what they have to do back to the health professional. That is much more likely to result in people being able to comply with treatment and understand what has to happen. About 20 per cent of the population have problems with numeracy and literacy that mean that they cannot take advantage of prevention. They find it difficult to engage with messages that have no real meaning in their daily lives.

Where the keep well programme scores is that it is a 45-minute interview that covers not only cardiovascular disease, but stopping smoking and reducing alcohol consumption—and how to think about doing those things—as ways of helping to treat people's wallets by putting more money in their pockets. It also covers the idea of eating differently, not just because it is good for you but because, by changing the way that you eat, you can have more money and tackle some of your other priorities.

The Academy of Medical Royal Colleges recommends that all doctors should be trained to understand and to respond effectively to patients from different socioeconomic and ethnic groups. As a group of professionals—I speak also as the chair of the Scottish directors of public health group—we will be looking at how to put that into practice. The Royal College of Nursing has similarly come up with a document that will transform the way that we are able to work with patients.

The issue of people having difficulty presenting before an emergency was mentioned. We have found systematically that younger people, people who work difficult shifts, people who have low incomes and people who are carers—particularly women—find it difficult to use services. People with comorbidity find it difficult to access services physically, but simply providing transport does not seem to be enough. We need to learn how to respond better to people now that we know a bit about who finds it difficult to use services.

**Mary Scanlon:** So you are saying that a straightforward medical approach or a phone call from the doctor or the GP practice is not really enough. The keep well pilot is a more holistic approach that addresses mental wellbeing, poverty issues, housing issues and so on. I know that it is a pilot and that it is too early to form conclusions, but do you feel that that is the type of approach that should be rolled out across Scotland? Is it the answer to our poor cardiac health record in Scotland?

**Dr McCallum:** It is one answer—it is one part of an answer. Certainly, a similar engagement approach works with most of the populations who experience the greater burden of risk. We have done qualitative work as part of the keep well programme evaluation. Patients have said that being invited specifically using easy-read letters, the GP surgery using NHS 24 to make contact out of hours and being offered the service where they were gave them a level of value and respect as individuals that they had not seen before. Both what was happening and the symbolism of that in those communities were seen as valuable.

**Mary Scanlon:** Paragraph 48 of the Audit Scotland report states:

“the NHS has gradually introduced services for patients with a heart attack in six regional centres across Scotland”.

However, as an MSP for the Highlands and Islands it concerns me that the report goes on to say that

“patients over 40 minutes' travel time from the nearest regional centre providing treatment”

face a problem as regards receiving treatment.

What has been done to ensure that patients who have a heart attack receive the appropriate treatment within that timescale? I appreciate that 40 minutes is challenging.

How are you improving your data collection to ensure that a higher percentage of patients with a severe heart attack receive primary percutaneous coronary intervention, and how will that be measured and monitored?

**Professor Oldroyd:** Thanks for that question, which speaks to a comment that I made earlier. The 40-minute target to which you refer is the

maximum road transport time that the Scottish Ambulance Service is advised to consider in deciding whether to transfer a patient directly to a primary PCI centre or to give the patient a clot-busting drug—ideally in the back of the ambulance—and then to take them to the primary PCI centre. The Ambulance Service is allowed 20 minutes at the scene and 40 minutes in road transfer time, which gives the primary PCI centres in the west of Scotland—ourselves and Hairmyres hospital, in East Kilbride—30 minutes to get the artery open. That is where the 90-minute so-called call-to-balloon time comes from.

We would like to extend that to 120 minutes, as that would mean that more people would be able to get primary PCI. However, that would still not address the issue of patients who live in very remote or rural areas. One solution in the Highlands that is not being explored at the moment is 24/7 emergency angioplasty at Raigmore hospital. Raigmore hospital does angioplasty, and the only rationale for starting angioplasty at that hospital was to offer emergency angioplasty 24/7, but that has still not started. Someone who had a heart attack on Skye could get primary PCI in Raigmore hospital if it were running a service, but instead of that they are put in a helicopter and brought to Glasgow. There is room for expansion there.

Some patients in Scotland will always be too far away from primary PCI centres, but we have improved the service for them as well. They used to get the clot-dissolving drugs and then go directly to their local hospital and wait to see whether the drugs worked before an emergency transfer was considered. That is not the protocol now. As soon as they have received those clot-dissolving drugs, the emergency transfer takes place by road, by fixed-wing plane or by helicopter. So, even for those patients who, even with a 120-minute window, will not get primary PCI, the service has been improved over the past few years.

**Mary Scanlon:** Can I verify something to make sure that I have got it right? Paragraph 48 states that NHS Grampian now provides out-of-hours cover but that

“NHS Highland does not provide any out-of-hours cover.”

Can you confirm that that is still the case?

**Professor Oldroyd:** That is still the case, unfortunately.

**Willie Coffey:** I would like to hear your views on what Professor Watt told us and showed us this morning relating to the distribution of GPs among the communities of Scotland. He showed us a graph that clearly indicated that, in the communities in which these multiple conditions exist among the population, there are far fewer

GPs allocated on a per capita basis. Do you recognise that and share his concern? Do you have any comments on his message, from the deep end project, that the more intense and the greater the engagement with such communities, the better the outcomes will be for those populations?

**Dr McCallum:** Yes. Across Scotland as a whole, the distribution of general practitioners is broadly flat. In some areas, there have been specific interventions to reduce the catchment areas of practices where there are higher levels of need, but it would be beneficial to look at that systematically to enable the increased burden of illness and the opportunities for prevention to be taken on board.

