COVID-19 Strategic Intelligence Group

2.00 pm on 21 May 2020 by Zoom Video Conference

Present:

Professor Ian Young	Chief Scientific Officer, DOH
Dr Michael McBride	Chief Medical Officer, DOH
Dr Lourda Geoghegan	DCMO, DOH
Dr Naresh Chada	DCMO, DOH
Dr Gillian Armstrong	SMO, DOH
Professor Frank Kee	Centre for Public Health, QUB
Professor Diarmuid O'Donovan	Centre for Public Health, QUB
Dr Declan Bradley	Consultant Public Health Medicine, PHA
Professor Cathy Gormley-Heenan	Pro-Vice-Chancellor (Research and Impact), Ulster University
Professor Stuart Elborn	Faculty Pro-Vice-Chancellor, School of Medicine, Dentistry and Biomedical Sciences. QUB
Dr. Eugene Mooney	Senior Statistician, DOH
Tricia Lavery	DOH (Secretariat)

Apologies

None received

Welcome

1. Prof Young welcomed participants to the meeting and confirmed that all were content with the note of the last meeting. subject to amendments to paras 4.3 and 4.5 as discussed.

1.1. It was agreed to amend Paras 4.3 and 4.5 in the minutes

1.2. Prof Young reported that papers on the agenda items have been circulated in included in the meeting pack for today, namely

(a) Circuit Breakers
(b) International Contact Tracing

Circuit Breakers

2. Prof. Young open the discussion on what is considered an absolutely critical area - the ability to detect, at an early stage, any significant increase in R.

2.1. Current data suggests that R is relatively stable at around 0.8 and we continue to see the expected slow decline in most of the other indicators. As of this week a number of relaxations have come into effect and observations can be made as to the extent that the public are adhering or otherwise to the need to maintain social distancing in outdoor settings.

2.2. There are a number of potential data sources that can be used to give the earliest possible signal of an increase in R. The paper presented today is intended to be used to discuss a way ahead in terms of how we wold want to use them and what would constitute an adequate signal of a problem. The earliest indicators are likely to those which relate to people presenting with new symptoms such as contacts with GPs or via the 111 call service, and at a later stage, positive cases based on test results. Longer term indicators would be hospital admissions, ICU admissions etc.

2.3. In response to a question from the group, Prof. Young advised that the members of the modelling group are engaging at various levels to get the data feeds that would inform the indicators in the initial parts of the calculations as detailed in the first part of the paper. They are confident that they will be able to establish lines to these in time, but at present the information is quite fragmented and there is no single source of information.

2.4. It is likely the earliest observation of a rise in hospital admissions would be approximately 10 days after any set of relaxations, and critical care admission approximately 12-14 days after relaxations. As these could be relatively subtle in the first instance, it could take up to 3 weeks to have any confidence in terms of whether the existing markers are giving a warning signal. Some of the earlier markers would be expected to give a warning signal at an earlier

stage.

2.5. It is proposed that the modelling group will now begin to determine R on a fairly wide range of these indicators on a daily basis. As some of these indicators are potentially more reliable that others, the intention is to categorise them as outlined in the paper, namely:

White or No Flag	midpoint estimate and the upper bound less than 1
Amber Flag 1	midpoint estimate below 1, with the upper bound above 1 and lower bound below 1
Amber Flag 2	midpoint estimate above 1, with the lower bound below 1
Red Flag	midpoint estimate and both upper and lower bounds above 1

2.6. It may not be possible to be completely rigorous about this until we see patterns that are emerging. The modelling group will have the individual ratings and will try to reach a collective view in terms of whether we should be white, amber 1, amber 2 or red. In terms of actions that might follow from that for reporting upwards on elements of concern, agreement with CMO is required as to whether that should be reporting directly to this group or directly to CMO and Gold Cell.

2.7. In response to a question from the group as to the UK plans for reporting by the UK Joint Biosecurity Centre (JBC); they will use a 5-point graduated scale. Prof. Young advised that this is moving with pace but there are some uncertainties around what they intend to do – further engagement will be required. Prof. Young has flagged up with SAGE today that it would appear that JBC will have a considerable command and control role in relation to what is going to happen in England, and there will need to be discussion in terms of what their role will be in relation to the devolved nations. Wales have produced a discussion paper which uses a Red-Amber-Green (RAG) traffic-light system based on similar indicators we have already discussed, and we have yet to see any proposals from Scotland yet in terms of how they might wish to proceed.

