OFFICIAL REPORT
AITHISG OIFIGEIL

COVID-19 Committee

Thursday 7 May 2020

Session 5

The Scottish Parliament
Pàrlamaid na h-Alba

Thursday 7 May 2020

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COVID-19 COMMITTEE
3rd Meeting 2020, Session 5

CONVENER

*Murdo Fraser (Mid Scotland and Fife) (Con)

DEPUTY CONVENER

*Monica Lennon (Central Scotland) (Lab)

COMMITTEE MEMBERS

*Willie Coffey (Kilmarnock and Irvine Valley) (SNP)
*Annabelle Ewing (Cowdenbeath) (SNP)
*Ross Greer (West Scotland) (Green)
*Shona Robison (Dundee City East) (SNP)
*Stewart Stevenson (Banffshire and Buchan Coast) (SNP)
*Adam Tomkins (Glasgow) (Con)
*Beatrice Wishart (Shetland Islands) (LD)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Professor Linda Bauld (University of Edinburgh)
Sir Harry Burns (University of Strathclyde)

CLERK TO THE COMMITTEE

James Johnston

LOCATION

Virtual Meeting

Scottish Parliament

COVID-19 Committee

Thursday 7 May 2020

[The Convener opened the meeting at 10:30]

"COVID-19—A Framework for Decision Making"

The Convener (Murdo Fraser): Good morning, and welcome to the third meeting of the COVID-19 Committee. We have only one agenda item today, which is two evidence sessions with individual witnesses. We are looking specifically at lockdown and the potential arrangements for relaxing the current restrictions.

For our first session, I am very pleased to welcome Sir Harry Burns, professor of global public health at the University of Strathclyde, who was chief medical officer for Scotland from 2005 to 2014. I welcome Sir Harry to the meeting and invite him to make a short opening statement.

Sir Harry Burns (University of Strathclyde): My experience as chief medical officer at the time of the swine flu—H1N1 virus—pandemic taught me that pandemics are complex systems, in which lots of different interests come together. Managing such complexity is hugely difficult. The critical thing is to learn from the process, not blame people for having done things that you did not think were right. Share ideas, learn what works and apply it.

In our present situation with coronavirus, a fair amount of finger pointing is going on all over the system, which is not helpful. At this stage, we should be focusing on trying to understand what we can do to manage our way out of this and get economic and social recovery in a way that limits—almost to zero—any further damage that this virus can do. I am interested in a positive approach to thinking our way out of this.

The Convener: Thank you for that introductory statement. I will start with two general questions. The Scottish Government is pursuing a policy of test, trace and isolate. What do you think of that approach in general? What benchmark needs to be met, in terms of that policy, before we can start relaxing some of the lockdown restrictions?

Sir Harry Burns: The lockdown policy that we have is essentially test, trace and isolate without the testing and tracing. It is isolating, and it is working. If we are to move in a way that lifts lockdown and allows people to go about their business, meet their social needs and so on, we need to know who is infected and who is at risk of spreading the virus to other people.

There has been a huge emphasis on testing. People have set goals such as testing 100,000 people a day. That is all very well as long as we know that testing is accurate and what we are going to do to trace. There is no point in testing unless we are tracing the contacts, because that is the step that we need in order to isolate people.

I am hearing some slightly worrying things about the testing process. A nurse shared with me what happened to her. She was feeling unwell, so she went with her family to one of the drive-in places. The car window was opened, the person running it put in four testing kits, and the nurse, her husband and her two children were told to swab their own throats. I do not know whether any of you have ever tried to swab your throat or stick a swab up your nose, but I am not sure that I would trust a 14-year-old to do it properly. I am not sure that there is quality control around that kind of thing.

The fact that there is so much emphasis on the number of people who are being tested each day suggests that it is a matter of people just getting through as many tests as they can—of never mind the quality; feel the width, as it were. We need to be sure that the testing that is done is accurate and gives the appropriate information, and that there is the appropriate follow-up.

The tracing app that is being piloted is important. However, from what I have heard, in Singapore, only around 20 per cent of people downloaded the app. We have to encourage more people than that to download the app here. We also need to have people out there who are prepared to trace contacts, because people will then be isolated, and there will be a more focused form of lockdown.

The process should involve focusing on not just testing, but contact tracing. It should also be ensured that there are people who can give the appropriate advice to ensure that folk isolate for the 14 days that might be necessary if they are positive.

We have a long way to go on test, trace and isolate at this time.

The Convener: Thank you for that answer. I am sure that some of my colleagues will want to probe a little further some of the issues that you have touched on.

I will ask a second question to start to frame the debate. The discussion about lifting the lockdown is sometimes framed as a choice between saving lives and saving jobs—between saving lives, and the economy and money. Do you agree that that misses some of the key issues, particularly key issues relating to public health more generally?

We know that there has been a 70 per cent drop in the number of cancer referrals from general practitioners to hospitals. Routine cancer tests have been postponed, and we have seen a major decline in the number of people who have been admitted to hospital because of coronary heart disease. I expect that we will see a very large increase in mental health concerns because of the current isolation. Is there a risk that the current focus on diverting all national health service resources to Covid-19 patients, which is entirely understandable, means that we are ignoring the more general physical and mental health of the population and that we are not paying enough regard to that in considering extending the lockdown?

Sir Harry Burns: I think that you are right. The lockdown has had some unintended consequences. At one point in March, it seemed that the number of deaths in Scotland that were apparently non-Covid related per week—some of them would have been undiagnosed Covid deaths—was potentially 200 or 300 more than we would have normally seen in the same weeks in previous years. I have discussed that with public health colleagues. That may well have been because people were sitting at home with conditions that needed urgent attention, and they were too frightened to go into hospital.

The very strong message about protecting the NHS may have resulted in such unintended consequences. There is no question but that the anticipation of overwhelming intensive care was very real—I know that from discussions with intensive care colleagues—but we needed to maintain primary care and support it in a way that allowed people to feel that they were able to go and see their GP and be referred to non-Covid parts of hospitals that were still functioning.

The lockdown has had physical health consequences, and it is clear that there have been mental health consequences. Domestic disharmony and violence issues, for example, will prove to be very real, and mental health problems, particularly among young people, and the anxieties of young people who have not been able to sit their exams are damaging wellbeing in society.

We need a clever, thought-through process of transition, and I do not think that suddenly releasing lockdown, with the result that we see packed trains and so on, would be a clever, thought-through process. We need to think about what works consistently and why it does so in order to phase a way out of lockdown.

The Convener: Thank you very much for that answer. I am sure that my colleagues will want to probe some of those issues in more detail.

The next questions will come from the committee's deputy convener, Monica Lennon.

Monica Lennon (Central Scotland) (Lab): We are here to take evidence on the best way forward and the preparations that need to be made as we ease lockdown. You said in your opening remarks that dealing with such a pandemic is complex and that it is important that we apply learning as we go. I fully agree with that.

Before we make decisions about the next phase, what do you think could be done better at a United Kingdom level and at a Scottish level? On testing, I had intended to ask about capacity, but you have broadened out the issue by saying that it is not just about the number of tests that are carried out but the quality of the testing process. The example that you gave of the nurse and her family is important. What would your advice to the Scottish Government be to ensure not only that we have the right volume of testing, but that the quality and the accuracy are reliable?

Sir Harry Burns: That second question is difficult, because unless a test that appears to be negative has been done by someone who knows how to do the testing, we will not know whether it is negative because the person is negative or because the testing has not been done properly. We need to impress upon the people who are doing the testing that there is a way to do it properly. There are tests in development that will focus on saliva, so instead of having their throat swabbed, the person will spit into a test tube, which is pretty easy to do, so it might be appropriate to move to different forms of testing.

However, the critical thing is to test the people who are capable of spreading the virus. I hear stories of people who are suspected of having Covid-19 going to the primary care hubs that deal with folk and being told, "Yeah, you've probably got it—just go home and stay in for two weeks." They then go home, where there are young people or old people, without being tested. Some of the examples that I am hearing are not Scottish; they are from down south. There is an inconsistency here, so we need to have a protocol in place whereby everyone who is suspected of having Covid-19 is tested properly and is not simply told to self-isolate. That is particularly true in the context of care homes and the people who go into them who might have a cough or a subtle change in their sense of smell that would point us in the direction of Covid, because they are capable of spreading the virus. We need such testing to happen.

We also need to have a process for tracking people's contacts. The app is a clever idea, but its success will depend on the number of people who are prepared to download it. I would have no hesitation in downloading it.

We have not mentioned mask wearing, on which there is muddled thinking. I have heard it said that the evidence on mask wearing is not very strong. That is not true. The evidence shows that the effect of wearing a mask by someone who is negative in protecting them from getting the virus is relatively slight. However, the evidence also shows that the effect of wearing a mask by someone who is a carrier and is capable of spreading the virus is significant in reducing its spread.

A colleague in Spain sent me a poster that they use over there, which is a cartoon of two people having a conversation side-by-side; one person is Covid-positive and the other is not. If neither of them is wearing a mask and they talk for five minutes, the person who is negative has a 90 per cent chance of getting Covid; if the person who is positive is wearing a mask, the person who is negative has only a 10 per cent chance of becoming positive. The evidence that wearing a mask will protect you against getting the virus is not strong, but if you have the virus and wear a mask, there is much less chance of your spreading it. We should be encouraging mask wearing. The First Minister is absolutely correct that wearing a mask is important when using public transport or in supermarkets and shops and so on.

10:45

What we learned from improvement collaboratives on safety in hospitals was that if we consistently do lots of things that have a small effect, they add up to a significant outcome. Things like wearing a mask, having testing, and being prepared to isolate people who are positive will all have a significant effect, hopefully as great as the current lockdown, which would mean that moving out of lockdown would become safe.