15:45

**Willie Coffey:** If we recognise and know about the issue, why have we done nothing about it for many years?

**Dr McCallum:** That is probably because we are better at general practice than most other countries are. If the arrangements were divided up, each general practitioner in Scotland would not have a big practice in comparison with the international picture. We have pretty much the best general practice in the world, delivering the best services in the world, but that does not mean that there is no room for improvement. That is also the case when we look at the evidence and at the need for double appointments, the need to involve a wider range of staff and the need for a wider range of services that would deliver a fiscal benefit as well as a health benefit.

**Willie Coffey:** The clear message that I got from the visit this morning was that we need to place GPs where they are needed—that was the bottom line. We need to do more of that. It is encouraging that you have at least acknowledged and responded to that clear message.

**Colin Beattie:** I am interested in a couple of points. In the part on value for money in Audit Scotland's report, paragraph 104 on page 33 talks about the use of statins. When we visited CHSS this morning, the people to whom I spoke had not been and were not on statins. That is interesting because statins are touted nowadays as a great preventative measure for heart conditions, as they control cholesterol. Why would a number of people who have a heart condition or who have had a heart attack not have got statins before or after their conditions arose? The report talks about how much could be saved by using statins.

**Dr Murdoch:** I do not recognise that scenario. All patients who come through hospital having had a myocardial infarction are started with a statin.

**Colin Beattie:** All that I can say is that—

*Temporary loss of sound.*

**Dr Murdoch:** The NHS Quality Improvement Scotland audit in 2010 showed that the statin prescription rate was extremely high among patients with documented coronary heart disease. I am not sure what happened to the two people to whom you spoke this morning. Had they both had myocardial infarctions?

**Colin Beattie:** There were several people—if I remember correctly, I spoke to three people. Each had had what they termed a heart attack and had been treated for that. I was particularly interested in their treatment before and after, in which statins did not feature at all.

**Dr Murdoch:** The protocol in NHS Greater Glasgow and Clyde is that everyone who has had a myocardial infarction gets a statin. As I said, when we audited that, the prescription rate was extremely high—at about 90 per cent. Some patients are intolerant and cannot take a statin for whatever reason; we can give them alternatives. However, all such patients are started with a statin.

**Colin Beattie:** What you say fits in with Audit Scotland's report.

**Humza Yousaf:** For the 27 years that I have been around on this planet—not that I was on another planet before—I have been told that, because of my ethnic background, I am eight times more likely to develop type 2 diabetes, four times more likely to have a heart attack and twice as likely to have prostate cancer when I am older. On the plus side, it also means that I get a seat to myself on the train and on the plane, but that is another matter.

Dr McCallum said in her opening statement that better statistics were being gathered. What do those statistics show about why the figures have not improved over the years? Or have they, in fact, improved?

**Dr McCallum:** Yes, they certainly have. I will just look at my notes to ensure that I get the numbers right. The world-leading Scottish health and ethnicity linkage study has shown that, given the burden of heart disease, for every 100 white Scottish men with angina one would expect 189 men of Pakistani origin to have it, and for every 100 white Scottish women with angina, one would expect 160 women of Pakistani origin to have it.

The burden in terms of risk factors, obesity, diabetes and so on is higher among the south Asian populations. However, once people present with a myocardial infarction—this was not the case 20 or 30 years ago—the longer-term survival rate, by which I mean surviving for three to five years, is higher among people from the south Asian

population and women in particular. The authors of the study suggest that that is because smoking rates get lower very quickly and people follow the instructions that they have been given once they have been through the system.

Although the burden of risk remains very high, and our guidelines for intervening early with overweight people and our ability to provide what I would call in the jargon “culturally competent services” with which people can engage—by “services”, I mean prevention and leisure facilities and so on—are not as good as they could be, we have found that, once people get into the system, the difficulties that existed 20 or 30 years ago no longer seem to exist.

**Humza Yousaf:** I appreciate the glimmer of hope, from a very selfish point of view and also in general terms. You touch on the nub of the matter, which is what happens once people present.

When we visited the keep well project today, we heard about the work on the south Asian project. It was interesting to hear that when another south Asian face approaches the door of somebody from the south Asian community and immediately speaks the same language, a host of barriers are broken down. That is not rocket science at all.

In your opening comments, you spoke about the need for established services and perhaps even mainstreaming rather than just undertaking more and more projects. I understand what you are saying. How do you mainstream that approach without taking away from the specialist element? Those who are involved in the south Asian project went to GP practices in more ethnically diverse parts of the city and used a very targeted method. I can see that that would take up a lot of resource, but is NHS Glasgow looking at that, and possibly NHS Lothian too, in relation to other cities such as Edinburgh?

**Dr McCallum:** The total budget for the keep well project in Lothian is £1 million a year, and we have a £1.4 billion budget. Providing services with which people can engage is cost effective. It can cost about five times as much to engage with populations that traditionally find it difficult to use services, but the costs of failure are about 10 times as much.

From your point of view as the Public Audit Committee, it is not just a question of human rights, the right to health or the need to provide high-quality evidence-based services: it makes sense in terms of sustainability.

**Humza Yousaf:** I do not wish to labour the point, but are we looking at how to mainstream that approach? Can you give that reassurance?

**Dr McCallum:** Yes.

**Dr Murdoch:** Speaking for Glasgow and the south Asian community, we have a secondary prevention project that you have not mentioned yet, which is the MELTS—minority ethnic long-term support—project. It uses south Asian pharmacists to go into mosques and community centres in the south of Glasgow. The issues that they deal with are mainly diabetes and heart disease.

