

From: [NR] on behalf of [Covid-19 Advisory Group Secretariat](#)
To: [SGoRR Major Events](#)
Cc: [Covid-19 Advisory Group Secretariat](#)
Subject: RE: C-19 Advisory Group - Deep-dive with Sir Jeremy Farrar
Date: 17 December 2020 12:56:01
Attachments: [Sir Jeremy Farrar Deep-Dive - Detailed Minute.docx](#)

Colleagues,

Thanks again for your help in bringing yesterday's session together.

Would you be able to share a list of those who attended the session?

Our group's scientific writer put together a detailed minute of the discussion yesterday. I've attached it here but could I confirm whether you will be circulating a readout of the deep-dive to any/all participants?

Many thanks again,

NR

Scottish Government Covid-19 Advisory Group Secretariat | Scottish Government | 1E.09, St
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Sent: 16 December 2020 17:44

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Subject: RE: C-19 Advisory Group - Deep-dive with Sir Jeremy Farrar

Colleagues

The agenda for Deep-dive is :

1. Welcome: 1800-1805 – First Minister
2. Introduction: 1805-1810 – Andrew Morris
3. Presentation: 1810-1830 – Sir Jeremy Farrar
4. Q&A: 1830-1855 – Andrew Morris (chairing)
 - a. Questions from FM
 - b. Questions from Cab Sec, DFM, CMO
 - c. Questions from the C-19 Advisory Group and others.
5. Closing Remarks: 1855-1900 – Andrew Morris

The SGORR team will open the meeting at 17:30 to allow you to test the Webex video conference connectivity and check everything is working correctly if required before the meeting starts. The dial in details are contained in the attachment.

Video conference protocol:

- Please ensure you have joined the meeting at least 10 minutes before the video conference begins.
- At the start of the meeting the chair may do a roll call to confirm the names of the participants who have joined the meeting.

Key etiquette:

- Introduce yourself when speaking so everyone knows who it is
- Please mute your audio when you are not speaking.

- If your microphone is not muted, please take care not to rustle paper, type or make a noise that might disturb the call

Please note that there are no papers to circulate ahead of this meeting.

Thanks

NR

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St Andrews House
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Duty Officer Pager (Emergency Contact): I&S

From: NR [@gov.scot](mailto:sgormajorevents@gov.scot) > On Behalf Of DCMO Health COVID19

Sent: 16 December 2020 17:16

[See recipients listed above]

[See recipients listed above]

Subject: RE: C-19 Advisory Group - Deep-dive with Sir Jeremy Farrar

Hi All,

Are the dial in details available for the call at 18:00?

Kind regards

NR

DCMO Private Office
1E09, St Andrews House, Edinburgh



I&S



NR

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-----Original Appointment-----

From: SGoRR Major Events <sgorrmajorevents@gov.scot>

Sent: 07 December 2020 15:44

[See recipients listed above]

[See recipients listed above]

Subject: C-19 Advisory Group - Deep-dive with Sir Jeremy Farrar

When: 16 December 2020 18:00-19:00 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: SGoRR by teleconference

Colleagues,

The First Minister will chair a 'Deep Dive' meeting on **Scenario Planning** on **16th December** at **18:00** hours.

Date and time: 16/12/2020 at 18:00

Location: SGoRR by teleconference.

Attendance at this meeting is determined by the First Minister and by the Lead Official for the Deep Dive. This invitation has been shared with a limited group of ministers and officials who have been identified as key to the Deep Dive.

We recognise however that others may also feel that they require to be involved and we ask that where this is the case, you provide their details to SGoRR and we will consult the First Minister's private office and the Lead Official as to whether the invitation needs to be extended.

Dial-in details, and agenda and meeting papers will be circulated by separate email and should not be saved into outlook calendars

CAN ALL THOSE DIALLING IN PLEASE ENSURE THEY ARE ON THE LINE WELL IN ADVANCE OF THE MEETING START TO AVOID DISRUPTION

Important:

Should you wish to attend the SGoRR room, please contact SGoRR in advance as space is very restricted. Invitations to ministers and officials are personal and should not be forwarded on. Those attending should arrive at least 5 minutes before the meeting is due to begin. Our current preference is for colleagues to dial in to meetings wherever possible.

Teleconference protocol:

For those dialling in please ensure you are on the line **at least 5 minutes before the conference begins**. At the start of the meeting the Chair may do a 'Teleconference Roll Call' to confirm the names of the participants who have joined the call.

