COVID-19 Strategic Intelligence Group

2.00 pm 18 May 2020 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 Fiona Alderdice	Nuffield Department of Population Health, University of Oxford
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
Professor Hugo Van Woerdon	Director of Public Health, PHA
Dan West	Chief Digital Information Officer
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.

Status Update

2. Prof Young updated the group on key developments and actions from the previous meeting.

    1.1. Prof Young agreed to provide a paper which will be included in the pack for Thursday's meeting (21 May 2020) on how we propose to detect any changes in R following the relaxation of the current restrictions. This will discuss or propose potential "circuit breakers" and a RAG rating system in terms of the potential development of the epidemic. This will be discussed at the Modelling Group tomorrow (19 May 2020) and subsequently brought before the SIG meeting on Thursday.

    ACTION: Prof. Young to provide paper to the SIG meeting on Thursday 21 May.

    1.2. Prof Young has provided the full evidence behind the Care Homes paper to Dr. Geoghegan for consideration of any further actions required. Dr Geoghegan has also agreed to consider the need to reinforce advice to Trusts and Care Homes etc around social distancing.

    1.3. Prof Young agreed to bring back the independent SAGE paper. No further correspondence on this paper has been received to date.

    1.4. Prof Young had agreed to circulate further papers for today's meeting on:

    (a) Period of infectiousness / transmission dynamics
    (b) Bubbling

    These are included in the meeting pack for today.

Independent SAGE Paper

3. As there were no other issues with this from the membership of the group, the paper was noted.

Period of infectiousness / transmission dynamics

4. The Group considered papers presented to the meeting on the period of infectiousness and transmission dynamics of the virus and how it relates to the need for self-isolation.

4.1. Prof. Young provided some background and update on the current position on this. There have been no surprises or changes in terms of the progress of the epidemic in Northern Ireland. We continue to calculate a value of R on a daily basis with 95% confidence intervals. As the numbers of patients in critical care have declined to the mid-teens at present, and therefore it does not have a lot further to fall, we are switching to using hospital admissions or inpatients as our main input parameter for determining R. These will be run in parallel for the next week or slightly longer.

4.2. R calculated from both ICU occupancy and hospital admissions remains at between 0.7 and 0.8 at present, with the upper bound of the 95% confidence level being below 1.0. Moving forward this would deem R as being "green". We will indicate how we intend to describe that more fully in the paper on Thursday. The overall picture is a decline in numbers of cases.

4.3. There have been various announcements over the weekend about how the Executive may plan to relax current restrictions. We anticipate that the Executive will issue another statement in the next day or so indicating the lifting of some further restrictions. It will take about between 1-3 weeks for these to show an impact in terms of R.

4.4. Papers were circulated in the meeting pack for the meeting today in terms of the period of infectiousness and transmission dynamics. Prof. Young summarised the problem and his perspective on the evidence presented before taking comments of the question from the group.

4.5. Currently when someone presents with symptoms they are advised to self-isolate for a period of 7 days, and if their symptoms have not resolved at the end of that time they may have to self-isolate until there has been at least a 48 hrs with no pyrexia, taking the isolation period up to 9 days in Northern Ireland. Looking at a range of other countries, someone with symptoms is quite often advised to isolate for 14 days, but in some countries (e.g. Australia) it is 10 days. There is a degree of global variation which is particularly marked in the case of the UK and NI (7 days) and ROI (14 days).

4.6. From evidence presented, it was agreed that someone is likely to remain infectious for at least up to 6 days following the onset of symptoms. Beyond that the evidence is less clear. PCR virus is detectable in various body fluids or excretions for up to 30 days and in some cases longer after the onset of symptoms. It is generally agreed that in the latter part of that period, low levels of PCR activity do not generally equate with infectiousness (i.e. it is not possible to culture virus). However there is limited data around how long the virus can be cultured after the onset of symptoms. One or two reports show culture of virus after 8 days, most reports agree this is possible at 6 days, hence the UK position of recommendation of self-isolation for 7 days for patients staying at home. Other countries have taken the much more conservative approach of opting for 14 days or on receiving 1 or 2 negative PCR test results. SAGE will commission work to provide an evidence base

to better support the timescale of presence of culturable virus following the onset of symptoms by tracking a cohort of patients who are self-isolating.

4.7. The group were in agreement that on balance our current recommendations are reasonable and should be maintained. Any introduction of a requirement to have a negative or 2 negative PCR test(s) to end self-isolation or indeed to be admitted into the care home sector (as it is in Scotland) would cause a considerable burden on our testing programme here. No evidence has been presented that would lead the group to change our current position on this.

4.8. In summary, the group agreed to note that on balance it is reasonable to maintain the current position around the period of self-isolation based on the evidence but that this will need to be reviewed in the light of future data around the period for which an individual isolating at home excretes culturable virus.