I am in contact with a big network of people across Europe, particularly in Germany, Austria and Switzerland, who have had some success in managing the virus. My German colleagues say, "Yes, you think we've all done really well, but actually we don't think we've done nearly as well as we're getting credit for". I have asked them what they did that they think worked, which we could do—and do consistently—and that would help us to move out of lockdown. We need that kind of shared learning. We need the mental attitude of wanting to learn our way out of this situation, rather than arguing our way out; arguing and finger-pointing does no one any good. Let us share good ideas and let us move, with consistency, out of the situation.

Monica Lennon: I wish that I could ask lots of questions, but I am allowed time for only one more. An issue that gives me lots of cause for concern is infection in our care sector and care homes in particular. It is clear that the preparations for care homes were lacking. Without dwelling on that too much, what can be done now and in the days and weeks ahead to protect vulnerable residents in care homes? What measures can be put in place that are not already in place?

Somebody gave an example from a care home and said that people experienced a change in sense of smell or taste. Previously, we heard from advisers in Scotland and the UK that the main symptoms to look out for are cough and fever. Early on, people were asking about subtle changes, such as losing their sense of smell or taste and the national clinical director, Jason Leitch, said that those were not things to worry about. Has that learning changed and is there a difference in the symptoms of older people?

Sir Harry Burns: My comments on care homes are exactly the same as those that I have made before: test people who are going into homes; ensure that those who test positive do not go into care homes; and test people consistently. If someone is tested one day and they are negative, in a couple of days' time they might be positive, so it is important to look out for subtle symptoms. A colleague of mine, who is an intensive care doctor, developed Covid and the first thing that he noticed was the absence of a sense of smell—he went into his kitchen and realised that he could not smell the cooking.

These are subtle things. I know that Jason Leitch would want the messages to be clear-cut and he is right in that, but we need to realise that the outbreaks that we are seeing in care homes tell us that there are people in those care homes who are circulating and spreading the virus. If one of the elderly residents is exposed to the virus, they are much more likely to get it. The nurses might then spread it unwittingly; that is clearly what is happening. The same thing applies to care homes as applies to the population in general.

Shona Robison (Dundee City East) (SNP): I want to ask about deprivation. I do not know whether you have managed to see some of the evidence that is emerging from the Office for National Statistics this morning. It shows, yet again, a clear link between social deprivation and the incidence of Covid-19 and deaths. We are also beginning to understand and be aware of the additional impact of lockdown on people who live in the most deprived communities for some of the obvious reasons that we know about. Sir Harry, I would like to hear your thoughts on what we can learn from that and what advice you would give in relation to deprivation as we come out of lockdown.

You talked about social recovery in your opening remarks. What are your thoughts on

social recovery, given that the situation has had a disproportionate impact on the poorest in society?

Sir Harry Burns: I would have predicted the deprivation issue, because we know that healthy life expectancy is 10 to 15 years less in people who live at the lower end of the socioeconomic scale compared to those at the top of it. It is less because they develop significant health problems earlier in life. A 50-year-old from a deprived area has the same kind of health profile as someone of 60 or 65 who is living in an affluent area, and we know that people who have underlying health conditions are more likely to get sick and die with the virus.

There is an interesting element to this from my point of view. When I was a surgeon working in the royal infirmary in Glasgow, we did a lot of studies on the metabolic response to illness and infection and so on. We showed that, the lower down the social scale someone was, the more vigorous their inflammatory responses were. In fact, that is what we are seeing now. The Covid-19 virus creates what we call a cytokine storm, cytokines being the inflammatory markers of the response, so the biological impact is greater on those at the lower end of the socioeconomic scale than those at the upper end of it. That was absolutely predictable.

Once this is over, I will be interested to see whether it has widened the gap in life expectancy in the population. I suspect that it will have. We need to understand that, but I cannot see any way in which we can avoid it just now. Studies are being done, particularly in France, where they are looking at anti-inflammatory drugs that might be useful, and early reports that I am getting from the researchers suggest that those drugs might have some kind of impact.

What was your other point?

Shona Robison: I asked about the impact of lockdown on the most deprived and about social recovery, which you mentioned in your opening remarks. What are your thoughts on that? Do we want not just the new normal but a fairer society potentially?

Sir Harry Burns: Absolutely. I am 100 per cent behind the new normal concept. I am fortunate enough to live in the country, where we have lots of space and people respect the social distancing rules, so when I go out for my walks and runs or whatever, I always get a smile, a hello or a quip. With regard to social cohesion, I get the sense that people are talking to and caring for each other more. They are using local suppliers, by phoning around to get click and collect or delivery. I get the sense that people are becoming more communitarian in their approach to things.

I hope that, as things improve, that will be maintained, so that we continue to help our neighbours who are struggling and to look after each other in a positive way. I also hope that we look after the planet a bit better. In the past couple of days we have seen blue skies. Normally we would see criss-crossed vapour trails from flights going back and forth to North America, but now skies are clear. This is an opportunity to be much more positive in the way that we care for each other and our environment. I would hope that politicians come together and see that as something that they want to support, rather than just let the economy rip again.

In Scotland, we talk about inclusive growth and the wellbeing economy. I have been thinking a lot about how those can be delivered effectively, and I believe that the time will be right for that as we come out of lockdown successfully. We do not want to ease up and begin to see a new peak coming; we want to do it in a way that manages what happens. If we do that, we can pat ourselves on the back and start to design a new, much more supportive and caring society.

Shona Robison: Finally, public engagement and support as we come out of lockdown will be difficult. Do you have any advice on how we keep the public on board? Sometimes it feels as if public support is fraying at the edges because of people's frustration about lockdown.

Sir Harry Burns: Be positive. Send the message that we are all in this together, and we all have to work with each other to support each other if we are going to get out of it.

We see selfish behaviour from time to time. I am an optimist by nature, and I think that, if we appeal to people's good nature, we are more likely to get more people to behave appropriately. If we do not get that, Police Scotland can always go in and break up the house parties, and I think that we should continue to have the police do that. We need to preserve a degree of social distancing when easing up on lockdown.

Beatrice Wishart (Shetland Islands) (LD): Good morning, Sir Harry. I want to ask about adverse childhood experiences, including domestic violence, parental mental illness, physical and emotional neglect, and much more. What do you think the legacy of the pandemic might be in terms of those things? If we consider ACEs to be stressful or traumatic experiences that can have a huge impact on children and young people, how should we think about the loss of freedom, the worry for loved ones, the removal of valued contact, the loss of exams, which you mentioned earlier, and the other things that children are experiencing?

Sir Harry Burns: That is a very good point, and I have been thinking about that issue a lot. We need to identify fairly early where that kind of thing has been occurring. I come back to the idea of the improvement approach that we applied in our work on early years, which led to significant reductions in infant mortality and so on.

What long and careful study and discussion with people who have experienced ACEs tell me is that the lasting damage that is done to children is basically around the concept of learned helplessness. These children are told that they are useless. They go to school and they do not do well, which reinforces their sense of helplessness and so on. When we speak to young people who have been in trouble with the police and have maybe been to prison, they say that what has transformed their lives is someone coming along and telling them, "You're not useless—you have skills and abilities," and helping them to take a sense of control over their lives.

11:00

An important thing that we could work on over the next couple of years is to identify the children who have experienced trauma during this time and make sure that we support them in ways that enhance their sense of self-esteem and their sense of control. If we do that, not only will we create young people who are positive about the future, we will create young people who will do well at school and go on to make a very positive contribution to society.

One thing that might come out of this is some work to bring together those of us who are interested in ACEs to come up with a set of policies and actions that will reinforce the sense of control in children who have experienced turbulence at this time. We should not leave them to fester with the legacy of what they have experienced. We should get in there and tell them that they can take control over their lives.

Beatrice Wishart: That is really interesting. I totally agree. We can see the lifelong damage that ACEs can do to people. How can services adapt to the scale of what might come their way in the months and years ahead?

Sir Harry Burns: Again, I note that the approach of an improvement collaborative is to let the front-line staff come up with the ideas, to test them and see what works, and then to implement what works across the whole system. The last thing that I want to do is to try to tell people their business. They are working day in, daily with the problems and they will have ideas. Some of the ideas that people came up with in our early years collaborative were brilliant. Ministers would never have suggested them, but the front-line staff knew what they needed to do. Some things that they tested did not work. When that happens, we should leave those things to one side, move on to things that do work and then share the learning.

I would try to revitalise the work, which will have been put on hold over the past couple of months, and really get to grips with it. We might come out of it in a year or so in a much better position than we would have been in without this experience.

Beatrice Wishart: Thank you.

Stewart Stevenson (Banffshire and Buchan Coast) (SNP): Sir Harry, I am interested in how the numbers are driving the decisions that we make. I will ask all my questions at once because it will save time and perhaps make it simpler for you to answer.

I am particularly interested in the R number—the rate at which people are passing infection on to others. How confident are you about the R numbers that we have? I perceive a danger in our being given a single number when the reality is that it is the mid-point of a range of probabilities and there is a substantial difference in outcomes between the two ends.

The second thing that I would like your insight on, if you have one, is the extent to which the R number will be useful in helping us to make changes by area to the practising of social isolation and other public policies. In Grampian, where I live, we have much lower infection rates than in Glasgow. Is the R number going to help us to understand what we might do differently? That is a question that would also apply to Cumbria versus London versus Devon and so forth. Are there other numbers, as well as the R number that we, as parliamentarians, should keep an eye on?