We have tailored cardiac rehab, including a home programme for Asian women, based on a DVD. We also use secondary prevention measures to target these issues. Primary prevention for south Asians, as well as the most deprived, is centred mainly around keep well. You alluded to mainstreaming something that we should be targeting at the most deprived. I am not sure about that. Mind you, I know that the Government is keen to do that before it has seen the evaluation.

I can share with you the five-year evaluation of keep well in Glasgow. After five years, there was no difference in mortality between the keep well practices and the non-keep well practices. There were improvements in some risk factors and some good practice was going on. Some would argue that five years is long enough, but at this stage the evaluation has shown no change in mortality. The keep well practices had a higher coronary heart disease mortality in general than the non-keep well practices; given the discussions on deprived communities, that is what you would expect, but unfortunately there was no narrowing of the gap in the keep well practices.

**The Convener:** Mrs Scanlon has a specific question before we draw the panel to a close.

**Mary Scanlon:** I have a specific question for Dr Jennifer Armstrong—I am not sure that she has spoken yet, but anyone else can pitch in.

We were talking about the report from Audit Scotland. The Auditor General states:

“There is scope to make efficiency savings of at least £4.4 million ... using less expensive tests, reducing length of stay, increasing day case rates and making savings in prescribing and procurement.”

He goes on to say:

“These efficiency savings are a conservative estimate”.

Are there efficiency savings to be made?

**Dr Jennifer Armstrong (NHS Greater Glasgow and Clyde):** We send our cases to the Golden Jubilee, which has very good day case rates. We have a team that looks at procurement throughout Scotland. However, we are always keen to look at all the areas. We have prescribing teams that work with GPs in primary care and in the secondary care sector. Atorvastatin, which has now come off patent, used to be one of our

highest cost drugs. We have made a lot of savings there.

The broader point is that we are starting a clinical services review across Glasgow and Clyde, partly because we are seeing an increase in the number of people with chronic diseases and multiple chronic diseases. There was a good debate earlier about the specialist side versus the generic side. We have to look right across the NHS community—primary and acute care—at how we are delivering services for people now and how we will deliver them in future. We have to look at the balance and range of services that we provide beyond about 2015.

**Mary Scanlon:** Given that NHS costs have almost doubled in eight years—I think that it is £180 million for drugs, which is only for NHS services drugs—is it realistic to think that more savings can be made? The Auditor General gives a specific figure that he says is a conservative estimate. Is that a reasonable assertion?

**Dr Armstrong:** We would have to go back and look at our rates. A lot of the savings have already been made, for example in the drugs budgets and the day case rates, but there is always room for us to look at our efficiency across the sector; length of stay is certainly an issue that we will look at in more detail.

**Mary Scanlon:** Thank you. I did not want you to be left out.

**Dr Armstrong:** I was conscious that there were a lot of experts on either side of me.

**The Convener:** It would have been wrong to let a session pass without Mary Scanlon asking about saving money.

**Lynne Ayton (NHS National Waiting Times Centre):** In his opening statement, my colleague alluded to savings. There are definitely savings to be made in the avoidance of repetition of tests. Keith Oldroyd talked about the fact that we still send patients to centres that do testing only. We should be seriously looking at reviewing those services and perhaps sending all patients straight to the regional centres.

**The Convener:** Thank you—

*Temporary loss of sound.*

Apologies again for the difficulties with the microphones.

16:00

We are joined by Dr Aileen Keel, the deputy chief medical officer in the Scottish Government; and by Dr Barry Vallance, who is the lead clinician for heart disease in Scotland and a consultant

cardiologist. Mark O'Donnell, from the Scottish Government, has had to send his apologies.

I am happy to invite the representatives of the Scottish Government to make any introductory remarks that they might have.

**Dr Aileen Keel CBE (Scottish Government):**

Thank you for the opportunity to speak to you on an issue that we in the Scottish Government think is a real success story for Scotland.

Just this week, the registrar general for Scotland reported that deaths from heart disease fell by a further 7.3 per cent in the first quarter of this year. I know that this committee is well aware of the fact that there has already been a reduction of more than 60 per cent in premature mortality from coronary heart disease in the past 15 years, and that, within that figure, the reduction in mortality in the most deprived areas of the country is almost twice as fast as that in the least deprived areas.

That significant achievement is the culmination of long-term investment in the services that we know make the most impact. They include measures that are aimed at preventing heart disease, such as the keep well approach, which we have heard a lot of discussion about today. There has been increased prescription of statins as well as treatment methods such as increased access to primary angioplasty and cardiac rehabilitation. We feel that that approach has resulted in savings of millions of pounds that have been directly reinvested into patient care. We are committed to ensuring that that continues.

There has been a lot of discussion about the Audit Scotland report's finding that people with heart disease are getting access to better treatments faster than ever, although there is still an acknowledged difference with regard to access for people in the most deprived areas. We know that waiting times for the two main procedures—angiography and revascularisation—are getting much shorter than they were previously, and we know that wider health improvement approaches, such as the smoking ban, as well as the more specific programmes, such as keep well, have all contributed to the fall of death rates from CHD.