Key etiquette:

- Introduce yourself when speaking so everyone knows who it is.
- Please mute your handset when you are not speaking.

- If your microphone is not muted, please take care not to rustle paper, type or make a noise that might disturb the call.

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**Scottish Government Covid-19 Advisor Group
Deep dive with Sir Jeremy Farrar
16th December 2020**

Key Points

1. We must plan ahead to August 2021. We cannot go into winter 2021 with rising transmission.
2. As we look to 2021 – we must keep broad, vaccination is not the be all, we must maintain test, trace, isolate and surveillance. Testing alone is not enough, isolation remains at the heart of our approach.
3. The idea of tension between health and the economic sector is a fallacy – economic growth can't return until we suppress the virus.
4. We have to act earlier than is comfortable, and you have got to go deeper and broader. If we delay action by days the costs are big in terms of number of lives.
5. Transparency with the public is important and we must be clear on our priorities. Better to under promise and over deliver.
6. Unlikely to know if vaccines prevent transmission until mid-2021. Surveillance remains key.
7. The risk to the teaching profession is not higher in schools than the community they are in. There could be a case for adding them to the priority list to maintain confidence in schools remaining open.
8. We must remember that all data is retrospective. Inflection points must not be ignored.
9. A big unknown is the trajectory of the virus. It is an RNA virus under immense selection pressure. If if the virus changes and it affects immunity, transmission, causes vaccine and therapeutics evasion, then we'd have a new event.
10. To prepare for future pandemic, international collaboration and data sharing are key.

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Andrew Morris (AM): Good afternoon all, I want to thank everyone for everything you're doing. I'd like to welcome Professor Sir Jeremy Farrar. Jeremy is the Director of the Wellcome Trust since 2013. He was previously based in Ho Chi Minh City as Director of the Wellcome Trust's Centre in Vietnam. He has outstanding infectious disease experience including from his work with H5N1 and has been advising on the covid-19 pandemic as a member of SAGE.

Jeremy, I remember when you said this was the 'most predictable pandemic I've lived through', which was a view held by others including Mark Woolhouse. Can you give a brief summary of where we are, and also look forward 12 months from now – where do we want to be then, and how do we get there? It would be useful for the Scottish Government to know what policy should be in place.

Jeremy Farrar (JF): It is an intimidating audience, but a pleasure to be here. I owe all the medicine I learned to 5-6 years working at ERI and the Western General. With my Wellcome Trust hat – Scotland receives more Wellcome Trust funding per capita than any other country on earth, which is a tribute to the quality of the Universities and the science of Scotland.

With Andrew's quote – Mark and I exchanged emails in January, and it has been a predictable pandemic. Not always appreciated by all policymakers. I don't want to get into debates about different countries, but some try to explain poor policy on the basis of complexity, but actually it's been predictable.

If you were teaching students about the thing we should lie awake over – you'd say worry about an animal virus that moves to humans, that is spread by respiratory transmission, to which people have no immunity, no diagnostics, no treatment, no vaccine, that originates in an urban centre just before a major festival in winter. This explains why this has been devastating.

There are 4 overlapping circles to think about:

1. Direct health consequences
2. Indirect impact on all other healthcare
3. Economics, trade, trust in government, inequalities, tension in society, education
4. Geopolitical consequences

All four are involved in covid and we need to address all 4 overlapping circles and prevent it happening again.

The successes in Scotland have been trying to suppress as far as possible. That was right – the decision to stop transmission, support the economy and protect healthcare workers and the NHS, was the right one and is still right for 2021.

There's been massive progress and a massive international effort. The question is how can we use this progress and new knowledge to map out a better 2021 than 2020?

What's critical is we give ourselves until August/September, not later, to get a handle on this. We can't go into next winter like this, we don't have 12 months. Must make

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sure we reduce transmission, protect the vulnerable and the NHS and roll out the science. Can't go into winter with rising transmission. We've got 8 months to get our act together.

Vaccines are important, but don't put all your hopes in that basket – there are issues of uptake, the adverse event profile when rolled out to all ages, ethnicities and the vulnerable, there are questions over the duration of immunity. Immunity may last just 6-7 months in the worst case. Chances of that are small, but not zero. Vaccines change the trajectory, but they have to be seen in concert with suppressing transmission, must have test, trace and isolate in place. Not just about quoting huge test numbers, or using them as a fig leaf, it's about tracing and isolating too.

Treatment – Kenny Baillie work on new treatment options has been great – monoclonal antibodies and other treatment are going to change the sense of fear.