Sir Harry Burns: The R number is important in our decision making. The latest understanding is that it is at about 0.7 at the moment. That is less than 1, and it means that there is a declining number of people who are being tested positive. I expect the number to go up when we ease lockdown, unless we have a very effective tracing and isolation approach, because people will be getting together. I would like the current R number to be less than 0.7, because you are right that it will oscillate a bit, and we would expect it to go up. It would be nice if the number was below 0.5, but that may be asking for too much.

You are correct that it will be different in different communities. It is probably not statistically possible to take a look at a very small-scale example. A block of multistorey flats, where people are sharing the lifts and where it is difficult to socially isolate, should have a higher R number than an upmarket, suburban area, where people have big gardens and can go out without being close to people.

There will be variations. You are right that there will be significant variations between country and city communities. Unless we are prepared to shut the border in Grampian, I do not think that we would be able to control that. We saw camper vans going up to the north coast 500 at the beginning of all this. That is just daft, but we must have some degree of freedom as we lift the restrictions.

We accept that the R number will vary according to population density in different places. We have to keep an eye on it across the whole of Scotland. It will be useful in driving changes. The R number may start to go up. The calculation of the number usually occurs a week or two behind what is happening, because we collect the data as we go.

We must be prepared to tighten restrictions if we see the figures going up too rapidly as lockdown is lifted. I do not know whether you would use the R number, but you would certainly use the number of cases detected day by day as a way of monitoring the safety of loosening the restrictions. Does that help?

Stewart Stevenson: That is helpful. I want to go back to what you said about the tower block and about how the R number could be used there. Is the R number useful in small, enclosed communities? You run out of people to infect quite quickly. You would see quite a rapid decline in the R number, which is a false understanding of what is happening. We should not assume that all is well if the R number comes down rapidly. Is that correct?

Sir Harry Burns: Yes. You need large population numbers to be sure that you are collecting a sensible R number. I am using the tower block as an example of where you would expect transmissibility to be greater, because it is a small community, in order to make the point that the conditions in which people live will have an impact on the transmissibility of the virus.

If everyone in the tower block had been infected, you would have herd immunity there and the R number would fall significantly.

Adam Tomkins (Glasgow) (Con): As the Government takes steps to begin to ease the various lockdown restrictions, it is seeking to balance different risks against one another. I will focus on the health risks and leave to one side the undoubted economic pain that lockdown is causing.

I am pleased that public conversation has started to engage—more seriously than it did, perhaps, two or three weeks ago—with the risks that are associated with lockdown. There are mental health risks, cancer referrals are down, accident and emergency admissions are down, cardiology wards are operating at something like 50 per cent capacity and all of the rest of it. That is all in the public domain and is being thought about.

However, I am becoming increasingly confused, and I wonder whether Sir Harry Burns can help me with this. Exactly how should we assess the risks of Covid itself? Lockdown was introduced to protect the NHS from being overwhelmed, but is it not the case that the NHS is a very long way from being overwhelmed by Covid? For example, the most recent statistics show that there are 89 patients with Covid in intensive care in Scotland. Intensive care capacity is 585, which means that 15 per cent of intensive care capacity is being used. Am I right to interpret the figures in that way? If I am right, can Sir Harry explain why the Government wants to proceed so cautiously in beginning to ease lockdown restrictions, given the health costs that we know are being borne?

Sir Harry Burns: I do not agree that lockdown was introduced to protect the NHS from being overwhelmed. I do not think that that was its primary purpose. The way to prevent the NHS from being overwhelmed is to prevent huge numbers of people from becoming infected. The prime purpose of lockdown was to prevent transmission of infection, and one of the consequences of that related to preventing the NHS from being overwhelmed. The NHS was overwhelmed in some places to begin with. I hear quite heart-rending stories about the decisions that intensive care doctors had to make about who got a ventilator and who did not.

However, at press conferences there are slogans such as “Stay home. Protect the NHS. Save lives”. That message is coming across. The way to protect the NHS is to prevent people from becoming infected, and the lockdown is there to do that. If you lift the lockdown, you run the risk that more people will become infected, and more people are likely to die as a result. My desire is to prevent people from dying.

You are absolutely right: if we lift the lockdown, I do not think that we will go back to the peaks that we saw at the beginning, and I do not think that we will come anywhere near swamping intensive care capacity. However, if infections go up, that means more deaths that are potentially avoidable. The trade-off—as you rightly said—is that some folk are staying home and not getting treatment for their cancers and so on, and therefore they are more likely to die. We have to balance that, and to do that we need more analysis and data. I am having discussions with colleagues about that.

The back-of-the-envelope calculation suggests that there were perhaps a couple of hundred more deaths a week from non-Covid related causes than would have been expected during March. We

need to see what those causes were and get on top of them as soon as we can.

The next challenge for the NHS is to organise its services so that cancer and heart surgery, coronary care systems and so on become safe for patients and those patients feel secure that if they go into hospital for those things they will not be infected by coronavirus. We need to ensure that that is properly in place.

Therefore, the next challenge for the NHS is to switch services in a way that protects people who need care for those other conditions. That is happening in some places, but I repeat that we need to share the learning. For example, what was done in Edinburgh that could be done in Dundee?

11:15

Adam Tomkins: I am grateful for that answer, Sir Harry, but I am not sure that you are right. Jason Leitch, for example, has said many times that the purpose of the lockdown was to prevent the NHS from being overwhelmed, and that line is used several times in the paper that the Government published this week about its framework for decision making.

You say that we need more data. Where will we get that data from, and how quickly will we get it? I am not an oncologist, but we all know that cancer survival rates depend on early detection and early treatment. The stark reality is that cancer referrals from primary care are down 70 per cent in Scotland. Whether we like it or not, we know that the lockdown is killing people, because it is preventing them—inadvertently, I am sure—from getting the early cancer treatment that has the potential to save their lives. What data do we need, and how quickly can we get it, in order to prevent the lockdown from doing more harm than good?

Sir Harry Burns: "Protect the NHS" is a very catchy line—it appeals to people. Things such as the Thursday night clapping tell you how important the NHS is in people's minds. It is a good public relations line. However, as I keep saying to folk, the way to protect the NHS is to prevent people from becoming sick, and that is about controlling coronavirus and getting the rest of the NHS back into full swing.

The fact that elective surgeries, for example, have been cancelled is a reflection of the fact that people have felt that it is dangerous to bring folk into a hospital where there might be cross-infection with coronavirus .We need, as quickly as possible, to establish areas within hospitals that are safe and secure and which are not subject to cross-infection. That is the next, important, phase of lifting the lockdown.

On data, every patient who comes into hospital has a form called the Scottish morbidity record. It says what they are in for, the outcome and so on. That data continues to be collected. Scotland has one of the best data collection systems of any health service. People are working on an analysis of that data that will tell us exactly what is happening with regard to those other conditions.

I agree with you: I think that we will become quite depressed at what we see, and that the sooner we move to a position where the NHS can support those people, the better. We know how to do that, and we should apply it as soon as possible, as part of the lifting of lockdown.

The Convener: Monica Lennon has a brief supplementary question.

Monica Lennon: Adam Tomkins has made important points about how we can get the NHS up and running again. If the NHS starts to see many more patients, there will be more people in hospital and more procedures, and I imagine that that will require additional personal protective equipment. Throughout the pandemic, there has been concern about access to and supply and distribution of PPE.

Will Sir Harry Burns say to what extent PPE resource might be a factor in getting the NHS up and running again? How confident is he about PPE supplies?

Sir Harry Burns: I do not think that the approach necessarily requires more PPE. For example, people coming to hospital for cancer surgery could be tested when they come in, so it would be known that they were not coronavirus-positive—and their clinicians should likewise be tested.

If those patients were in a separate part of the hospital from where coronavirus patients were being looked after, it would be business as usual, and we should try to establish business as usual as quickly as possible.

We do not need PPE to deal with patients who are not coronavirus-positive. Primary care patients who have coronavirus symptoms are referred to a hub; patients who do not have symptoms are referred to their GPs, who wear gloves and masks at the moment because those patients are not tested. However, once we know that a patient has tested negative, we do not need PPE, so I do not think that PPE resource is a limiting factor in getting the NHS back to business as usual.

Annabelle Ewing (Cowdenbeath) (SNP): I will pick up on the discussion on the R number. If current lockdown restrictions should change, followed by a second wave of infection, which broad benchmark number would we need to arrive

at to require us to go back to a more restrictive lockdown?

Stewart Stevenson talked about the R number and Sir Harry Burns was at pains to stress that we would look at the increase in the number of cases. Statistically speaking, what would the benchmark be, and for how long would it need to be sustained?

People want as much information as possible. They want to know that we are planning for this and what we will do if that not work, and the First Minister is at pains to treat people as grown-ups. People are interested in that kind of information, even if it is scientifically speculative.

Sir Harry Burns: We could learn from what is happening in other countries. We should be able to see what is happening in Spain, Italy, Germany and so on, where there has been a limited lifting of lockdown, and learn from that, and decide whether we will get a peak that is as big as the previous one. I do not think that we will, but we will probably get an increase in cases.

What number would be acceptable is a matter for broader discussion. Ideally, we do not want to see any deaths at all, but it is inevitable that we will see more infections as we lift the lockdown. I hope that we can keep the number as low as possible. The R number is calculated a week or two behind the data, so it would be reasonable to follow the number of cases that are admitted to hospital and test positive—that would give us the earliest indication. If we began to see that number go up in a way that suggested that the R number was getting closer to 1 again, we would really need to put on the brakes.

Annabelle Ewing: My impression is that the people who are in vulnerable groups, for whatever reason, are very leery and concerned about moving to a next stage that they are not entirely convinced about—even if we could get to a reasonable position with the number of cases.