However, we are not complacent. We recognise that we can do more to deliver further improvements and we are keen to tackle the issue of raising awareness in the most deprived areas of the country. I was heartened to learn today that the British Heart Foundation, Chest, Heart and Stroke Scotland, and the Scottish Ambulance Service will work together to try to achieve more awareness in those deprived communities of what the symptoms of a heart attack might be, so that people get into the system earlier. We know that—as the Audit Scotland report confirms—once

people are in the system, they get equal access to treatment.

As I said, there has been a lot of discussion about the keep well approach. Keep well has been rolled out after being piloted in waves 1 and 2, and we are mainstreaming it across the country with an investment of £34 million over the next three years of the spending review. If the committee would like, I can say more later about the evaluation of that project, which is important.

We are committed to tackling heart disease through the on-going implementation of our heart disease action plan, which focuses on the panoply of issues, from prevention to intervention and rehabilitation back in the community. We also have an efficiency and productivity programme, in which I am sure the committee will be particularly interested, as it relates to the savings that might be accrued from heart disease treatment and care.

The committee is already aware of Healthcare Improvement Scotland's heart disease improvement programme, which is mentioned in the Audit Scotland report. A final measure in our panoply of measures to continue to tackle the problem of heart disease is the revision of the general medical services contract and the quality and outcomes framework, or QOF, which I can talk about later if members would like.

On the implementation of the heart disease and stroke action plan, the local cardiac managed clinical networks in boards are key to delivering truly person-centred services that will continue to improve outcomes for people living with heart disease, no matter where they live in the country. Every board in Scotland has one of those MCNs.

Our national advisory committee on heart disease, the chair of which is Dr Barry Vallance, who is sitting on my left, will continue to provide the necessary direction and support for all that work and to report regularly to ministers on progress. I hope that we maintain the current momentum and the reduction in mortality from coronary heart disease that has occurred over a period of decades.

**The Convener:** Thank you, Dr Keel. Dr Vallance, do you want to add anything?

**Dr Barry Vallance (Scottish Government):** I would just like to reiterate what Aileen Keel said. After I first took up post in May two years ago, I visited every health board in Scotland. I was impressed by the enthusiasm among the clinicians, those in the managed clinical networks, the nursing staff, the rehabilitation staff, the general practitioners and the lead clinicians to deliver the action plan. There is still a significant amount of work to do, but I have been impressed by the enthusiasm and vigour with which the staff are delivering.



We have appointed a manager who has helped me to benchmark where we are with all the priorities, to pick out where we need to do more work and to prioritise other areas that have perhaps not had the same focus of attention. I am pleased that that process is now well embedded in the work of the managed clinical networks and is delivering the action plan as set out.

**The Convener:** As Mary Scanlon has to leave soon to catch her train, I ask her to kick off the questions.

**Mary Scanlon:** Thank you, convener. I apologise for having to leave early.

I very much welcome the reduction in deaths in Scotland, which is highlighted in exhibit 5 in the Audit Scotland report and on which Dr Keel has given us more up-to-date information. My understanding is that death rates from heart disease have been falling in all European countries. Is Scotland doing something different? Are death rates here falling any faster than those elsewhere throughout Europe, where there is a trend downwards?

**Dr Vallance:** I am not entirely certain how much ahead of the game we are in Scotland, but we were so far behind, and we are making an impact. The message that we should take from the figures is that we have come from so far behind, but we are catching up. We are not there yet, but we are catching up.

**Dr Keel:** I can confirm that. Death rates are falling across the developed world, although ours are falling faster than those in other countries, but we started from a much higher baseline.

**Mary Scanlon:** I appreciate that, but that is good news.

My second question relates to the Highlands and Islands, although I appreciate that you have a Scotland-wide responsibility. With the previous panel, we discussed the fact that NHS Highland is possibly the only mainland health board in Scotland that does not have out-of-hours PCI treatment. As a resident of Inverness, I would like to think that I have equality of access to treatment with patients elsewhere in Scotland. How is the NHS ensuring that patients in remote and rural areas and the islands have the same access to services and life-saving treatments as patients elsewhere in Scotland?

**Dr Vallance:** I am more than happy to answer that—

*Temporary loss of sound.*

—would need a significant increase in the number of staff in the centres to deliver that, because it is an on-call service. It is just not practical to ask two individuals to be on alternate

nights, 24/7. A manpower issue is preventing provision of the service in Inverness.

However, as Dr Oldroyd mentioned, I have asked the Scottish intercollegiate guidelines network to review the current guideline and the timescale that it gives. A specific request has been made to consider an extension of the travelling time by 30 minutes. That would result in a significant increase in the number of individuals who would be able to have primary angioplasty rather than thrombolysis. The SIGN group is looking at the literature. It would be premature for me to say what the result of the review will be, but there are two sides to the issue. One group believes that angioplasty at any time—even if it is delivered later—is better than thrombolysis. A smaller group believes that if you delay opening the artery and wait a bit longer—particularly with young men who have a big infarct involving the front of the heart—you put them in jeopardy. My review of the literature does not support that view. I have asked SIGN to review the literature and to come up with a change to the guideline, if it concurs that that is the right thing to do.

Although we are looking at an expansion of the service, as Keith Oldroyd said, there will always be some people who will be too far away, but they will get thrombolysis. In case that fails, they will be taken to the heart attack centre. I agree that it would be good if we could increase the number of primary angioplasty centres so that Inverness would be covered, but it is a manpower issue.

**Mary Scanlon:** It is also an issue of economies of scale and having a critical mass to justify the provision of that manpower.