Bubbling

5. The Group considered papers presented to the meeting on the concept of bubbling. The role of this group is to assess the evidence and the considerations and to provide balanced advice. IT is for somebody at a policy level to decide whether or not bubbling is likely to be a reasonable approach in the future.

5.1. Prof Young outlined the 2 main aspects of the concept of bubbling:

(a) the modelling of potential impact

(b) the behavioural implications of bubbling, both in terms of benefits and risks

5.2. A member commented on whether the breakdown of households in Northern Ireland was different to that in the UK as a whole as this may need to be reflected in the modelling. An overall concern is the complexity of the message may make it very difficult to achieve behavioural adherence that would be required to make the concept of bubbling worthwhile.

5.3. 2018/19 figures were provided for the number of persons in Northern Ireland households (all ages):

1 person	27%
2 people	35%
3 people	15%
4 people	14%
5 people	6%
6 or more people	2%

This is broadly similar to the rest of the UK which is the data the papers are based on.

5.4. Prof. Young informed the group that discussions have shown that, in terms of HSC records, ethnicity is not well captured in the current system and it is difficult to get that information. Investigations are ongoing into recent anecdotal data within the Southern Trust which suggests a disproportionate number of cases of the virus within particular ethnic groups accompanied by evidence that adherence to social distancing may be significantly less in such groups as a result of very extended family and cultural relationships. Whilst this is important in terms of community support, it may be counter-productive in the current circumstances. Identifying cultural/ethnic aspects could be difficult but there are clearly a significant number of single person households in Northern Ireland.

5.5. A discussion on the robustness of the modelling took place. The group were in agreement that modelling showed that the joining together (bubbling) of two single-person households has a minimal effect on the value of R. The research is limited as it did not really cover time of exposure and the risk of transmission is linked to the amount of time people spend together.

5.6. Concerns around the concept of bubbling have less to do with the mathematical modelling and more to do with the behavioural aspects of it and how it can be communicated effectively. Once any one person from a bubble has contact with a positive case, everyone in the bubble will have to self-isolate. Those in the vulnerable and shielding categories would experience more significant risks with bubbling.

5.7. There would be some very difficult decisions for the general public to make around the concept of bubbling. While this group can explain the limits and the risks, it would then be up to the public to make decisions which would impact on adherence. Monitoring would be very difficult.

5.8. There was concern that once bubbling was introduced, it could be difficult to subsequently withdraw it if a significant rise in R was detected as a result of its introduction. Anecdotal evidence suggests there is already an increased level of interaction amongst the population and that distancing rules may be starting to break down within the community.

5.9. Bubbling may become safer when there is a very low level of infection in the community and large bubbles can be established as the chance of infection being introduced into a bubble is small. As of last week, the estimate was of 250-300 new COVID-19 cases per day in Northern Ireland, and therefore self-isolation based on contact with someone with symptoms was estimated at 1000 per day. In the case of a big bubble where everyone in the bubble has to self-isolate an individual may therefore be much more likely to need to self-isolate multiple times. There is concern whether or not human behaviour will allow people to exist in just a single bubble, particularly with small bubbles. People tend to have larger social groups and the choice between best friends or family might be socially difficult for some.

5.10. The concept of bubbling could not be introduced in isolation and there is a need for there to be good contract tracing in place prior to introduction. As of today, the contact tracing service is contract tracing for every positive test, with the intention of being able to contact trace for every new case that meets the symptom definition as announced today, by the beginning of June. That will provide a robust framework in which to allow more relaxation. The number of contacts will vary from the modelling from 3 under full lockdown to around 30 on average under a normal social interaction economy. In terms of planning for the service, it is basing on 10 contacts and the service will need to be scaled up or down. To date there have been less than 5 contacts per case but this will grow as measures relax.

5.11. A discussion took place on the implications of not allowing some bubbling. The population are clearly having interactions, albeit it with correct social distancing. Stage 1 of the Executive plan allows groups of 4-6 people to meet outdoors maintain social distancing. Based on previous evidence examined, outdoor interactions and activities with correct social distancing are considered low risk but indoor interactions of any kind carry greater risk. However we need to maintain the “no hugging” message for everyone. The group were of the opinion that this message would be easier to communicate and would achieve better behavioural adherence that any message around bubbling.

5.12. It would be preferable to introduce a package of changes introduced together followed by a 3 week period of no more changes to allow the impact on the value of R to be determined, rather than a series of weekly changes as it could then be difficult to determine what the cause of any change to R is.

5.13. In summary the group agreed to note that whilst there are some advantages to the concept of bubbling there are also significant risks, particularly around explaining the complexity of the message and the likely adherence to the message and also in terms of the transmission of the epidemic. There should be continued emphasis on meeting friends outdoors, maintaining social distancing, for interaction but given the community level of transmission, the risks of allowing physical contact particularly in case of vulnerable people remain too high to endorse bubbling at this stage.

DONM

Thursday 21 May at 2pm. Zoom contact details to be shared in due course.