Sir Harry Burns: I absolutely agree with that. I am leery about it, too. I am my 96-year-old mother's carer; I am the only person she sees. I go in and help her out each day and, as a result, I do not go to shops and I self-isolate so that I do not take anything in to her. Should the lockdown suddenly be lifted and I had to mix with other people, I do not think that I could go in to look after her. I understand why people are concerned and I share those concerns.

We need to tread carefully. To come back to the point that others have made, there is a big trade-off, for example between the number of folk who are frightened of going to hospital and dying as a result, and the economic damage that is being done. We have struggled hard to get to where we are. Let us not throw away the gains that we have made; let us move forward carefully and sensibly.

Annabelle Ewing: Absolutely.

My other question is on a different topic. The international scientific medical community is working hard to secure a working antibody test. What is the interrelationship between the test, trace [*Temporary loss of sound*] and the present lack of an antibody test? What would be the impact on the efficacy of test and trace without the other component, or is the interrelationship not so direct that that would have any deleterious impact?

Sir Harry Burns: I think that it would be useful to do both. Some tests are in development that can measure both antibodies and the presence of the virus. Those tests would identify that a person has the virus and is beginning to mount an antibody response.

The importance of an antibody test is that it would show that resistance to the virus lasts for some time, which means that those who have had it and have the antibodies are possibly safe to go back to work and so on. However, the key thing with the existing antigen test—the test for the existence of the virus—is to trace and isolate contacts in order to push the R number down as low as possible and curtail the spread. That is what we have got now, and that is what we should focus on.

Ross Greer (West Scotland) (Green): You might be aware of Professor Hugh Pennington's suggestion to the Health and Sport Committee last week that instead of pursuing a suppression strategy, Scotland—I think that he would advocate this approach being taken across the UK—should pursue a more aggressive strategy to eliminate the virus, similar to what has been achieved in New Zealand and Vietnam. He suggested that by doing that the virus could, effectively, be eliminated by Christmas. What are your thoughts on his proposal? Do you agree with him? What might an elimination approach look like, compared with our current suppression approach?

Sir Harry Burns: The whole idea behind suppression is that it leads, ultimately, to elimination. We do not want small pockets of the virus hanging about. Elimination will occur when we have a vaccine, and our assumption is that a vaccine is months away.

I am not sure that we have an elimination mechanism just now, beyond continuing to suppress and stop the virus being passed on. Viruses that kill lots of people tend to die out quickly, because they have killed all the available hosts. This virus has killed a lot of people, but it is still infecting folk, which implies that it is very resilient. It is out there, and lots of people are

carrying it about without showing symptoms, and are passing it on without knowing that they are doing so. We need to know who has it and isolate them; an elimination strategy would not be very successful, until we get a vaccine.

Ross Greer: On the situation being slightly more nuanced than just saying that the strategies are completely separate, New Zealand is the most notable example that is cited here. Simply because it is another English-speaking nation, the media transfer information very quickly. Other examples, such as Vietnam, have also been cited. Is there a significant difference between the strategies that are being used in those countries and the strategy that is being used here, or is it simply that those countries have been able far more quickly to bring test, trace and isolate capacity online in an aggressive form?

11:30

Sir Harry Burns: I do not think that the strategies are significantly different. I have looked at what is happening in New Zealand; its strategy is not qualitatively different, but it has been quantitatively more successful at isolating.

Control of borders is important. We have heard that 8,000 people a day were coming into the UK without being tested, whereas in countries including South Korea people had their temperatures checked by infrared mechanisms as they came off aeroplanes. Such countries seem to be far more aggressive in identifying people who might spread the virus. Testing is important: test people to see who is capable of spreading the virus, trace their contacts, then isolate them and all their contacts. That is how to control any infectious disease.

I have spoken to old stagers who were around at the time of the smallpox outbreaks in the 1950s. They said that tracing then was done very aggressively, because smallpox killed people in a very nasty way and the only way to treat it was to eradicate it. We could eradicate the coronavirus if significant effort was put into tracing and isolation. In essence, what lockdown did was isolation without tracing.

Ross Greer: Should we be routinely testing all front-line health workers, whether they are symptomatic or not?

Sir Harry Burns: This might sound ridiculous, but we should be testing the whole population, because we need to know how widespread the virus is in the population. Once we know that, we will know who might still be out there who could be infective. We need testing to be done on a regular basis. The point has been made several times that someone who tests negative today will not necessarily not test positive tomorrow. We need to look at the folk who are capable of spreading the virus—predominantly, health and care workers—and we need to test them regularly.

I will go back to a point that I made earlier. We need quality assurance in the testing process so that we know that it is being done properly. I hear anecdotally that, in some cases, volume rather than quality might have been more important.

Willie Coffey (Kilmarnock and Irvine Valley) (SNP): My questions will follow on from previous questions. The Scottish Government paper that was published this week tells us that there are still about 26,000 people in Scotland who are infectious but do not know that, yet. Can we do more to find more of those people to help us to bring the situation under control, or are our only weapons lockdown, testing those who are most at risk and managing those who present with symptoms through the process?

Sir Harry Burns: The virus is so infectious that it would not surprise me if the number was much greater than 26,000. Initially, it looked as though the mortality rate would be about 1 or 2 per cent. The number of deaths in Scotland suggests that a whole lot more people have had the infection but were not aware of it.

I return to widespread testing. That is where the antibody test comes in, because if we do both, we will find most of the people who are currently infectious and, in all probability, we will also find the number of people who have recently had the virus. As I said, we still do not know how long the antibody remains in the bloodstream, but we will be able to understand who has had it and is probably immune, who has it and is capable of spreading it, and what proportion of the population is susceptible to it. If we keep the second group away from the third group, there is a chance of eradication. It all comes back to testing.

Willie Coffey: If lockdown and the current testing strategy are successful and begin to diminish the numbers that are presenting, how long should it be before the 26,000 number diminishes to a level at which the Scottish Government can seriously consider the options for relaxation of lockdown that are set out in the paper?

Sir Harry Burns: There has been a decline in the number of deaths in hospitals, and we are announcing a decline in the number of deaths in care homes, which implies that the current strategy is working to control those numbers.

We now seek to do lockdown in a more targeted way, which is where tracing and isolation come in. Isolation is simply targeted lockdown for individuals who have been in contact with people who have tested positive. They are isolated for 14 days, after which, if they have no symptoms, they

can get back out into the world. We need to do that so that economic activity takes place, so that mental health improves, and so that people who are too frightened to go into a hospital and are suffering as a result get proper treatment.

There are pressing reasons for doing relaxing lockdown, but we need to do it carefully and we need to be prepared to step back if we see things getting out of control again. That requires testing and identifying, as you said, the 26,000 people out there who might be positive or who have had the virus, and it requires understanding of who is capable of spreading it. It is old-fashioned public health. We have to test, find out who has it, then isolate them from people who do not have it.

The Convener: Thank you for your time this morning, Sir Harry. I appreciate your evidence, and I am pleased that the technology seemed to work well—at least, at this end. No doubt the committee will want to speak to you again at some point in the future.

After a short suspension, the committee will hear from Professor Linda Bauld.

11:38

Meeting suspended.

11:43

On resuming—

The Convener: Welcome back to the COVID-19 Committee. We will now take evidence from Professor Linda Bauld, who is the Bruce and John Usher professor of public health and co-director of the centre for population health sciences at the University of Edinburgh.

Welcome to the meeting, Professor Bauld. I am sure that you heard our earlier session with Professor Sir Harry Burns. We will go over some of the same ground with you. Before we do so, would you like to make an introductory statement?

Professor Linda Bauld (University of Edinburgh): Good morning, and thank you for inviting me to speak to the committee. I will echo some of what Sir Harry Burns said. Now is not the time to look back; rather, it is the time to look forward, which is what we are doing today. We have an opportunity to think about how Scotland can move on from the current public health measures, which have been challenging for families and communities.

I want to highlight some of the positive things that we are seeing. We are all acknowledging the importance of public health for our wellbeing, for society and for protecting the NHS. We are seeing and realising that this is a global crisis that requires a global response, and that Scotland has a place in that. I am sure that members will ask about international examples and what we can draw from them.

The scientific community has responded in an unparalleled way. We are practising open science, at speed, in a way that has never happened before—at least, not in my working lifetime. That is positive and will have benefits in the future.

11:45

Finally, members have asked about communication with the Scottish public. As a behavioural scientist, I would say that we have had some strong and clear communication to date, but as we move out of the current period the situation will become much more complex and we will have to become more nuanced in how we communicate with the public, so that they have trust and know how they can move on and cope in very changed circumstances in the future.

The Convener: The point on communication is really interesting. There has been a discussion about differentiated approaches to lifting lockdown, with different parts of the UK going at different speeds or, indeed, different areas of Scotland moving at different speeds. What do you think about that in the context of communication? Is there a danger that the public will hear different messages from different sources, which would cause a lot of confusion? Would it be better to stick with a common approach, even though the science might not necessarily lead us to that conclusion?

Professor Bauld: The four-nations approach that we have seen in practice and which has not always happened in the past, is welcome. When we are facing a common threat—the virus and the disease that emerges from it—it makes sense to take that approach. However, as we move on to easing lockdown and what we do in the longer term, there will probably be an opportunity for more variation. Sir Harry Burns pointed to the fact that there will be communities in Scotland where we see lower levels of virus transmission, fewer cases or higher evidence of immunity. If that is the case, and we have the data—I will talk a lot about data, because we do not have the data that we need, so we must focus on that—we might well need to take a more geographical approach and have different measures in different places.

The time for that will come, but it is not now: clear messaging is still needed. We know from research that the public can cope with uncertainty and can still trust public messaging when they realise that elected members and others are being honest about not having the answers. We all know that in the circumstances—a new virus and a new disease that has emerged, as a result—we do not

have all the answers. As long as the unknowns can be communicated and we can be honest about that, the public will recognise where we have certainty and where we do not.