2.8. As well as estimates of R derived from our own modelling we will continue to receive estimates from the various UK modelling groups and hopefully also the ROI group. We will have to factor these in also. Discussions continue with the UK modelling groups as their estimates of the NI R value to investigate the significant differences observed between their values and our own calculated value. One possible explanation could be that they are taking many of their feeds directly from the departmental dashboard figures which, whilst these are correct and accurate, include in many cases numbers of both

confirmed and suspected COVID cases. Our in-house modelling uses just confirmed case numbers for our modelling, which we consider to be a better number to use for modelling purposes.

2.9. In response to a question form the group on changes to the inputs to the calculation of R, Prof. Young advised that the best number to use for the modelling is the largest reliable number that can be used in terms of an input stream. To date that has been the number for COVID-19 positive Critical Care occupancy. We have started to also use (and will exclusively use from this week) hospital inpatient numbers and hospital admissions numbers for those patients that meet the agreed national definition of a community-acquired case (thus excluding cases of nosocomial infection gained in a hospital or nursing home etc.). This is in an attempt to get as pure a value as R as we can for community transmission, and this is proving to be very consistent still with ICU occupancy numbers. The number of COVID patients in ICU in Northern Ireland has fallen to around the high 50's at the peak to just 13 COVID patients in ICU today.

2.10. If we move to a position of having a mature contract tracing service, ideally when everyone who is symptomatic contacts their GP, and if they meet the symptom definition are then tested and subsequently get contact traced, and this produces a reliable number this should provide an early and fairly reliable number to use on which to calculate R. Whilst this is the desired direction of travel, we are not quite there yet but should be in due course.

2.11. In response to question from the group on data from other countries around specificity and sensitivity other models and also the change of indicators for calculation of R, Prof. Young advised we will not use a single source of R, we will use as many as we think are reliable. As ICU occupancy is now in the low teens, small changes will have a bigger impact and result in much wider confidence interval that it will no longer be useful. We are therefore approaching the point that we will need to switch to a different indicator with a narrower confidence interval. Both ICU occupancy and hospital inpatients indicators have been used this week to compare results and findings show similar results, but there is a narrower confidence interval for the R value calculated using the hospital inpatients indicator.

2.12. Moving forward, and subject to Ministerial agreement, our intention is to publish R once a week, in a format yet to be agreed. The favoured approach would be to publish several values of R from different sources, to try to begin to increase levels of public understanding around R and stop fixation on a single value of R. This will need some accompanying text to explain where the new values of R come from. It is believed that Scotland and Wales also plan to begin to publish their regional values of R on a weekly basis. From next week, R is being calculated by the main UK modelling groups, who will publish an R value for the UK as a whole. As the view of our in-house modelling group is that their current projections for NI do not accurately reflect our true position we will publish our own NI value of R but will continue to

receive their estimate of R and may switch to using their value once satisfied that this more closely reflects our in-house calculated value.

2.13. In response to a question from the group on how we can address this issue to avoid being in the position of having to spend time having to explain the variations between the UK estimate of R and the NI estimate of R, Prof Young advised that it is believed to predominantly relate to coding issues within the Trusts. The number of cases of inpatients, which is correctly described as suspected and confirmed on the departmental dashboard, currently sits around the mid-600s, but the number of actual COVID confirmed inpatients is likely to be less than 200 which is a very substantial difference. We now have a system in place to extract the data through BSO daily. The issue is due to a lack of in-depth understanding of the reporting that the numbers reported on the dashboard include a large number of suspected cases. Investigations are ongoing to establish where the UK modelling groups get their data from to finish solution to this issue. We want to ensure we do not end up in a position where we are confusing ministers with differing figures, leading to confusing the public around the current position. We have written to SPIM, as have Scotland and Wales, to say that SPIM should not be publishing numbers for the devolved nations, that it is up to the devolved nations to publish numbers themselves. **It was agreed that IAD would look at how confirmed cases could be added to the dashboard.**

2.14. In summary there was broad acceptance for the paper and the modelling group will start to report to this group to support the provision of advice by CMO and CSO to Minister and to the Executive.