NPIs remain key – masks, ventilation, hand hygiene, will be at least as important in 2021 as in 2020.

Must continue with surveillance systems. The data and modelling is important, but when we look at data it's looking in the rear view mirror. You're looking at acquisition of infection from a few days or weeks ago. Need to react to the forward's view. It means you have to act earlier than is comfortable, and you have got to go deeper and broader. If you delay action by days the costs are big in terms of number of lives.

The idea of tension between health and the economic sector is a fallacy – economic growth can't return until we suppress the virus. Vietnam, Singapore and New Zealand have demonstrated that by making good decisions you can protect both health and the economy.

Data needs to be smart – no use if it's too slow, or not the bits you need.

With the viral mutant – I worry about it increasing transmission. We must remain humble in the face of this pandemic. This won't be over even when we vaccinate. It is a human endemic infection now.

As we look to 2021 – we must keep broad, vaccination is not the be all, we must maintain test, trace, isolate and surveillance.

We will see regional epidemics and we can use lessons from 2020 to cut transmission chains as soon as possible.

Need to step back at the moment and think about likely scenarios for the next 8-9 months. By the middle of August really in Scotland, because that's when your schools go back. Must think about priorities – if you open schools, then other sectors of society might not open so fully. There is a need to lay out transparently to the public what the scenarios are and how you'd respond. Need to keep an open mind for 2021 – now entering a more unpredictable phase with the enormous immune pressure we create on covid through vaccination, we need agility through data to be able to prevent and respond to the unexpected.

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AM: Thank you Jeremy, we now have about 30 minutes for questions.

FM: Thanks Jeremy, that was really interesting and helpful. My observations are that it is most helpful to be reminded of what's really important, that's helped me take a step back – to think about what to communicate and how to communicate it.

Listening to you underlines my worry, that we're putting too many eggs in the vaccine basket in terms of communications with the public and with planning. Part of trying to convince the public is holding out this holy grail of normality – are we misleading the public and ourselves into vaccine-based sense of security. Mustn't do that, it's part of a system.

Do you have a timeline for when we'll know how much of a solution the vaccine is – its ability to stop transmission etc?

We've all tried to learn from a poor start in February/March about the importance of acting before we have the data to reassure us we're doing the right thing. Not comfortable because as politicians we want to have the evidence before acting. Speed of response is getting harder – people now say look at the economy. But that's that false tension between the economy and health – we won't fix this until we fix the virus.

Taking all of what you've said, broadly looking at us in within the UK context – what are we doing wrong? What are we not doing enough of? What are our weaknesses? What do we do to get to the August point you mentioned?

Finally, should the mutation be changing our response, or does it just underline the need to act before we have the answers?

JF: We will have more information in the first half of 2021 on vaccines. They're not a magic bullet, they are part of a broader system. But it is very positive that we've made one and that the immunity after natural infection is stronger than you might have thought for a coronavirus. Natural immunity following infection seems to be pretty good, might haunt me in the future to have said so of course, but in healthcare workers we're seeing immunity still at 7-8 months, and I think we can replicate that with the vaccine. We will learn about natural infection and therefore vaccine immunity. BUT does the vaccine stop transmission or just clinical disease? We're confident it stops death/hospital admission, but we won't know about transmission until first half of next year- surveillance key to this.

With regards dealing with uncertainty – you have a social contract and the question is does the public trust you? Trust is at the heart of dealing with uncertainty. Public knows you're doing your best with uncertainty, but if you don't have that sense of transparency and trust and consistency, then it's very difficult to deal with uncertainty. You've done well in Scotland with this – I'd say be open, transparent, no sugar coating. Then when you have to change your mind based on data, people will have more trust in you.

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Scotland has a heterogeneous epidemic, some areas are on the up, some are static. The lesson from 2020, is don't think areas that are flat/dropping won't get reinfected. In England tier 3 has held it, but others have gone up. High transmission areas will mix with low and as only 10% of the population has antibodies to it you will get a vicious cycle of a reverberating epidemic.

You need to cut transmission chains, protect the vulnerable and health care workers, then use science and bring in things like the vaccine and behaviour change.

You need to ask what are your priorities? Schools? Workplaces? Universities? Because you can't have R below 1 AND have all of these open.

With vaccination, think about vulnerable populations and healthcare workers, but I'd add teachers and start vaccinating in schools – kids are not getting very sick but they are transmitting, yet schools need to be open otherwise inequalities are increased and the effect on education is severe.