Furthermore, if we can be honest about the basis on which we are making decisions and providing advice, that will also increase trust.

The Convener: That is very helpful and I am sure that some of my colleagues will want to pursue that in more detail.

I want to put to you the same question that I asked Sir Harry Burns earlier, on the portrayal of lifting lockdown as a trade-off between saving lives and saving the economy—although I suspect that it is more complex than that. As we were discussing earlier, although we might be saving the lives of Covid-19 patients, Harry Burns made the point that he reckoned that something like 200 to 300 extra deaths in March were due to other conditions, because people are not coming forward with issues such as pulmonary heart disease or cancer and so are not being treated. That does not even touch on the wider issue of mental health; we have huge concern about the mental health impacts of extended lockdown, particularly on single people and those in isolation. Do you have any thoughts on that? How do we ensure that the debate on lockdown is not just seen in terms of money and the economy versus saving lives but acknowledges that there are other health issues that we need to think about?

Professor Bauld: I am very concerned about this and would word it more strongly. I suspect that the longer-term consequences of the lockdown period for our young people and for jobs, and the health impacts of unemployment, for example, might emerge as far greater than the challenge that we faced with addressing the virus. We are already seeing some of the evidence of that. I would not describe it as being lives versus the economy; it lives versus lives. That is what we are facing.

We have already heard about the drop of more than 70 per cent in urgent referrals for cancer treatment. We know that accident and emergency admissions are down by about half. We know that hospital admissions are down by about 42 per cent, according to the latest data from Public Health Scotland. It is very obvious that the message to stay home and protect the NHS has been interpreted as, “Stay away from the NHS to protect it”.

In the past few weeks, the Scottish Government and others have been much clearer about people being able to access the health service and about the health service being there for them, but that is probably a priority that we need to focus on. The longer we remain in lockdown, the worse those consequences will be.

The latest data from National Records of Scotland, which came out yesterday and the day before, suggests that there have been approximately 1,000 unexplained non-Covid deaths. That is a significant number. Perhaps it is not as significant as deaths from the virus, but it is still there.

The longer-term health impacts will take many years for us to realise. One of the things that I would like to come to—I am sure that members will ask me questions about this—is how we support the health service to move on. My particular expertise, from working with Cancer Research UK, will be on cancer, but there are other examples on which we can draw. I am sure that we will come to some of that evidence.

The Convener: Thank you very much; that is very helpful. I am sure that my colleagues will want to come in with more questions in a moment.

Monica Lennon: Professor Bauld, I know that you have a great deal of expertise in the area of cancer. A lot of concern has been expressed about the pause in the cancer screening programme and in other procedures, and people are worried about possible cancer symptoms. What is your advice on that? What would you advise the Government to do, and how quickly should we resume those screening services?

I also want to reflect on Sir Harry Burns’s comments about the health service. I asked about the possibility that the concern about the supply of PPE was a factor in people trying to minimise contact with the NHS. Do we need to factor that in? Sir Harry Burns also said that testing in the health service would help but, in my experience of casework and speaking to patients and NHS staff, getting a result is not always quick. I am aware of cancer consultants who had to self-isolate for seven days and 14 days because they had not been tested. Do you have any thoughts on that?

Professor Bauld: Thank you for those three questions, Monica. Bear with me, because I have some new statistics that I want to share with members on the cancer front, if that would be helpful.

I will deal first with the pause in screening. We normally screen approximately 23,000 people a week, which is 100,000 people a month who are no longer being screened in Scotland for the three cancer types that we are familiar with—bowel cancer, breast cancer, and cervical cancer. Each month, approximately 140 of those people would get a positive result via a screening programme. That has basically been paused for two months, which means a potential 280 late diagnoses. One of the members quite correctly commented that,

for many types of cancer, early diagnosis is what determines survival and treatment outcomes. Unfortunately, some of those patients will have poor outcomes as a direct consequence of the lockdown.

To put it in perspective, for the current rates of death, we are still seeing one cancer death for every two Covid deaths in Scotland. Cancer is still here; it is not going away and it still needs to be addressed.

We know that around 2,000 urgent suspected cancer referrals are not happening each week in Scotland; again, that is a real concern. We think that chemotherapy is down by around 30 per cent, and you will have seen the data from the Royal College of Surgeons of Edinburgh that suggests that a third of cancer surgeons have stopped operating completely and more than 80 per cent have significantly reduced their operating. Those are absolutely real concerns.

Please bear with me as I try to address the practical things that we can do. The first is to restart the screening programmes. I know from speaking to colleagues who are involved in them that they are ready to restart when the time is right and that they need good advice from boards and the Scottish Government in order to do so. However, to protect our cancer patients and our healthcare staff who are working in cancer settings, we also need Covid-free zones or hubs, so that the more vulnerable cancer patients—those who will be more susceptible to adverse consequences if they get Covid-19—can be treated in those environments. We need to have some separation of NHS care.

That leads on to Monica Lennon's PPE question, which is crucial. Sir Harry Burns made some valuable points about PPE but, unfortunately, I remain extremely concerned about it. To be clear, I am no expert in the procurement of the specific equipment that is required, but I did organise for the Usher institute a session with colleagues from China, including the author of the Covid-19 prevention and treatment handbook. When we look at the type of PPE that is used in China, in various healthcare settings but particularly in settings where there is very close contact with patients, it is a level above what we have in some of our settings, even putting aside the social care settings that I realise we might come to discuss.

I do not underestimate the logistical challenges—we have all read about them in the press—but we really need to take this issue seriously. We also need to recognise that it is not going to go away. PPE will need to continue to be an emphasis into the future.

With regard to testing, given other new data that I have and what my expert colleagues have been telling me, one of my big concerns is speed. Harry Burns pointed to the issue of accuracy, which is entirely appropriate, but speed is also a very significant issue. When we come on to our discussion about the test, trace, isolate strategy, which I am sure we will do, we will see that we have a big problem with speed, because it takes about 30 hours on average from the test being taken to get a result. Other countries are doing it in four hours. We absolutely need to look at our testing mechanisms but also at our speed of delivery of an accurate result. If we want to test, trace and isolate, we are going to be too late for the tracing and isolating components if we do not have a faster testing speed than we currently have.

Monica Lennon: That is helpful. It is quite a lot to chew over.

I am allowed just one other question at this stage, so I will switch to a matter that will pick up on your behavioural science expertise. There has been discussion in this committee and elsewhere in Parliament about the age-based restrictions and the perception that older people, particularly those who are over 70, should stay at home as much as possible. It is different for people who are being asked to shield because of health conditions but, for the over-70s, we know that for long days they do not see anyone, they are worried about becoming vulnerable to fraud and there is a mental health impact. How realistic is it to expect a particular age cohort, such as the over-70s, in effect to shut themselves off from society? I know that there is legal opinion about whether it is lawful, as it is discriminatory, but from a behavioural point of view how realistic is it to expect people who are over 70—who might be business owners, still be in employment or have caring responsibilities—to self-isolate on a long-term basis?

Professor Bauld: I do not think that it is realistic and I think that it is discriminatory, but I also understand the reasons for it. From a behavioural science perspective, cutting off a big section of our society made up of people who are otherwise healthy is not sustainable in the long term. We will see non-compliance—that is basically what is going to happen.

In terms of public messaging, the people who have underlying health conditions should absolutely be a priority. As we know, however, health is not always age related. A number in terms of age might be useful for simple messaging and guidance, but it is not fair to treat all people over the age of 70 as the same. We can give guidance and advice, but the crucial thing for all of us is to be able to move out of the lockdown and

move away from severe restrictions on particular age groups over a very long period.

The only way to get out of the lockdown is if we take the test, trace, isolate, support approach and take it very seriously and ramp up the system. I will come on to the data that we will need to ensure that we are able to take that approach.

Monica Lennon has asked a great question. I get the emails—I am sure that I am not getting as many as MSPs are—from older people who do not want the restrictions to be maintained for ever, because they are healthy and feel that they have contributions to make to the economy and their families.

The Convener: Thank you. If we have time, I will come back to Monica Lennon later if she has more questions, but I need to move on

Willie Coffey (Kilmarnock and Irvine Valley) (SNP): Good morning, Professor Bauld. Are other countries experiencing the same drop-off in the presentation of non-Covid-related conditions? How are they managing the issue? You mentioned that we might need to think about such things as Covid-free zones or hubs. Is that a realistic possibility for Scotland? Could we begin to prepare a way to try to achieve that?

Linda Bauld: In response to your first question, I say that you are absolutely spot on. A challenge in this area is that data availability varies hugely across countries and, unfortunately, low-resource countries or settings do not even have accurate case numbers, so we do not know the situation. In high-income countries, such as the US, Canada and some European countries, we are beginning to see the non-Covid death figures. For example, *The Economist* has just done a useful piece that tried to pull some of them together.

The problems that we face are not unique to Scotland or the UK, because other countries have tried to protect the health service and cancelled lots of operations and procedures. That is why I made the point about an international effort. In Canada, which has had fewer cases, the healthcare system is gradually reopening and it is clearly trying to separate the pathways for triage and support for Covid and other patients. It is perhaps easier for Canada, because of lower numbers, but we need to adopt that approach in the NHS and support colleagues to do so.

Until we have better treatment for those patients, or a vaccine in the future, we need to continue to treat our other patient groups. That involves two factors: staff confidence—that they can administer and support treatments and patients safely in a safer environment—and patient confidence. Many patients, including cancer patients, have a long trajectory of treatment with multiple visits to healthcare facilities and different types of treatment; to keep coming back to complete courses of treatment, they need to realise that they are in areas where it is safe for them to do so.