**Dr Vallance:** Absolutely.

**Mary Scanlon:** I look forward to receiving updates on the issue. Thank you.

**The Convener:** I would like to ask a similar question about rural provision, although it is about provision in Dumfries and Galloway rather than provision in the Highlands. An issue that has been raised with us in our consideration of the Audit Scotland report is that those who receive an implanted defibrillator in Dumfries and Galloway have to travel to Glasgow on a regular basis for the aftercare that is required. That seems quite a long journey, particularly for someone from somewhere such as Stranraer. Is there a reason why that service could not be provided in Dumfries and Galloway?

**Dr Vallance:** You are absolutely right. There are two aspects to that, the first of which is that the expertise to deliver that needs to be available locally. In addition, modern devices can be looked at by telemetry, so it is possible to interrogate them from afar. I am not sure which devices are being implanted—my colleagues from NHS

Greater Glasgow and Clyde might have been able to answer that—but that is something that we should look at. It should be perfectly reasonable to interrogate such devices.

On that theme, we are looking at the use of telemedicine to expand the provision of services to rural areas. Along with the lead for that, I have been looking, with one or two other colleagues, at areas in which we could expand the ability of specialist nurses and perhaps general practitioners to consult directly with consultants in the centre through the use of videolinks. There are pilots on that, and we are looking to extend that facility. Some moneys are available to invest in that.

**The Convener:** Thank you very much.

**Colin Beattie:** A recurring issue for this committee and for Audit Scotland is the quality of data. It seems that most of the boards produce their data in slightly different formats, which means that there is incompatibility. We are always being told that we cannot compare that with this, because it does not make sense to do so. We see anomalous figures that make us think that we have found something interesting, but then we find out that the figures in question were produced on a different basis. What steps are being taken to have a more homogenous system of national data collection?

16:15

**Dr Keel:** The work that Healthcare Improvement Scotland has recently done in auditing against the clinical standards for cardiology and cardiac disease has gone at least some way to addressing that problem. It is keen to compare like with like.

Waiting times data is certainly collected in a highly standardised way. In fact, we have had to devise novel ways at the board level to collect the data on access from referral to the rapid access chest pain clinic to intervention, because there is unfortunately not a simple electronic way of returning it centrally to ISD Scotland. Nonetheless, with direction and funding from the Scottish Government, the boards have taken a very standardised approach to that. The data on waiting times is rigorously quality assured and scrutinised. Similarly, the mortality data is validated by ISD Scotland, and the hospital data that are returned on the numbers of heart attacks, for example, are quality assured by it. I am not quite sure what data you are referring to.

**Colin Beattie:** I am referring to the report that we are discussing and other reports that we have had. I am taking the opportunity to raise the point in a wider sphere. Is any task force bringing data together so that it makes sense?

**Dr Vallance:** I will add to what Dr Keel said. One problem with the huge audit of cardiology services that was done was that it was intensive and demanding of the staff from the managed clinical networks and the clinicians. It has been clearly pointed out that repeating that audit is almost impossible because of the amount of work involved and because it takes people away from delivering care.

We have come up with a relatively small number of key quality indicators, which will be standardised across the boards. They have been approved by the national advisory committee and they were submitted to the boards fairly recently. The boards have been asked for their views on whether they can deliver them. That will make data much more easily obtainable, and the process can be more easily repeated. When people have carried out a large audit, they need to go back and see how they are faring to make things better. By using more selective data, we hope to be able to repeat the process and to have an on-going process so that we can monitor what people are doing.

**Colin Beattie:** When will those indicators be available?

**Dr Vallance:** They are available now. They have gone out to the boards for consideration and have been ratified by the national advisory committee. They will be put in place very shortly.

**Colin Beattie:** Would it be possible for the committee to see them?

**Dr Vallance:** Sure. They have been developed and approved.

**Colin Beattie:** That would be interesting in view of previous discussions.

**Dr Vallance:** Yes.

**Dr Keel:** What Dr Vallance has just outlined reflects the approach that we are taking to data collection across the piece in Government. I chair the Scottish cancer task force. When I took over that role, I was struck by the enormous amount of audit data that was being collected across the country, much of which was not acted on. We are embracing in Government the approach of developing a limited number of key quality indicators that really give an idea of patient outcomes, and the approach in the area of heart disease reflects that.

**Dr Vallance:** One of the ways in which we are doing that is through the bundle of data for patients. That is what we will use for the quality indicator for heart failure patients. Do not reinvent it; it has already been looked at in detail, and boards are expected to collect that for another purpose—the patient safety programme. That is

the data that we would use for the indicator for heart failure.

**Mark Griffin:** In your opening statement, you talked about the reduction in mortality rates. That is great news, but it means that there are more people living with a condition, as was mentioned in our previous panel discussion, which puts an increased focus on return outpatient appointments. In particular, Audit Scotland flagged up that around 17 per cent of people from more deprived areas fail to make outpatient appointments at cardiology clinics, compared to 8 per cent in less-deprived areas. The report highlights a number of projects that are under way to reduce the demand on outpatient clinics, but I wonder whether any programmes are specifically targeting people from deprived areas not making appointments as well as trying to reduce demand more generally.

**Dr Vallance:** One of the changes that has come about is the use of cardiac rehabilitation nurses to see patients following an event. We changed the definition of myocardial infarction two or three years ago so that anyone with a positive blood test is designated as having a myocardial infarction. They should all get cardiac rehabilitation automatically. So, with almost the same resources, we have increased the amount of cardiac rehabilitation that is delivered.