International Contact Tracing

3. Prof. Young opened the discussion on the paper presented today which looks at the international approach to Test, Track and Trace was prepared for SAGE. It is a very helpful and helpful paper and it is important that we look not only at UK-based scientific advice through SAGE but that we also learn from best international practice.

3.1. During discussion on the paper, several points were highlighted:

- The position in Australia and New Zealand was seen as particularly interesting as they are both have similar cultures to ourselves, are islands and it appears that the combination of geography and a reasonably efficient contract tracing programme has had a big effect on both of these countries. This would give encouragement that there is a reasonable prospect that our contract tracing programme could well have a positive impact, based on their experience.

- The programme we are currently proposing and developing and rolling out in Northern Ireland does align quite well with best international practice in

terms of our ambition and the definitions that we are using.

- It was observed that there is a variation in how various nations are dealing with their contacts once traced. In Spain, South-Korea, New-Zealand and ROI the recommendation is that all contacts are isolated once traced until test results come back. This may be a step beyond what we are currently considering for Northern Ireland but is possibly something that requires further discussion.

- Quite a few countries would appear to consider that quarantining inbound travellers is a helpful intervention. This is an interesting point to note and highlights there will be an impact on global travel for some time to come.

- Singapore, which seems to have been very effective in terms of how they seem to have got on top of this, has done so with a testing capacity of 90,000 tests max per day for a population of 50 Million. Whilst contact tracing is a very important to tackling this disease, there are also cultural aspects and dynamics, geography, population density and many other complex issues which need to be considered.

3.2. Prof. Young proposed that the paper be added to the agenda for the next meeting to allow time for the group to consider the content in more detail and bring issues or questions relating to our approach back to the next meeting.

3.3. Members of the group were advised that whilst SAGE intend to upload all of its papers on their website and make them publicly available going forward, this paper is marked Official Sensitive so it not for circulation outside of this group at this time.

AOB

4. Prof. Young invited members to raise any other items for discussion.

4.1. A member questioned whether, in relation to the Expert Testing Group, this Contact Tracing paper give a basis to determine the number of tests we may need using modelling. However, it was felt we need to get hold of as many tests as possible; our difficulty may be more around which testing to prioritise.

4.2. A member voiced concerns around the National Initiative testing turnaround times. Whilst they are quoting an improvement from 72 hours to 95% completed within 48 hours, this is believed to be from when the test is received in the lab. This paper states you should ideally get your test results back within 24 hours and the maximum allowable time is 48 hours. This would lead to a preference for retaining as much of our testing as we can within Northern Ireland. It was agreed that the contact tracing tests are the ones that we need results back quickly. Within the NI HSC Academic Consortium system we can definitely match the 48 hour turnaround and come very close to the 24hr target.

4.3. Dr. McBride note his thanks to everyone who contributed to the NI Testing Strategy paper which was well received by the Executive this morning and acknowledged the huge amount of hard work and effort by all involved to get us to the point we are at today. Dr. McBride also stated that he took the opportunity to indicate the strengths of the NI Consortium in contrast to the centralised three big labs approach as they have done in the rest of the UK. We fought long and hard here to ensure that our capacity remained within our universities and in AFBI rather than relocate equipment and consolidate elsewhere. This was clearly the correct call for NI and has stood us well.

4.4. Dr. McBride advised that antibody testing will be coming online soon and each of the devolved administrations will need to make their own determinations of the optimal use of this testing. It may well be useful therefore for this group to consider in the coming weeks how we might best use this capacity. This may also be discussed tomorrow in advance of the Expert Advisory Group.

DONM

5. There are no plans to hold a meeting on Monday 25th May with it being a Public Holiday, so at this stage the next meeting is scheduled for Thursday 28 May unless important issues arise in which case Prof. Young will email this group in the interim. As the Monday meeting is set to move to 3pm due to an ongoing clash with the Contact Tracing Group, so it was proposed that both the Monday and Thursday meetings will now move to 3pm. Members were requested to note this in diaries.

Next Meeting will be on Thursday 28th May at 3pm and will be a Zoom meeting, dial in details to be shared in due course.