Willie Coffey: I have a question on broader mental health. What more can we do to help people through this, with regard to their mental health? Naturally, we are concerned across the board, particularly for people who live alone and also young people, especially pupils who might be taking exams and our university students. What more can reasonably be done to help them through this process and beyond it?

Professor Bauld: Again, I think that we can learn from other countries. Singapore has five pillars to its approach for addressing Covid, and psychological defence is one of them. As Scotland moves forward, the Government has been very helpful in setting out its basic principles for release from lockdown and, more recently, some indicators of how that can happen.

We also need a pillar or staged approach with different components, and mental health support will be a crucial part of it. I will not run through all the figures that I have in front of me, but in the opinion surveys there are high levels of anxiety and increased levels of depression, which vary depending on the age group. Crucially, people who already have a long-standing diagnosed mental health condition will be facing particular challenges at this time.

I will make a couple of suggestions in relation to a psychological defence pillar. First, I know that, in Scotland, we have really tried to improve and properly resource mental health services in the NHS, but we still have some way to go on that. Secondly, but equally important, our third sector organisations have a huge amount to contribute here, so resourcing them to enable them to respond will be crucial, be it in relation to young people or older people.

Those are just a few suggestions, but let us have an active public debate about a psychological defence pillar, if that will be helpful, as we move forward.

Ross Greer: I want to pick up on a point that you made in response to Monica Lennon about the speed of the return of tests. There appears to be a significant underuse of the testing capacity in Scotland at present, even if we account for individuals being tested twice and so on. Is that related to the length of time that it takes for the results of tests to be returned? Do you have any thoughts on why it appears that, on some days recently, we have dramatically underused Scotland's testing capacity? How can that be addressed?

Professor Bauld: I emphasise that others are closer than I am to the testing infrastructure, but discussions with my more expert colleagues suggest a few things. Speed is certainly an issue, but location is also important. We were very slow in the UK—this is not a comment on Scotland specifically—in increasing our testing capacity. As I think we all know, we should have been ready much earlier and really embraced the offers that we had from the private sector, the third sector, universities et cetera to increase our testing capacity, and we are still not there.

The First Minister has set indicative targets for Scotland, which we have also seen at the UK level. Part of it is about location. As I think you are aware, people cannot get to the testing centres easily enough, which is a big barrier. We need to enable that and, as Harry Burns said, we also need to have community testing.

This is probably the right time for me to bring in some of the data issues that I wanted to raise, if that is okay with you. Basic parameters are not really there. For example, we need real-time data flows. I will stay on the subject of testing for a moment. We look as if we are getting that right in hospitals, which is great. There is a tick against that, from what I understand of the system. However, we have limited information from high-risk settings—that is, care homes and other settings where there are vulnerable populations that urgently need tested, and where the staff need tested. I am not sure that we have the rapid data that we need from those settings.

As far as I am aware, we do not have data from or the required capacity in primary care and out-of-hours settings. If we are going to have a mass testing programme, which we need for the test, trace and isolate approach, we will need real-time data from those settings so that we can figure out what is going on. I understand that Wales is a step ahead of us on some of the real-time data issues.

For the community, we also need symptomatology. If we are going to roll out more widespread testing, as Sir Harry said, the other way that we can help to alleviate the pressure on the system is for people to report their symptoms. There is the Covid-19 symptoms app that King's College London has developed, which the Scottish Government has endorsed, but I have not heard us talking about that very much. As far as I am aware, not as many people in Scotland are using it compared with people in Wales, for example, where the public communication on it has perhaps been a little bit clearer.

I know that there are concerns about apps. We will probably come on to discuss the app that will help us with contract tracing and the Bluetooth technology, but we really need to pay attention to the symptoms issues as well.

I am not sure that I have directly answered all your questions, but I hope that that was helpful.

Ross Greer: It was exceptionally helpful—thank you. I have a brief final question on data. Do we have enough data yet to know what the role of health and care staff is in the transmission of the virus? A number of international studies suggest that significant numbers of asymptomatic or mildly symptomatic staff could have a significant role in the transmission of the virus in health and care settings. Do we have data on that here? If we do not, how do we go about gathering it?

Professor Bauld: We do not have good data on that at the moment—I think that you are absolutely right. There is a big debate in the scientific literature about what proportion of people who come into contact with SARS-CoV-2 develop symptoms and what proportion of those who become symptomatic become unwell. It is going to take some time before we have an accurate international picture of that.

Symptomatic patients are more likely to spread the virus either in the day or two before symptoms develop or when they are symptomatic—that is the crucial time period and it is why PPE is so important. Health and social care staff who are coming into closer proximity with patients who are symptomatic are then going back out into the community. I cannot give you an accurate number for that, but we are developing a better understanding of the situation through time. As a first pillar in how we respond, it is crucial that the testing is available for those staff and patients, and that the staff are adequately protected through PPE.

Annabelle Ewing: I will go back to the really important issue of the cancer screening programmes, particularly for bowel and cervical cancer, which are paused. I note that Professor Bauld stated that she was optimistic that people would be ready to resume the programmes. What are the key practical difficulties in resuming those paused programmes? On the point about testing, would those who are conducting analysis of those tests also be analysing tests for Covid-19?

Professor Bauld: Those are really good points. There are a couple of issues in response to the questions of how we get the screening up and running again and what the systems issues are with the practicalities of doing so. Colleagues across the cancer pathway and from cancer charities, including CRUK, would say that there is a willingness, but we will be faced with a backlog. There are practical things to think about, such as how we communicate with the patients who have missed a screening opportunity and get them back into the system, and how we stagger access to the services when they are up and running again. Those are the first things to consider. We need

safety netting for people who have missed an appointment, and there might be consequences of that.

The second point that you raised with regard to diagnostic staff is really important. We were already underresourced in that area in Scotland and across the UK. I have some figures here. Around one in 10 diagnostic posts was unfilled across the NHS, so that is clearly going to be an issue. You are right that some very skilled staff have been diverted to Covid testing. The cancer community, including CRUK scientists, has embraced that. Therefore, there has been a system shift. I was not suggesting that my colleagues are ready to go; I was suggesting that there is a real willingness to do so. I think that they very much welcome the work of the Parliaments, the Scottish Government and, crucially, NHS boards in thinking carefully about how we will restart the programmes when the time is right.

Annabelle Ewing: I am sure that many of us will wish to pursue that point with our local NHS boards to see what is planned. The screening is another very important part of our daily lives that we are not participating in at the moment.

My other question goes back to the key issue of messaging. I take the point about having one message, and I will not get into that debate today. For me, the key thing is that the message is clear. If there is any change in the current lockdown restrictions, that in itself will mean that the messaging will become a bit more nuanced, because it will have to deal with more variables. Therefore, the key thing is that the message is clear.

I will pick up on a point that Monica Lennon made in the first evidence session about the symptoms. As far as I understand it, the WHO extended the list of symptoms. When we are dealing with the immediacy and urgency of the pandemic, I understand that we have to start somewhere. However, I presume that, as we roll out testing and tracing, it will be important to get a handle on all the other symptoms that are being presented in people who have tested positive for Covid-19.

12:15

Professor Bauld: Yes—and I think that the symptomatology is evolving. Again, the scientific community—not just the WHO—can assist with that. You are absolutely spot on that the messaging has to be more nuanced, but the resources also have to be more nuanced as we move forward.

In the work on international comparisons that my colleagues in the Usher institute are doing—the Scottish Parliament information centre has, of course, been looking at the international evidence—there are some really useful pathways or infographics, which are quite complex but easily displayed resources that countries have used. I am sorry to keep going back to Canada, but that is the country that I am most in contact with. Members could look at what the Government of Ontario has done, for example. There are some good resources in Ireland, as well.

On releasing the lockdown in stages—I imagine that that is what we will see in Scotland—the rationale needs to be clear about why it is okay for businesses that operate outdoors to open again or why we are allowing smaller groups of households to meet together. We then need to go back to Monica Lennon's question about who is affected or is not affected by the new recommendation. Those are nuanced recommendations; they cannot simply be communicated to the public in one daily briefing. They will require Public Health Scotland and other agencies to support us so that we can convey to the public why something is happening. As I have said, other countries are doing that in quite a sophisticated way, so let us learn from what they have done.

Adam Tomkins: Good afternoon, Professor Bauld, and thank you very much for the clarity of your evidence so far.

I want to pick up on one aspect of the importance of the clarity of communications, which you talked about at the beginning of your remarks. One of the prime reasons why the lockdown was imposed in the first place was to prevent the NHS from being overwhelmed. Do you agree that it is safe to say that we are a very long way from the NHS being overwhelmed? For example, at the moment in Scotland, 89 patients are in intensive care and we have a capacity of 585 intensive care units; and 1,632 patients are hospitalised with Covid-19, and we have capacity for more than 4,000. With intensive care operating at 15 per cent and hospital capacity operating at 38 per cent, have we now reached the point at which the health risks that are associated with lockdown outweigh the benefits of lockdown, or am I misunderstanding the science and the statistics?

Professor Bauld: I will give a response that is slightly different from the one that Sir Harry Burns gave. From the data that I have seen, I tend to agree that the UK has been successful in not overwhelming the NHS. The data that we have had has shown us what is happening in hospitals and intensive care units with mortality and so on, even if we have not known the exact number of cases.

However, there are risks. We have not talked much about some of the other economic impacts that will cause mortality, such as unemployment and all the things that come with that, but they are

highly relevant and normally longer term. My sincere hope is that we start to relieve some of the measures soon and that we can get the NHS back up and running.