One way in which to reduce the number of return appointments to cardiology clinics is to involve nurse specialists and other allied professions to see the individuals. They will see patients back at their own heart attack return clinic, and if there are issues they will raise them with the consultant who initially looked after the patient. That clears more space for those who definitely need to come to the clinic—because not everyone needs to see their cardiologist at that point to see how they are. If they are doing well, taking the right medications and following the programme, they do not need to see their cardiologist. However, if they have on-going symptoms, they need to see the cardiologist to decide whether they need further management.

Employing other existing groups to see patients has made a significant difference, including in my own hospital. As I have gone round the boards, I have looked for good examples that we can utilise in other boards and to spread good practice.

**Mark Griffin:** It is obviously good if we can move demand away from a cardiologist to a nurse. Another witness told us earlier that the number of cardiac rehab nurses is down even though the number of patients that they have to deal with has gone up. Are you content with the number of nurses that we have?

**Dr Vallance:** It would be better if there were more, as they are stretched—there is no doubt about that. The delivery of cardiac rehabilitation is the responsibility of individual boards and depends on how much the individual boards invest in those services. It is not something over which we have control on a national basis. Initially, we had a significant number of heart failure specialist nurses and rehabilitation nurses who were pump-primed through the British Heart Foundation, and boards have agreed to take those on. There was a precarious time for that a short while ago, but the matter has been sorted and boards have made those posts full-time and part of their establishment. The number of nurses who deliver the care is the responsibility of the individual boards, which need to meet their targets. As they are audited against the quality indicators that have been described and published and against the clinical standards that were published last year, the boards have the responsibility for meeting those targets.

**Dr Keel:** Heart failure nurses are clearly a scarce resource. Lynda Blue referred to the need to train other members of the healthcare team, particularly in primary care, to deliver heart failure services without using a specialised nurse. We have provided £150,000 to support the establishment of a national heart failure education programme, which is based on a very successful programme called stroke training and awareness resources—STARS—that we used to disseminate stroke care skills. It has been tried and tested in that area and we are going to try it in the area of heart failure. That will expand the cohort of trained healthcare professionals who can deliver heart failure services and increase capacity in that area.

**Willie Coffey:** I welcome the news in your opening remarks, Dr Keel, that there was a further reduction in deaths from heart disease in the first quarter of this year, which is a positive story to share. You also said that once people are in the system they get equal access to treatment. It is important to stress that point, but the flavour of much of our discussion today, particularly this morning, was what happens before people get into the system and how we can improve on that.

I do not know whether you were here during my attempted summing-up of one of this morning's sessions, but Professor Watt and the two doctors who joined us for that session said that more doctors are needed in certain areas and that GPs need more consultation time with patients, so that interventions can be made at an earlier stage in people's lives in order to try to avoid the kind of outcomes that, sadly, Scotland has been used to for many generations. What are your comments on that?

**Dr Keel:** The issue of needing more consulting time with people from deprived backgrounds who usually have many comorbidities is very important. When Dr McCallum was talking about the keep well programme she mentioned the fact that the nurses who deliver the interviews and interventions have 45 minutes in which to do that. It is therefore not a quick, 10-minute consultation but a focused one to assess the patient's cardiovascular risk. The problem, however, is getting people to attend the keep well visits. NHS boards have taken innovative approaches to target the people who are hard to get at in that regard so that they will pitch up and be assessed.

Dr McCallum said that the spread of general practitioners across Scotland is pretty flat, in that most practices are roughly the same size, apart from those in the Highlands and Islands perhaps, which has a number of very small practices. I am not aware whether any work is being done to look at areas of deprivation and perhaps consider a higher GP-to-patient ratio for such areas; I will take that issue back to St Andrew's house and raise it with my primary care colleagues.

**Willie Coffey:** That is encouraging.

*Temporary loss of sound.*

The convener discussed with friends and colleagues whom we met over lunchtime the issue of cardiac risk in young people. That issue was not within the scope of the Audit Scotland report, which therefore did not cover it. Is there an initiative for screening for heart conditions in people between the ages of 14 and 35 that is not exclusively for those engaged in sport? Are we doing anything or are we planning to do anything to improve the life chances of people in that age group by improving their chances of surviving a heart attack?

**Dr Keel:** I will answer that first, then hand you over to Dr Vallance, who is expert in that area.

My understanding of the evidence is that although some countries, notably Italy, have widespread screening programmes for young people, but mainly those who undertake sport, there is little evidence of benefit in preventing sudden cardiac death. A lot of cardiac conditions are not detectable using current screening methods—that is point number one.

Point number two is that we have been piloting, with the help of Professor Stewart Hillis, a programme in Glasgow that I think mainly involves young footballers. I am not sure whether its outcomes are available yet, but perhaps Dr Vallance knows more about that.

16:30

**Dr Vallance:** I do not know the outcomes of that, but Dr Keel has a point—screening large numbers of people for a relatively rare condition is not particularly productive. It is productive when a disease is detected in an individual, but it is a costly, time-consuming exercise.

What is much more important is that, when we find a key individual who is the index case, we look at close family members. We are much better at genetic testing and specialist services are developing for people who may have genetic inherited conditions. There are two groups: people who have heart muscle disorders, or cardiomyopathies, and who are at risk of sudden death; and people who have underlying electrocardiography abnormalities that cause them to have rhythm problems.