John Swinney: I carry responsibility for education system, so I'm worried about these things you've raised. Can you shed light on the safety of schooling? We've kept schools open to all with a few exceptions, since 11th August, but it's been a struggle. And there's this growing concern – this much more vociferous argument that there's something weak about school safety and that it has implications for staff. The levels of the virus are actually lower, so it's not a concern driven by the virus level, but increasing teacher scepticism over safety in schools. What can we do to boost teacher confidence? Vaccination of teachers not routinely going to be adopted under current strategy.

Second, you mentioned routine hygiene measures for 2021 and the need to not sugar coat anything – should we, when mapping out a picture of 2021, give a picture of what a non-sugar coated 2021 looks like? Face coverings all year, no mixing in households, hard restrictions on normal life. To accustomise people? We wrestle weekly with these decisions, like we took some controversial decisions not to release Edinburgh and now feel vindicated when we see last 7 days. Is there an argument for fronting it up and saying this is going to be tough all year? How challenging is that to get across and to get compliance?

JF: What we do in December, will impact on January. I think messaging on Christmas is absolutely right – a tougher Christmas message was absolutely right and will help Scotland going into January/February which are the toughest months of the year for a healthcare system.

School children are not getting sick, the under 18 clinical risk is really very small, not zero, but very small. The risk to the teaching profession is not higher than the community they are in. So, we are not seeing higher rates in teachers, but if we want schools open, we need to build confidence. So, I think if there is available vaccine after the most vulnerable and healthcare workers, then I'd put teaching and school staff high up the list.

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Cath Noakes from Leeds is great on safety in schools – ventilation, masks, distance and time together, hand hygiene are all factors. Not sure what you're doing in Scotland, but masks in schools have possible role.

In terms of messaging, you're setting out your stall for 2021 in the new year – much better to say we have the science, a vaccine is coming, there is light at end of tunnel, but we don't think it will all go normal in the first few months of 2021. Better to under promise and over deliver, than this stop start. Much easier to row back and ease off restrictions. We need humility and respect for the virus, and by the middle of August we need to have everything in place to stop a surge.

Gregor Smith: We've struggled because the data is lagged, so we're learning down the line. Can you give any advice on advance signals – maybe something we aren't using but should develop for the future? I'm thinking early indicators of issues e.g., calls to NHS24, waste water etc. have any of these got the legs that we should develop them?

JF: It's crucial to have more numbers, not just seeing one element e.g. just an app, just waste water, just ONS data – it's seeing them all and as soon as you see an inflection point, don't ignore it. It's from a week ago – seven days on and that inflection point becomes a turning point. When we want more data, when we wait until the inflection is red, wait for the turning point, it's too late. Need a combination of signals - from population surveys, NHS hotlines, school absenteeism and more. In Wuhan in early December there was massive school absenteeism. Then you're seeing the jigsaw of 10-12 variables that you look at, and if you see a spike in any one of them, then act then and act locally.

Our experience from SARS, bird flu, Ebola, is that politicians set the framework but vaccine delivery, surveillance, epidemiology is all based on local knowledge – you need to engage at a local level. There is room for innovation - could schools do science around their waste water? Ask how can we involve the public in gathering these signals but without spreading fear? And NEVER ignore an inflection point – remember, you're looking in the rear-view mirror.

Mark Woolhouse: When we had those conversations in January, we were clear it was a long-term event – we thought minimum one year but it's clearly going to be longer. So, we knew any response had to be sustainable. Are the measures we have sustainable? With the suppression issue – however much we suppress – it's not enough – we need to protect the vulnerable, most people die during the downswing because it's longer. I could never see a pain free way of getting there. NZ didn't have to solve that problem; they could see what was happening - they didn't lockdown until after us. The only way to get there was acting quickly, but we would have had to lockdown and shut borders at same time as rest of Europe in the first week of March.

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Now we have a game changer in the vaccine - does that bring the New Zealand scenario within reach?

JF: When I said it was predictable, there was much that was unpredictable still. We had already seeded 1300-1500 viral introductions around half term, so we would have had to shut down before the first week in March.

You couldn't sustain everything from 2020 through the whole of 2021. But we've got vaccinations, we've got better diagnostics - without those I wouldn't suggest these restrictions. There is light at the end of the tunnel. Even if vaccines only protect against clinical disease, we will reduce the case fatality to close to zero. Sadly, we can now identify who will die quite well, and if they can be vaccinated in early 2021, we will have a massive impact on deaths and on NHS pressure. Once we've done that, we can think about advising on lifting other things. Once we take death out, we're having a different discussion. That is with the caveat that the virus may evolve and create a new scenario. But if we vaccinate by the end of the first quarter of next year, we take fear out and so the sustainability of NPIs has changed.