That said, if we want to be confident about our next steps, we need to be confident about longer-term trends. I have sympathy with both the UK Government and the Scottish Government wanting just a few more weeks of data so that they can be absolutely confident that the numbers really are going down and to be clear about the science around the steps for releasing some parts of the population or allowing us to do more things.

As I said at the beginning, I am worried because, when we talk about the R number—I must emphasise that I have colleagues who are far more expert on this topic—I do not quite understand how we know with accuracy what that is, because we do not have the rapid data sources that I described earlier that would enable us to be confident about that. We need more capacity and more rapid data to track what happens next. I understand the caution. If we could be a little more confident about the numbers, we could move more quickly.

I also think that we need to do certain things soon. It is very important for the public that we allow people to go out more often, for example. I hope that we will be given guidance that will allow most of us to have contact with a small number of others who are not in our households. Crucially, I hope that we will be given guidance on when some businesses and sectors of our economy will be allowed to get back up again, with appropriate social distancing. We should try to do that soon because of the other adverse health consequences, not just the impact on the NHS. However, in order for us to track the impact of what happens after we do that, the data will be crucial, because only when we have that will we recognise whether we are at risk again or at risk of the case numbers moving back up.

That is a very academic answer in that I am saying that we need data and surveillance. It is a personal view, but it is backed up by what I see, what I read and what has been mentioned by my colleagues.

Adam Tomkins: That is very helpful, thank you. There is nothing wrong with academic answers—at least not in my view.

You have anticipated some of my second question. Given that we have to subject all of this to a range of caveats—as you have already done—where would you start if it were your decision? You have intimated that you would begin by increasing the amount of outside exercise that we are allowed—even encouraged—to take and that you would increase the number of people who are not in our households with whom we can associate. Are those the first two steps that you would take if and when the headroom is there to enable us to take any steps at all to ease the lockdown restrictions? Could you give us a couple of reasons as to why you would start there, rather than somewhere else?

Professor Bauld: Yes, I can, and I will also add to that. First, I think that all members understand that, in terms of transmission of the virus, we are less at risk outdoors, particularly if we maintain some distance from other people. There are very good scientific reasons for why transmission outdoors is just not the same as indoor transmission. I also support what Sir Harry Burns was saying about using face coverings indoors on public transport and in retail settings. We just need to do it. Although the evidence is not strong, there is enough evidence to take that practical step. That is why I suggest extending time outdoors.

On contact with others, the mental health aspects of isolation and so on are really building up. As Sir Harry Burns said, for young people, with no exams and complete uncertainty, allowing them to go outside and see their friends and to maintain contact with them or one of them out of the household will be important, not just because of the science, but because that is how we operate as a society. That is a practical step that can take place outdoors.

We also need to have a public debate about which businesses would be allowed to reopen. The Government needs to seriously consider how to support businesses to implement distancing measures, such as installing Perspex screens in open plan spaces, instead of just having the arrangements of desks that we have at the moment, and partial return in order to separate people out—meaning that some staff come in one day and other staff come in the next day. We need to start doing some of that in the coming weeks, the way that other countries are doing.

I also want to mention schools. There is a debate about the role that children play in the transmission of the virus, even though they are at lower risk, but other countries are taking fundamentally different decisions around schooling: Ireland has decided that it will not open schools again before the summer, but Denmark and some of the other Nordic countries have prioritised schools and so on. I understand that a paper on schools has been submitted to the Covid-19 advisory group. I know that the school term is ending soon, but it would be plausible to consider whether it would be possible for some pupils to go back, even if that were for a very short time, so that their education is not totally disrupted. I know that teachers and others will be concerned about that.

I am thinking in particular about pupils in crucial year groups—those in transition years and our pupils who are facing national assessments. If they are going into a long summer period with, let us face it, nothing—as it is difficult for the schools to provide resources through the summer and, crucially, it is really difficult for the pupils to maintain any motivation to look at stuff, as all parents will know—I think that we should actively consider having that brief contact, just to set them up and support them for those months until they go back in September. I do not think that there are strong scientific reasons why we could not do that for a very short period. In a way, it is a natural experiment: if we allow some groups to return in a safe way, we will see whether we have data on what the outcomes are. I am not suggesting that we take risks; I am just raising it as an issue at this point.

Stewart Stevenson: I have an observation about schools in Denmark, as my nephew is a deputy headmaster in a school in Copenhagen. They have all-grade schools, so when they take primary school kids, they can spread them among a large number of classrooms and maintain social distancing. That point illustrates how the detail sometimes reveals things about different policies in different countries. However, that is neither here nor there.

By the way, I am 73, and I check in with the C-19 app every day. I am one of 3 million people across the UK who do so.

I will ask two questions. The first is a high-level general question, which I ask you as a public health professor. Do you think that we have given enough priority in the long term to the whole issue of public health? My father, who was a GP, did not require to pass any exam in public health when he graduated. He had to go on the course and sign in, but he did not have to do an exam. Has there been a long-term failure to deal with public health in a properly significant way?

Professor Bauld: Absolutely. I have been working in public health for more than 20 years and I also teach medical students. I think that prevention generally, and public health in particular, is still hugely undervalued. That is the case both in how we approach clinical training, as there is still very little public health content—not to point a finger at any institution; it is a national problem—and in our NHS and public health infrastructure, because it has been underresourced for quite some time. Things have been worse in other parts of the UK because of reorganisation and taking public health out of the NHS, although I will not dwell on that. There have been benefits in Scotland of not going down that route.

From an academic perspective, the reality is that it is much more enticing to put money on the next big pharmaceutical development or the next treatment option, particularly when there are patients who, quite rightly, are urgently calling for technology, medicine and development. It is our instinct to put our investment in those areas. The cheaper, more basic approaches, which are often about public health and relate to long-term benefits and protecting our population, are not quite as quick and appealing.

Unfortunately, in Scotland, we find ourselves in a position in which we are all learning about public health because we have to, and we are expanding our knowledge of what our basic, fundamental principles of public health involve. This is an opportunity for us to look ahead and ask—not only in general practice training, but in all aspects of clinical training and in other areas that feed into public health—whether we have the system that we need and how we can improve it. That way, when we face challenges in the future—which we will—about communicable and non-communicable diseases that are caused by preventable risk factors, we will be in a better position.

Stewart Stevenson: My second question relates to my question to Sir Harry Burns about the R number. One of the things that he said—which I suppose I knew, but he confirmed it—is that it is running a week to 10 days behind the on-the-ground reality.

You talked about the need for other data that will be able to inform us. It strikes me that having quick data that more readily reflects what is going on will be particularly important if we begin to move in an adverse direction and are not able to wait a week or 10 days to know what is happening. What kinds of data should we be collecting to help us to be quick on our feet, particularly if, as we relax some of the current restrictions, we experience an adverse movement in infection and mortality?

12:30

Professor Bauld: Going back to the real-time data infrastructure, we need to think about all the different pillars of that system—or let us say that we will break it into segments.

On technology, you rightly pointed to the C-19 symptoms tracker. Let us communicate more clearly about that, because it will provide hugely valuable data. There is also the NHS contact-tracing Bluetooth technology app that has been developed at the UK level. Whether that is the right one for us will be actively discussed, but it is clear that we need digital technology that will help us in the way that it has helped other countries. However, that is a small part of the picture, and I

would not put all our money on it solving our problems.

To go back to points that I made earlier, how can we get rapid or real-time data on the number of cases in high-risk settings, primary care settings, out-of-hours settings, and other community settings where that might be possible? We have not yet raised settings such as prisons, which are crucial as well.

Those are all components that we want to have feeding into the system. It is brilliant that we now have Public Health Scotland and others working together with boards. Let us try to increase that capacity, so that we can be more confident about the R number. Unfortunately, as you know, we are going to be tracking the virus for many months to come, until we have better treatments and a vaccine. Even if it takes a bit of time to get it right, this is the time to work on it.

Beatrice Wishart: Good afternoon, Professor Bauld. My question follows on from Stewart Stevenson's; it is about the apps that could be used for tracking, tracing and isolating. It looks as if we could have two apps—one from the Scottish Government and one from the UK Government. I would be grateful to hear your thoughts about the importance of clarity and consistency of messaging in relation to that technology, which is set to become part of what comes next. How should it be approached if the intention of both Governments is to increase and maximise uptake?

Professor Bauld: There are a number of issues. One is whether we go with a UK approach for the contact-tracing app, which will identify it if somebody has symptoms and will give them advice to get tested. It will then be able to alert others who have been in close contact with that person. Singapore was the first country to develop that kind of app, and Australia recently developed one. Other countries have been either good or not so good in their use of that technology. I think that it has a role to play. As for how it will be taken forward, I am no expert in the area, but I believe that it will be important.

I feel more confident in commenting on how we can encourage people to use the app. There is now some good research on that. In the UK, we have higher levels of concern about privacy and data protection than some other countries do, according to the data that has been collected in international studies. We need to get the governance of the technology right so that people are absolutely clear about what they are signing up to, how their data will be used, how long it will be stored for and when it will be removed. We then need to have clear public messaging, including potentially in mass media, to encourage people to use it.

As part of the systems approach that I discussed earlier, there is definitely a place for digital technology. We just need to recognise that, unless enough people who have the necessary types of phone download the app, it will not work very well, as we heard earlier in the meeting. We also need to face the fact that not everybody has those phones, so we are still going to need the old-fashioned workforce of contact tracers in the system, which involves people phoning people up.

Beatrice Wishart: My second question goes back to cancer diagnosis and the number of people with other health conditions who are not attending clinicians at present. If social distancing is going to be with us for quite some time, until we have a vaccine, and the reluctance to go to the GP or the hospital lingers, what can be done to make sure that health concerns are picked up in the interim?