In Scotland, we have a well-developed network called FANS—the Familial Arrhythmia Network for Scotland—that fans out and is being led from Ninewells hospital. There is strong encouragement to collect more data to see the extent of the problem within the population. There are specialist clinics—I have been round them—and geneticists are available in each of Scotland's three regions. When someone presents with a history, either, sadly, because a family member has died suddenly but not due to myocardial infarction, or because they are found to have an abnormality in an ECG, there should be a push to look at all the family members to see whether they have that same condition. Genetic testing is needed and, as I said, we are getting much better at that. I presume that it is that type of condition that you are referring to.

**Willie Coffey:** That is helpful. I am sure that we can follow up on that in our report.

**The Convener:** Indeed.

**Humza Yousaf:** With the first panel, I pursued a point about the Scottish Parliament's radical approach to smoking and alcohol—a previous Executive imposed a ban on smoking and we have passed legislation recently on minimum alcohol pricing. In Glasgow, in particular, there is a proliferation of takeaways selling greasy foods. Are we doing enough? How radical can we be in telling people what they can and cannot eat?

At the keep well project today, it was clear from the patients that Mary Scanlon and I talked to that, first, it was a much cheaper option to go for a greasy takeaway and, secondly, it is readily available. Although people know that that is bad for them, they did not understand just how bad it could be—that having a takeaway on most days of the week can be just as fatal as drinking too much.

**Dr Vallance:** I agree. I do not know whether you saw the television programme about how we all become fat that has been on the past couple of nights.

**Humza Yousaf:** No, my television is restricted to news and football at the moment.

**Dr Vallance:** It was looking at that very problem. The food industry has subtle ways of introducing its products into our society. The programme was very interesting, and the message that I got is that there is almost a case for legislation to prevent the food industry from promoting products in the way that it does. The industry will say that a product is very low in fat, but they will forget to say that it has substituted the fat with high carbohydrates, which makes people fat. It also sells products that contain high salt levels but, because it has no fat in it, the industry says that it is safe. That is not at all the message that people need to hear. A huge amount of work needs to be done in that area, but you would have to consider legislation on the food industry.

**Dr Keel:** I suppose it is what you might describe as a wicked problem, and it is getting bigger, literally. We are in the same place with overweight as we were 20 years ago with smoking—of course, it is not just overeating; it is lack of physical activity as well. It is only just beginning to reach the public consciousness that we have a big problem. What we do about it is difficult. We are certainly not in a position to say, “Thou shalt not eat fatty foods,” but advertising is an issue, as is—as highlighted earlier—the lack of availability of fresh and affordable food in deprived areas. Even where that food is available, there is a third issue in that people do not know what to do with it, because they have lost their cooking skills.

In the time that I have been in the Scottish Government, there have been many attempts to tackle that issue. We have had the Scottish diet action plan for decades. It has all the right recommendations, but the problem is getting people in deprived communities, in particular, to adopt them.

One of the areas that I have been leading on for a few years is the health promoting health service. Building on have a heart Paisley, a project that targeted coronary heart disease, one of the actions in the new guidance that we have just issued is that hospitals should try, wherever possible, to have a retail outlet offering fresh fruit and vegetables at affordable prices, which can be accessed by people coming through the door, who we know are, in the main, from more deprived communities because they are high users of secondary care, as well as their families, and hospital staff. Where that has been introduced, it is tremendously popular and successful. That is a small contribution to trying to make fresh fruit and

vegetables—healthier foods—available more widely.

However, I do not know what do we do in places such as Drumchapel, which was mentioned this morning. There are no retail outlets and we cannot force people to open shops that sell fresh fruit and vegetables. We cannot close down fast food outlets, although some of us might like to. It is difficult, but we have to keep reiterating the healthy food messages while recognising how difficult it is for people to adopt healthy lifestyles when their priority is just making it from one day to the next.

**Humza Yousaf:** What you said about where we are today being like where we were with smoking 20 years ago is very sobering. Advertising is all good, and education programmes are of course essential—I do not want to detract from those—but we need to give more serious thought to how we approach the situation. I understand that we cannot close down takeaway outlets, but perhaps we ought to start thinking about how local authorities give out licences and so on.

**The Convener:** Thank you. I just want to mop up a couple of points before we finish. I was really pleased to hear what Dr Vallance had to say about the potential need for legislation. One of my colleagues tried to introduce legislation to ban trans fats in foods but, unfortunately, the Scottish Government did not feel able to support him at the time so the proposed legislation went no further. It is therefore quite encouraging to hear from within the Scottish Government a suggestion that we should think about doing that.

I want to return to the keep well programme. In your introductory remarks, Dr Keel, you spoke a lot about that programme, and witnesses on previous panels have done so as well. Dr Murdoch, who was on the previous panel, made the point that the keep well programme had not been evaluated. I must be honest and say that I am not sure whether he meant in Greater Glasgow and Clyde or nationally, because I thought that a national evaluation had been done, although I might be wrong. In any case, over the past five years, no difference was demonstrated in outcomes between those GP practices that were involved in keep well and those that were not. That indicates some doubts about the efficacy of the keep well programme, but it was quite central to your evidence and I wanted to give you the chance to respond to that.

**Dr Keel:** I think that David Murdoch was referring to the evaluation of the Glasgow keep well practices in waves 1 and 2 of the pilot stage. I do not know the detail of that, but he suggested that there had been no fall in mortality from cardiovascular diseases in those keep well practices. The roll-out of the programme started

earlier this year and was based on those first waves.

**The Convener:** It was suggested that the roll-out happened prior to evaluation.

**Dr Keel:** No. I am talking about the roll-out across the whole country. There have been various waves in rolling out the scheme, but it has not been rolled out across the whole country until earlier this year. That is where the £34 million over the next three years comes in.