Tom Evans: How might we deal better with SARS-CoV-3?

JF: How many warnings did we need? We've had SARS, Zika, Ebola, Nipah. The drivers aren't going anywhere - climate change, changing relationships with animals, massive cities that are connected. Ebola what changed wasn't the virus, it was the environment. We need smarter sharing of data, better surveillance, more of a pooled internationally collaborative effort - things like CEPI (Coalition for Epidemic Preparedness Innovations). We need to look at how we can pool resources so we have platform technologies - for vaccines, treatments and diagnostics. The shift to vaccine platforms will be transformational. Could have safety data in place and the develop a new vaccine in 30 days. We need the tools to be ready.

NR You mentioned the fallacy of the economic/health tension. But there is also the health/health tension - the harm 1/harm 2 tension. We know there are issues accruing, though we're not sure of the impact yet. But some people are concerned about how it'll play out e.g. cancer surveillance, lack of routine treatment. Do you have any insights into what systems have worked well in managing that health/health tension?

JF: It is a tension. The best way to deal with it is to deal with the epidemic and bring it to a close. A lot of people look to Sweden, but Norway is the country to look to and learn from on this. Very happy to put you in touch with their public health people. They are a very rich country, with a very strong social contract. But the way they prevented hospital-based transmission, how they protected the care sector, and

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tackled the issue of other health concerns – we can learn from them positively, certainly compared to Sweden.

Devi Sridhar: If you had a magic wand, what would you want to know now – what information are we missing to make good decisions over the next 6 months?

JF: Great communication work by you over the last year Devi. The thing I'd like to know is the trajectory of the virus. It's an RNA virus under immense selection pressure, we have learned much from 2020, but I'm concerned if the virus changes and it affects immunity, transmission, causes vaccine and therapeutics evasion, then we'd have a new event. The rest of it we learn from Norway, the Netherlands and others - I think we know enough and can be smarter about lessons we learned and choices we make.

NR How can we improve adherence to isolation? Especially given the gig economy?

JF: It's about that 3rd circle I mentioned, which includes trust – Norway has lessons. It's not just about making money avail, but about reaching into communities that would not reach to us. Part of the community in the Liverpool testing trial that they never thought would be an issue were the digitally excluded young, they just did not take part in the roll out. We need to ask how can we build links into communities that are not naturally accessible. That includes prisons and those not legally in the country – we need to reach out, not only morally, but scientifically if we leave part of the community out that'll become an issue for the whole community. We need to ensure equitable access to information.

AM: Do you have any questions for us?

JF: If there's a scenario planning exercise early in January, or any way we can help, it would be a pleasure to do so.

AM: We have found these informal session and dialogue with political leaders very useful. I will defer to the First Minister, but we could have such an event in the New Year.

FM: Very early in the New Year would help us think through and sense check scenarios and if we have the right thinking in place. We've got to be honest with

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ourselves, we know speed of response will continue to be a challenge, we'll need to be clear with people that we'll be asking tough things and things we didn't do enough and early enough e.g. travel. External challenge is helpful - we need to be thinking through the most likely trajectory, and communicate properly and fix what we didn't get right. I know a little about Norway, but I'm keen to know more about what we could learn from them in short order. Thanks for your time.

AM: I think there were seven key messages:

1. Don't have a year horizon, we're got until August
2. Any scenario is a package with isolation at the heart of it – leaning on testing numbers alone can be a fig leaf
3. NPIs will be as important in 2021 as in 2020
4. Data driven innovation using multidimensional data is key. When you get information, go early, go deep.
5. When it comes to vaccination, think about teachers
6. International collaboration is key – platform tech, data sharing, speak to Norway
7. How to demonstrate trustworthiness is important. Got to be honest, reliable and competent. It is better to under promise and over deliver.
8. There are unknowns around the trajectory of the virus, but hopefully we'll have more data in early 2021.

AM: A huge thank you and a yes to partnership in early 2021.

JF: In scenario planning, it will be important to think about the opportunities that come out of this horror - how can we ensure some good comes from this?

AM: Yes, guide the world to a better place. Thanks FM - we appreciate your leadership through these times. And thank you to all my colleagues, you've been a remarkable team.