Professor Bauld: There are a couple of points. First, we need to be much clearer with our messaging that people should still access different types of healthcare services if they have a new symptom, such as bleeding or chest pain. Indeed, let us go back to the basics and reassure parents about immunising their children, which we have had some discussion of recently in Scotland and elsewhere. We need to reassure the public that they are going into an environment that is safe, that there is adequate testing and PPE where that is required and that they should not withhold those concerns. The communication around that is crucial.

The second thing, which we have already discussed, is that we need to get the system ready to receive patients. I am not sure that I am giving you a different response from the one I gave before, but those are some of the things that we need to do. I am sure that colleagues in boards and elsewhere in the system can advise you in more detail on that.

Beatrice Wishart: That reinforces what is required. Thank you.

The Convener: The last member on my list is Shona Robison. Willie Coffey has indicated to me that he wants to come back in with a question if we have time.

Shona Robison: I will return to messaging, if that is okay, Professor Bauld. Adam Tomkins made a point about the NHS not having been overwhelmed, which is obviously a good thing. However, do you agree that we need to be cautious about equating the fact that we have not used all the ICU bed capacity, or indeed bed capacity generally, with the idea that that headroom enables us to ease the lockdown? My understanding is that we need to see intensive care as the tip of the iceberg. If we saw beds in

intensive care filling up, that would signal that we had huge community infection and a rise in deaths in the community.

It would also be good to get your take on the emerging evidence on people who recover but who live with long-term conditions. There could be an impact on, for example, their heart, or renal problems.

We need to make sure that we have the right messaging. The fact that the NHS has not been overwhelmed does not mean that we have headroom and could fill up intensive care. It would be helpful to hear your thoughts on that.

Professor Bauld: Absolutely. I do not for one moment want to give the impression that we should release lockdown, get on with it and see what happens. That is absolutely not the right thing to do. The earlier discussion has been very helpful in trying to balance some of the adverse consequences of the lockdown with the real and immediate threat that we face from the virus.

You are absolutely right: this is a very serious virus. Sir Harry mapped it out in much more detail than I need to go into now, but there are very adverse consequences for some people who come into contact with SARS-CoV-2 and develop Covid-19. I was really pleased to see in the Scottish Government's framework for decision making, unlike earlier in the debate in the UK, a recognition that we are not heading for some kind of herd immunity and that the priority is to make sure that nobody develops Covid-19 if it is avoidable.

You are absolutely right: the priority is to protect the population from becoming unwell as a result of coming into contact with the virus, so it is right that we do not rush full steam ahead. We need to take baby steps and, crucially, track where we are after each release that we offer to the population. We need to open things up very gradually so that we do not get to a level where we see more ICU beds being needed and case numbers going up.

On the international learning on recovery, you are right. We are seeing new papers in the scientific literature, and there is one out this week, which you are probably referring to, on respiratory conditions and the long-term health outcomes that might arise in people as a result of having Covid-19. We do not fully understand those at the moment, but it would not be unusual, because we have seen the long-term consequences that some groups suffer from certain other influenza strains. In some groups, we should not assume that somebody who has a short-term positive outcome and recovers from Covid-19 will not experience long-term consequences. That is a really important point.

The other point that I want to emphasise in discussing international comparisons is that there is clear differentiation in countries' approaches and the gaps between each release of the current measures, Some countries have done it quite quickly. We will know whether that was a good idea only in the fullness of time. Some of those countries had very low numbers of cases to start off with. Other countries are leaving several weeks between each stage of their release strategy, which is something that we should actively consider. As you rightly pointed out, not only would it allow us to track our health service capacity, but if we had the data on case numbers and there was any cause for concern, we could take action.

Shona Robison: That is helpful. On that point, data will be hugely important, as you have made clear throughout the meeting. We might take a measure but need to retreat from it because of a rise in infections. You touched on real-time data being quite good in hospital settings, but I think that you have some concerns about community settings. Do we need to do more to ensure that we get real-time data more quickly from care homes and primary care settings? What can we do about that?

Professor Bauld: We need the infrastructure for the return of the data from those settings to be more rapid. I do not underestimate the systems challenges that are involved, either at the basic level of IT or in how quickly the data can be received, processed and synthesised. We need to have multiple data sources feeding into an overall picture that can inform the Parliament, the Government and other key agencies. I tried to set out what I see as the key components of how we can build that real-time data.

Others will be able to advise on, for example, general practice and out-of-hours settings and the blockages that may prevent us from getting the system to work at the level that we would wish. In the community, we will primarily be looking at the test, trace and isolate approach. We will not routinely receive data from our population other than by using technology or the test, trace and isolate approach.

As I said, it is important to get that contact tracing workforce up and running across the country. People will need to be trained. You may be more up to speed than I am on the details of how that is developing. That is old-fashioned public health. As you know, many countries put that process in place early on and did not stop, or built it up during the period. Even if they abandoned day-to-day contact tracing, they knew that they would need it again when they came out having higher case numbers. We should not underestimate the importance of the human

resource aspect, alongside the systems issues that we need to address on data.

The Convener: Willie Coffey is keen to ask a further question.

Willie Coffey: Many of our constituents are asking where we are with getting a vaccine for the virus. Do you have a perspective on where we might be? We hear about clinical trials going on here and there. What is your view on where we might be with getting a vaccine?

Professor Bauld: We had an excellent session about 10 days ago with the director of the International Vaccine Institute in South Korea. The webinar is available on the Usher institute website if colleagues want to listen again. I understand that about 75 different approaches are in trial at the moment. There are animal models, cell line studies and, as you know, some trials in humans—they are what we call phase 1 to phase 2 trials. That is brilliant. The scientific community, with support from funders, has responded incredibly quickly. Here in Scotland, the chief scientist office is acting with the National Institute for Health Research and UK Research and Innovation to support rapid science, and I really welcome that.

The estimates of how far away we are from having a viable vaccine vary a lot. My colleagues at the University of Oxford seem quite confident that, if they can continue to move ahead in the next few months, we might be looking at less than a year, but others are more pessimistic about the timeframe. I do not have any more specific insight than that. However, I emphasise that we have never—or certainly not in recent years—seen the global scientific community focus its efforts on a particular issue with such speed, so I am really optimistic that we can make progress. The second question that we need to ask is how viable or effective a vaccine is, and we will see that through time.

12:45

A vaccine will be an important part of the picture, but there are other things that we need to do. The treatments for patients who become very unwell with Covid-19 will also be important, and we are making rapid progress in looking at alternatives through the studies that are under way, so there is cause for optimism. We need basic public health, but we also need medical science to address the problem. In the longer term, it will be very important for Scotland and the wider world that the two act in harmony.

The Convener: I do not think that members have any further questions. Before we wrap up, is there anything that we have not asked you about in the past hour or so that you are keen to tell us? Is there anything else that you want to get off your chest while you are here?

Professor Bauld: I emphasise that international conversations are on-going and many people in Scotland are contributing to them. We need to keep them going because, when we face such a crisis in the future, a global public health effort will be required, so countries need to work together.

Given that the committee has given me the opportunity to contribute as an academic, the only other thing that I will emphasise is that we have outstanding colleagues in our universities and research institutes in Scotland who can support parliamentarians and Governments to make good decisions. We provide information and findings, but you and your colleagues make the decisions. There might be a wider group of researchers and others who would be keen to contribute to Scotland's effort in this space.

In the committee's report and notes about this discussion, there should be an open question about whether we are using all the different types of expertise that we need. As we move forward, our economist colleagues are thinking about welfare, infrastructure and transport issues. All that expertise will be needed, because a whole-system approach is required to address the pandemic.

The Convener: I spoke too soon, because I see that Monica Lennon is keen to come back in with another question.

Monica Lennon: Thank you, convener. I was waving, but I do not know whether I was on the screen at that point.

As we have been speaking, there have been some updates on social media from the BBC and others about the expectation that the Prime Minister will make quite a significant announcement on Sunday night about easing the lockdown. That will apply to England, so there will be an immediate challenge in relation to public health messaging. If the message is going to be different in the coming days and weeks, how can we manage that in Scotland in practical terms? How concerned should we be that, when people turn on the news at night and hear the Prime Minister say something, they will assume that it applies to Scotland, but the picture in Scotland could be quite different?

Professor Bauld: That has been an issue in other countries such as Australia, where there is a federal system and states have taken different approaches, so I emphasise that the position in which Scotland finds itself is not unique. However, that is a challenge. I would be surprised if the Prime Minister did anything too reckless at this point, because that would not be in the interests of the health of the population, but we will see.

Clear and rapid communication is important. If we are going to take a different path in Scotland, our leaders need to be very clear about the rationale for that different decision and the evidence that underpins that rationale. Evidence needs to be made clear to the public about why we are not ready to do X. It might be because the risks are too significant and, therefore, we should know what the risks are, or it might be because we are in a different situation and our data tells us something different. That needs to be communicated. The key is to underpin any decision with that kind of rationale.

We also need to be ready to answer the public's questions. I am sure that Monica Lennon and everyone else found this too but, when we issued our simple messaging at the beginning of the pandemic—I contributed to question and answer sessions in the media—there were so many questions from the public that I, as a researcher, did not know the answer to, because everybody interprets the messaging differently, and everybody's circumstances are different.

If we take a different decision, we need to be clear about the evidence and the rationale for Scotland, and to be ready to answer the public's questions, as I think we are in Scotland, about how the difference applies to people and how they should interpret it.

The Convener: We have to draw the meeting to a close, because our time is up. I thank Professor Bauld for her evidence, which has been very helpful to the committee. We may well be speaking to you again at some point in the future.

Meeting closed at 12:50.

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