The pilot stages—waves 1 and 2—have been evaluated, and the shape of the roll-out has been based on that evaluation. What came out of the Glasgow evaluation has been part of that consideration.

The longer-term analysis will be outcomes based and is being funded through the chief scientist office; it involves the University of Glasgow and ISD Scotland. My understanding is that the longer-term evaluation will not be completed until 2014.

There is also an evaluation that involves a local variability study—in other words, looking at how the localities have tried to get at those difficult-to-reach communities that I mentioned earlier.

I do not disagree with what David Murdoch said—I am sure that it is factually based, but it is only one element of the early evaluation of the keep well programme. There are other signs that behaviours are changing. Alison McCallum mentioned that there is evidence of behaviour change in the Traveller population and among the homeless. If we get people to stop smoking, we are bound to affect cardiovascular mortality.

We have to wait and see, but the evaluation is on-going and is being funded through the chief scientist office.

**The Convener:** However, if Dr Murdoch is right, and it appears when we reach 2014 that the keep well project has had no impact, we will have spent quite a lot of money but had no impact. Do you not find that worrying or even alarming?

**Dr Keel:** I would certainly be worried if that was going to be the outcome. I was not as close to the initial evaluation as others were—Mark O'Donnell was very close but, unfortunately, he could not be here today.

I am confident that the direction of travel that involves targeting health improvement at the most deprived communities must be the way forward, because therein lies the highest burden of risk-taking behaviour. If we do not decrease risk-taking behaviour, we will not have any impact on outcomes. We know from the evaluation process that there is evidence that risk-taking behaviour—cigarette smoking rates, for example—decreases.

**The Convener:** Perhaps we will return to that issue in other reports.

Finally, I return to the much-discussed exhibit 8 in the Audit Scotland report. I would like to give Dr Vallance the chance to comment on our earlier discussion—which he will have heard—with Dr Murdoch, who suggested that, because mortality had been used as a proxy in exhibit 8, the graph did not demonstrate the reality of what was happening on the ground. Exhibit 8 is pretty central to one of the report's key conclusions and to the committee's work. It was produced by ISD Scotland rather than Audit Scotland, so ISD Scotland made that statistical choice.

**Dr Vallance:** I agreed with David Murdoch's interpretation of exhibit 8 and the way in which he clarified it today. There is no doubt that there is a difference between social groupings at the two ends of the scale. It is unusual for me in my daily practice to see people at the higher end of the social class and deprivation scale who smoke. Most of the people whom we see are down at the other end, so they are accessing those procedures. Although the graph says that there is a higher than expected rate, the numbers in proportion are much less.

The majority of people whom I see on my ward rounds on most days of the week—I go around a coronary care ward, as David Murdoch does—are at the lower end. They do not look after themselves, they come late in the day and they have had chest pain on and off—

**The Convener:** I am sorry to interrupt, but I think that we established that what we were talking about was not a difference in the absolute numbers of procedures, but a difference in what would be expected. I think that Dr Murdoch's point was that the way in which the graph was derived using mortality statistics means that it is invalid and that, if it was scaled for age and sex instead, it would show no difference.

**Dr Vallance:** It would look a lot better. I have not seen a graph drawn like that, and agree entirely with what he said—that using mortality as a surrogate produces such a graph that would appear quite different from the graph that would be produced if we were to do things the other way round.

16:45

**The Convener:** I admit that I am at a bit of a loss. Statistical evidence has been produced by ISD Scotland and used by Audit Scotland. Dr Vallance was part of the project board. Essentially, Dr Murdoch says that the graph is not valid and does not demonstrate what it purports to demonstrate. You now agree with him and

suggest that the correct statistical information is not available. That is a bit worrying, to be honest.

**Dr Vallance:** I hear what you are saying. What David Murdoch pointed out stresses again that data can be presented in different ways. The data is true data; when we draw the statistics and do things in such a way, that graph is produced. We are both saying that we may get a different picture when we look at the matter in another way.

**The Convener:** Is it true or not true that not only will a man from a socially deprived part of Scotland or a member of an ethnic minority community be more likely to suffer heart problems, but, for some reason, it is less probable that they will receive the procedures that we are talking about, although not through deliberately being kept out? If the answer to that question is that it is not true, the report is completely wrong.

**Dr Vallance:** I think that there is an element of that. I understand what you are saying and am not trying to rubbish the whole report. There is no doubt that, in clinical practice, those individuals do not access services as quickly as people with less deprivation. There is no doubt about that, as we see that in clinical practice.

**The Convener:** Surely that is going to lead to what exhibit 8 demonstrates. It means that more of those people will die before they ever get to those procedures. Is the graph right or wrong?

**Dr Vallance:** When mortality is graphed in such a way, the graph does not say an untruth. It is an interpretation of what that means.

**The Convener:** ISD Scotland's interpretation is that, in a deprived part of Scotland, there will be 20 per cent fewer treatments than would be expected, and in a more affluent part of Scotland, there will be 60 per cent more treatments than would be expected. That is what the graph says. If it is right, that is right.

**Dr Vallance:** If you use the data to calculate the graph as it is done here, there is nothing wrong with the graph. What we are saying is that it would be better to correct for age and sex rather than mortality.

**The Convener:** Okay. Perhaps we can pursue the issue later. Thank you.

The committee will now go into private session, so I ask any members of the public or the press to leave.

16:49

*Meeting continued in private until 17:00.*





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